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# Implementation of Nitrates Directive in Romania

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# ROMANIA - geographic relevance

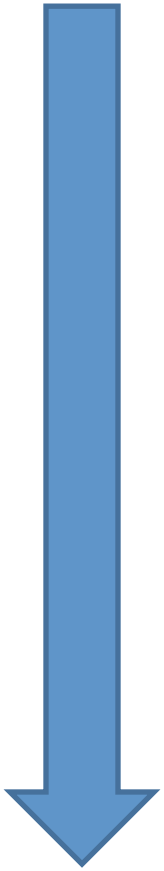
- Almost 1/3 of the Danube River Basin surface
- More than 1/3 of the Danube River length (1,075 km)
- 99% of the Romanian territory is in the Danube Water Basin
- Black Sea coast: 244 km

# 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 aproved 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
- 2007 – 2014, 2014 – 2020 – EU funds for farms modernisation and subsidies
- 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 equiped comunal manure platforms
4. **Knowledge transfer and behavioural changes:** awareness campaignes + 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)

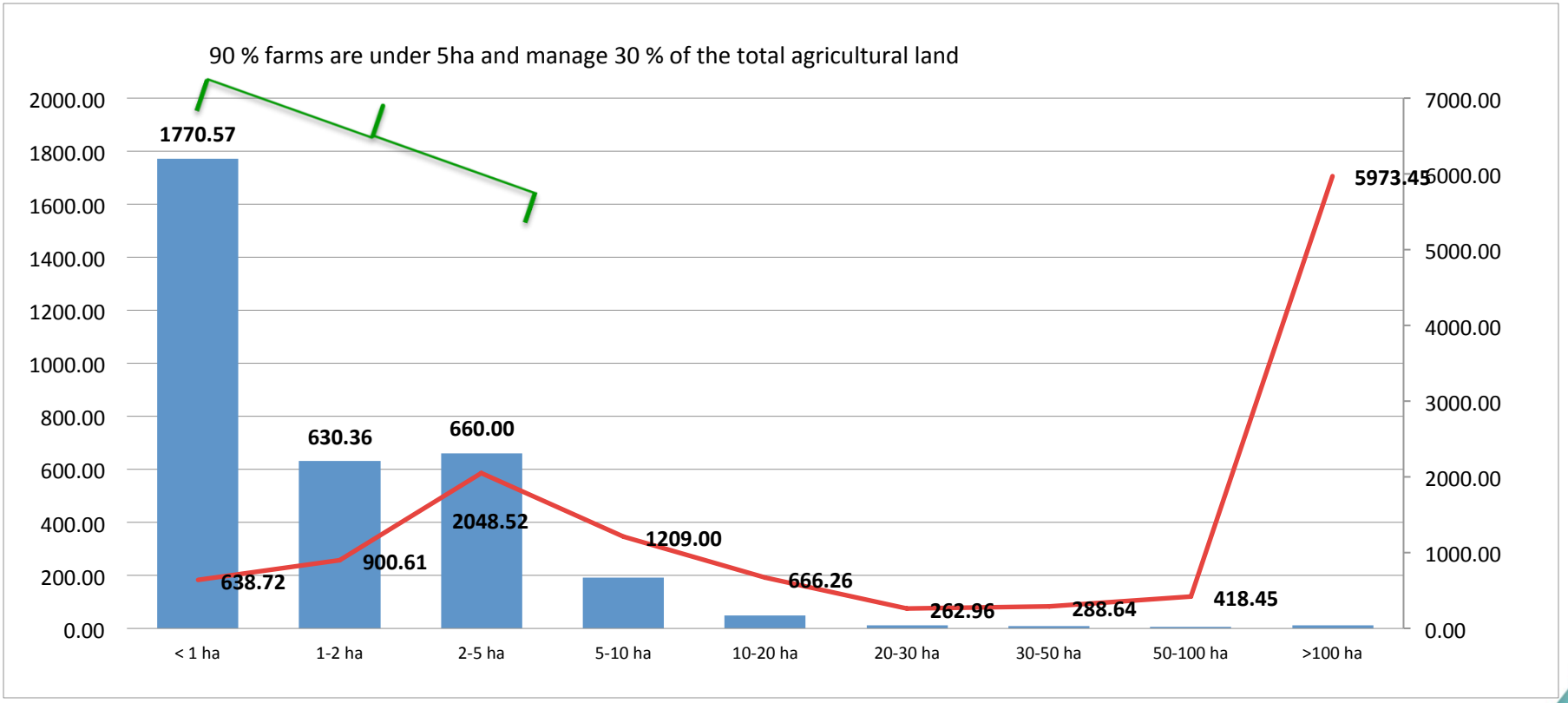
# Institutional implementation capacity

... investments in **manure storages**
**at commune level**

**Why?**

**Farming structure is not allowing too many options!**

# Farming structure (no. of farms vs farming area)



# Small farming challenges

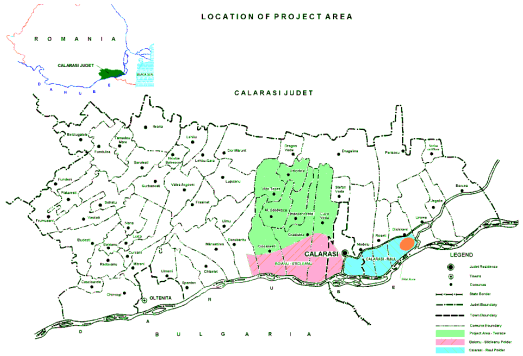
- Difficulties in building individual platforms due to:
  - Scattered farms, mozaik pattern of villages and plots
  - Limited available space for building individual manure storages

- 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

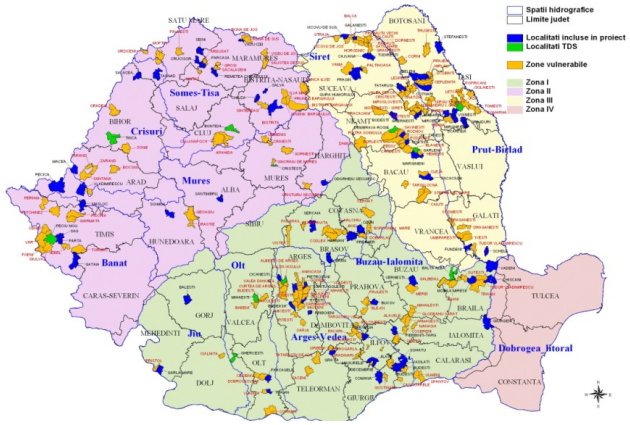
# EU and National interventions

- 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 grasslans areas, maximum limits of fertilisers and livestock grazing density)
- Investments – compliancy of manure storages
- **Communal manure platforms (village approach)**

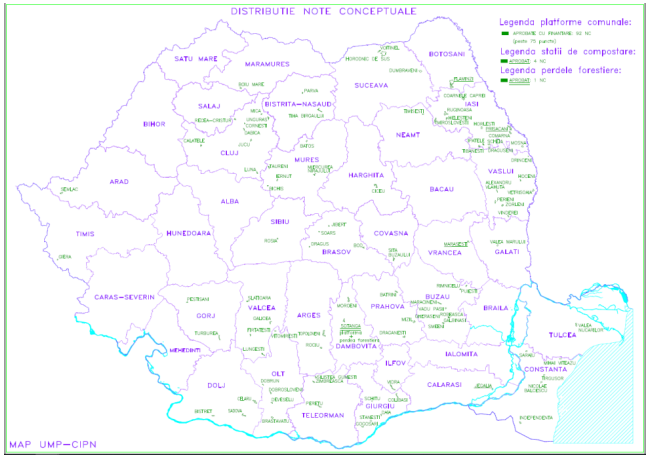
Nutrient Pollution Control in Romania **2002 - 2007**




Nutrient Pollution Control in Romania **2008 - 2017**




Nutrient Pollution in Romania **2017 – 2022**




**Country-wide Project,**
**As Romania applies all territory approach of the Action Programme from 2013, having in view prevention principle**

# Equipment for manure management


172 trailers

80 frontal loaders


80 vacuum tankers

86 tractors


80 manure spreaders

# Biogas

## Community level solution for manure management

| Functional Guarantee | Minimum (or Maximum, as appropriate) Requirement |
|---|---|
| 1. Electrical Power (hourly production) | Minimal 370 kW |
| 2. Thermal Power (hourly production) | Minimal 424 KW |
| 3. Concentration of H2S from biogas | Maximal 200 ppm |
| 4. Dried solid digestate from dryer | Minimal 88% dry material |
| 5. Energy Crops Consumption | Maximum 5,5 tons/day |

Laboratory and sampling equipment

## Investments in Waters' monitoring

Piezometers

Voina International Training Center

MINISTERUL APELOR ȘI PĂDURILOR

**Thank You!**

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