



Court of Audit



Sustainable nitrogen management in agriculture

- 1. Introduction**
- 2. Audit objectives**
- 3. Methodology**
- 4. Measures**
- 5. Audit findings**
- 6. Conclusion**



1. Introduction

Date of publication : 2011

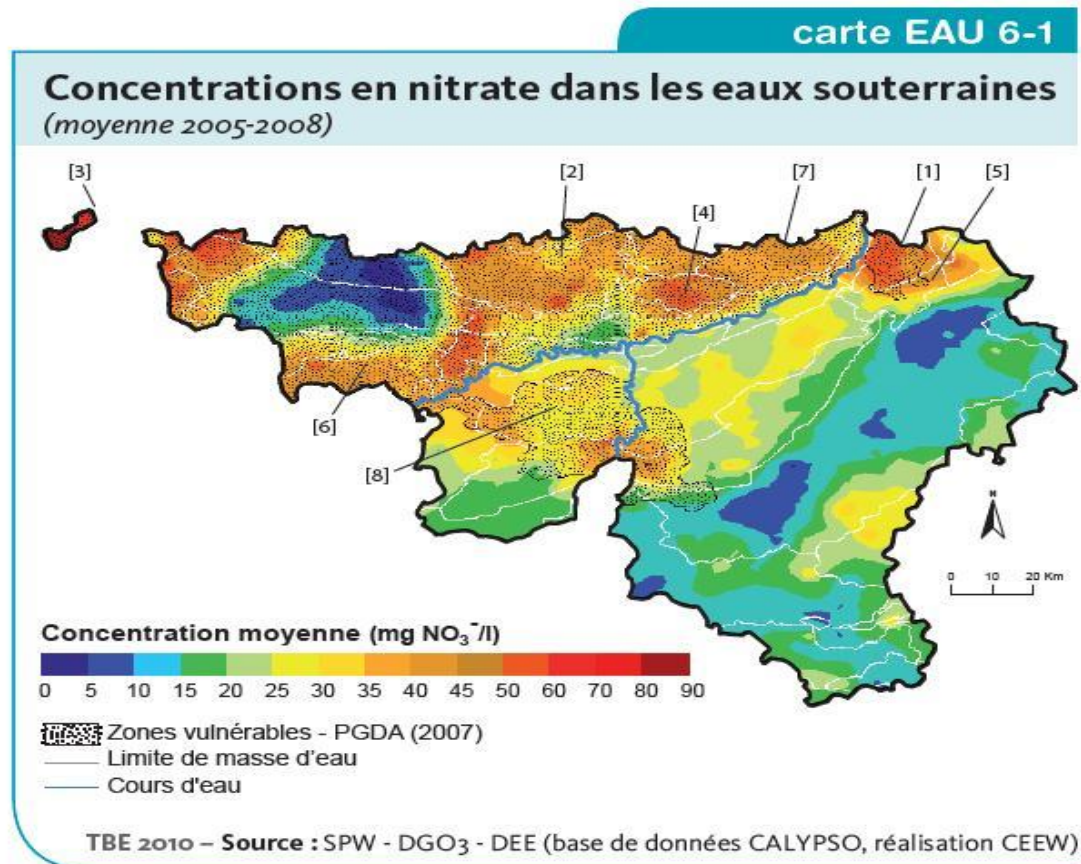
Transposition of the provisions of Council Directive 91/676/EEC of December 12, 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources

Two programmes on sustainable nitrogen management in agriculture in the Walloon region : 2002 and 2007

Published results on water pollution were alarming

1. Introduction

Average concentrations of nitrogen in groundwaters (average 2005-2008) Walloon region





2. Audit objectives

- To analyze the transposition of the provisions of Council Directive 91/676/EEC
- **To evaluate the implementation of different measures**
- To verify the subsidization mechanism of the bringing into compliance of storage facilities for livestock manure



3. Methodology

Evaluation of the implementation of different measures

Methodology mainly consists in:

- analysing the legal framework,
- analysing the implementation of the measure controls,
- analysing the evaluation reports related to water pollution in the Walloon region,
- exploiting management databases.



3. Measures

Three types of measures:

- Maximum quantity of spreadable organic nitrogen by farm
- Spreading scheme
- Storage capacity for livestock manure

Objectives of measures:

- To prevent an excessive presence of nitrogen in water
- To appropriate fertilizers in relation to the absorbing capacity of plants

4. Findings

Controls carried out by the Walloon region administration

- Maximum quantity of spreadable organic nitrogen by farm



Calculation of the soil binding rate :

$$\frac{\text{organic nitrogen produced (kg)} + \text{organic nitrogen imported (kg)} - \text{organic nitrogen exported}}{\text{organic nitrogen spreadable (kg)}}$$

- ✓ inefficient controls
- ✓ sanctions not applied



4. Findings

Controls carried out by the Walloon region administration

➤ Spreading scheme



Spreading agreements :

✓ Important quantities of nitrogen exchanged : 12% of the production !

✓ No control of existence of those agreements



Follow-up of « potentially leachable nitrogen »

✓ Small number of farms are effectively controlled : only 3%!



4. Findings

Controls carried out by the Walloon region administration

➤ Storage capacity for livestock manure

➡ **Basic condition for complying with the spreading scheme**

✓ **Impossible to determine the number of farmers equipped**



5. Conclusion

The possibilities for performing controls are not used in an efficient way

The controls carried out lack true effectiveness

Changing farmers' behaviours in nitrogen management matters remains a challenge !



Publication of the report

- Website <http://www.ccrek.be/EN/Publications.htm>
- An e-copy of the original report in French is available at:
- <http://www.ccrek.be/EN/PublicationsWalloonRegion.htm>
- An e-copy of the abstract in English is available at:
- http://www.ccrek.be/docs/Reports/2011/2011_40_SustainableNitrogenManagement_Abstract.pdf
- An e-copy of the abstract in Dutch is available at:
- http://www.ccrek.be/docs/Reports/2011/2011_40_DuurzaamStikstofbeheer_AbstractNL.pdf



Questions ?