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# Implementation of Nitrate Directive in Slovak Republic

Radoslav Bujnovský

Water Research Institute, Bratislava

[bujnovsky@vuvh.sk](mailto:bujnovsky@vuvh.sk)

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# Introduction

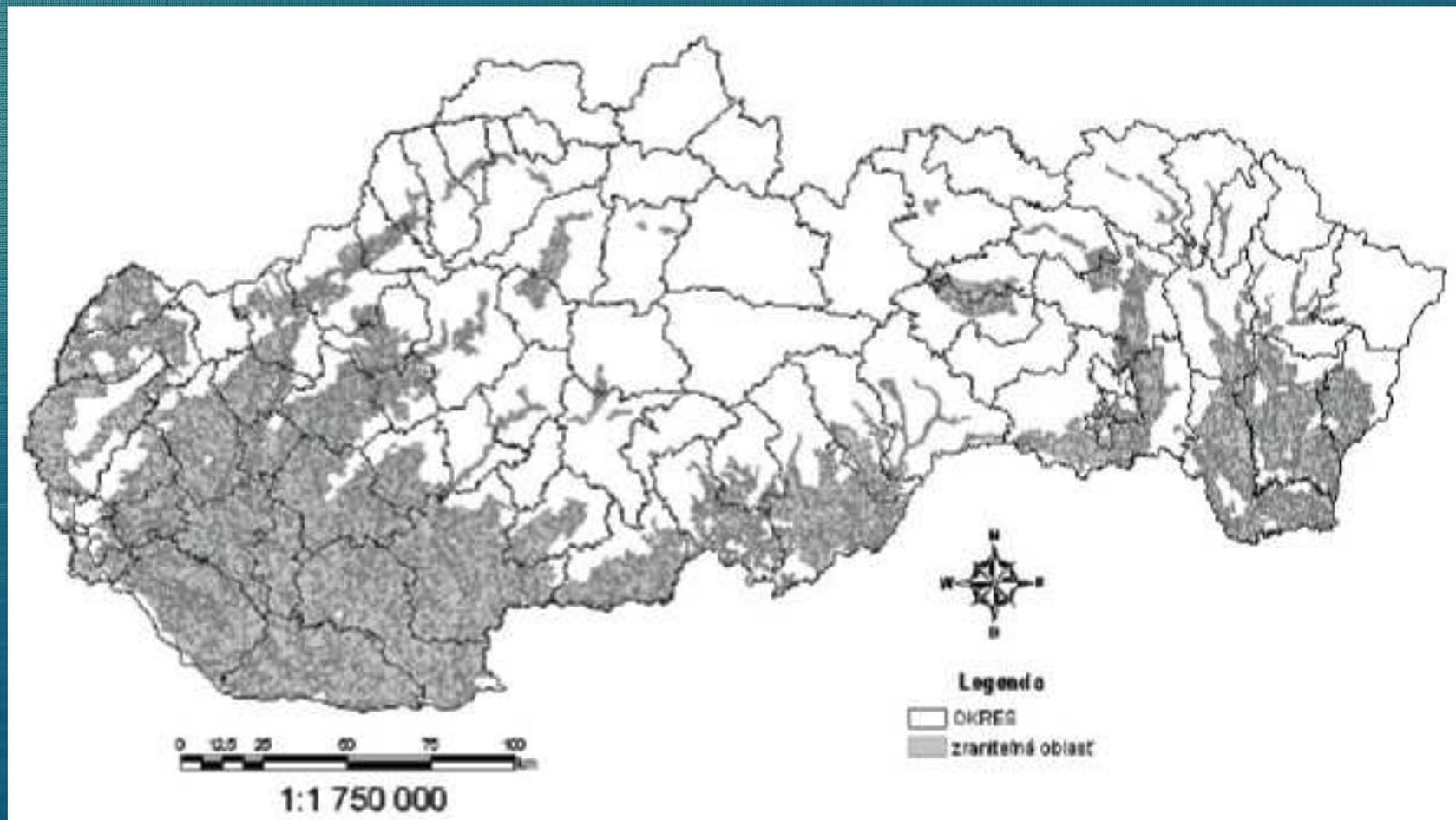
- Nitrate Directive represents very important part of EU water legislation and has direct influence on reaching WFD goals - good status of waters
- Measures of Action programme to Nitrate Directive belong to the basic measures of Programme of Measures RBMP.
- Agriculture in Slovakia occupying almost 50% of territory
- Agriculture is generally considered as a significant source of diffuse water pollution. Nitrate Directive is considered as effective tool to solve this problem.

# Implementation of NiD in Slovakia

- Key objective - is the **prevention** of nitrates pollution together with the **reduction** of existing pollution.
- Implementation of NiD comprises:
  - designation of **vulnerable zones** (NVZs)
  - elaboration the **codes of good agricultural practices**
  - elaboration of **action programmes (AP)** mandatory for NVZ
  - **water monitoring** as the direct support at NVZs (re)designation and AP changes.
  - **revision** of NVZ and AP at least every 4 years if necessary
- AP Nitrates Directive No. 91/676/EEC is specified in Decree of MoA No. 199/2008 Coll. in wording of Decree No. 462/2011 Coll.
- NVZ are defined by GR No. 617/2004 Coll.

# Designation of vulnerable zones 1

- At present, NVZs represent 62% of total agricultural land



## Designation of vulnerable zones 2

Agricultural land within NVZs is divided into 3 categories according risk to waters :

- low risk (A),
- medium risk (B) and
- high risk (C)

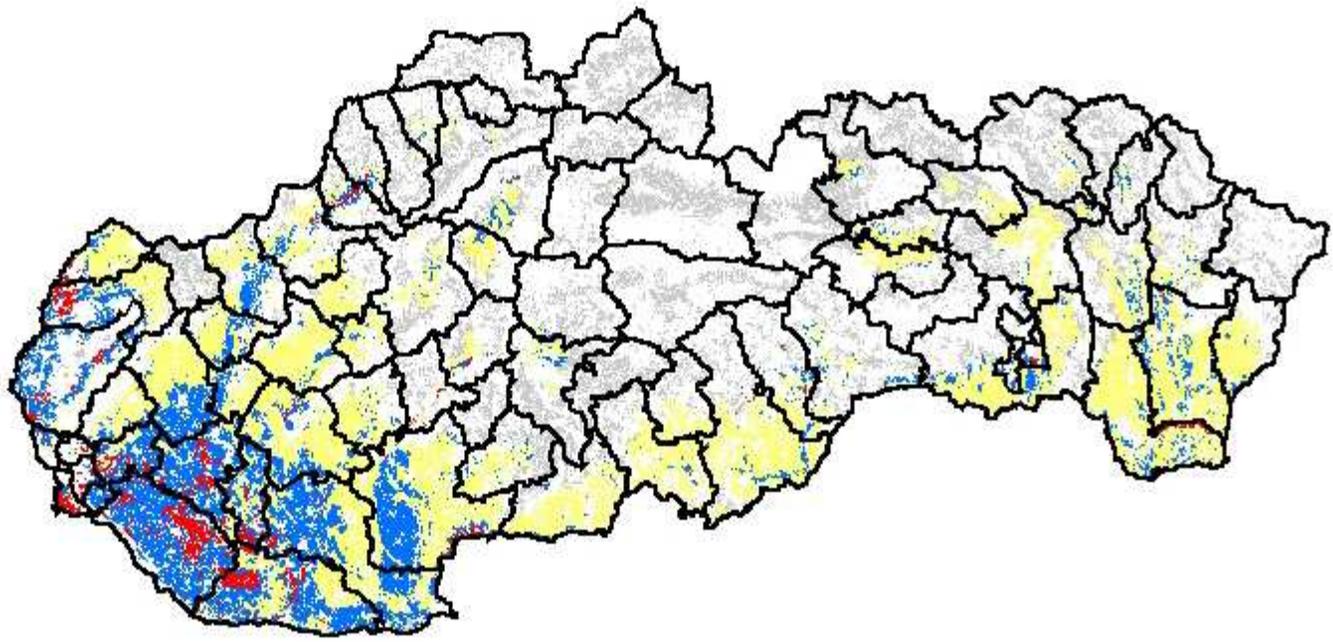
All categories are defined within on-line available LPIS GIS-information system – they serve for specification of land use and fertilisation requirements

- Úvod
- Novinky
- 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 vápnenia
- Agroenvironmentálne kompenzácie
- Produkcia suchej hmoty biomasy
- Poradenský systém pre farmárov**  
(Farm Advisory System – FAS)
- Legislatíva ▶
- SAEC-y
- Otázky
- aplikácie pre PPA**
- OTREBNÉ HESLO!!!**
- Register pôdy - LPIS
- Zaťaženie poľných pôd

# NITRÁTOVÁ DIREKTÍVA

Zobrazovanie a vyhľadávanie informácií zaradenia poľnohospodárskej pôdy do kategórií obmedzení podľa Smernice 91/676/EC na konkrétnom produkčnom bloku registra pôdy LPIS nájdete na adrese

## MAPOVÁ SLUŽBA – Nitrátová Direktíva



■ kategória A   ■ kategória B   ■ kategória C   ■ nezaradené

## Action programme – general requirements

- AP represents the set of measures oriented to:
  - animal manure storage
  - application of animal manure and fertilizers
    - prohibition of application on manures in winter time,
    - application with regard to weather and soil conditions and distance from rivers
  - agrotechnical measures and mode of land use
  - other measures and requirements
- Last amendment of Slovak AP - 2011

# European Commission view to our AP 1

- Measures of existing AP do not sufficiently address the „requirement of NiD“ with regard to prevention of water pollution by nitrates and reduction of existing one – **and more stringent measures should be implemented**
- To the most important EC requirements belong:
  1. extending the closed period for application of liquid organic manures and mineral ones (*at present from November 15th to February 15th with the possibility to apply N fertilizers since February 1st at favourable weather and soil conditions (A,B)*)

## European Commission attitude to our AP 2

2. to establish 6 months storage capacities for animal manures, especially for pig and poultry slurry, as a minimum  
*(at present 4 to 5 months for liquid manures)*

*Comment : in spite RDP support this measure – for many farmers 50% co-financing is too high*

3. to shorten the maximum period of farmyard manure (FYM) storage on land *(at present 9 months)* and export FYM on the field after previous temporary (3 months) storing on non-permeable ground

## Main characteristics of agriculture in Slovakia

Decreasing pressure on water quality – what also mean negative economy consequences for agricultural sector...

- example - drop in animal production – see table

	1993		2000	2004	2011
<u>Cattle</u>	993 000	100	65	54	47
<u>Sheep &amp; goats</u>	436 400	100	92	82	98
<u>Pigs</u>	2 179 000	100	68	53	27
<u>Poultry</u>	12 234 200	100	111	112	93

- Average application of animal manure and fertilizer nitrogen is low – 19.9 kg N/ha (7.4 - 43.8 district level) and 36.0 kg N/ha, respectively (figures of y.2010)
- OECD Nitrogen balance is long-term under 50 kg N/ha

## Concluding remarks 1

- Preservation of water resources against pollution by nitrates is fully acceptable demand to the agricultural sector
- **Setting the measures to reach NiD and WFD goals should be based on general principles with regard to regional / local conditions – view of agricultural experts**
- At the evaluation of the efficiency of AP measures there is necessary to take into account also the time of groundwater recharge. Thus any positive effect from the side of farmers may last from several to 10 and more years, that exceeds one reporting period
- Despite of unsatisfactorily NiD AP measures (from view of EC), the area of NVZs on the base of water monitoring results is expected to be decreased in future

## Concluding remarks 2

- Generally, it is very difficult to convince the farmers to accept more stringent measures (as recently are) when intensity of animal breeding and also fertilizing has rather extensive – pro-environmental character that confirm official documents (FAO, OECD)
- From advisors the farmers can often hear : *„Reducing nitrogen losses into environment (including water) is a long-term contribution of farmers to environment. The farmers are not only producers of plant and animal commodities, but also the agricultural landscape managers“*. *And therefore they are very important for the society* .

**But only economically vital farmer can be environmentally proactive and usable...**



**Thank you for your attention**