



**SCREENING CHAPTER 27  
ENVIRONMENT**

**AGENDA ITEM: NITRATES  
Directive 91/676/EEC**

**Country Session: The Republic of TURKEY  
29 May - 02 June 2006**



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## LEGISLATIVE FRAMEWORK

- **Decree Law No. 441 on Establishment and Tasks of Ministry of Agriculture and Rural Affairs (MARA)**
- **Law No. 1380 on Fisheries**
- **Law No. 2872 on Environment**
- **Law No. 4856 on Establishment and Task of Ministry of Environment and Forestry (MoEF)**
- **By-law on the Protection of Waters Against Pollution Caused by Nitrates from Agricultural Sources**



## COMPETENT AUTHORITIES

**Coordinator: MARA**

**Main responsible authorities for implementation**

- **MARA**
- **MoEF**
- **General Directorate of State Hydraulic Works (DSI)**



## COMPETENT AUTHORITIES (CONT'D)

### MARA

81 Provincial directorates  
40 Laboratories located in provinces  
90 Mobile photometers

### MoEF

81 Provincial directorates  
1 Reference Laboratory

### DSI

25 Regional Directorates (basin wide)  
23 Regional Laboratories



## CONTENT OF THE BY-LAW

The By-law addresses following provisions in the Directive

- Objective
- Pollution determination
- Determination of nutrient vulnerable zones (NVZ)
- Good Agricultural Practices
- Establishing action program
- Monitoring



## ONGOING TECHNICAL STUDIES

MARA, MoEF and DSI have established a technical study group focusing on:

- Harmonize the Nitrate Directive
- Determine responsibilities so as to
  - evaluate monitoring
  - designate NVZs
  - establish Code of Good Agricultural Practices
  - establish action programmes
  - implementation
  - reporting

A MATRA project provides technical support

## IMPLEMENTATION

### 1) Identifying Waters

- **At provincial level**
- **Covering all intensive agricultural areas**
- **Surface and ground waters are identified considering waters**
  - **Polluted**
  - **could be polluted,**
  - **under pressure**

**In this respect 3 Ministerial (MARA) Circular Order came into force**



## IMPLEMENTATION (CONT'D)

### 2) Monitoring program

#### a) Nitrate in surface and groundwater

- **Started in 2005**
  - Taking into consideration**
    - **By-law on Nitrates**
    - **EC Nitrates Guideline**
    - **Soil-water structure**
  
- **Training regional-provincial experts on**
  - **Selection of sampling points**
  - **Sampling, storing, transferring**
  - **Analysis**
  - **Filling forms related to environment**
  
- **Within the framework of MATRA project pilot areas are selected regarding observation monitoring and sampling-analysis**

## IMPLEMENTATION (CONT'D)

### b) Eutrophication

No monitoring system established yet,

However;

- In the framework of MATRA project a workshop planned on
  - deciding parameters for analysis
  - establishing monitoring

Eutrophication parameters are being monitored in accordance with

- The Barcelona and the Bucharest Conventions  
In the Mediterranean and the Black Sea coastal waters

And DSI

- Dams, irrigation ponds, drainage channels and estuaries

## IMPLEMENTATION (CONT'D)

### 3) Nutrient Vulnerable Zones

Eutrophication status or if nitrate level over 50 mg/l, NVZ will be designated after assembling sufficient monitoring data related to

- Groundwater
- Surface water

### 4) Code of good agricultural practices will be prepared by MARA considering

- Results of monitoring
- Agricultural data and practices
- Existing national legislations such as By-law on Good Agricultural Practices

## IMPLEMENTATION (CONT'D)

**5) Action program in NVZ will be established by MARA in the process of designating NVZ regarding provisions set out in the By-law and existing national legislation considering measures to prevent water pollution;**

**taking into account:**

- fertilizing period**
- minimum manure storage capacity**
- manure handling**
- limits for fertilizer utilization etc.**

## ASSESSMENT

- Nitrate Directive is complex
- Implementation may take time
- Diverse NVZs
- Improved monitoring network and analysis
- Overuse of fertilizer and manure is not a nation wide problem, “hot spots”
- Irrigated farming as potential source of nitrate
- Inappropriate manure handling is a problem
- Technical studies (MATRA and WB-GEF on agricultural pollution control)



## PLANNED ACTIVITIES

- **Workshop on eutrophication, database and reporting**
- **Combining monitoring data, agricultural data and GIS: a national image on nitrate**
- **Identification of provinces at risk**
- **Further studies on**
  - **first Code of Good Agricultural Practices**
  - **first Action Program**
  - **first report to EC: baseline report**
  - **improve monitoring network**
  - **NVZs**



**THANK YOU FOR YOUR ATTENTION**