

IMPLEMENTATION OF THE 91/676/EEC NITRATES DIRECTIVE

MINISTRY of ENVIRONMENT and
FORESTS

DANIELA CATANĂ – senior adviser



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Legal framework (1)

The Nitrates Directive 91/676/EEC concerning the protection of waters against pollution with nitrates from agriculture sources was fully adopted through the following national legal acts:

Transposition

- **Government Decision nr. 964/2000** for the approval of the Action Plan for the water protection against pollution with nitrates from agriculture sources and for starting up the Commission and Support Group for the implementation of the Action Plan for the protection of water against pollution with nitrates from agriculture sources;



Legal Framework (2)

- Joint Ministerial Order no.1552/743/2008 for the approval of the list containing the localities by counties where there are sources of nitrates from agricultural activities
- The second designation covers about 59,5% of the agricultural area of the country and takes into account:
 - nitrates concentrations in surface water and groundwater in NVZs and potential NVZs
 - existence of water bodies eutrophication

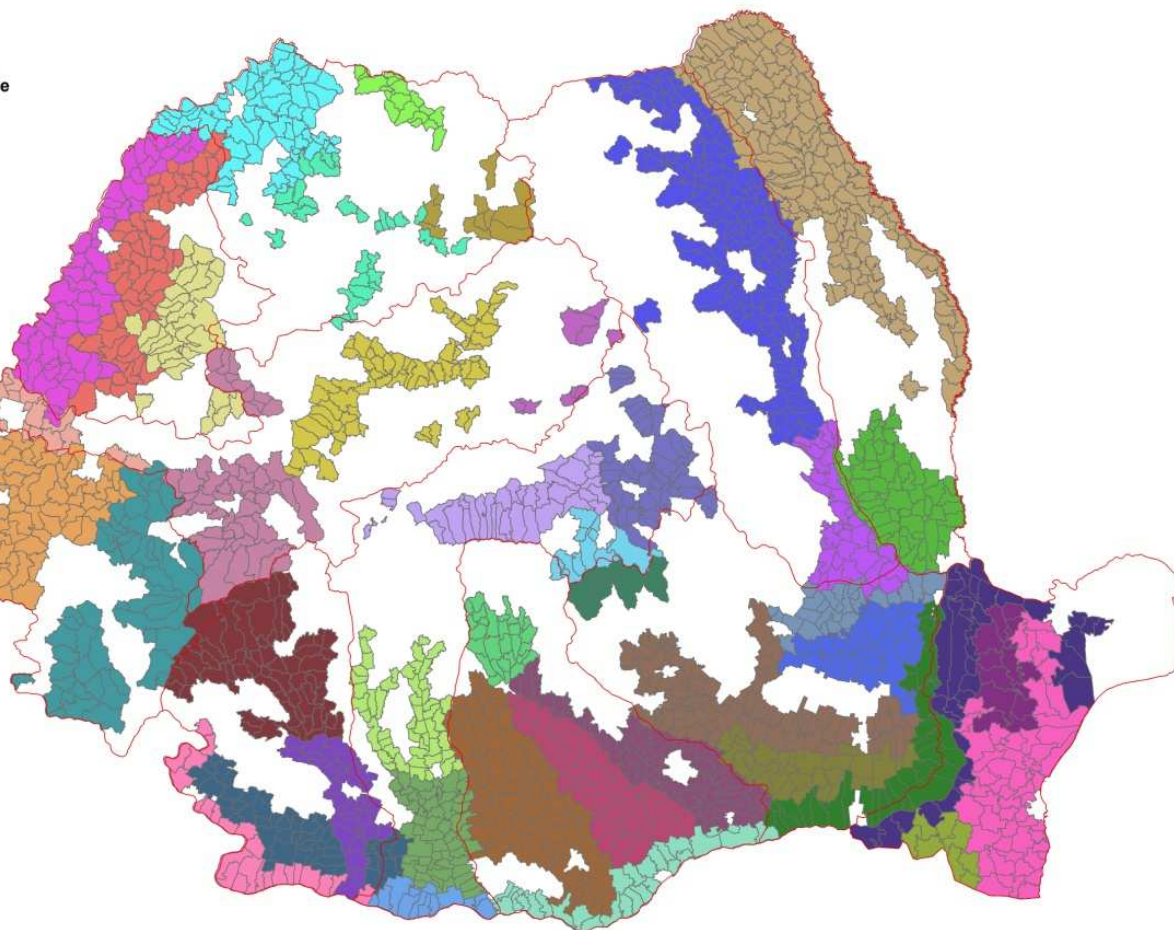
Actual NVZs

Denumirea zonelor vulnerabile la nitrati

Legenda

Denumirea zonelor vulnerabile

- Arges Inferior
- Arges Superior
- Bega
- Brasov
- Calmatui
- Campia de Vest - Crisuri
- Dealurile de Vest - Crisuri
- Desnului - Jiet
- Dobrogea Sud
- Fagaras
- Ialomita Inferioara
- Ialomita Superioara
- Iza
- Izvoarele raurilor Crisuri
- Jiu Inferior
- Jiu Superior
- Lunca Dunarii 1
- Lunca Dunarii 2
- Lunca Dunarii 3
- Lunca Dunarii 4
- Lunca Dunarii 5
- Macin
- Mostistea
- Mures Inferior
- Muresul Superior
- Neajlov
- Nera - Timis Superior
- Olt Inferior
- Olt Superior
- Oltet
- Podisul Dobrogei
- Podisul Transilvaniei
- Podisul Transilvaniei 2
- Prut Inferior
- Prut Superior
- Siret Inferior 1
- Siret Inferior 2
- Siret Superior
- Somes Inferior
- Somes Superior
- Strei - Aries
- Vedea
- Administratii bazinale de apa



0 25 50 100 150 200 km



Legal Framework (3)

- Joint Ministerial Order nr.1182/1271//2005 for the approval of the new Code for Good Agriculture Practices;
- Ministerial Order nr.1072/2003 regarding the monitoring system of the surface water and groundwater from the agricultural sources;
- Joint Ministerial Order nr.242/197/2005 regarding the monitoring system of the soil from the vulnerable and potential vulnerable zones and the system management of organic residues from agriculture
- Ministerial Order 1387/2006 on approval of the procedure for public participation in the development, amendment or revision of Actions Programs for vulnerable zones.



Legal framework (4)

The second **Action Programs** for NVZs were adopted by the Interministerial Commission on 2010.

The Action Programs:

- were subjects to public consultation;
- were posted on the MEF and the NIRPA sites;
- were discussed and approved by the Basin Committees created at basin river level for consultation purposes.



Action Programs (1)

Agriculture and Rural Development Directorates distributed the documents to local authorities of each locality from **the area declared vulnerable zone.**

Agriculture and Rural Development Directorates, National Guard of Environment and Waters Directorates of the National Administration “Romanian Waters” are **monitoring** the implementation of action programs for vulnerable areas and **report** to the Ministry of Agriculture and Rural Development and to the Ministry of Environment and Forests about the progress of the action programs development and implementation.



Action Programs (2)

Examples of measures:

- interdiction periods for applying manure based on the interval between earliest freezing of the soil (autumn) / latest freezing (spring)
- evaluation of minimum storage volumes based on animal type, grazing conditions and interdiction period for applying manure
- application of the Code of Good Agriculture Practices
- nutrient management plans for small house holdings



Action Programs (3)

- evaluation of the land for manure spreading from animal complexes
- evaluation of grass strips area along/around the surface waters
- maximum Nitrogen amount applied with livestock manure: 170 kg / ha /year
- vegetations cover in winter periods



Competent authorities

According to the Implementation Plan the authorities involved in the Nitrates Directive implementation are:

- **Ministry of Environment and Forests** - responsible for the Implementation of the Directive
- co-operating Ministries and authorities:
 - Ministry of Agriculture and Rural Development**
 - Ministry of Health and county authorities**
 - Ministry of Administration and Internal Affairs**



Stakeholders and their responsibilities

- **National Institute for Research and Development of Pedology, Agro-chemistry and Environmental Protection (NIRPA)**
- Focal point centre, monitors the quality of farmland
- Identifies vulnerable zones
- Revises vulnerable zones
- Participates in developing and coordinating the implementation of action programs in the vulnerable zones



Stakeholders and their responsibilities

National Administration "Romanian Waters "(NARW) and the National Institute of Hydrology and Water Management, subordinated to the NARW

- monitor the surface water and groundwater quality (nitrate level)
- monitor the eutrophication of fresh waters and coastal waters
- identify and elaborate the cadastre of waters affect by nitrates pollution
- participate in developing and coordinating the implementation of Action Programs in the vulnerable zones
- supervise the implementation of actions programs and proposed measures



Stakeholders and their responsibilities

Institute for Public Health (IPH)

- Monitoring of nitrates in drinking water

Local Public Administrations at county and commune level

- Develop and administrate communal manure storage platforms
- Implement rules for management, handling and application of manure
- Participate in implementation the Action Programs



Stakeholders and their responsibilities

Agriculture and Rural Development County Directorates

- Participation in implementing Action Programs
- Participation in developing and coordinating the implementation of action programs for vulnerable zones
- Supervising the implementation of proposed action programs and measures.

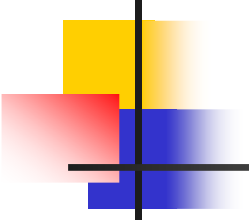


Stakeholders and their responsibilities

National Environmental Guard (NEG) and county Commissariats

- Inspection and control of the specific environmental enforcement

Implementation current Status (reporting)

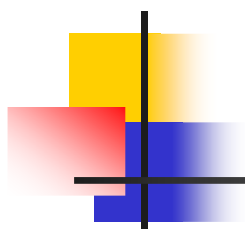


Article 10 of the Nitrates Directive requires that Member States shall submit a report to the Commission every four years. The first Romanian report was based on the information for the period 2004-2007 followed by the current report, 2008-2011, which contains information regarding:

- surface waters and groundwater monitoring sections, including geographic information
- assessment of monitoring data
- maps to illustrate the results

Based on available data – quality aspects of water resources.

Groundwaters quality monitoring has been assessed in 1809 monitoring points taking into account the different types of groundwater.



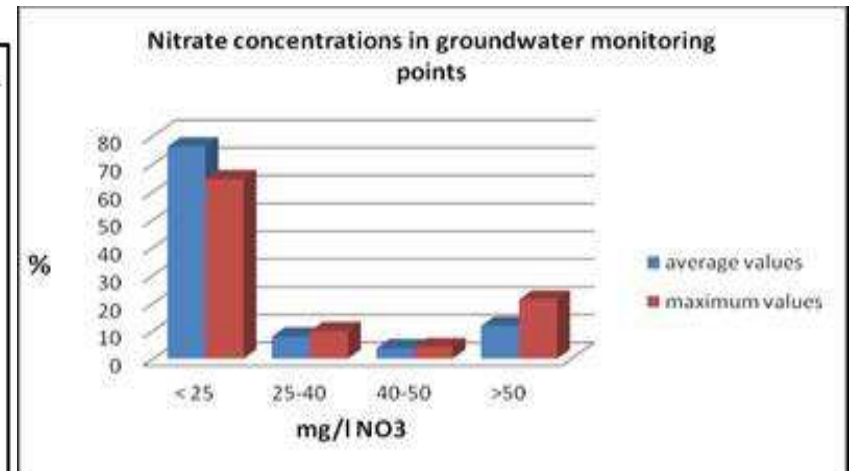
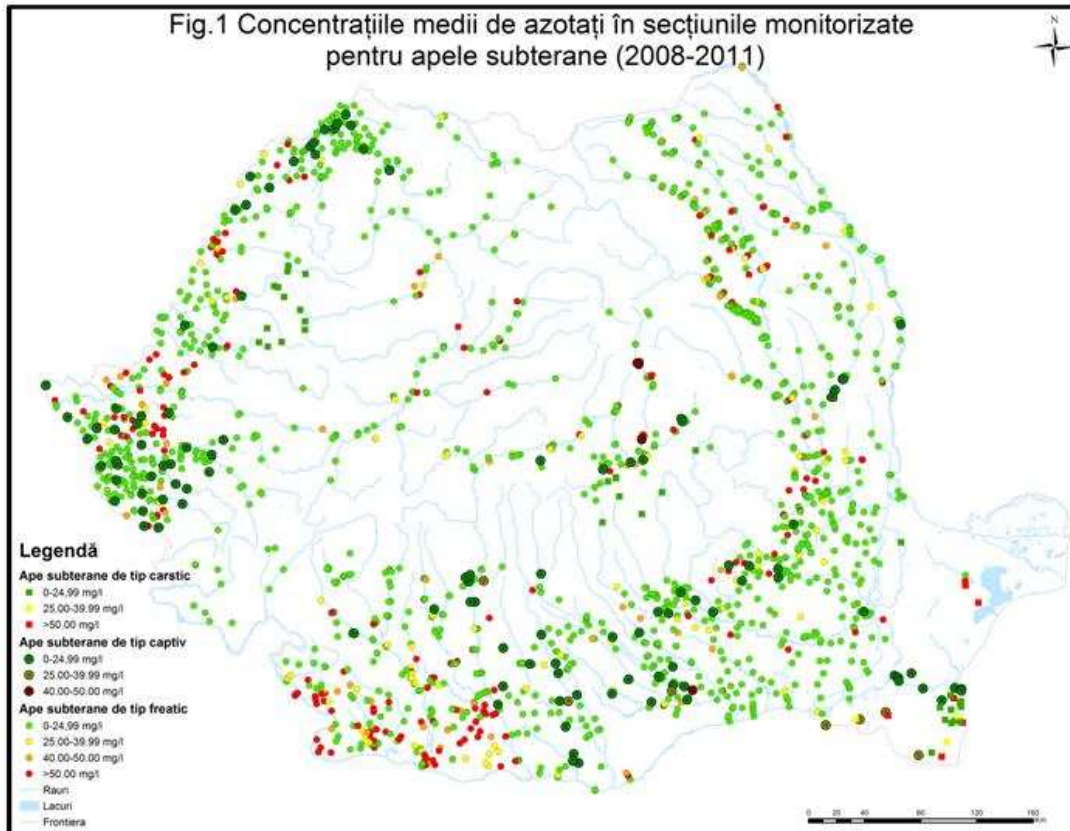
Groundwater types	Monitoring points
Phreatic groundwater (0-5m)	242
Phreatic groundwater (5-15m)	852
Phreatic groundwater (15-30m)	396
Phreatic groundwater > 30m	151
Captive groundwater	125
Karstic groundwater	43

Surface waters quality monitoring has been assessed in 1186 monitoring sections:

Water body categories	Monitoring sections
Rivers	776
Lakes	356
Transitional waters	7
Coastal waters	35
Marine waters	12

For groundwaters and surface waters, the monitored quality elements/parameters and monitoring frequencies have been established in accordance with the WFD requirements.

The nitrates concentrations in groundwater have been assessed taking into account both *average* and *maximum* concentrations registered in the period 2008 + 2011 in all 1809 monitoring sections at the national level.

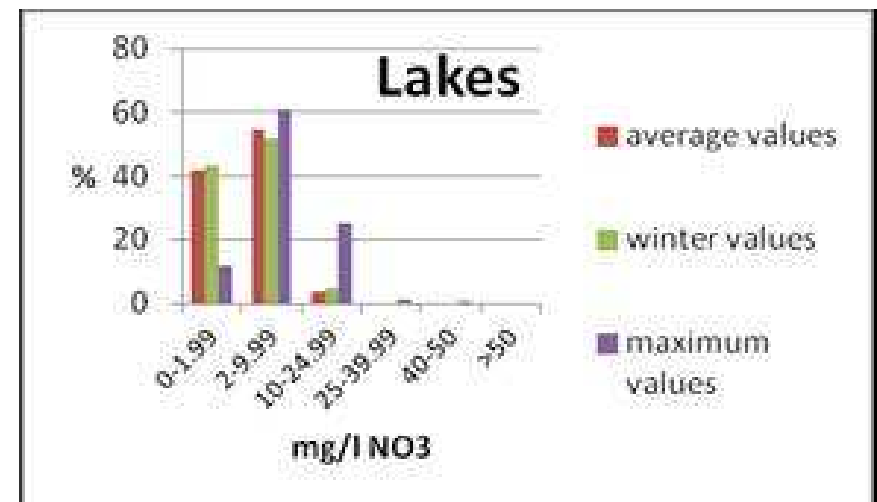
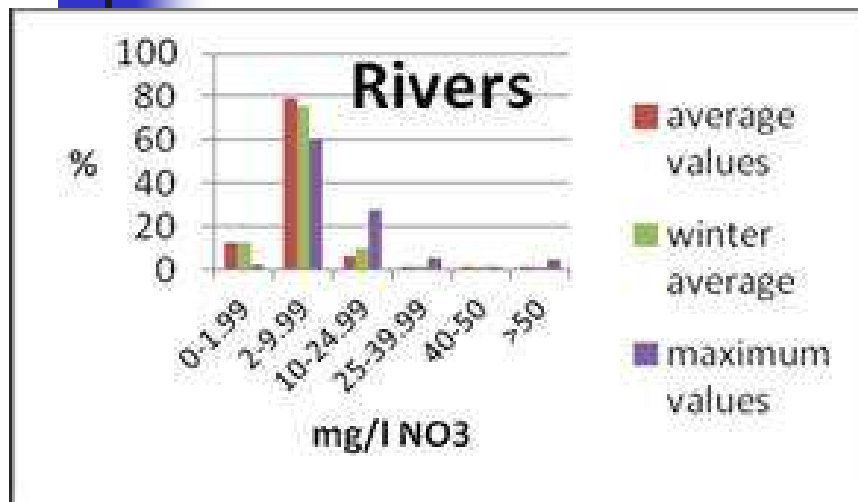


At the national level:

- 76.62% from these points the nitrate values under 25 mg/l were recorded;
- 8.13% between 25 and 39.99 mg/l;
- 3.75% between 40 and 50 mg/l;
- 11.50% over 50 mg/l.

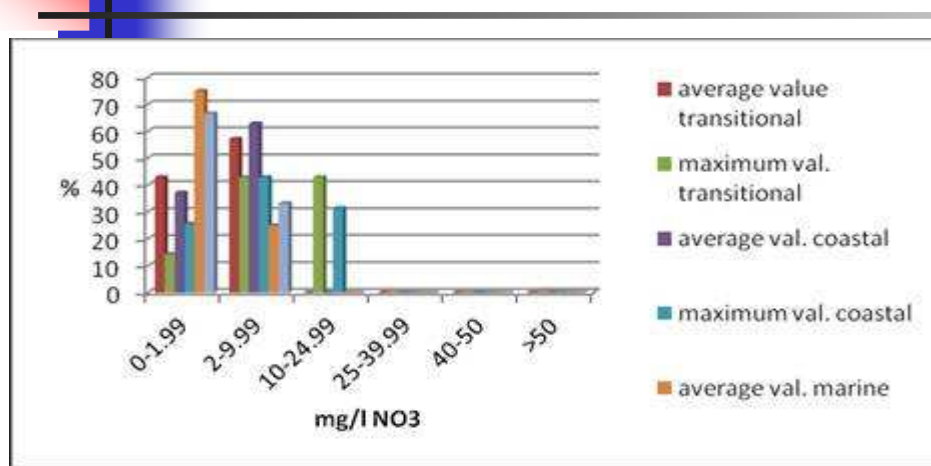
High concentration of nitrates are recorded in the plains area (Câmpia Romana, Southern Oltenia, Campia de Vest) and less in the hilly area (Moldavian Plateau and Depresiunea Colinara a Transilvaniei- Transilvanian Plateau).

Assessment of nitrates concentrations in surface waters was done taking into account average concentration, winter average (October to March) and the maximum concentration registered in the analyzed period (2008-2011) in all monitoring sections (1186 monitoring points) at the national level.



- the performed analysis based on average values established that in 99.23 % of rivers monitoring sections the values are below 50 mg/l nitrates and for lakes in all monitoring sections the nitrates concentrations values are below limit value.
- the decreasing and stable trends exceed 75 % of the rivers monitoring stations and 80 % for lakes sections, from the average values point of view and regarding 998 common monitoring stations.

An analysis of the 54 monitoring stations for transitional, coastal and marine water bodies was performed based on nitrates concentrations having in view average, winter average (October to March) and the maximum concentration registered in the analyzed period.



	0- 1.99 mg/l	2- 9.99 mg/l	10-24.99 mg/l
Transitional waters– average	42.86%	57.14%	0.00%
Transitional waters– winter average	0.00%	100%	0.00%
Transitional waters– maximum values	14.28%	42.86%	42.86%
Coastal waters– average	37.14%	62.86%	0.00%
Coastal waters– winter average	48.39%	51.61%	0.00%
Coastal waters– maximum values	25.71%	42.86%	31.43%
Marine waters– average	75.00%	25.00%	0.00%
Marine waters– winter average	50.0%	50.0%	0.00%
Marine waters– maximum values	66.67%	33.33%	0.00%

- nitrate average and winter average values are found in the range of 0 – 9.99 mg/l;
- maximum values registered in transitional and coastal stations exceed the value of 10 mg/l but not more than 25 mg/l.



Implementation future activities

In the coming months will be approved:

- A new designation of the nitrates vulnerable zones
- A new Cod of Good Agriculture Practices
- A new Action Program for the new vulnerable zones

Final discussion will take place during the Inter ministerial Commission meeting- at the end of the year.



Implementation future activities

Problems to be solved:

- a programme including the provisions for training and information of farmers in order to promote the CGAP
- looking for financial instruments for the implementation of the Action Programme measures for each locality designated NVZ



Conclusions

- Nitrates Directive is an instrument to protect water from pollution from agricultural sources.
- Nitrates Directive implementation is essential to reach the WFD objectives.
- The increasing of involvement of all actors in implementation process of Nitrates Directive is necessary



Thank you for your kind attention!

