

Spatial changes of the agricultural and forest landscape in Slovakia in 2008 –

2012
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Targets of our research

- choose or create some indicators, which can correctly define (give a value) to states and processes in the SK landscape
- The process and state of landscape planning (LEP) and land consolidation (LC) → the property settlement and spatial reorganisation of parcels and estates in SK rural areas
- Overview of until use = task of drawing financial resources for some projects through the way of making concrete projects in the landscape

This paper ► Project to continue

- We plan to continue this project of LC solution in continual parts of research as a result in further papers and articles
- We made in further partial part continual research with cooperation of our department - team, which was consisted from the analysis of the LC condition in all c.t. existing in Slovakia
- The new result is planned to be a **new layer of a digital map, which would be compatible with GIS ArcInfo or Quantum GIS** and could also be a good basis with landscape planning practices in SK

Practical outputs

- Our (team) research endeavour ► to make a Strategy of relative „Harmony“ between the written existing strategical documents in our territory and the running landscape projects!
- The aiming target = to influence on communal and regional politics (create partnerships (Euroregions), crossborder cooperation, interdisciplinary teams)

A close-up photograph of a bee on a white flower. The bee is positioned on the right side of the frame, facing left towards the flower. The flower is a simple, bell-shaped white flower with a green stem and leaves. The background is a soft, out-of-focus green and brown, suggesting a natural outdoor setting. The text is overlaid on the image in a white, sans-serif font.

Paper is focused on the main target:

► Processes impacting practical projects in the field of environment protection

- The results of spatial change analysis of estate – sorts of an agricultural (arable) and forests land fund in Slovakia

- At first/ we make a statement = hypothesis, that: „In Slovakia there is a clear sensible tendency of an agricultural land (predominantly arable land) decrease, mostly in behalf of the built – up areas and „rest“ areas.

- Stagnation or little increase of the spatial acreage of forests land.

Changes AL and FL in the last 4 – 5 years are caused = reasons:

1. spatial agricultural land and forests land acreages, but they may be caused by the area – changes and movements of c.t. (changes in an administrative apparatus).
2. exact measures of a cadastral apparatus renewal in the frame of § 8 valid Cadastral Act after new mapping processes (new Cartographical mapping in sense of the § 69 of the Cadastral Act ..)
3. The changes of continual permanent lasting character, which have dominant impact on landscape forming = target of our research

Trend of the agricultural and forest land sorts in Slovakia from 2004 - 2012 (in hectars)

year	ARL	hop-fields	vineyards	gardens	Fruit groves	grassland	AL total	FL total	difference (total area of SR - ALF)	Total area of Slovakia
2004	1 430 197	560	27 313	77 351	17 952	883 506	2 436 879	2 004 100	462 421	4 903 400
2005	1 430 594	561	27 341	77 287	17 912	881 054	2 434 749	2 004 927	463 724	4 903 400
2006	1 429 040	538	27 307	76 865	17 947	881 283	2 432 979	2 005 234	465 187	4 903 400
2007	1 427 357	534	27 314	76 813	17 792	880 873	2 430 683	2 006 939	465 778	4 903 400
2008	1 425 896	530	27 243	76 720	17 590	880 920	2 428 899	2 007 142	467 532	4 903 573
2009	1 421 852	520	27 258	76 636	17 360	879 853	2 423 478	2 008 257	471 969	4 903 704
2010	1 417 983	519	27 140	76 563	17 257	878 470	2 417 933	2 008 843	476 864	4 903 640
2011	1 416 633	520	27 091	76 529	17 034	876 484	2 414 291	2 011 250	478 103	4 903 644
2012	1 415 653	517	26 997	76 563	16 858	874 224	2 410 812	2 012 336	480 465	4 903 613

Source: Statistical yearbook of Slovak land fund, 2008 - 2012, <http://portal.statistics.sk/>, completed by actual private calc:

Factors of property settlement state:

- value (praise) of estates in market and its commercial value,
- amount of owners (proprietors) → from the amount of property lists,
- the way and allowance of the original property inscription,
- geographical features of each local area and plots and connections of these factors,

- complexity and complications of other administrative - necessities (burdens, notifications by the property lists, the basis ground documents in registry of deeds,
- compromise and agreements of each proprietors (explicitly a human factor),
- political and legislative attributes of each individual system in relevant country and development priorities
- further continuation and progression of the qualitative growth of the landscape - ecological appliance ► land consolidation

The process of LC

- The identification and reambulation of basis documents from the relevant territory,
- Solution and proposal of new- proposed property - relations,
- The new mapping process and detection of any changes in space between reality in terrain and older basis maps,
- The results of LC have an influence on the Real Estate Register, they establish, change or neglect the proprietorships
- The local territorial system of ecological stability

Examples of LC process

- ❑ vectorisation of old map – documents in archives [stara mapa vektor digit.jpg](#)
- ❑ identification of each estate and its law and real features in landscape [nova mapa vektor dig.jpg](#)
- ❑ property estates - settlement in rural areas [MP vysp zmeny.jpg](#)
- ❑ prosposal of new landscape – plan after changes in the frame of LC [projekt PU zmeny.jpg](#)

Arrangements in the frame of LC

- correct spatial organisation and differentiation of the land fund,
- exact location and emplacing of agricultural cultivations,
- correct size and the correct shape of parcels,
- building new anti-erosive infiltrative absorbing drainage lines,
- building new protection grass-plots,
- wood - utilisation (ground wood species or tree species) as a protection tool against water erosion.

Factors of AL decrease = results → Steps of environmental law transposition

- Line - buildings of the huge area ;
- arable land under new logistical industrial parks;
- Car parking - places as one of the contemporary trends in town and their suburbs ► huge amount of vehicles
- Polyfunctional objects with the market and business function dominance (include mainly objects of the tertiary and quaternary sectors ► functional utilization overcrowded (overequipped)
- *Approximation*
- *Implementation*
- *enforcement*

Proposal = idea to discussion

*General idea ► particular (specific) aims of our research ►
concrete projects in LC practice ∞ idea of human life
behaviour changes*

... Resulting from a reality, that a **MAN** is together with other existing living structures **unseparable part** of the nature,....

We observe, that:

„The education and enlightenment are implementing through the way of fact, that they should lead to such kind of human thinking and acting, which is **in harmony with sustainable development principle**, to the awareness of environment - care responsibility and to the **life – regard in all its existing forms.**“

→ **MOTTO: „We have to learn the real VALUE of the nature and our environment, not only the price!“**

*Thank you for your
attention*



The END