

C.3 ECONOMIC ACTIVITIES IN THE STUDY AREA

(The following data and information are extracted from the reports of Territorial Development Plans of the Banska Bystrica and Nitra Kraj and all tables belong to those reports.)

1. BANSKA BYSTRICA KRAJ (BREZNO, BANSKA BYSTRICA, BANSKA STIAVNICA, DETVA, ZVOLEN, ZIAR NAD HRONOM AND ZARMONICA OKRES)

1.1 Agriculture

(1) Utilization and protection of agricultural soil

Problematic of agricultural soil in the Territorial plan of the large territorial unit of Banska Bystrica Kraj is aimed to solution of territorial type and function differentiation of agricultural soil -which is based on the principle:

- agricultural soil fund is unique component of environment and is un-replaceable natural source
- way of soil use must be related to the natural conditions, must guarantee the conservation and renewal of natural characteristics, must not endangered the ecological stability
- agricultural soil has also ecological and environmental function

(2) Territorial differentiation type of agricultural soil

The main aim of type differentiation of agricultural soil is the territorial allocation of basic agro-cultures (agricultural cultures).

The present extend of agro-cultures is listed in the following survey (1.1.1997)

The present development of agricultural soil shows that extend of agricultural soil fund more than 50 % of area is in the Okres Detva, Krupina, Lucenec, Rimavska Sobota and Velky Krtis. Extend of ASF (agricultural soil fund) from 30 to 50% is in the other Okres of Banska Bystrica Kraj.

Nowadays only two Okres Rimavska Sobota and Velky Krtis have more than 50% of arable soil from the total amount of agricultural soil, 30 – 50 %; Detva, Krupina, Lucenec, Poltar, Revuca, Zvolen, Ziar nad Hronom, 15 – 20 %; Banska Bystrica, Banska Stiavnica, Brezno, Zarnovica.

In the proposal of Territorial Plan of the large territorial unit of Banska Bystrica Kraj was the basis for the type differentiation of agricultural soil the Soil-ecological regionalisation of Slovakia and Complex program of utilisation of agricultural production potential including ecological aspects, economical and legislation mechanism to its implementation.

Effectiveness of utilisation of production soil potential was worked out for 14 typology-production sub-areas in SR.

The Study Areas belongs to the following zones:

- 41- valleys of lower level- parts of Okres Velky Krtis, Lucenec, Poltar, Rimavska Sobota and Revuca
- 42- valleys of middle high level- Ziar nad Hronom, Zvolen, Banska Bystrica and Detva
- 43-valleys of high situated level- Banska Bystrica and Brezno
- 45- uplands and hills of volcanic Karpaty- Banska Bystrica, Brezno, Detva, Zvolen, Ziar nad Hronom, Zarnovica, Banska Stiavnica, Krupina, Velky Krtis and Lucenec
- 46- lower uplands- Brezno, Revuca, Rimavska Sobota, Lucenec and Detva
- 47- higher uplands- Banska Bystrica and Brezno

From the point of production soil potential in the whole Slovak conditions, the valleys of lower level (41) belong still to the productive areas while other sub-areas are less productive. In according with complex program of utilization of soil productive potential in the individual areas the following structure is recommended (in %):

Table C.3-1 Complex Programme of Utilisation of Soil (%)

Agro-cultures	41	42	43	45	46	47
arable soil	79.9	42.7	21.3	36.3	40.3	9.3
vineyards	1.5	-	-	0.6	1.1	-
gardens and plantation	4.4	4.4	2.5	3.7	4.2	1.9
permanent grasslands	14.2	52.9	76.2	59.4	54.4	88.8

The Territorial Plan of the large territorial unit defined the agro-cultures structure in terms of the specific conditions and the following structure for the individual sub-areas was recommended (in %):

Table C.3-2 Recommended Agro-cultural Structure (%)

Agro-cultures	41	42	43	45	46	47
arable soil	80	40	18	30	35	-
permanent grasslands	15	56	78	65	60	100

Complex program of the utilisation of soil production potential defines the optimal structure of type-productive categories of agricultural soil. Their % share is shown in the following table: (See table No.2 on the paper).

In the individual soil-ecological sub-areas in Banska Bystrica Kraj are occurred the following territorial important type-productive categories of agro-systems:

Table C.3-3 Occurrence of Type-productive Agro-systems

Okres	Sub-area	Occurrence of type-productive agro-systems
Banska Bystrica	42	O4,O5
	43	O6,OT2,T3
	45	OT2,OT3,T3,T4,NP
	47	T4
Banska Stiavnica	45	T3,T4,O6,OT3,NP
Brezno	43	O6,OT2,T3
	45	T3,T4,OT3,NP
	46	T3,T4,OT3,NP
	47	T4
Zvolen	42	O5,O6,OT2
	45	T3,T4,NP
Ziar nad Hronom	42	O5,O6,O7
	45	OT3,T2,T4,O6,O7,NP

Protected ASF is related to the territorial parts that is defined by productive soil fund and soil, where the hydro-melioration was done. Those areas are under the higher protection. Hydro-melioration was done mostly in 1970 - 1985. In BB Kraj are 75 592 ha of agricultural drained soil and on the 23 288 ha are built irrigation.

Extend of drained areas and built irrigation according to the Okres is shown in the following table:

Table C.3-4 Drainage and Irrigation Areas

Okres	Drainage in ha	Irrigation in ha
Banska Bystrica	2 494	1 065
Banska Stiavnica	1 208	261
Brezno	3 449	235
Zvolen	5 946	536
Ziar nad Hronom	3 501	524
BB Kraj Total	75 597	23 288

(3) Agricultural production

Character of Agricultural Production is related to soil utilisation that is related to soil quality, climate, relief, sort of cultivated commodities and animals.

Quantity indicators of soil utilisation intensity are:

- a. share of arable soil and grasslands
- b. structure of sieving on arable soil

Priorities of agricultural policy in Slovakia are:

“efficient utilisation of agricultural soil potential, available productive human resources to produce food and non-food stuff by respecting the ecological requests and need of landscape protection and keep the country settlement”

It means that the main strategy goals of agriculture is:

- a. providing of food safety in the state
- b. economical stability, regional suitable development
- c. development and protection of agricultural soil, ecological management in the country, elimination of penetration of allothigene materials into the food chain
- d. conservation of agriculture in no-competition especially mountain areas as a main requirement of landscape development, ecological and social functions.

In the Territorial plan of the large territorial unit of BB region in terms of natural-ecological conditions of BB Kraj is proposed the main variant, in which the following structure of the sieving areas for the individual sub-areas is proposed:

Table C.3-5 Proposed Use of Soil by Type of Crops (ha)

Indicator	41	42	43	45	46	SR
closely sieved cereals	45.9	44.7	44.2	45.1	45.6	46.9
corn for grain	6.4	3.2	-	-	-	8.7
legumes	4.2	4.8	4.9	4.8	4.8	4.1
sugar and feed beet	1.4	0.7	0.3	0.8	0.6	3.1
potatoes	5.1	5.2	5.4	5.2	4.6	3.0
oily and other technical commodities	5.7	5.5	6.7	7.6	6.5	5.4
one year feed-stuff	10.5	12.0	12.7	11.5	10.9	9.5
move year feed-stuff	19.1	23.5	25.4	23.9	25.5	17.1
vegetable	1.7	0.8	0.4	1.1	1.5	2.2

Banska Bystrica Kraj has various and territorial different conditions for agriculture. For territorial parts with the same or similar position conditions are proposed the following aims of vegetal production:

(4) Organisation Structure of agriculture

Present organisation structure of agriculture consists of agricultural companies that have been transformed from the previous united agricultural communities, state property or established from the new legal entities -that provide agricultural production on the base of rent contracts with soil owners.

Survey of subjects, measurements and % share in Banska Bystrica Kraj are shown in the following table:

Table C.3-6 Agricultural Companies Private Farmers above 20 ha

Okres	Measurement of ASF	No. of subjects	Measurement of ASF in ha	% from ASF measurement	No. of subjects	Measurement of ASF in ha	% from ASF measurement
Banska Bystrica	29 014	19	20 560	70.9	19	3 960	13.6
Banska Stiavnica	10 358	5	8 623	83.2	8	593	5.4
Brezno	34 972	25	25 594	73.2	19	1 578	4.5
Zvolen	28 740	12	27 365	95.2	11	680	2.4
Ziar nad Hronom	20 609	10	16 846	81.7	9	1 597	7.7
BB Kraj Total	420 807	238	331 916	78.9	292	25 021	5.9

2. NITRA KRAJ (LEVICE, ZLATE MORAVICE AND NOVE ZAMKY OKRES)

2.1 Industry

(1) Significant Middle Sized Industrial Centres

There are several industrial branches in Nove Zamky industrial centre. The dominant one is electrical engineering industry which employs 50 % workers and is completed with engineering industry, which employs 10% workers of a center and with clothing industry, which employ 9% of workers. Also other branches are developed in the centre and employ about 8% of workers per one branch (metal-working industry, food industry, plastic processing industry) The rest of employment is in the branch of leather processing industry which employs 6% of industrial workers.

(2) Middle Sized Industrial Centres

- In Levice industrial centre textile industry dominates and employs 52% industrial workers and is completed with food industry with 20% industrial workers. These branches are completed with engineering industry with 9% of workers and chemical industry with 8% of workers, cosmetic industry and metalworking industry employ 6% workers per one branch.
- In Zlate Moravce industrial centre dominates the industry of electrical equipment production for households (Calex refrigerators) which employ 70% of industrial workers and is completed with shoe industry with 30 % of industrial workers of the centre.

(3) Outlines of Major Industrial Plants in the Study Area

- Slovak Power Plants in Tlmace, stock corporation, and employs 1 763 workers in Engineering Industry in the production of power engineering equipment. Company's turnover in 1996 was 4.2 milliard SK and in its turnover is the 24th most significant company in SR. Turnover has increased about 1.5 milliard SK since 1995. Company is on the 33rd place of the biggest exporters in SR and its turnover is 969 millions SK.
- Novochema Levice, cooperation employed 215 workers in the Chemical industry in paint and varnish production in 1996. Turnover in 1996 represented 232 mil. SK. Organization takes the 15th place of the most significant companies in Kraj. Profit in 1996 created on the level of 7.1 mil. SK. On the base of achieved economy results the cooperation is supposed to keep its position in Nitra Kraj.
- AssiDoman Packaging in Sturovo, stock company, is the third most significant company in Nitra Kraj and employed 2 567 workers in paper industry in 1996. The company's turnover was 3.2 mld SK and it's on the 32nd place of the most significant producer in SR. Its turnover has fallen down about 0.6 mld. in comparison with 1995. The company exported goods for 1.9 mld. SK in 1996 and takes the 18th place among Slovak exporters. Company reached profits 22 mil. SK and decreased about 350 mil. SK in comparison with 1995. It would be necessary to analyze causes of turnover and profit decrease.
- Samsung - Calex in Zlate Moravce, Ltd Company, employed 956 workers in 1996. Company turnover featured 1.7 mld. SK in 1996 increased about 0.1 mld SK in comparison with 1995. Company takes the 58th place of whole Slovakia in turnover. Company export in 1996 stood for 1.2 mld SK and was placed on the 28th place of the most significant exporter in SR in 1996. The loss of 247 mil. SK was recorded in 1996 and has increased about 49 mil. SK since 1995. It would be necessary to find out the causes of unfavorable trend and its loss in 1996.
- Levitex in Nitra, stock company, employed 1 410 workers in textile industry in 1996. Company turnover stood for 886 mil. SK in 1996 and has increased about 90 mil. SK since 1995. In 1996 the company exported its production in the value of 326 mil. SK and it's on the 78th position in exporting significance in SR. Of the number of employees viewpoint is on the 66th position. Company

produced a profit on the level of 11 mil. SK in 1996 and has assumptions for future development.

- SIMA in Nove Zamky, Ltd Company, employed 240 workers in metal-processing industry in pump production in 1996. Company's future depends on the possibility of increment of its production enforcement mostly on Slovak market.
- OSRAM Slovakia in Nove Zamky, stock company, employed 700 workers in electric engineering industry in luminary and lighting production. Company reached an appropriate turnover in 1996 and have the assumptions for future development.
- Elektrosvit in Nove Zamky, stock company, employed 980 workers in electric engineering production (lights). Company's future depends on position firming on the market in SR. Production growth may be secure by higher competition ability of its products aimed at export.
- De Mielen in Levice, stock company, employed 165 workers in cosmetic industry in 1996. Company showed an appropriate profit and has all assumptions for future development.
- Kabelschlepp Systemtechnik in Nove Zamky employed 210 workers in engineering industry in tool machine production in 1996. Company reached a good turnover in 1996 and has the assumptions for future development.
- Mliekospol in Nove Zamky, stock company, employed 230 workers in food industry in milk processing and dairy product production. Company's turnover in 1996 was 500 mil. SK. The company has a good starting position for future development.
- Novodev in Nove Zamky, productive cooperation, employed 200 workers in cloth industry in clothes and cloth accessories production. Company's future will wind off its market position and production growth will mostly depend on the export of its production.
- Brasna in Nove Zamky employed 213 workers in leather industry in leather processing and leather product production. Production growth possibility will wind of its future market place.
- Masokombinat Novum in Nove Zamky employed 300 workers in food industry in meat processing and meat products production. Company reached a good turnover in 1996 and appropriate profit and has all assumptions for future development.
- Plasted in Nove Zamky, Ltd Company, employed 280 workers in plastic processing for building industry. Company reached quite good turnover in 1996 and has all assumptions for future development.
- Lenco in Levice, Ltd Company, employed 170 workers in furniture industry. Company has the assumptions to keep its position on the market Production growth will demand the improvement of production technical parameters.
- Levicke mliekarne (milk plant) in Levice, stock company, employed 220 workers in food industry in milk and dairy products production. The company reached a good turnover in 1996 and has the assumptions for future development.

- Zapadoslovenske zriedla (Western Slovakian thermal springs) in Santovka, stock company, employed 210 workers in food industry in mineral water production. The company has good assumptions for future development.
- Levicky masovy priemysel (meat industry) in Levice, stock company, employed 310 workers in food industry in meat processing and meat products production in 1996. The company has good assumptions for future development.
- Preciosa in Tlmacce, stock company, employed 340 workers in manufacture of glass in technical glass tanks production. Company reached an appropriate turnover in 1996 and has the assumptions for future development.
- SES FKM in Tlmacce, Ltd, employed 280 workers in metal processing industry in metal work construction and in turbines and combustion engines production. The company was established in the 3rd term of 1996. Its future depends on home and international market.
- Exunaco in Pukanec, stock company, employed 290 workers in furniture industry in armchairs and seats production. In 1996 recorded an appropriate turnover and also profit. There are suitable conditions for its development.

(4) Non Metallic Materials

There are bearings of limestones, fire clays, ceramic materials, quartz rock, decorative and building stone, and gravel sands and sands and brick materials. Bearing with a given protected bearing territory is included among perspective ones and considered for exploitation. Both limestone bearings get into collision with nature protection. This problem is solved in a chapter "Environmental Impact of Mineral Hoisting".

- In the area of Levice are well known bearings of decorative stone - travertine and of onyx marble in the locality of Levice - Zlaty Onyx and Levice - Siklos. This material was hoisted for facings and for production of small gallantry things (ashtrays etc.). The mining is stopped at present on the bearing of Levice - Siklos and is restricted on Levice - Zlaty Onyx bearing (one thousand m³ per year).
- In Levice District are some developing building stone bearings with a developed mining. They are Rybnik Nad Hronom and Horne Turovce. Dissipation mining with planned closing down in a near future is going on in Hostianske Trstany - Hronin bearing. Significant sources of building stone - andesite were attested on bearing of Hontianske Trstany - Roven. Further sole building stone - andesite bearing is attested in Hontianske Trstany - Ladia locality. This bearing regards to Hontianske Trstany - Roven bearing (which is surveyed in more details and is more suitable and convenient) is not suggested for mining.
- Of the insole bearings of brick materials was in 1996-used one in the locality of Mala Nad Hronom in Levice district (Tchelna/Brickworks/ "Hron") in the volume of 3 thousand m³.

- Significant material base of gravel sands and sands is concentrated in south part of Kraj and mostly in Komarno and Nove Zamky Districts. The highest quality materials are Danube's gravel sands and sands with assumptions of their utility for industrial large-scale mining as well as for local mining.
- Insole gravel sands bearings in Nove Zamky district are surveyed in the localities of Dvory Nad Zitavou, Kostokny Sek - Surany, Nitriansky Hradok, Ruban and Sturovo - surroundings. There was attested 36.7 mil.m3 of balance stocks in total of which is 35.5 mil.m3 bounded due to soil fund protection (or water management interests). The territory has the assumptions for utility of gravel sands for the industrial large-scale mining on the basis of Danube's gravel sands among Gbelce, Sturovo and Chlaba and Hron alluviums between Bina and Danube. Gravel sands from river Hron and Zitava alluviums have smaller area extension and lower quality. In view of transport tariffs increment will be necessary to count with gravel sands utility from local sources.
- Gravel sands were hoisted of the river Hron channel in the section of Kamenny Most - Mala Nad Hronom and from the river Danube channel in the localities of Sturovo - surroundings, Muzla and Muzla Cenkov. Kamenny Most - Mala nad Hronom and Muzla localities are evaluated as the most appropriate for mining restoration. (Regional Studies of the Raw Materials in Slovak Districts - Nove Zamky Okres. Geological Survey, state company in Spisska Nova Ves, 1993).
- In Levice District, minimum mining of decorative stone - onyx marble is provided in Levice - Zlaty Onyx bearing. Travertine mining is stopped on an adjacent bearing of Levice - Siklos. According to the TSES the regional biocorridor crosses both bearings. There is also a genofond area in Zlaty Onyx bearing. Recommended nature monument (Vapnik) is on the travertine bearing in Siklos, therefore the eventual mining recovering is not recommended there.
- Gravel sands bearing was provided just on insole bearings of local significance with the highest number of mining localities in Komarno, Levice and Nove Zamky Districts in 1996. The mining is negatively signified mostly by agricultural soil engaging or by the possible collisions with water management interests. It's possible to minimize the mining influence by the appropriate recultivating works after the mining has been finished. Water areas may be use for recreation or water management purposes. It will be necessary to coordinate gravel sands and sands mining in the alluviums of river Danube, Vah and Hron compliant with environmental protection, agricultural fund and water management interests with advancing of mining form river beds/runways/.
- Brick materials mining (Zlate Moravce II, Preselany, Semerovo and local mining for the brickworks "Hron" in Mala nad Hronom) doesn't present heavy impact on the environment. It comes to the agricultural fund engaging by mining what should be possible to revive by mining of affected areas with the mould use.
- Mining area of brick material in Machalice I. in Zlate Moravce District is crossed by the proposed regional biocorridor. Mining on this bearing is stopped at present.

2.2 AGRICULTURE

(1) Agricultural Production

Agriculture is the most widespread face activity in Nitra Kraj territory. Region is one of the most used in SR. It has very good natural and climatic conditions for agricultural commodities growing and for agricultural production provision. Therefore is classified into the agricultural - food category.

Soil in Nitra Kraj, in view of its quality and suitable configuration of ground, is mostly used for agricultural purposes. It's necessary to appreciate the farming in soil from the viewpoint of long-term food security of the state in situation that Slovakia has one of the smallest measurement of arable land per one inhabitant in whole Europe (0.28 ha).

Total acreage of agricultural soil is 463 882 ha which is 73.12 % of the total Kraj area of which the arable land stands for 401 600 ha, so about 86.6 % of the total measurement of agricultural soil.

Soil quality is also expressed by a percentage of arable land / agricultural soil. This stands for 86.6 % in Kraj measuring. Permanent grass covers (PGC) are situated mostly to submontane areas of mountain chain Tribec and Stiavnicke Vrchy in Topolcany, Nitra, Zlate Moravce and Levice Districts, on the land with worth bonity/site/ (slope and wet), bur they also occur on slope lands of high lands and narrow sections along water streams in lowlands. Vineyards are situated mostly on the sunny slopes and plantations generally on the slopes. Measurements of those cultures are not sufficient neither for covering the needs of rational nourishment for population nor of the viewpoint of soil protection necessity against the erosion.

Of the typologically - productive soil categorization viewpoint the biggest share in Kraj represent the most productive, high productive, very productive and productive arable soils situated mostly on streams' flood plains and on the light high land slopes. Soils of worth quality are situated also on lowlands and in higher share on the slopes of highlands and mountains. There are also salted and wet places and places with attached ground. In the case of the most productive soil categories there are following type of soil: flood plain soil, black soil and brown soil. Of less productive there are solonetztes, saline soils, turf, sods, gluey and illimerized soils. These types of soils are mostly used as PGC or are included in the forest agricultural fund (FAF) and are forested.

Quality of all type of soils has got worse in the past ten years by long term influence of intensification factors and by general degradation of the quality of environment. The soil quality was affected and their natural fertility decreased. Increment of their productivity was happening thanks to the increment of additional power in field crop growing (naphtha, number of operations, innovation of machine stock, cultivated seeds, chemical tools for protection and fertilizing.

Water and wind erosion present serious danger for soil. By wind erosion are endangered the most productive soils in Komarno, Nove Zamky, Levice, Sala and Nitra Districts, most of all they are black soils but also illimerized soils in uplands and mountains. (Risnovce, Podhorany, Skycov). Soils on the slopes, brown soils and illimerized soils are endangered by water erosion.

Agricultural soil was on the base of soil- ecological regionalisation classified into four soil-ecological areas: Podunajska lowland, Podunajska upland, lower mountain chains, mountain chain and mountain area.

Structure of sifed area responds to the soil-ecological conditions. The biggest abundance have thickly sowed cereals (49 % of arable soil), corn (15 %), sugar beat (5 %) and forages on arable soil. According to the newest data of Ministry of Agriculture in SR (to 2.9.1997) the crop results of the basic cereals - 5.02 t/ha, of which wheat is 5.31 t/ha, barley 4.44 t/ha, oat 3.30 t/ha, rye 3.65 t/ha, other cereals 3.60 t/ha, pea sowed 2.63 t/ha and oil rape 2.52 t/ha - shows that there were higher crops of these commodities/crops/ in Nitra Kraj. Employment in agricultural was 26 745 workers in all Kraj in 31.12.1996.

Table C.3-7 Number of workers by Okres

Levice	Nove Zamky	Zlate Moravce
5 600	5 853	1 839

It's been recorded every year decrease of number of workers arising from production fall, company's insolvency, changes of possessive and user relations since 1991. It can be generally claimed that agricultural resort will provide new working places after its reclassification of stock.

(2) Agricultural Soil Protection and Improvement.

Agricultural soil deprivation of the agricultural production has stopped in past few years because of stricter law asserting on agricultural soil fund protection and building activities damping. Restricted investment development used primarily building lands in capitals' intravillans.

It's necessary to arise of the Act No.307/1992 of the Legal Codes on Agricultural Soil Fund Protection and mostly of the 7th paragraph on Utility of Agricultural Soil Fund (ASF) in the protection of agricultural soil.

Protected ASF is related to the territorial parts allocated by productive soil fund (the best soil in a territory) and by soil where the hydromelioration was implemented. These territories are particularly protected in the sense of the law on Agricultural Soil Protection.

There is a negative influence of water and wind erosion, salted soil fertilization and hydromelioration development in the dealing territory from the viewpoint of the qualitative ASF protection.

(3) Description by Okres

a. Levice

Agricultural production

Levice Okres is situated in the southeast part of Nitra Kraj. Climate conditions in the Okres are characterized by dry and warm zone with the average annual participation 600 - 650 mm, with the average annual temperature 10 degrees of Celsius, with 200 hours/year of sun shine. Mountain chains in the north and northeast create a natural barrier against the cold winds and influence the climate conditions.

The most occurred soil types are brown soils - 41.3 % and black soils - 26.2 % of the agricultural soil. Further types are lower % representation: pseudo glees (3.1 %), fluvisoil (17.5 %), blackish soils (4.6 %), cambium soil (5.5 %) and others.

It is a territory, which enable cultivating of all crops and also of warm demanding ones. Total acreage of the agricultural soil fund (ASF) in Levice Okres is 112 441 ha, which is 72.58 % of the total acreage.

Table C.3-8 Total Values of Type of Land

Culture	ha	of the ASF in %
Arable Soil	93 879	83.49
Vine Yards	3 189	2.84
Gardens	2 856	2.54
Fruit Gardens	632	0.56
Permanent Grass Covers	11 890	10.57
Agricultural Soil	112 441	100.00

In the certain territory of Levice district is situated the agriculture-ecological subzone (AESZ) Podunalska lowland with agriculture-ecological region (AER) Dolnohronska miva/flood plain/ and AESZ Podunajska upland with AER Hronska upland and Ipelska upland, which are classified among the regions of lowlands and uplands with higher share of irrigation. In the east and northeast part of district is situated the AESZ: Mountain chains and mountains of volcanic Carpathian mountain with two agriculture-ecological regions: Stiavnicke mountains and Krupinska plain/plateau/, which are classified among the submontane and mountain regions. High productive potential is also emphasized by a degree of plugging, which are 83.49.

In a view of the climate conditions the irrigation systems are very important in the district territory. Average annual amount of precipitation 600 - 650 mm is irregularly divided and it's necessary to bypass the dry and hot season by an artificial irrigation. Irrigation system is built in Zelizovce and Velke Kozmalovce.

Quality of agricultural soil in a district is represented by the official prices what is in average 61 563 SK/ha per district and the average price in SR is 39 555 SK/ha (in Levice Okres the price of arable soil is 66 300 SK/ha).

Line accelerated water erosion (erosion grooves, scours, deepened field and forest slope roads) appears on the territory from the negligible to the very intensive. There are two erosion factors, which are negatively expressed in the solving territory:

- on the slopes(while the terrain conditions permitted it) were formed the lands with a non-suitable slope length, non-suitable of the anti erosion protection viewpoint as a result of an unprofessional realization of non-investment fertilization with the aim to create maximum large lands regardless to the erosion influence.

- in the effort of more effective mechanization use were on lowlands and uplands created the disproportional large lands without vegetative barriers by that was the wind erosion supported.

Vegetable Production

Vegetable production is dominant in a solving territory, which belongs to the region of lowlands and uplands with higher share of irrigation and local specifics are also respected mostly in terms of permanent cultures.

In a structure of sifted areas has been recorded slight increase of acreage of the high productive crops with the lowest cost as the cereals (especially wheat).

Representation of cops which protect the topsoil against the water erosion and wind erosion effect (thickly sowed cereals, more than year old forage) is significant of the viewpoint of agricultural fund protection.

Of the ecological viewpoint is important to limit the use of inorganic fertilisers and chemicals for plant protection. Intensity of vegetable production is supposed to be remained in a future with a condition of keeping the ecological stability of the agricultural landscape. Consumption of industrial fertilisers has decreased since 1985 about 9 000 tonnes, hydrate consumption about 76 000 tonnes. Chemical protection equipment are used in comparison with a year 1985 used on the area less large about 14 400 ha.

Table C.3-9 Vegetable production in the Okres, MP SR

Crop	1996			3 rd quarter of 1997		
	Harvest Areas in ha	Yields in t/ha	Production in tons	Harvest Areas in ha	Yields in t/ha	Production in tons
Wheat	31 449	4.42	138 859	32 127	5.32	170 915
Barley	13 698	3.29	45 130	13 157	4.59	60 390
Corn	9 038	5.41	48 906	7 684	5.00	38 420
Beans	5 466	2.03	11 085	n.a.	n.a.	n.a.
Sunflower	6 229	2.25	14 028	6 230	1.60	9 968
Rape	5 292	2.19	11 590	7 241	2.30	16 654
Sugar Beet	4 480	43.63	195 499	5 426	32.20	174 717
Potatoes	742	16.10	11 949	n.a.	n.a.	n.a.
Vineyards	2 478	4.26	10 556	2 486	3.20	7 955
Vegetable	2 228	12.67	28 228	n.a.	n.a.	n.a.

Livestock Production

Animal Production has been represented by a heavy reduction of productive and reproductive base with a decrease of all the utility parameters.

Table C.3-10 Stage of Farm Animals (statistics information No.85 / 1994)

	1989 (in heads)	1996 (in heads)	Difference	Index 89/96
Beef Cattle	142 386	28 942	- 113 444	20.30
Pigs	138 951	57 251	- 81 700	41.20
Poultry	884 305	418 550	- 465 755	47.30
Sheep	65 430	14 252	- 51 178	21.80

With a decrease of farm animals stage and with a production limitation coherent the utility of centres (farms, sites) of which is 207 in this Okres in total.

Decrease of states was shown mostly by lower concentration of farm animals in individual centres of companies with an agriculture prime production and by gradual vanishing of high capacity breeding. It may have a bad influence on the environment. By a decrease of state of farm animals are gradually decreasing the zones of a hygienic protection against the residential zone, which would be needed to decrease not by a decrease of states but by a technology improvement and overall arrangement of the animal production farms.

Concentration of pigs over 5 000 pieces has stayed only on a farm in Velky Dur (Koopera Levice). The operating individual water treatment plant is its part, which helped a lot in solving of harmless excrement removal.

In other farms with concentration under 5 000 pieces is all production of excrement imported to the surrounding lands in a frame of processed fertilizing plans. This may lead to the water and soil contamination by nitrates.

The biggest problem on farms with beef cattle breeding is manure storage and its right application to the soil. There have been built 56 indurate manure sites of a total capacity 424.6 thousand *m³ for harmless storage of solid components since 1982. They are sufficient in the present stage of beet cattle but are territorially irregularly distributed. This situation grew of the case that those constructions were built in a frame of large, combined agricultural companies, which have been gradually divided on smaller ones, primarily one cadastered ones. Some centres of animal production were evacuated because of a heavy decrease of farm animals state and there are fully or partly without use at present.

Table C.3-11 Livestock production in the Okres, MP SR

Indicator	1996	3 rd quarter 1997
Beef Cattle State	28 942	26 728
of which Cows	10 608	10 286
Pigs State	57 251	55 772
of which Pig females	5 163	4 505
Poultry State	418 550	391 028
of which Hens	190 520	100 734
Sheep State	14 252	13 948
of which Mud/Swamp/ Sheep	7 210	7 060
Total Milk Production in thousands liters	27 530	26 744
Milking Per One Cow in liters	2 959	2 600
Total Egg Deposition in thousand pieces	34 446	16

b. Nove Zamky

Agricultural production

This Okres is situated in a warm climatic zone. The average annual temperature is 9.5 degrees of Celsius, annual rainfall aggregate is in a range from 540 mm to 730 mm and rainfalls are very variable with longer dry period.

In this territory are situated mostly this type of soil: black soils, brown soils, and fluvisols. Productive soil ability in district is fairly high and it means that of the agronomic viewpoint are all types fertile and suitable for cultivating of majority of agricultural crops. There are no irrigation systems in this district.

Abiotic territorial composition and human layer point on the nature assumptions of wind erosion demonstrations which reach the value of the second grade (mild and middle strong) and of the third grade (strong and very intensive) (Base: Researches and Analysis of Large Territorial Unit, processed by Dr.Bucko, Slovak Academy of Science). These two grades territorially affect whole district of Nove Zamky, except valley flood plains of the river Nitra, Parizsky brook, Hron and Obidsky canal. This fact points to the need of spatial arrangement of these territories and to the increment of share of protective green.

There are no natural assumptions for water endangers by water erosion. Substantial part of territory belongs to the areas with mild and negligible erosion. Strong erosion is showed just in a small part. It's necessary to focus on agro-technical processes in these territories, which may eliminate those demonstrations.

Efficiency of productive soil utility was processed for 14 typologically- productive sub areas in

SR. Solving territory is formed by following sub areas:

- Podunajska lowland
- Podunajska upland

Table C.3-12 Typologically productive categories of agricultural soil

Typologically-Productive Categories	Podunajska Lowland	Podunajska Upland
the most productive arable soils	35.6	5.4
high productive arable soils	32.3	48.6
very productive arable soils	12.8	14.5
productive arable soils	3.4	19.2
middle productive arable soils	6.1	7.4
less productive arable soils	1.2	0.5

Total measurement of the agricultural soil fund is 106 929 ha in Nove Zazmky District, which is 80.30 % of the total acreage and degree of plowing/fallowing/ is 87.68.

Table C.3-13 Total Values of Land Types to 1.1.1997

Culture	ha	% of Agricultural Soil Fund
Arable Soil	93 753	87.70
Vineyards	3 581	2.70
Gardens	3 100	2.30
Fruit Gardens	2 078	1.50
Permanent Grass Covers	4 417	3.20
Agricultural Soil	106 929	100.00

Vegetable Production

Natural assumptions for intensive vegetable production are almost in all territory of Nove Zamky Okres. High degree of ploughing, suitable nature conditions and high natural soil fertility put this territory among the high productive agricultural areas in Slovakia, which cover the food need for their own region and offer the surplus to the territories with lower production.

Table C.3-14 Crops and Vegetable Production in the Okres, MP SR

Crop	1996			3 rd quarter of 1997		
	Harvest Areas in ha	Yields in t/ha	Production in tons	Harvest Areas in ha	Yields in t/ha	Production in tons
Wheat	28 381	4.32	122 675	29 932	5.35	160 135
Barley	13 011	3.48	45 332	14 928	4.50	67 176
Corn	16 061	6.63	106 432	18 097	7.30	132 108
Beans	2 701	2.05	5 529	n.a.	n.a.	n.a.
Sunflower	7 709	2.18	16 782	6 552	1.74	11 400
Rape	5 729	2.28	13 086	5 924	2.71	16 034
Sugar Beet	3 993	40.96	183 566	2 938	38.50	113 113
Potatoes	508	16.23	8 255	n.a.	n.a.	n.a.
Vineyards	2 602	6.72	17 491	2 301	6.70	15 417
Vegetable	3 232	17.60	57 132	n.a.	n.a.	n.a.

Livestock Production

Table C.3-15 Livestock Production in the Okres, MP SR

Indicator	1996	3rd quarter 1997
Beef Cattle State	25 794	22 071
of which Cows	9 098	8 017
Pig State	81 762	79 762
of which Pig Females	6 704	6 420
Poultry State	503 350	418 408
of which Hens	302 862	312 458
Sheep State	1 179	983
of which Mud Sheep	1 014	819
Total Milk Production in thousands liters	30 308	29 374
Milking per a Cow in liters	3 086	3 287
Total Egg Disposition in thousand pieces	45 072	44 798

c. Zlate Moravce

Agricultural Production

The climatic conditions in the territory are characterised by fairly warm zone with the average rate of rainfalls of 600 – 700 mm, average annual temperature 8.5 degrees of Celsius. Prevailing winds are northwestern and eastern in winter and northwestern in summer.

Of the typologically productive soil categorisation viewpoint in the district in a frame of Agricultural Soil Fund are presented (with the highest share) following type of soils: brown soils, illimerized brown soils and glued brown soils. Flood plain soils, medium weight and heavy exist in the river valleys. Higher located localities are characteristic by an occurrence of different type of brown soils.

A wind and water erosion mostly on the hill terrain heavily endangers district soils where in many cases by incorrect agro-technique come to decreasing of natural soil fertility.

Agricultural soil fund (ASF) covers 22 511 ha in Zlate Moravce District which is 43.20 % of the total measurement and a degree of plowing is 86.86.

Table C.3-16 Total Values of Land Types in 1.1.1997

Culture	% of Agricultural Soil Fund	ha
Arable Soil	86.90	19 511
Vineyards	2.10	473
Gardens	5.20	1 156
Fruit Gardens	0.60	142
Permanent Grass Covers	22.20	4 978
Agricultural Soil	100.00	22 511

Vegetable Production

Table C.3-17 Crops and vegetable production in the Okres, MP SR

Crop	1996			3 rd quarter of 1997		
	Harvest Areas in ha	Yields in t/ha	Production in tons	Harvest Areas in ha	Yields in t/ha	Production in tons
Wheat	6 234	4.50	28 037	7 149	4.81	34 419
Barley	2 857	3.40	9 707	3 689	4.10	15 134
Corn	588	3.40	2 345	544	7.30	3 052
Beans	377	2.93	1 104	n.a.	n.a.	n.a.
Sunflower	1 812	2.15	3 900	1 523	1.45	2 200
Rape	1 063	1.84	1 960	1 383	2.55	3 477
Sugar Beet	580	35.2	20 430	535	33.00	17 655
Potatoes	10	18.2	182	n.a.	n.a.	n.a.
Vineyards	199	3.30	1 196	176	3.50	616
Vegetable	3 232	17.60	57 132	n.a.	n.a.	n.a.

Livestock Production

Table C.3-18 Livestock production in the Okres, MP SR

Indicator	1996	3 rd quarter 1997
Beef Cattle State	8 926	7 899
of which Cows	3 382	3 321
Pig State	16 574	12 897
of which Pig Females	1 427	1 007
Poultry State	8 525	7 630
of which Hens	-	-
Sheep State	1 140	588
of which Mud Sheep	1 095	389
Total Milk Production in thousands liters	8 619	8 391
Milking per a Cow in liters	2 548	2 527
Total Egg Disposition in thousand pieces	-	-

C.4 GENERAL DESCRIPTION OF THE OKRES OF THE STUDY AREA

(All the data sources belong to the Territorial Development Plans of Banska Bystrica and Nitra Kraj, issued by each Kraj office)

1. BREZNO OKRES

This territory involves Horehronske Podolie, southern peaks of Low Tatras, southern part with Polana, European hills, field relief of National Park Muranska planina eastern part is Spisskogemersky kras. Specified upland and mountain relief is a result of Hron Erosion and Inner-flows. The valley of the Hron River is very narrow in general. Approximately 70 % of Okres is covered by forests. Limitations of land development are for the nature care and protection of water sources.

Settlement presents structure by urban zone - river Hron and road 1/66. Brezno is administrative part of district. It's situated on an important cross of traffic roads, which connect Liptov Mountain through Certovica and through Cierny Balog with southern districts of B.B. region. Historical part of the town is declared as memorial zone with architectural monuments from 17th century when mining had expanded and Brezno become independent king town.

Management base of Brezno Okres is typical for it's polyfunctional in an industrial field. As a result of history this polyfunction looks at the moment unfavourable, because it negatively influence employment development and social - economic conditions in a transformation process. District office has decided to solve this problem by a connection with district Revuca, Rimavska Sobota.

Municipalities and towns have associated into regional association of towns and municipalities of Horehronie and middle Rudohorie. They are oriented their activities on a main problems which are attached to region development from industry, agriculture, tourism and small or middle business. In the territory, there are three microregions - Horehron, Chopok, Cierny Hron and in 1997 microregion Muranska planina was established

There are proposals to improve the road network, which will help environment of the villages and mainly for safety of the traffic. In the sense of corporation between Okres Brezno, Revuca and Rimavska Sobota and knowing the problematic of economy situation in district Brezno and south districts of B.B. region is in proposal solving to change category of road 2/530 to Rimavska Sobota and road 2/531 to Revuca to higher class.

The most important economic activity of the Okres is industry, metallurgy, machinery production and wood industry. It will be necessary to concentrate on development of organizational structure, its modification and supplement new production activities, which can help better utilise materials and manpower of the area.

Development of industry will cause more work opportunities for the people, increasing the life level of the people, need of social infrastructure development and services for tourist. Tourism can become priority also in those parts of district, where are no economy activities at present (Sumiac, Telgart).

2. BANSKA BYSTRICA OKRES

B. B. is administrative centre of the region. There are lots of cultural monuments. Industry is located basically in district town B. B., and in Harmanec, Slovenska Lubca, Vikanova and is represented by 16 enterprises, where are employed over 100 employees (each of them). There are 14 agriculture centres and there are 5 586 ha of the agriculture soil. There are mainly coniferous forests, from agriculture soil there are mainly meadows and areas for feeding animals.

Urban line of the whole territory is the flow of river Hron and road 1/66 Sahy - Zvolen - Banska Bystrica - Brezno - Telgart. There is a proposal to change direction of the road 1/66 to avoid the traffic from the centre and it will help to develop building flats and houses in the new areas without negative impact of traffic on environment. There is a proposal to change direction of the road in area of Donovaly, which is the centre of tourism, and to protect important sources of drink water for Hron group pipe in the area of Donovaly - Jergaly - Motycky.

In B.B. it is concentrated state administrative, banks, science work places and schools of the whole state importance. It is planned to build the net of special health centres for prevention, services for long period ill people and genetic centres. Economy, industry and construction of the district is concentrated to B.B., Harmanec, Slovenska Lubca and Vikanova.

The most important part for tourism and recreation is the north part of the district, borders part of mountain Velka Fatra and Low Tatras.

3. BANSKA STIAVNICA OKRES

Territory has volcanic character and it's among Stiavnicke Mountains with highest top – Sitno (1 009m). This mountains is typical for unique landscape, biological, historical and cultural

qualities. Stiavnicke Mountain belongs to protected landscape area and more than a half of Okres with settlement structure is listed in a world culture heritage – UNESCO. Settlement structure begun in middle age nearby deposits of precious metals and it's typical for scattered and upland areas in an upper part of valleys of flows, which spring in Stiavnicke Mountain. Most of the territory has rough climate conditions. Main cultural, education and service centre of Okres is in B. Stiavnica. Maintaining management of other settlements is agriculture, forestry or recreation.

Territory has artificial water reservoirs called – Tajchy which were built in last centuries as a technical monuments for mining system. These reservoirs present attractive, recreation potential one of the problems is difficult communication with other district from B. B. region and other region in Slovakia. There is no road of 1st class in this territory. All the roads belong to 2nd and 3rd category. In a town B. Stiavnica finishes railway Hronská Dubravka – B. Stiavnica. Attractive connection is with Ziar nad Hronom through Teplice, Hlinik nad Hronom.

The base of economic revitalisation is to consider B. Stiavnica as a pole of territorial development with human, cultural, technical and capital potential in a wide range are helping poles - St. Anton, Banská Bela, Stiavnicke Bane, Prencov. Small settlements participate by intercession employees, agriculture products, cooperation. Perspective directions of development are western (Stiavnicke Bane) southern (Sv. Anton) and northwestern (Banská Bela - arboretum Kysyhybel is saved). Possibilities of development are mainly in intensification, reconstruction and revitalization of territory. After using all this changes main development territory will be Stiavnicke Bane - Banská Stiavnica and B. Stiavnica, Sv. Anton. This area has relatively good climate, traffic and field conditions of development. Tourism is expanded almost on a whole district.

Mentioned conception is based on a higher quality of traffic net, connection district with main traffic and settlement corridors in Slovakia. New proposed traffic roads and corridors will be planed very carefully by strict landscape criterions. All precious settlement will be revitalized (Tajchy; geothermal water) and their biological and ecological values will increase. They will be used, in a sustainable development as energy sources, drinking water sources, fish feeding, recreation purposes.

4. DETVA OKRES

Okres Detva is located on the east and southeast part of former Zvolen Okres. On the north and east there is mountain Polana with altitude in top areas about 1 000 and Veporske hills with altitude about 800 – 1 000, in the centre therein among Slatina with altitude about 400 - 500 and on south part Javorie with altitude about 400 - 900. Traffic section consists from road n. 1/50 (E 571), 2/526 and 2/591.

Detva and Hrinova towns used to be villages, but creation of industry factories with engineering production changed them to towns. Most of the settlement in this area is spread housing.

There is a big part of CHKO district and also biospheric reservation Polana in the Okres. Together with waterworks water impound Hrinova, located on south east of CHKO, they present important factors, which limit possibilities of development and way of territory utilising.

Almost whole territory has got big reserves in developing of tourism and recreation, which are not utilised enough so far.

Towns of Detva and Hrinova strongly depend on industry factories on their areas. They determine development, stagnation or decline of towns. That's why there is a need of bigger variety of economic activities on the base of small and middle business and occupation activities, in production, business and services. In Detva as a centre of tourism and recreation, it is necessary to complete service facilities. For the industrial production in both towns, innovation of the factories is necessary according to market demands by keeping reasonable part of army production.

Agriculture production depends on settlement structure and land. In all activities in territory is necessary to concentrate on priority of conservation of high quality of nature and land environment, mainly on territory of CHKO Polana and surrounding areas.

In Obec Krivan is dominant agriculture production, and also there is proposal for tourism with possibility of creation rest place. Obec Korytarky is orientated in agriculture production.

The territory should be orientated on production of agriculture products on the base of family farms and also on tourism and recreation. Quality of air and plant covering are suitable for creation of smaller climate healing – relaxation facilities. But it's necessary to build technical and traffic infrastructure.

Urban character of settlement is formed by small core units. Priority to save nature limit way of territory developing, which is orientated mainly on maintain and protection regime of meadows and forest plants. There is also strict hygiene protection of water sources. Tourists should strictly follow tourist trails.

Suitable conditions for agriculture production were intensive utilised already in former times. Important is also forest management and exploitation of wood. These activities shall be also maintained in the future. There is proposal for development of processing activities in the small private businesses, or farmer's organisations.

Territory also provides suitable conditions for different types of recreation. Its development is based on existence of village settlement and on nature and land environment. Family accommodation recreation, hunting, picking forest fruit, tourism, summer and winter sports – but is necessary to build at least the most important facilities. There is tradition of cottages in the area. It helps conservation of the existing architecture and urban values of folk architecture.

5. ZARNOVICA OKRES

Geographically, the territory is in the line of valley plain of Hron river. West and northwest part of the territory is created by ridges of Pohronsky Inovec and Vtacnik. East and southeast part of the territory is created by mountain Stiavnica hills. Both mountains are largely protected. Relatively deep main valley and side valleys are naturally weak quarried, which cause inversion and fog with bad impact on natural and housing environment. Valley of Hron is characterised by chain urbanisation with average distance between settlements 2.5 km. Settlements are all in side valleys and uplands. In valley plain of Hron are concentrated production areas of wood processing and glass industry and agriculture. In valley of Hodrusovsky Potok is concentrated ore mining and metal processing industry.

Zarnovica and Nova Bana are culture, education, services and occupation centre. Okres territory is connected with regional towns of B.B. and Nitra, Trnava and Bratislava Kraj by main centresouth traffic corridors, which is passing Hron valley.

The poles of territory development with concentrated economic, human and culture potential are Zarnovica and Nova Bana. Supplementary poles are Hodrusa - Hamre and Hronsky Benadik.

There is a big potential for tourism, but it is necessary to construct cycling routes by the most attractive district territory and at the same time complete technical and social infrastructure including housing.

6. ZIAR NAD HRONOM OKRES

Geographically, the territory located in the classical centre Slovakia valley with mountain Vtáčnik on the west side, Kunesovska highland on the north side, Kramnica hills on the east side and Stiavnica hills on the south. By southeast part of valley flows from east to southwest river Hron, by eastern part flow Kremnica brook. Valley is naturally quarry, which causes serious problems for environment.

The most important settlements are Ziar nad Hronom and Kremnica, where is concentrated culture, education services and work opportunities.

Economic base is concentrated in Ziar nad Hronom, Kremnica and Hlinik nad Hronom. There is mainly metallurgy, metal processing, wood processing and raw material mining activities. Other settlements are based on mainly agriculture and forest management.

Ziar nad Hronom has got dominant position in SR, because of the production and processing of aluminum. In Kremnica there was decline of valuable metal mining and its development should be based on better utilising of culture heritage, on business activities of small companies and on recreation potential of the town and its potential.

Development of the area direction by Hron valley is the main urban corridor of Slovakia and north direction is line of regional meaning. Specific development of Sklene Teplice is based on revitalisation of spa and rehabilitation healing combined with recreation.

Development of Obec Vyhne is based on prosperity of brewery and engineering operation. Other settlements of Ziar valley will develop on intensive utilisation of agriculture soil and production of agriculture products.

7. ZVOLEN OKRES

There is good communication connection of the territory, because of the location in central Slovakia. There are traffic lines of international meaning in direction east – west and also in direction north – south. Good assumptions of variety district development is supported by quality of land environment, formed by Zvolen, Slatina and Pliesovska valley, parts of

Stiavnica and Kremnica hills, Javorie and Sitnianska highland. By territory flow Hron, Slatina and Neresnica and their tributaries.

The core of district is area of southern part of Zvolen valley, where situated the most important and the most perspective settlements. Okres center of Zvolen – one of the most important traffic nodes in Slovakia, industry centre and centre of education, science, research and development, Sliac and Kovacova – spa areas with international meaning. Sliac airport is important in the sense of state defense. There belong also Sielnica, Velka Luka and Lieskovec – municipalities with developed agriculture production, which supplies inhabitants with agriculture and food products. In municipality Lieskovec there is industry zone of Zvolen agglomeration. There are also smaller municipalities such as Sampor, Lukavica and local parts of Zvolen – Zolna and Lukove, which are suitable for agriculture and recreation.

Important factors, which limit territory development in this area, are mainly protected zones of nature sources and areas of the Sliac airport. Some limitation is presented also by economic conditions of agriculture soil protection. Eastern part of Okres is created by territories of Obec Zvolenska Slatina and Ocova. The big area of Ocova Obec is part of CHKO Polana with biospheric reservation UNESCO.

There is also village settlement in the east part of Ocova. From economic point of view there is mainly agriculture production, but on the south of Ocova Obec there is a factory - Podpolianske engineering factory, which was one of the most important factories of former Zvolen district. On the west from Ocova there is well-known sport aircraft, used also for agriculture purposes.

The most important factor, which limit utilising of the territory, is CHKO Polana with biospheric reservation UNESCO. Another limiting factor is preparation of construction waterworks in Slatinka.

South slopes of Kremnicke hills interfere to north - west of territory. Zelezna Breznica, Turova and Trnie with local parts Kasova Lehotka and Budicka. Character of municipalities is suitable for recreation. In valley location in Hron valley there is agriculture municipality Budca.

South part of Okres is created by east slopes of Stiavnica hills and part of Javorie with Pliesovska valley. Obec Ostra Luka, Bacurov, Dubove and Breziny are agriculture settlements, and suitable for cottage tourism. Obec Dobra Niva and Babina are orientated on intensive agriculture production and primary processing of agriculture products. There is typical folk architecture in both Obec. In the central part of Pliesovska valley, there are Obec Pliesovce and

Sasa. They have got dominant agriculture function and create space to VPP Lest. The most limiting factors in this area are mainly protected zone of water source Podzamcok, nature protection CHKO Stiavnicke hills and location of army training area Lest.

First line - to improve facilities, development of trade and services, improve structure of school and health facilities, improve conditions for children and retire people, making environment more human and esthetic, completion of housing complexes facilities, making polyfunction of central town zone more powerful, intensification and making more effective utilising the areas and objects in centre town and its surrounding. There will be realised central town park Lanice, legalisation of recreation function and construction of complex facilities for tourism, recreation and summer sports by water tank

Motova, completing area of winter sports in centre Kralova. Special place within tourism belongs to area of Pusty hrad (castle). It is the largest of that kind in Central Europe.

Second line - growing town organism on new so far not utilised areas. They consider mostly multifunction areas. On the east from water tank Motova, construction of waterworks in Slatinka is prepared. There will be more recreation possibilities and it will make town more attractive from the point of tourism. Because of configuration of the area and quality of land environment waterworks in Slatinka can become the most beautiful and the most attractive water area in Slovakia and in centre Europe. In the most valuable areas there will be strict protection of nature environment, although because of the territory floods there will be modification of the biotop.

The second most important settlement of Zvolen Okres is town Sliac, which together with Kovacova belong to the most important spa area of Slovak Republic. The priority is to complete healing complex construction on international standard.

Spa area Kovacova is suitable for tourism, mostly in summer time because of the swimming pools. There is a plan to utilise area during whole year, because of the thermal water. Special position has got national rehabilitation centre, orientated on serious after surgery and after injury conditions of movement apparatus. It would be suitable to create conditions for permanent placement of patients, which require permanent care and help.

Obec Sielnica and Velka Luka are located in protected zone of nature healing sources, which limit their territory development. That's why they are orientated on supplementary functions for spa places and on not defect agriculture production. Obec Lieskovec is orientated on industry

and agriculture production, storing, housing. Obec Sampor and Lukavica, and also Zolna and Lukove will be orientated on agriculture, housing and recreation. On the north there is Obec Ocova with developed agriculture tradition. Ocova is special for location of sport aviation (flying). In the future there can be a training centre for sport pilots, which could reach state and international importance.

South part of Kremnica hills with Obec Budca, Trnie, Turova and Zelezna Breznica have got suitable conditions for housing and recreation.

More important urban development can be seen by Zvolenska Slatina, because on the location on line E 571 and is close to prepared waterworks in Slatinka. Army training area Lest, which create south part of Zvolen district has got spatial regime, because of the army activities.

8. LEVICE OKRES

8.1 Land

Okres Levice is located in the lower part of the river Hron, in the southeast part of Nitra Kraj. Climate conditions in the Okres are characterized by dry and warm zone with the average annual rainfall 600-650 mm, and the average annual temperature 10°C. The mountain chains in the north and northeast create a natural barrier against the cold winds and influence the climate conditions.

8.2 Soils

The majority of the soil types are brown soil- 41.3 % and black soils- 26.2 %. Total acreage of the agricultural soil in the Okres is 112 441 ha, which is 72.6 % of the total land. The agriculture-ecological sub-zones are located;

- (1) Podunalska lowland
- (2) Dolnohronska miva/flood plain
- (3) Podunajska upland (Hronska upland)
- (4) Stiavnicke mountains

83.5 % of the agricultural soil is used for arable land, which is high. High productive potential is also emphasized by its land price, the official land price of agricultural soil in the Okres is 61 563 SK/ha and average price in SR is 39 555 SK/ha. The irrigation systems are very important in the Okres. Average annual rainfall of 600 - 650 mm is irregularly distributed and irrigation is necessary in the hot dry summers. Irrigation systems are built in Zelizovce and Velke

Kozmalovce. Soil erosion problems occur on large fields, which have no shelterbelts and unprotected slopes.

8.3 Crop Production

Shift of crops can be seen to high productive crops with lowest cost, especially wheat. Representation of crops, which protect the topsoil against the water erosion and wind erosion effect, is significant of the aspect of agricultural land protection.

8.4 Livestock Production

Large decreases in livestock production were caused by privatization/individualization. The large-scale state farms have been transferred to smaller farms, which are not able to produce livestock animals and tend to produce only crops. Concentration of pigs over 5 000 heads is located only on the farm in Velky Dur (Cooperative Levice). Other farms, under 5 000 head are all production of excrement disposed to the surrounding areas in a frame of processed fertilizing plant. This may lead to the water and soil contamination by nitrate.

The biggest problem on farms with beef cattle breeding is manure storage and its proper application to the soil. There are 56 manure deposit sites with a total capacity of 424 600 m³ for harmless storage of solid components, which has been utilized by the large-scale farms. However, it requires restructuring and reviewing the locations to cope with the transformation of livestock production.

Some centres of livestock production were abandoned because of a heavy decrease of farm animals and these are fully or partly closed at present. There are previous large capacity farms in Pohronsky Ruskov, Kalna nad Hronom, Hronske Kosihy, Zalaba in the Study Area. A new technology of livestock production will be required from not only socio-economic, but also environmental point of view to maintain the grassland.

8.5 Forestry

The forest area 09-Krupinska plateau, Ostrozky is partly located in Levice Okres. The area belongs to the oak - beech climate. The wood species are oak, beech and mossy oak. Biotic and abiotic harmful factors dominate in this territory. The areas slightly endangered cover 90 %. Deciduous trees are dominant (95 %) in Nitra Kraj, which includes oak (26 %), poplar (24 %), mossy oak (15 %), beech (13 %), whilst conifer wood covers 5.1 % of the total forest in the Nitra Kraj.

The major part of wood material is processed in factories outside the Kraj territory (Ruzomberok, Zarnovica, Banovce nad Bebravou). The forest industry can't survive without subsidies and really requires the state financial support to maintain the income of the workers and public profit functions of forest.

The state forest companies covers 89% of the forest in the Kraj;

- (1) Bratislava state company
- (2) Forests Trencin state company and
- (3) Forests Banska Bystrica state company

Other forests are managed by non-state forest companies such as private, municipality, church, etc,

The forest is categorized into three;

- (1) Production forest (83.7 %)
- (2) Protective forest (7.5 %)
- (3) Special Purpose forest (8.8 %)

There are forest parks for recreational use in Nove Zamky-Berek and Levice in the Study Area.

9 NOVE ZAMKY OKRES

9.1 Land

Nove Zamky Okres is located in the lowest part of the Hron. The area is dominated by lowland landscape - Podunajska lowland along the Hron river and upland landscape - Hronska upland. The Okres situated in the warm climate zone. The average annual temperature is 9.5 °C, annual rainfall is 540 - 730 mm and rainfalls are very variable with longer dry periods.

9.2 Soils

The dominant types of soils are black soils, brown soils and fluvisols. The soil productivity in the Okres is fairly high and suitable for most of all types of crops. There are no irrigation systems in the Okres. Soil erosion can be seen in most of the areas except the flood plains of the river Hron. This requires planting of shelterbelts to protect soils from wind. The total area of agricultural soil is 106 929 ha, which is 80.3% of the total area of the Okres.

9.3 Plant Production

Intensive cultivation, a suitable climate and high natural soil fertility puts Nove Zamky amongst the most productive agricultural areas in SR.

9.4 Livestock Production

Although the number of livestock animals in the state farm has decreased about 50 % during 1989 to 1994, it has been stable from 1994 to the present.

9.5 Forestry

There are no forests in the Okres.

10. ZLATE MORAVCE

10.1 Land

The southeast part of Zlate Moravce is located involved in the Study Area. The climate conditions are characterized by fairly warm zone with rainfalls of 600 - 700 mm, and a temperature of 8.5 °C. Prevailing winds are north-western and eastern in the winter and north-western in the summer.

10.2 Soils

The dominant types of soils are brown soils, brown soils and gray brown soils. The soils are heavily endangered by wind and water erosion mostly on the hill terrain land in many cases by inappropriate agro-technology, which decreased of natural soil fertility. The agricultural soil covers 22 511 ha which is 43.2 % of the total area of Okres

10.3 Plant Production

The highest percentage of ploughed sited areas is represented by high productive crops with the lowest costs. Wheat is becoming a very good market crop.

10.4 Livestock Production

Breeding of beef cattle, pigs and poultry is the basic structure of livestock production of the territory. The development, productive orientation and intensity of crop production affect the livestock production.

10.5 Forest

There is no forest in this territory.

