



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

LPIS CREATION, UPDATING in SR and IACS ACTIVITIES on SSCRI

LPIS Workshop – 17. – 18. 9. 2008 – Sofia



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Basic framework of delegated functions

- ③ „Agreement about delegation of functions between APA and SSCRI Bratislava“ from 27. 2. 2004
- ③ „Plan of delegation functions APA to SSCRI in 2005“ from 12. 1. 2005
(is part of „Agreement“ and specifying contents of „Agreement“ for particular year after factual, temporal and financial aspect)



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

List of delegation functions

1. *Creation, Updating and maintenance of LPIS*
2. **Preparation of graphical basis for direct payments**
3. **Preparation of graphical basis for project supports**
4. **Control of authorization of getting of subsidy on area by method CwRS**
5. **GIS – InfoService – map server for purposes of PPA**
6. **Other services**



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Situation in SR

- ③ **Non-relevant cadastre (not reflect the real usage of agricultural land)**
- ③ **Not exist adequate spatial database of agricultural land usage**
- ③ **Peer Review Missions DG AGRI and DG JRC recommendation – the physical blocks system is the most appropriate for situation in SR**



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Basic principles of LPIS created on SSCRI

- ③ **based on digital orthophotomap**
- ③ **based on physical blocks according to natural boundaries.**
Is based on user relationship, not on owner relationship,
- ③ **internal block boundaries - block units (farmer's blocks)**
internal block boundaries in case of land use and/or user (farmer)
change - block can be divided into several block units
- ③ **verification and specification of the blocks and their internal borders - consultation with farmers in cooperation with RDs MoA SR**
- ③ **Usage of computerised GIS technique**



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Work schedule

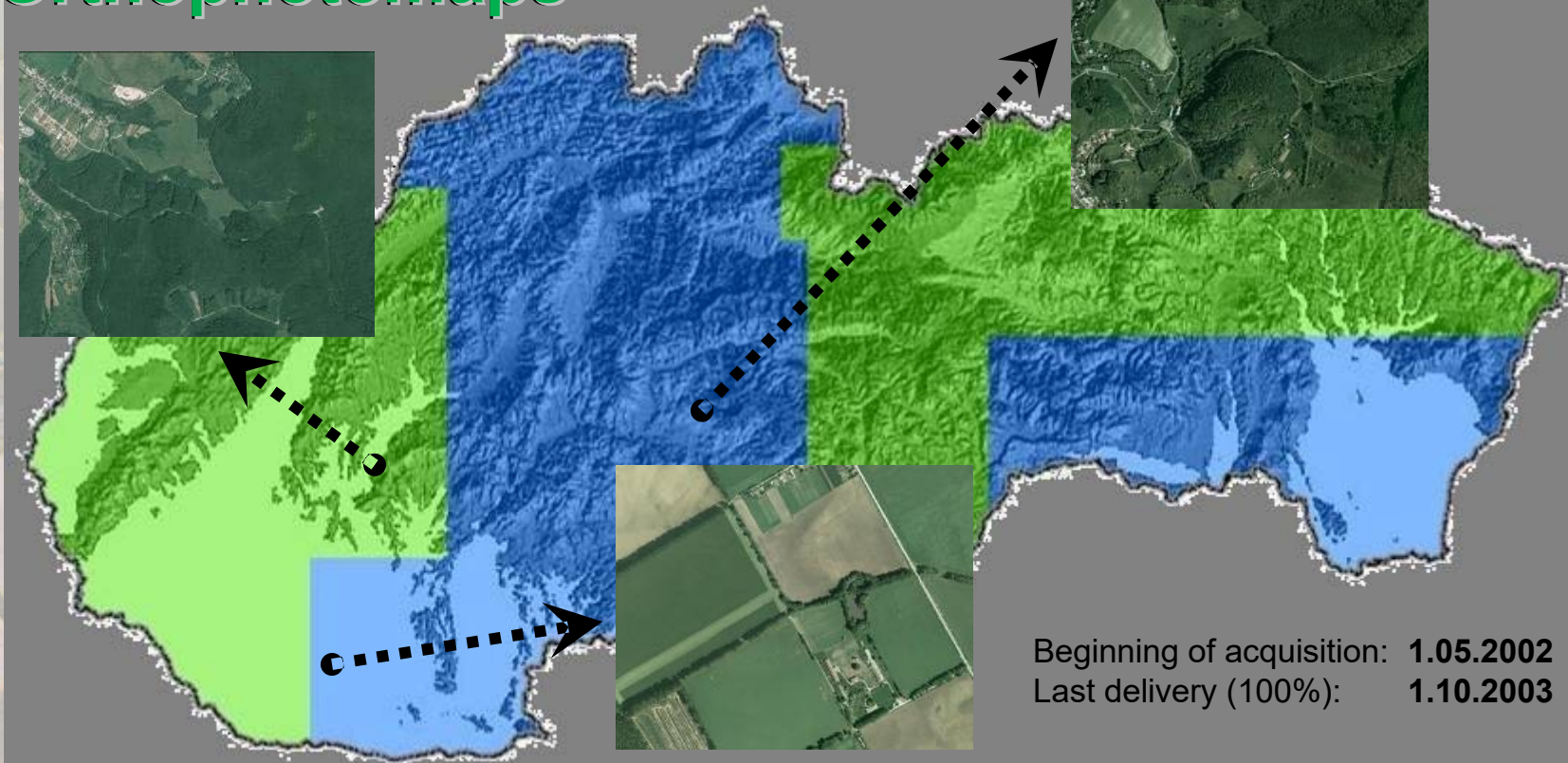
- ③ **Orthophoto (2002 – 2003)** – selected provider created digital orthophotomaps according to EC parameters 1593/00
- ③ **Vectorization (2002 – 2003)** – block borders vectorization on the base of EC specification 1593/00 on SSCRI
- ③ **Verification (2002 – 2003)** – refine of user borders direct by the farmers through contact on RD MoA SR and consecutively data conversion to digital form on SSCRI
- ③ **Integration (2003 – 2004)** – data conversion and data complementing from external sources in accordance with required interface
- ③ **Updating (2004 –)**



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Orthophotomaps



Beginning of acquisition: **1.05.2002**
Last delivery (100%): **1.10.2003**

Basic data: 2002 – 2003 flights, Colour, Scale 1:26 000, Resolution ≤ 1 m , RMSE 1.5 m

Provided by two companies: EUROSENSE (50%; SR territory) a GEODIS (50 % SR territory)

The digital orthophotomaps are not allowed to be older than 5 years, and.

Colour orthophotomaps are preferred.

For LPIS creation it is to supply orthophotomaps fluently and in time.



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Vectorization

In Slovak Republic the Register of Agricultural Productive Area is based on physical blocks digitalized on orthophotomaps background.

Physical block is agricultural area with nearly stable native borders which do not fluctuate every year. The borders are easily identified also on cartographical documents which are used in the process of requests as well in terrain.

The smallest size of block is 0,10 HA. The internal, non-productive areas larger than 0,05 HA are always graphically excluded from the block area. The same is valid also for linear objects larger than 5 m width.

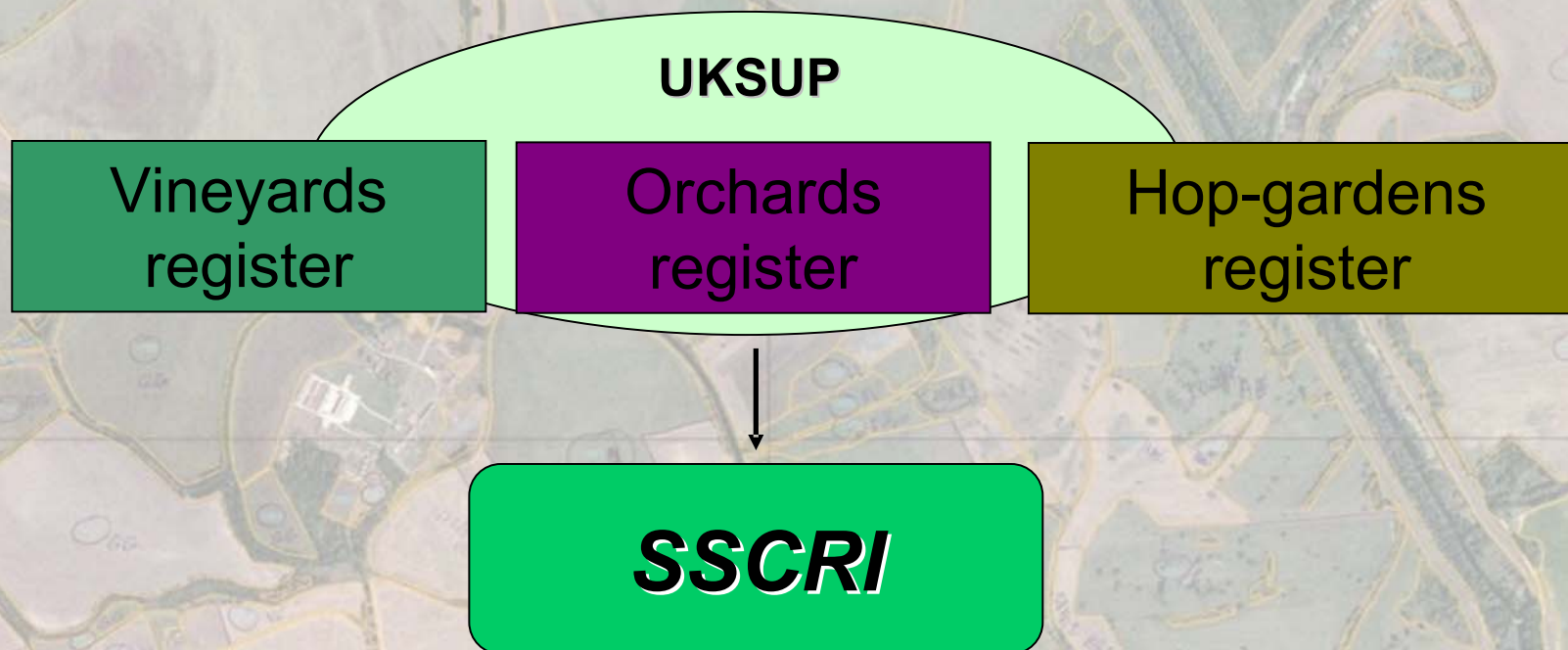
Limits types, which have to be used in block definition (in hierarchical significance):

- ⑨infrastructure (roads, water channels, etc.)**
- ⑨farm tracks and other limits between land cover types that are considered mostly permanent (streams, vineyard, orchard, hop-garden, grassland, woodland borders, etc.)**
- ⑨limits between the parcels of the same cover type that can be considered permanent (fence-lines, hedge- rows, etc.)**
- ⑨clear visible border of urbanized area (buildings, paths, parks, gardens, dumps)**
- ⑨natural and artificial water bodies**



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic



The orchard, vineyard and hop garden registers are created external on UKSUP Bratislava.

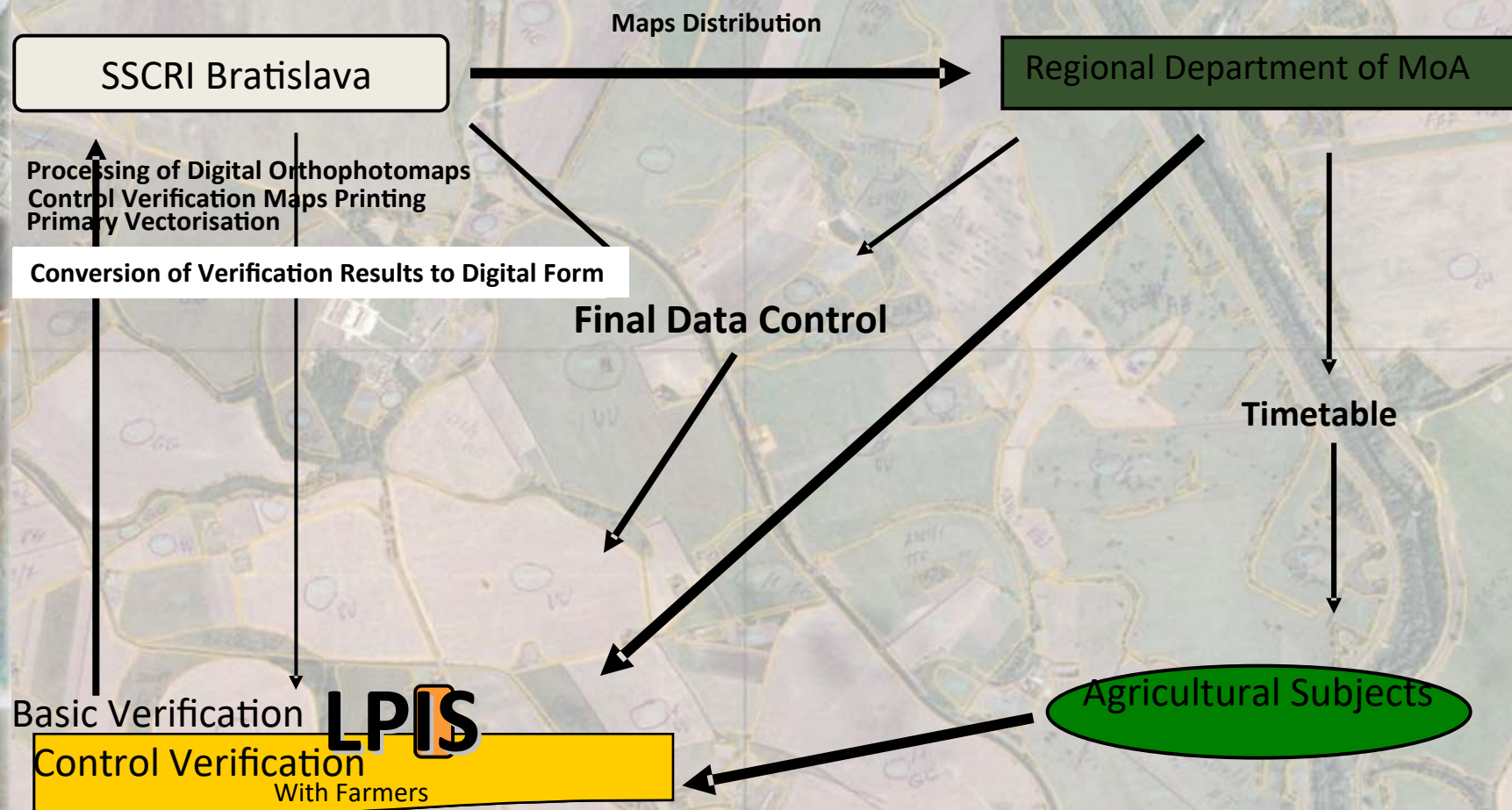
Finally, all special registers are included in LPIS (one central database).



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Verification





SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Continuous Updating of LPIS 2004/2005/2006

Updating on base of official document :

- a) data from applications**
- b) data gained by achievement of classical control by OTS checks**
- c) data gained by achievement of control by method CwRS**
- d) according external layers (example Natura 2000)**
- e) according new digital orthophotomaps – cover whole territory of SR**



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Update of LPIS based on spot controls

Update based on this methodology is dealing with the incorporation of changes detected during the on spot control campaign. Those controls are carried out by controllers of APA, or respectively by entrusted external subjects directly in the field/terrain.

The Control section of APA will produce the on spot control results (measurements by GPS) in shape software format.

The LPIS update may be carried out according the importance/requirements for current campaign (year) or for the next campaign, is in generally based on urgency and complexity of case and is authorized by APA.

On spot control results will contain area in Ha with accuracy on two decimal places and geographical x, y coordinates in national geographical coordinate system.



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Control with Remote Sensing

Update based on this methodology is dealing with the incorporation of changes detected by CwRS. Control with Remote Sensing is carried out by contractors as a delegated activity for PA. Update of LPIS based on results of CwRS can be carried out as follows.

Update of LPIS based on applications for subsidies

This relates to incorporation of changes detected from application forms which applicants submitted on PA regional offices valid for last year acquired from the IACS software analyse. Approved forms from applicants, where are recorded actual data, enable us union of physical blocks and thereby abolition/ deletion of unnatural boundaries in LPIS.

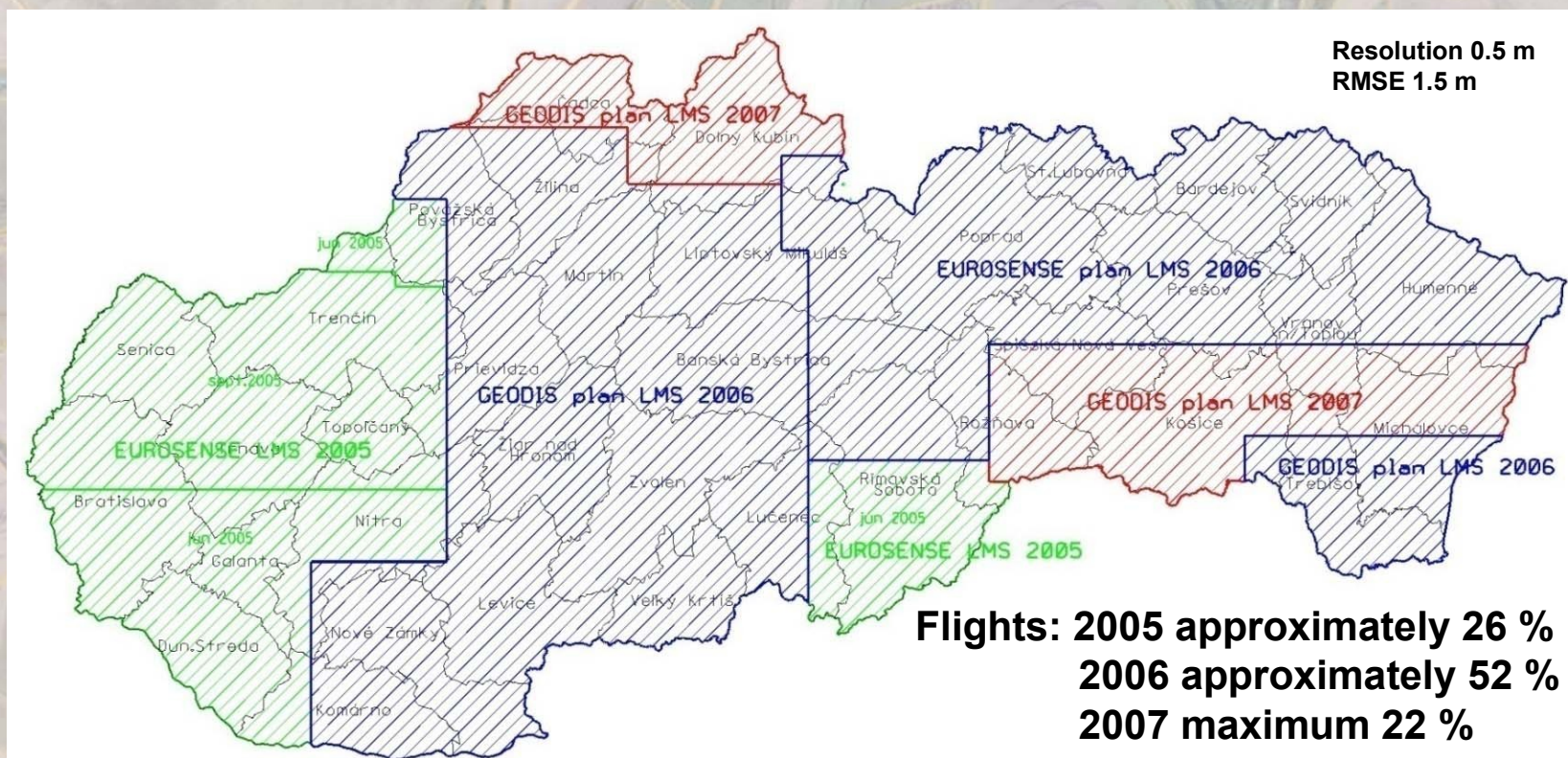
PA will provide output data from application forms in export form and on the backgrounds them will be perform update of LPIS.



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

2006 – started Cyclic LPIS updating based on the new digital orthofotomaps layer



Digital orthophotomaps (based on aero measuring images) obtained in year „N“ will be used and processed for updating at least in year „N+1“. Updated register will be offered once in year before new campaign of application submission.



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Cyclic LPIS updating based on the new digital orthofotomaps layer - goals

- ③ **exclusion of new construction, buildings, roads and new non-eligible pattern (bushes) from the area of blocks**
- ③ **Simplify the internal block structure. Inside the blocks, the land use unit of blocks which are not linked to farmers (special code 17 - agriculture land without known land-use/culture) will be unified with neighbourhood land use unit with concrete land use, if it is possible to determine the concrete land-use during the new photo interpretation**
- ③ **improvement of the previous errors (objective- clouds, shadows ...) and subjective (operators errors during digitalization)**
- ③ **creation of new land use unit/or whole new blocks on non eligible land for direct payments (revitalization of former non-agricultural land, cutted bushes..). This area could be agriculture land, but non eligible for direct payments, on other hand applicable for the project payments (second pillar)**

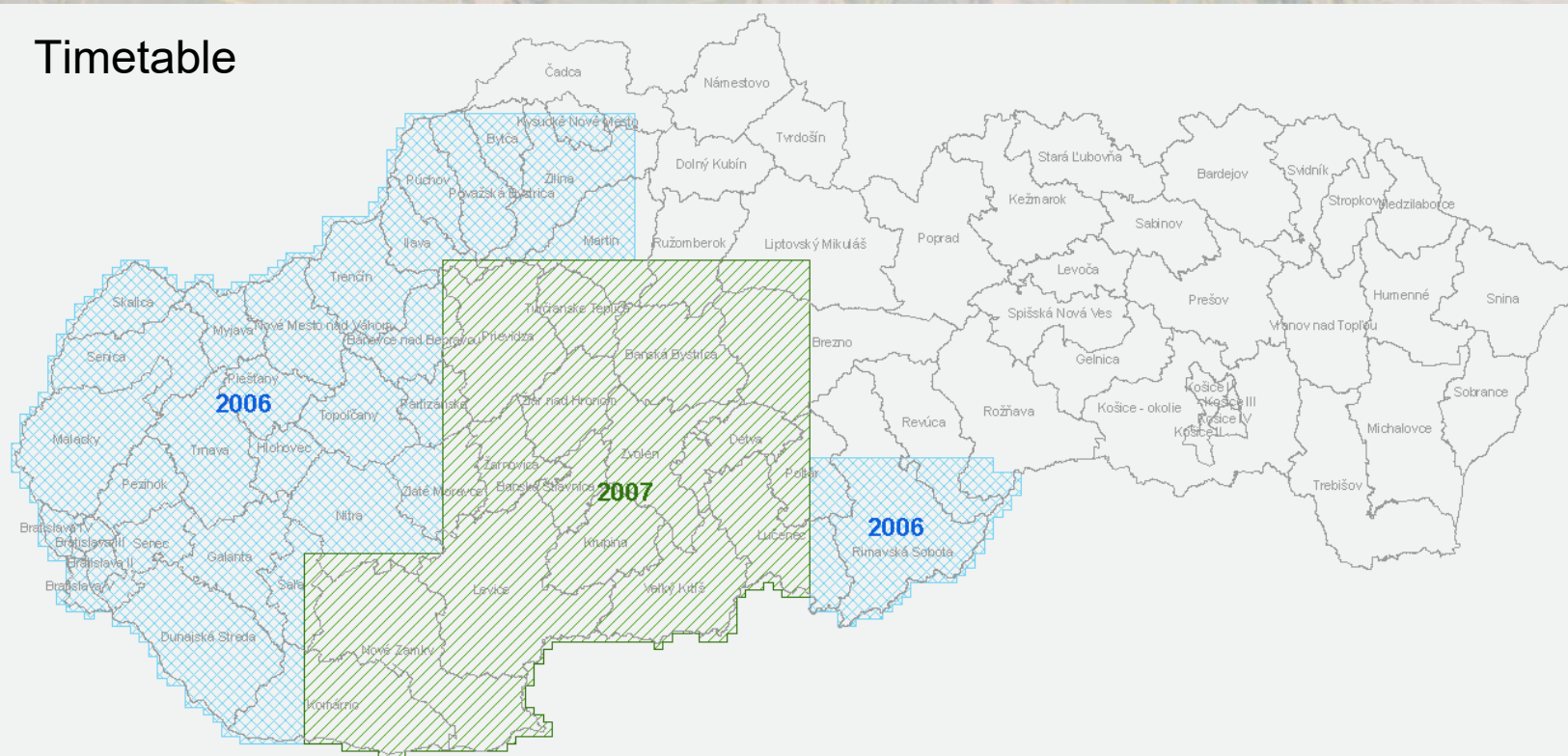


SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Cyclic LPIS updating based on the new digital orthofotomaps layer

Timetable





SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Update of LPIS based on farmer request for update

This relates to incorporation of changes detected directly by farmer. The farmer sends LPIS update request to PA regional offices, or farmer formulate the request with the help of regional officers. Then LPIS update is initialized.

The farmer can apply for LPIS update in these cases:

- 1. Creating of new block.**
- 2. Block border modifying.**
- 3. Merging of blocks.**



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

LFA - less favoured areas – one of most important measurement of RPD

1. Mountain areas – H

- ③ Average height above sea level bigger or equal to 700 m.
- ③ Average height above sea level bigger or equal to 600 m and less than 700 m.
- ③ Average slope of municipality bigger or equal to 20 % (11,18°) on area bigger than 50 % of area of municipality
- ③ Average height above sea level bigger or equal to 500 m and less than 600 m in combination with average slope of municipality bigger than 15 % (8,31°) on area bigger than 50 % area of area of municipality

2. Other less favoured areas – O

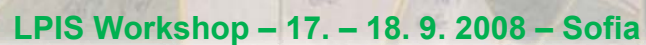
- ③ Low productiveness of agricultural soil less than 80 % national average (27 points)
- ③ Rate of Grass land on agricultural land of municipality bigger or equal to 50 % and number of VDJ/ha on this areas is less than 1
- ③ Yield of cereals less than 80 % national average (3,89 t/ha)
- ③ Residential density of region less than 72 residents/km²
- ③ Share of workers in agriculture from labour force in region bigger or equal to 12 %

3. Specifically handicap areas – S

- ③ Water-logged soils on area bigger or equal to 50 % of area of agricultural land,
- ③ Extremely dry soils on area bigger or equal than 50 % of area of agricultural land,
- ③ Skeletal soils on area bigger or equal than 50 % of area of agricultural land,
- ③ Soils of flysch zone,
- ③ Little productive soils (productiveness less than 27 points),
- ③ Soils of temporary areas.



LFA - less favoured areas – fully integrated to LPIs



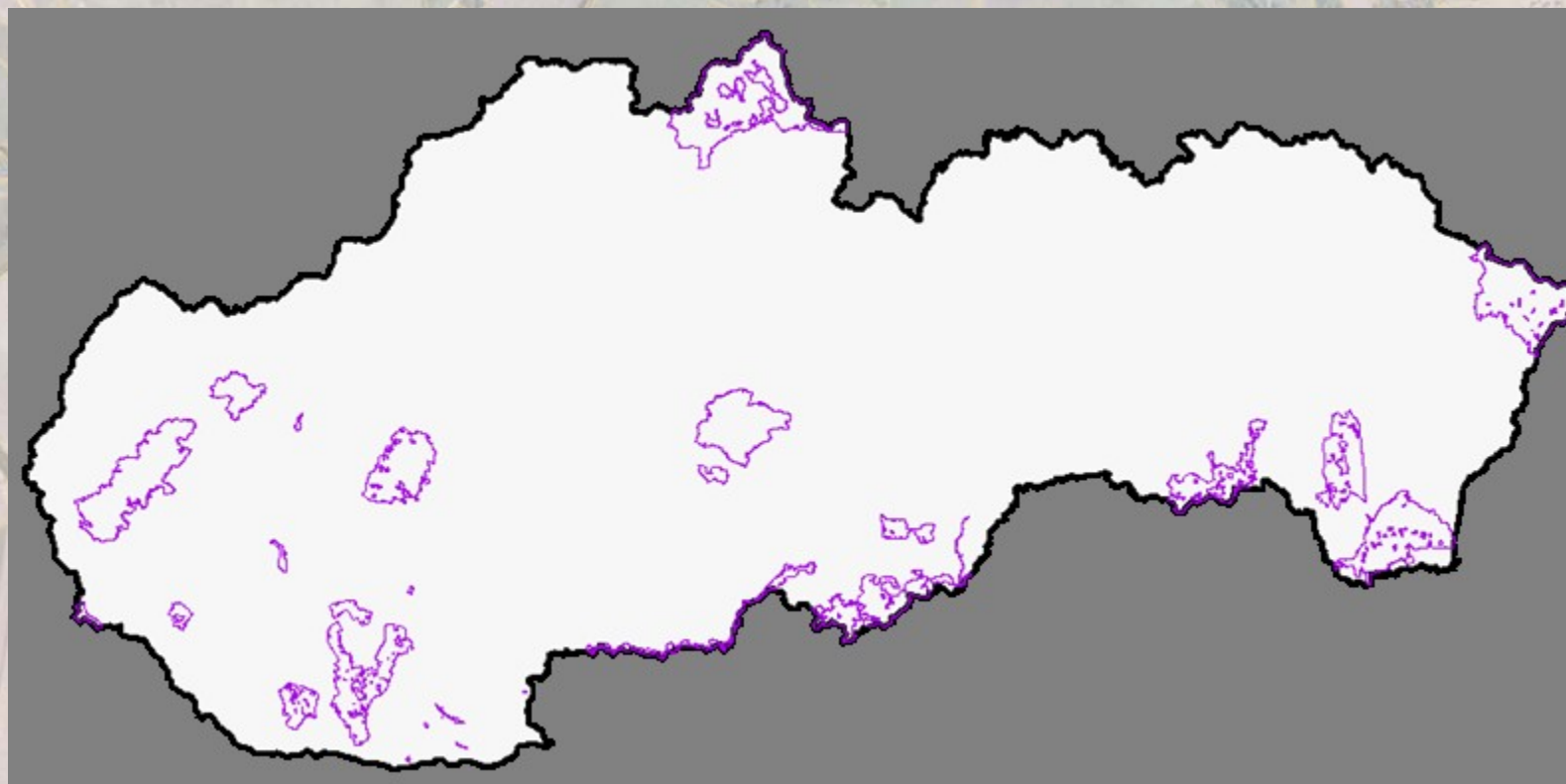


SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Natura 2000 - Bird protected territories

Areas with environmental restrictions – E

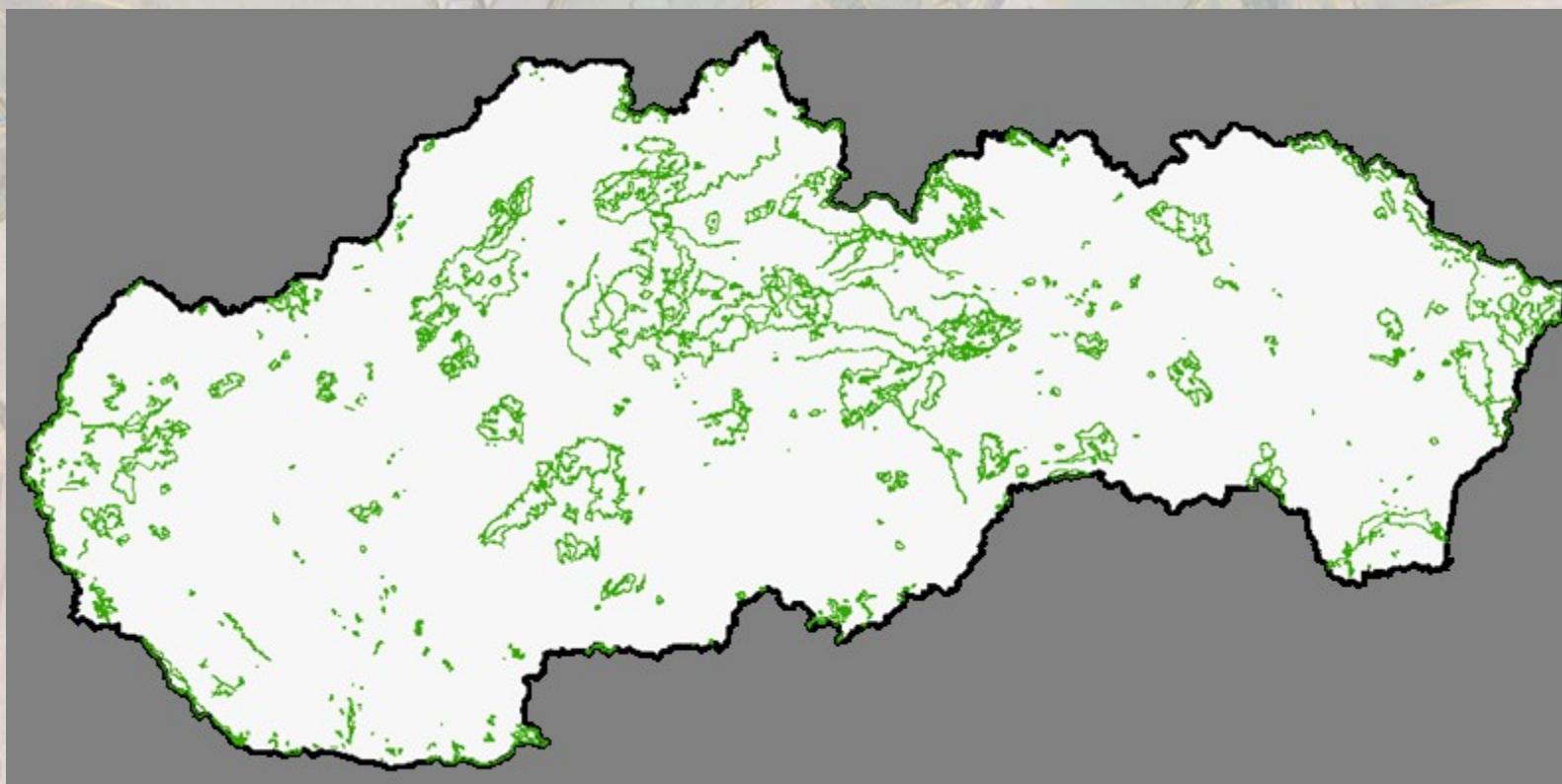




SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

UEV

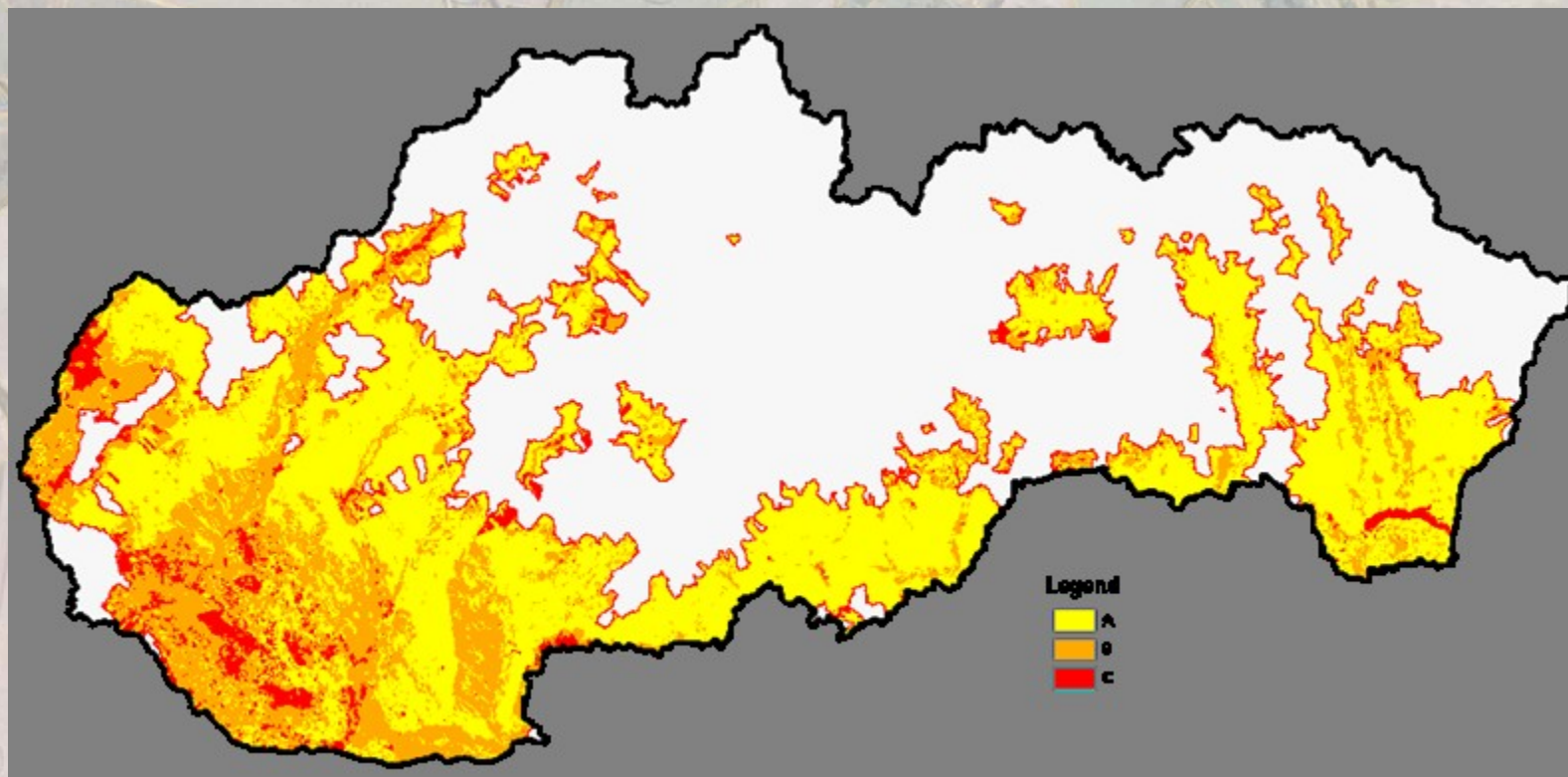




SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Nitrogen directive





SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Pôdny portál

Informačný servis VÚPOP

Výskumný ústav pôdozvedectva a ochrany pôdy

Informačný portál o pôde

Úvod
Návod
Aktuality
Kontakt
Linky

Aplikácie pre verejnosť

Register pôdy - LPIS

Bonitované pôdno-ekol. jednotky - BPEJ
Nitrátová direktíva
Chránené poľnohospodárske pôdy
Hrúbka humusového horizontu
Produkčný potenciál poľn. pôd
Typ.-prod. kategórie poľn. pôd
Hodnota pozemkov pre poz. úpravy
Potenciálna produkcia fytomasy
Bilancia organickej hmoty v orných pôdach
Fyzikálna degradácia pôdy
Multifunkčné využívanie poľn. pôdy
Pôdne sondy
Inaktivácia a transport kontaminantov
Odhad úrod
Zaťaženie krajiny hosp. zvieratami
Potreba melioračného vápenia
Agroenvironmentálne kompenzácie
Produkcia suchej hmoty biomasy
Produkcia bioenergie kultúrneho dielu (KD)
Rentabilnosť KD pre pestovanie plodín
Pôdy pre pestovanie rýchlorast. drevín
Hydrologická bilancia poľnohosp. pôd
Potreba hnojenia fosforom a draslíkom

Dig. infoservis pre regióny a samosprávy

Poradenský systém pre farmárov (Farm Advisory System - FAS)

Informačný systém [Výskumného ústavu pôdozvedectva a ochrany pôdy](#) prostredníctvom internetu a mapového servera umožňuje širokej verejnosti ON-LINE prezerať informácie o poľnohospodárskej pôde.

Hlavná časť informácií je prezentovaná formou webových máp generovaných ArcIMS serverom od firmy ESRI. Na interaktívnu prácu s mapami (prehliadanie, odosielanie požiadaviek) sa používa HTML prehliadač. Bližšie informácie o práci s HTML prehliadačom nájdete v sekcii "[Návod](#)". HTML prehliadač vyžaduje podporu spúšťania Java skriptov.

Pôdna mapa SR 1:400 000

Atlas pôd SR

KPP - prieskum

Pôdno-ekologické regióny

Čiastkový monitorovací
systém - PÔDA

Geochemický atlas SR

Geologické faktory ŽP

Poľn. znevýhodnené
oblasti SR - LFA

Štruktúra pôdneho fondu

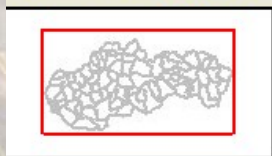
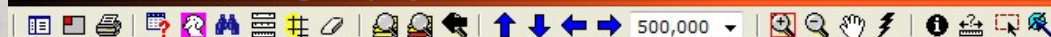
Chránené vtáčie územia -
CHVV



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Info Servis VUPOP - Register pôdy LPIS



(c) Výskumný ústav pôdozvedectva a ochrany pôdy
Ortofoto mapa (c) EUROSENSE s.r.o. • Ortofoto mapa (c) GEODIS SLOVAKIA s.r.o. • CHVU, UEV (c) Štátna ochrana prírody SR

0 61913m

Vrstvy

Viditeľne	Aktívne	
<input type="checkbox"/>	<input type="radio"/>	Lokality
<input type="checkbox"/>	<input type="radio"/>	NDIR
<input type="checkbox"/>	<input type="radio"/>	UEV
<input type="checkbox"/>	<input type="radio"/>	CHVU
<input checked="" type="checkbox"/>	<input type="radio"/>	Okresy

Aktualizovať mapu

[Návod](#)

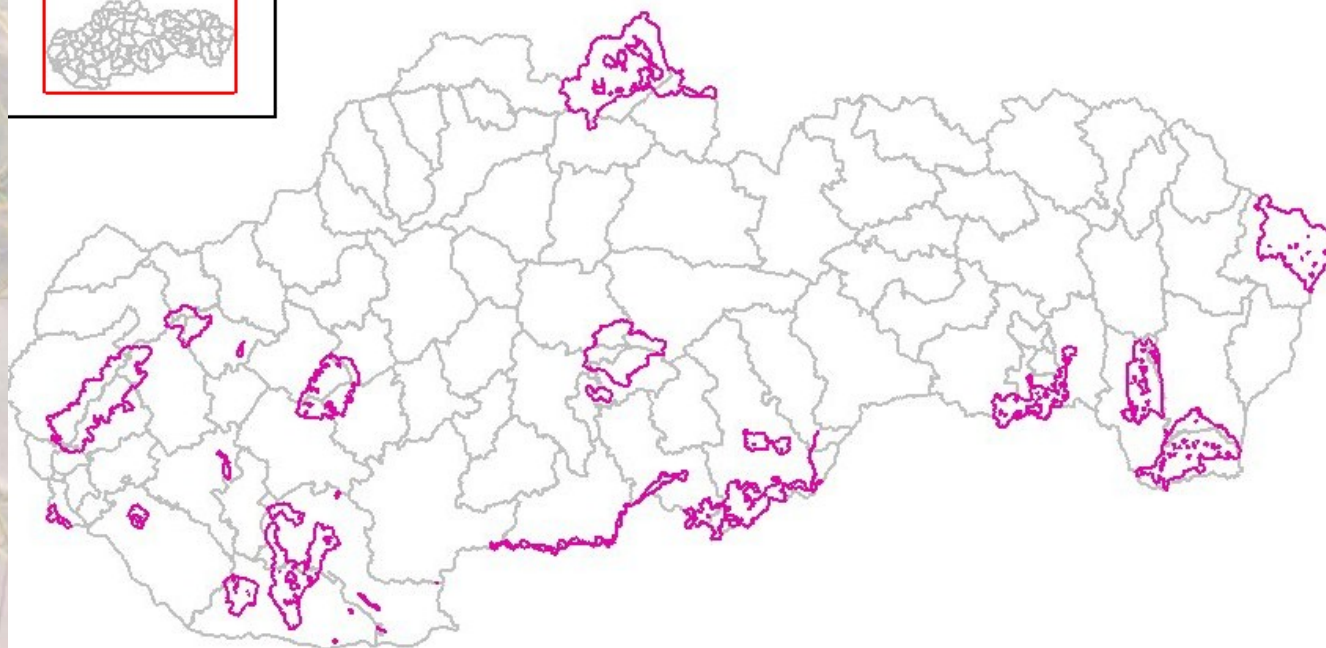
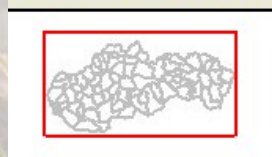
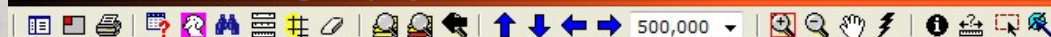
Zvacsit



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Info Servis VUPOP - Register pôdy LPIS



(c) Výskumný ústav pôdozvedectva a ochrany pôdy
Ortofoto mapa (c) EUROSENSE s.r.o. • Ortofoto mapa (c) GEODIS SLOVAKIA s.r.o. • CHVU, UEV (c) Štátna ochrana prírody SR

0 71899m

Vrstvy	
Viditeľne	Aktívne
<input type="checkbox"/>	<input type="radio"/> Lokality
<input type="checkbox"/>	<input type="radio"/> NDIR
<input type="checkbox"/>	<input type="radio"/> UEV
<input checked="" type="checkbox"/>	<input type="radio"/> CHVU
<input checked="" type="checkbox"/>	<input type="radio"/> Okresy

Aktualizovať mapu

Návod

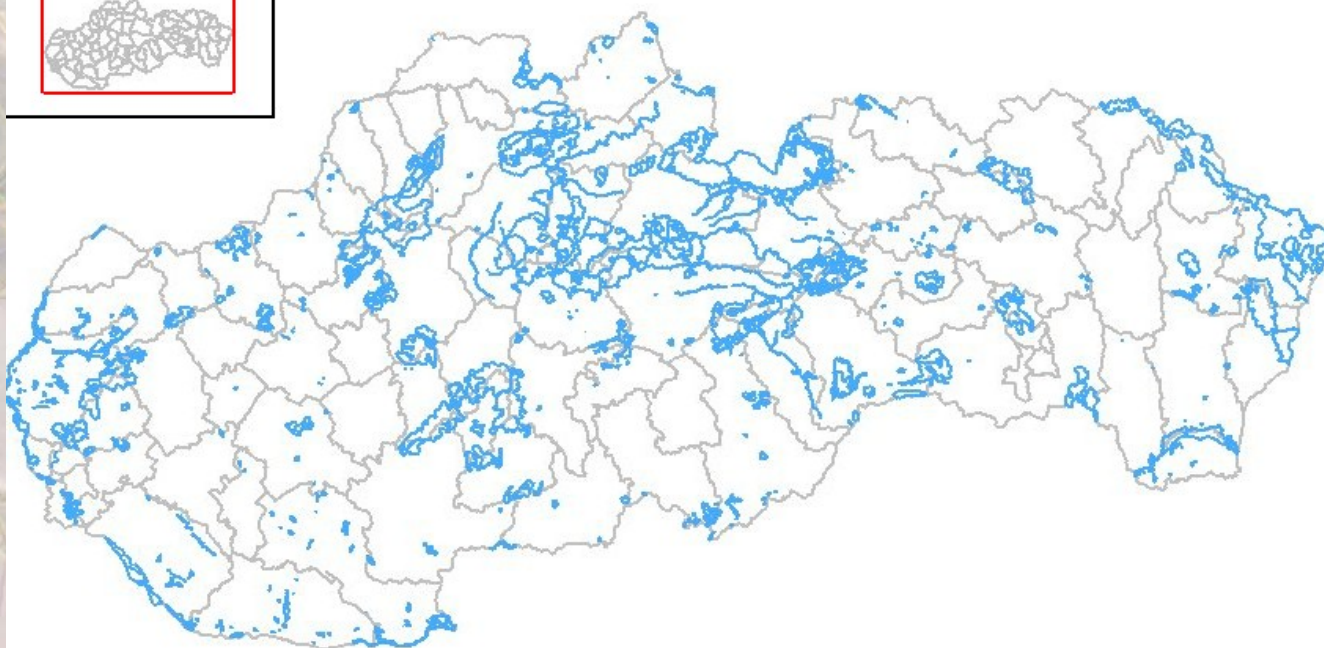
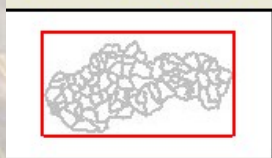
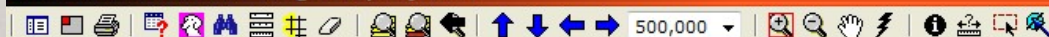
Zvacsit



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Info Servis VUPOP - Register pôdy LPIS



(c) Výskumný ústav pôdozvedectva a ochrany pôdy
Ortofoto mapa (c) EUROSENSE s.r.o. • Ortofoto mapa (c) GEODIS SLOVAKIA s.r.o. • CHVU, UEV (c) Štátna ochrana prírody SR

0 64409m

Vrstvy	
Viditeľne	Aktívne
<input type="checkbox"/>	<input type="radio"/> Lokality
<input type="checkbox"/>	<input type="radio"/> NDIR
<input checked="" type="checkbox"/>	<input type="radio"/> UEV
<input type="checkbox"/>	<input type="radio"/> CHVU
<input checked="" type="checkbox"/>	<input type="radio"/> Okresy

Aktualizovať mapu

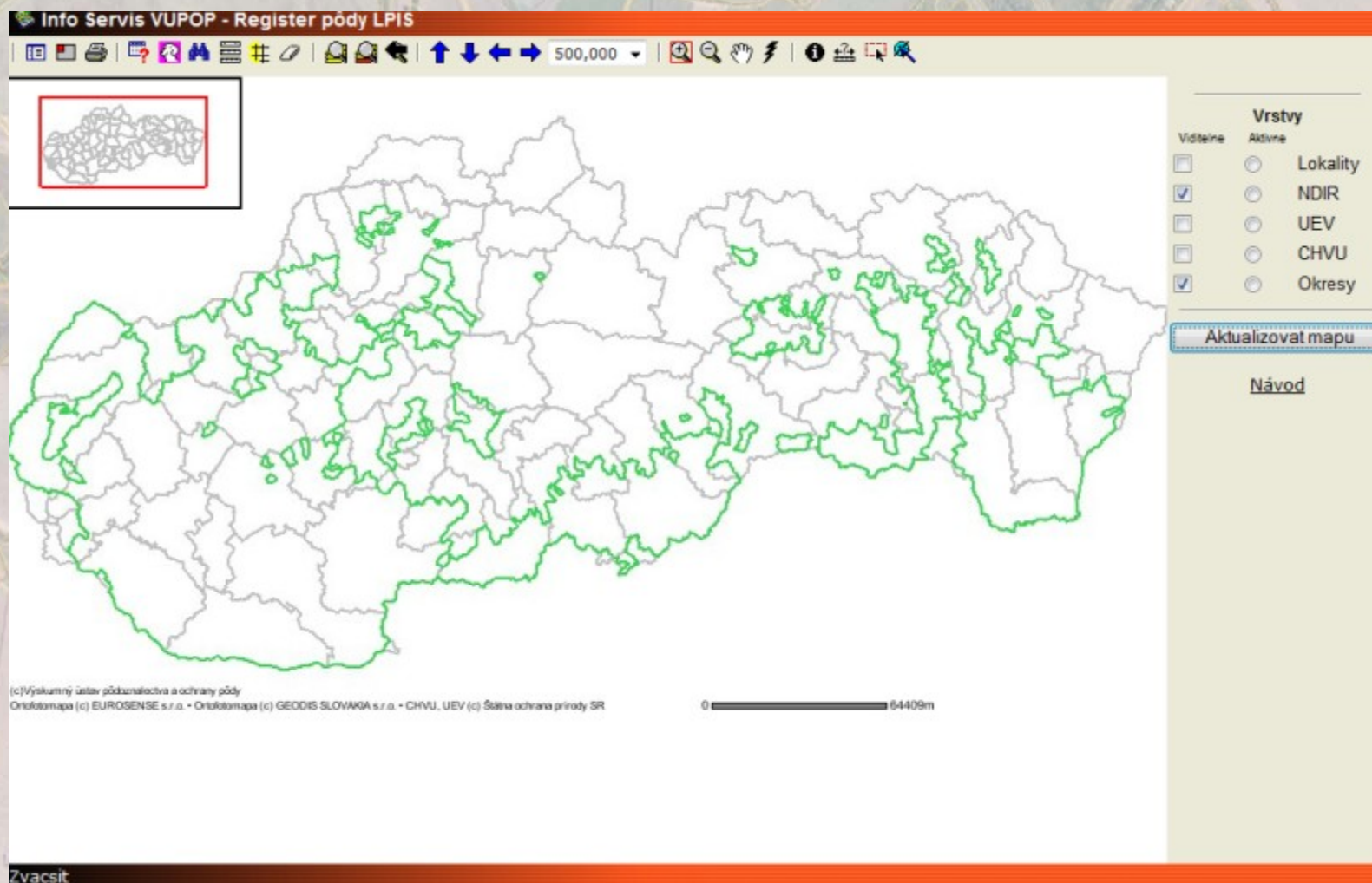
Návod

Zvacsit



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

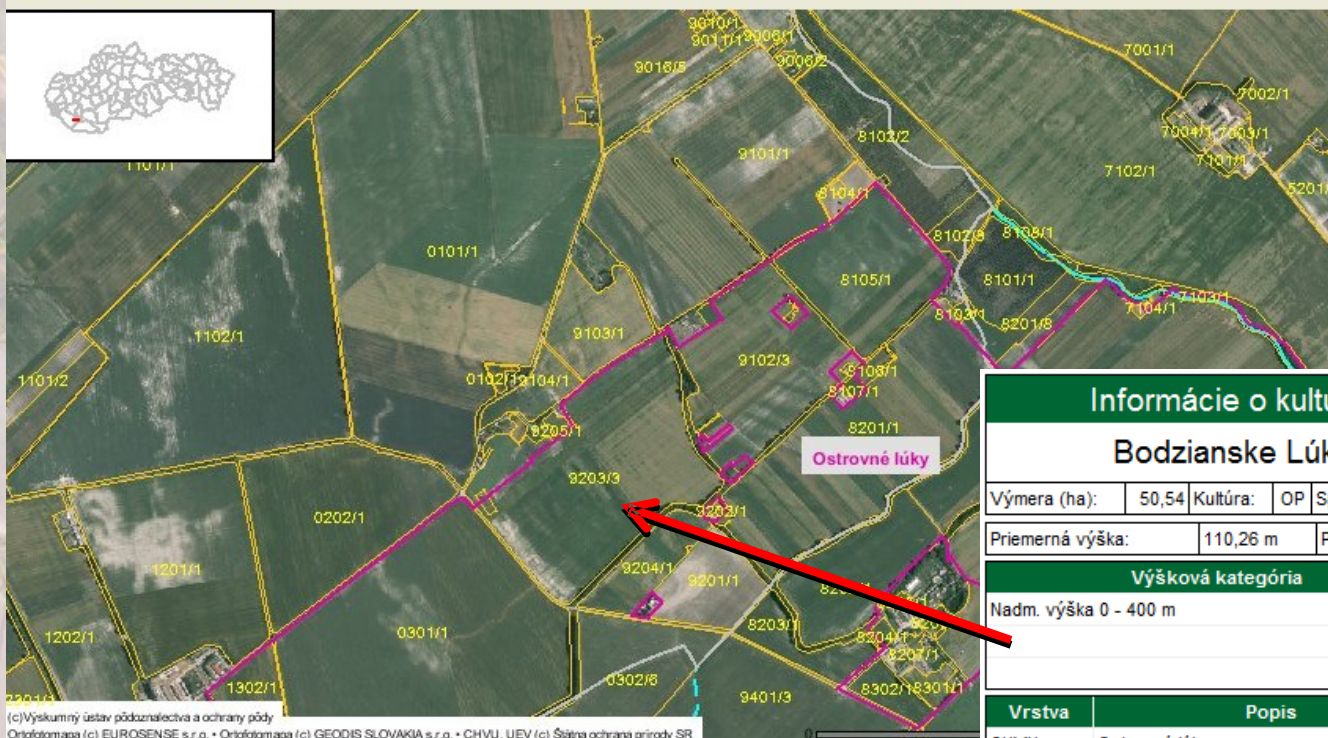
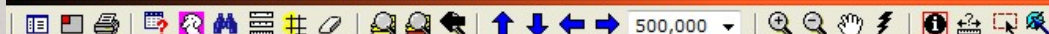




SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Info Servis VUPOP - Register pôdy LPIS



(c) Výskumný ústav pôdozvedectva a ochrany pôdy
Ortofoto mapa (c) EUROSENSE s.r.o. • Ortofoto mapa (c) GEODIS SLOVAKIA s.r.o. • CHVU, UEV (c) Štátna ochrana prírody SR

Kultúrne diely

Rec	Lokalita	ZKODKD	Výmera	KODKD
1	Bodzianske Lúky	9203/3	50,54	519131203/3

Vrstvy

Viditeľne	Aktívne	
<input type="checkbox"/>	<input type="radio"/>	Lokalita
<input type="checkbox"/>	<input type="radio"/>	NDIR
<input type="checkbox"/>	<input type="radio"/>	UEV
<input type="checkbox"/>	<input type="radio"/>	BPEJ 6-9
<input checked="" type="checkbox"/>	<input type="radio"/>	CHVU
<input checked="" type="checkbox"/>	<input type="radio"/>	Okresy
<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	Kultúrne diely
<input checked="" type="checkbox"/>	<input type="radio"/>	Katastre

Informácie o kultúrnom diely

Bodzianske Lúky 9203/3

Výmera (ha):	50,54	Kultúra:	OP	Spôsobilosť:	ÁNO	LFA:	NP
--------------	-------	----------	----	--------------	-----	------	----

Priemerná výška:	110,26 m	Priemerný svah:	0,32°
------------------	----------	-----------------	-------

Výšková kategória	Výmera (ha)
Nadm. výška 0 - 400 m	50,54

Vrstva	Popis	Výmera (ha)
CHVU	Ostrovne lúky	46,57
BPEJ	skupina kvality 6	22,67
NDIR	zraniteľná oblasť (NDIR)	50,54

Rok: 2008

Zatvoriť

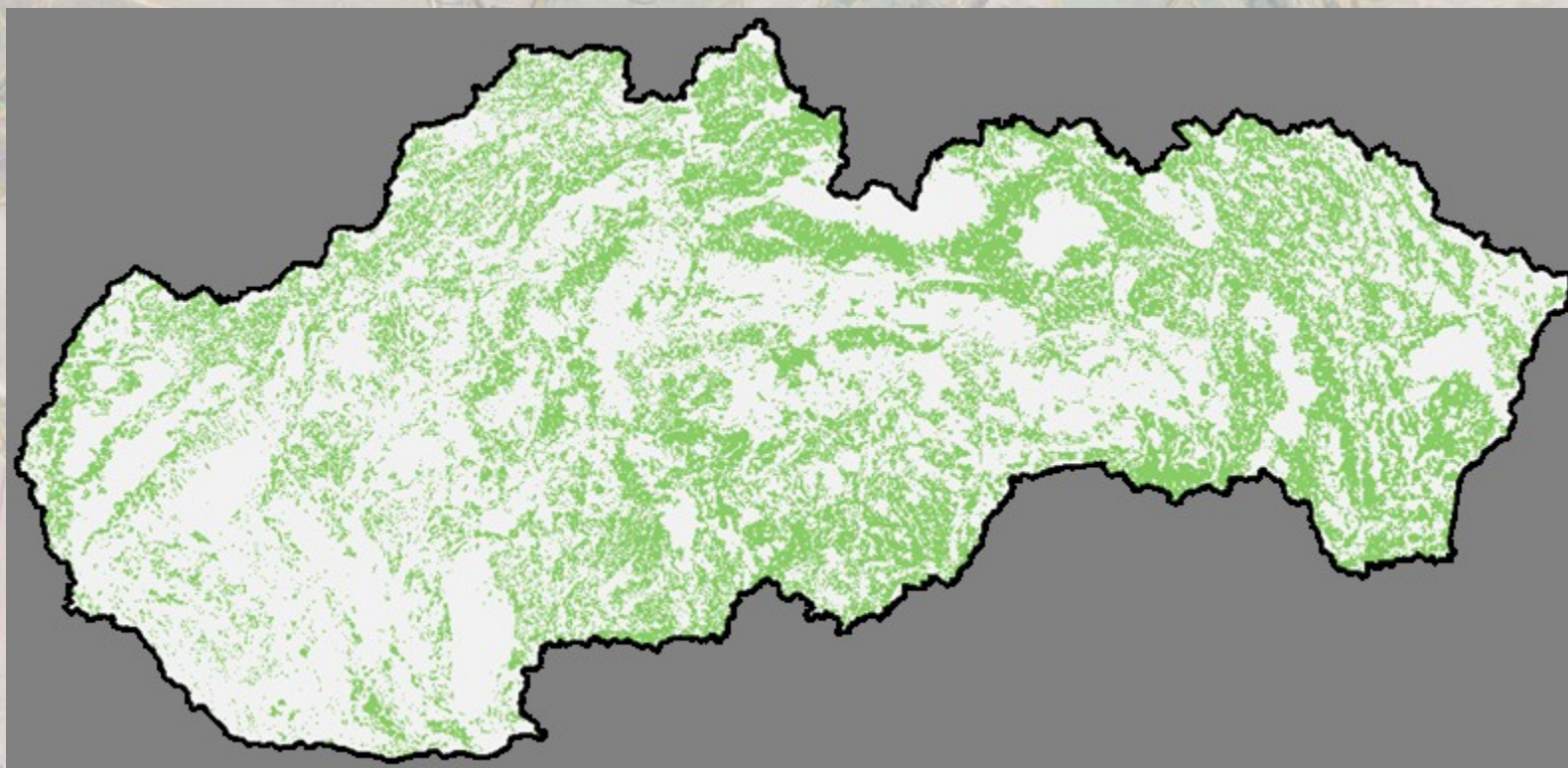
Identifikovať



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

Afforestation not allowed on the agricultural soils with high quality





SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

SMRequirements relevant GIS layers prepared for integration to the LPIS relevant to SMR 2 and 3

- **Ground water resource protective zone**
- **Depth of groundwater table**
- **Surface and groundwater bodies in risk status**
- **Surface and groundwater bodies in bad status**
- **GIS layers of areas where not to be allowed to apply Sewage sludge (according soil, terrain and groundwater conditions)**
- **Sewage sludge – layer of real applications**



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

GAECs relevant GIS layers which could be potentially integrated to the LPIS

- SSCRI administrate the soil information system, for GAECs could be used GIS layers:
- Potential and real erosion of soil- GAECs Soil erosion
- DEM - GAECs Soil erosion
- Soil texture – Soil structure
- Content of organic matter in soil -Soil organic matter
- *Presence of structural elements (have to be created, What is the status in another MS?)*
- Minimum level of maintenance- Retention of landscape features



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

RPD relevant layers expected integration into LPIS

- *Seminatural and natural grasslands*
- *Nest spoils of protected birds*
- LFA, Natura 2000 – protected grasslands, afforestation/soil quality, average slope of land use unit of block were already integrated into LPIS



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic



evifarm

ELEKTRONICKÝ SYSTÉM
NA EVIDENCIU FARMÁROV

VÝSKUMNÝ ÚSTAV PÓDOZNALECTVA A OCHRANY PŮDY

[VÚPOP BRATISLAVA](#)

[ÚVODNÁ STRÁNKA](#)

[ČO JE EVIFARM?](#)

[MANUÁL](#)

[LINKY](#)

[KONTAKT](#)



ČO JE TO evifarm?

EVIFARM slúži na evidenciu Vašich plodín, ktoré pestujete na svojej vlastnej, resp. prenajatej ornej pôde. Pre potreby spätnej kontroly príspevkov, ktoré dostávate z fondov EU je nutné...

[viac](#)

AKO ZAČAŤ?

Ako získate prístup do elektronického systému na evidenciu farmárov? Ak ste ešte od platobnej agentúry neobdržali údaje potrebné na prihlásenie sa do EVIFARM-u, prosím kontaktujte jej pracovníkov.

PRIHLÁSENIE DO SYSTÉMU

Meno:

Heslo:

[Odoslať >>>](#)

[Zabudli ste heslo? / Aktivácia](#)

[ÚVODNÁ STRÁNKA](#) | [ČO JE EVIFARM?](#) | [MANUÁL](#) | [LINKY](#) | [KONTAKT](#)

©2006 VÚPOP Bratislava, powered by ArcGeo, s.r.o.



PPA
PŮDOHOSPODÁRSKA PLATOBNÁ AGENTÚRA
AGENCYA NA PŮDU



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic



evifarm

Prihlásený: svicek@vupu.sk
[Hlavná stránka](#), [odhlásiť](#)



Úvodná stránka oficiála

Aktívna kampaň

2008

Uzavreté Kampane

Správa účtov farmárov

[Spravovať účty](#)

[ÚVODNÁ STRÁNKA](#) | [ČO JE EVIFARM?](#) | [MANUÁL](#) | [LINKY](#) | [KONTAKT](#)

©2006 VÚPOP Bratislava, powered by ArcGeo, s.r.o.



PPA
PODNIKOVÁ PLOTOBNÁ AGENTÚRA
AGRICULTURAL PAYMENT AGENCY



SSCRI

Soil Science and Conservation Research Institute, Bratislava, Slovak Republic



evifarm

Prihlásený: **svicek@vupu.sk**
odhlásiť



Hlavná stránka

Aktívna kampaň

Prezeranie projektov kampane

Farmár ID	Región	Stav
	101 - Bratislava	----
1010000232	101 - Bratislava	Aktívny
1010000562	101 - Bratislava	Neaktívny
1010000222	101 - Bratislava	Neaktívny
1010000115	101 - Bratislava	Aktívny
Celkovo : 4 1 z 1 Záznamov na stránke : 10 Obnov		

Zobraz projekt

Vytvorenie nového projektu farmára

ID Farmára	<input type="text"/>
Vytvor Projekt	

[ÚVODNÁ STRÁNKA](#) | [ČO JE EVIFARM?](#) | [MANUÁL](#) | [LINKY](#) | [KONTAKT](#)

© 2008 VÚP Bratislava, Slovenská republika. Všetky práva vyhradené.


 **PPA**
PODHOŠPODÁRSKA PLATOBNÁ AGENTURA

LPIS Workshop – 17. – 18. 9. 2008 – Sofia




SSCRI

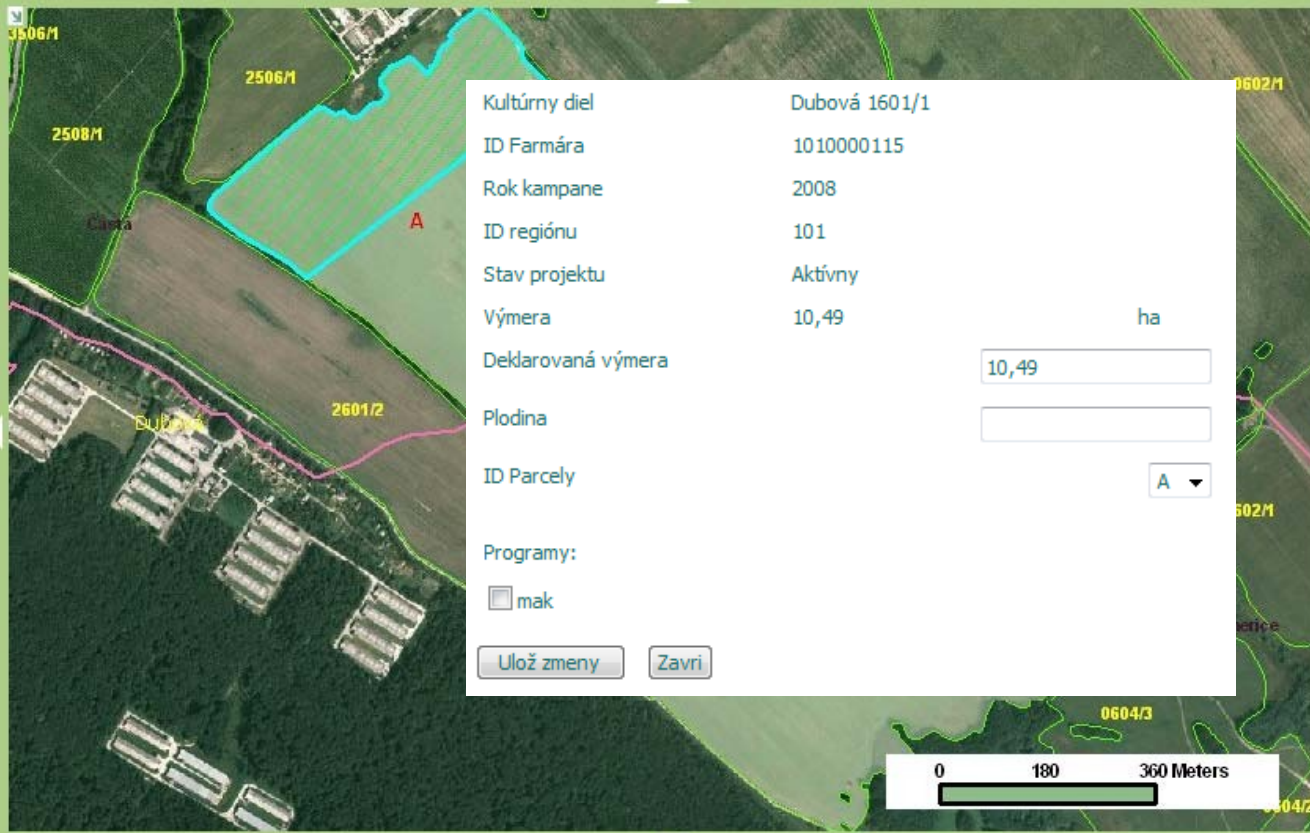
Soil Science and Conservation Research Institute, Bratislava, Slovak Republic

 **evifarm**

Prihlásený: **svicek@vupu.sk**
Odblesť

[Hlavná stránka](#) | [Zoznam projektov](#) |





3506/1
2506/1
2508/1
2601/2
0602/1
0604/3
0604/2

Cesta
Dubina

A

Kultúrny diel	Dubová 1601/1
ID Farmára	1010000115
Rok kampane	2008
ID regiónu	101
Stav projektu	Aktívny
Výmera	10,49 ha
Deklarovaná výmera	<input type="text" value="10,49"/>
Plodina	<input type="text"/>
ID Parcely	<input type="text" value="A"/>
Programy:	
<input type="checkbox"/> mak	

Layers

☐ SDE.PROJEKT_KD

ID Farmara

☐ 1010000115

☒ orto 06

☒ orto 02

0 180 360 Meters