Implementation of Nitrates Directive in Romania

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Almost 1/3 of the Danube River Basin surface

More than 1/3 of the Danube River length (1,075 km)

99% of the Romanian territory is in the Danube Water Basin

Black Sea coast: 244 km
Polarised agricultural system

ROMANIA - small farming and large intensive farms

- Agricultural land: 14.6 mil. ha
- Over 3 million farms (1/3 of the total EU-28 farms)
- Around 58% of the farms are under 2 ha (12% of the agricultural land)
- 5% of the farms are over 100 ha (covering almost 50% of the agricultural land)
Nitrates Policy timeline references

- 2000 – Action Plan for Nutrient Pollution Control approved by Government Decision
- 2005 – Approval of the 1st version of the Code for Good Agricultural Practices and Designation of the Nitrates Vulnerable Zones and
- 2007 – Accession to EU
- 2015 – Nitrates Directive is linked to all subsidies for agriculture
- 2019 – Review and revise of the Code – air emissions considered
From legislation to implementation

4 key inter-linked intervention areas:

1) Research
2) Policy making
3) Institutional implementation capacity
4) Knowledge transfer
Our mixed actions overview

1. **Research**: around 10 reasearch and universities involved

2. **Policy making**: active participation within EU Nitrates Committee, and national transposition of the Nitrates Directive into Action Programme and the Code of Good Agricultural Practices

3. **Institutional implementation capacity**: consolidation of the implementation agencies (equipment + training) + fully equipped comunal manure platforms

4. **Knowledge transfer and behavioural changes**: awareness campaigns + knowledge transfer networks
Research aims at:

Use of fertilizers under various:

- climatic conditions ➔ interdiction periods
- soil conditions, soil type and slope ➔ agricultural practices
- land use ➔ agricultural practices

Recent interest for reducing nitrogen air emissions!
Policy

• Nitrates Committee under DG Env
• National Inter-ministerial Nitrates Committee
• Revision of the national legislation (Government Decision, Code of Good Agricultural Practices, Action Programme)
Institutional implementation capacity

... investments in manure storages at commune level

Why?

Farming structure is not allowing too many options!
Farming structure (no. of farms vs farming area)

90% farms are under 5ha and manage 30% of the total agricultural land.
Small farming challenges

- Difficulties in building individual platforms due to:
  - Scattered farms, mozaik pattern of villages and plots
  - Limited available space for building individual manure storages

- Need of further awerness, knowledge transfer
- Decreasing trend of the number of animals in extensive management – already very limited livestock density at national level (0.4 LSU/ha)
- Aged population and depopulation or rural areas
EU and National interventions

• Subsidies – linked to Nitrates Directive provisions under cross-compliance, NO subsidies for inputs in agriculture
• Agri-environment payments – promoting sustainable management of grasslands (maintainance of grasslands areas, maximum limits of fertilisers and livestock grazing density)
• Investments – compliancy of manure storages
• Communal manure platforms (village approach)
Equipment for manure management

80 frontal loaders
172 trailers
86 tractors
80 vacuum tankers
80 manure spreaders
Biogas
Community level solution for manure management

<table>
<thead>
<tr>
<th>Functional Guarantee</th>
<th>Minimum (or Maximum, as appropriate) Requirement</th>
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<tbody>
<tr>
<td>1. Electrical Power (hourly production)</td>
<td>Minimal 370 kW</td>
</tr>
<tr>
<td>2. Thermal Power (hourly production)</td>
<td>Minimal 424 kW</td>
</tr>
<tr>
<td>3. Concentration of H₂S from biogas</td>
<td>Minimal 200 ppm</td>
</tr>
<tr>
<td>4. Dried solid digester from dryer</td>
<td>Minimal 88% dry material</td>
</tr>
<tr>
<td>5. Energy Crops Consumption</td>
<td>Maximum 5.5 tons/day</td>
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</table>
Investments in Waters’ monitoring

Laboratory and sampling equipment

Piezometers

Voina International Training Center
Thank You!

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