Marche Region Pollution Control and Maritime safety strategy

MAREMED Seminar on Maritime Safety and Pollution Control

9 October 2012, Larnaca, Cyprus

Marche Region, since 5 years, sets up a **specific structure to improve maritime safety in civil protection perspective** thus meaning foresight, prevention and emergency management

Main actions:

- Costitution of an **INTEGRATED NETWORK for sea monitoring.**

The network is supported by thecnical instruments (radar, telescope, camera, etc..) and is starting to involve also several sea "stakeholders" (Fishermen, lifeguards, yacthers,etc..). The networks is going to gain strong relevance for foresight and prevention activities.

- The definition of a **risk evaluation system** regarding ships which pass through the cost of the Marche Region.

Marche Region with **Regional Committee Resolution n. 832 on the 11/06/2012** approved the **"Regional Guide Lines for provincial planning of emergencies caused by oil pollution or other harmful substances caused by sea accident"**

The Region is **supporting the 23 Costal Municipalities to draft contingency plan in the event of coastal pollution**. The plan details intervention modalities and techniques to detect provisional waste storage, etc…

The above mentioned Regional Committee Resolution **foresees training activities and exercises for the Local Authorities** staff in **charge of the drafting of the operative plan and to manage emergency**

Guide Lines also foresees **training courses for Civil Protection volunteers** to be **prepared in case of oil pollution grounding in the coastal area.**

Once the potential pollution is detected it becomes relevant to foresee as earliest as possible **where oil will ground to be able to concentrate anti-pollution measures and reduce damages.**

To this aim Region is implementing researches with Polytechnic University of Marche Region to **improve the existing oceanographic models.**

Soon it should be possible to have a forescast of:

- **200 m. X 200 m. in the most relevant areas** (Marine Reserves, Ship Shelters, Fish Farming, Coastal Natural oasis),
- **500 m. X 500 m**. for the sea area in front of the Region
- **1Km x 1Km** for the entire Adriatic Sea

A FOCUS ON
POLLUTION AND FISHERIES

IDENTIFICATION AND CONTROL OF A POTENTIAL SOURCE OF POLLUTION:
THE CASE OF SHELLFISH

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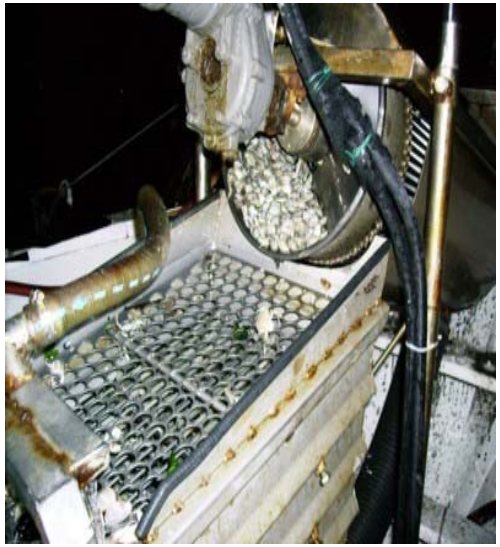
Marche Region has put in place a complex and **articulated set of legal and operational measures for pollution control in coastal areas.**

Both **maritime and terrestrial compartments, including river basins, are regularly monitored in order to identify potential pollutants and related environmental and sanitary risks.**



Once a pollution source is identified, the relevant public bodies (*e.g.* Local and Regional Sanitary Bodies, Regional Agency for the Protection of the Environment) **adopt policies and interventions aimed at protecting or restoring environmental and resource healthiness as well as food safety.**

Marche Region implemented a relevant project **to monitor pollution risks that could have an impact on costal shellfish farms**, carried out by the Regional Sanitary Body

Local Office of FERMO

AIM OF THE STUDY

To carry out a **sanitary and epidemiological investigation of edible bivalve molluscs,** in order to

- **identify pollution sources close to the production area**
- **understand how geoclimatic and hydrographical factors** affect levels and trends of microbiological, bio-toxicological and chemical **contaminants in the product.**

Monitoring

Bivalve and water sampling are carried out in the **investigation areas (shellfish farms)** with the **following timing:**

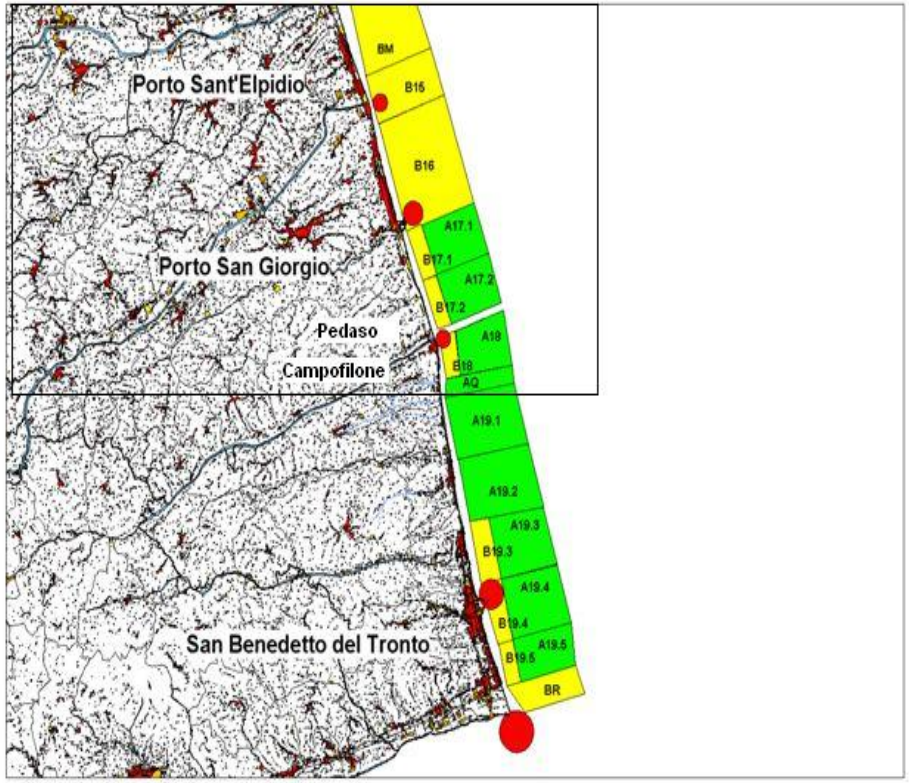
every 2 months, bivalves are sampled to measure microbiological parameters (*Escherichia coli, Salmonella)*

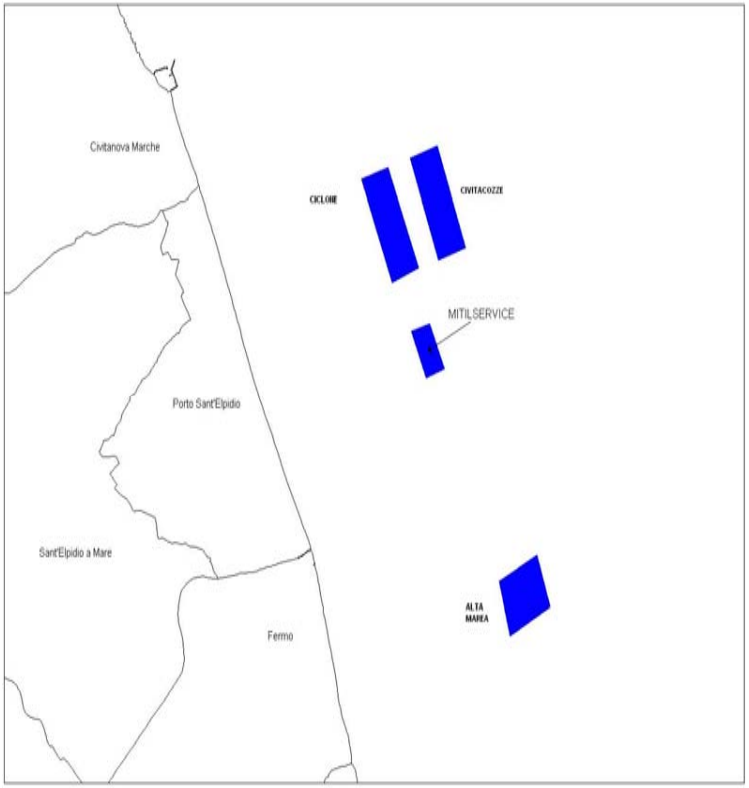
every 6 months, marine water is sampled to measure the presence of toxic phytoplankton blooms, dissolved oxygen and pH; bivalves are sampled to measure chemical parameters and heavy metals (Lead: Pb – Mercury: Hg – Cadmium: Cd)

every 15 days mussels are sampled from shellfish farms to detect the potential presence of algal bio-toxins.

Monitoring is carried out along 26 Km

Where there is Clam and Mussels Production





Study then foresees the assessments of:

- ❑ **Hydrographical and geoclimatic characteristics**
- ❑ **Physical characteristics**
- ❑ **Socio-economic charatcteristc:**

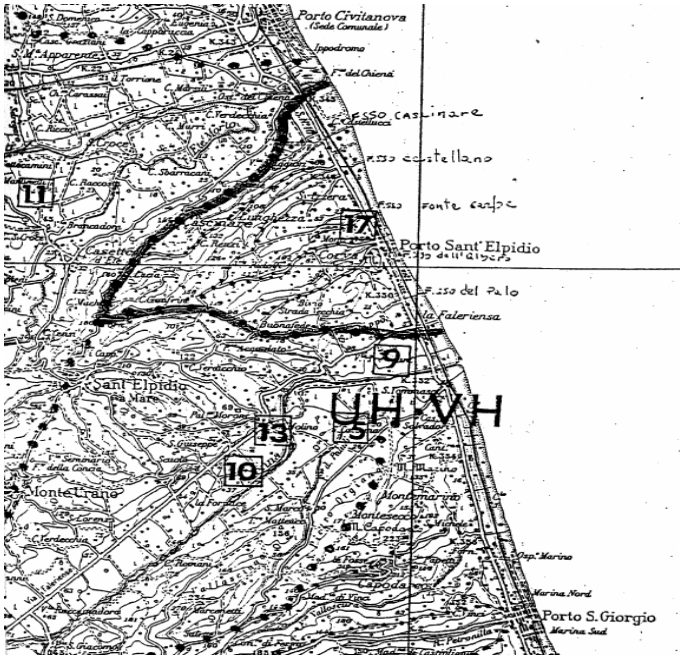
Population, Industrial Activity, Agriculture, Farming, Discharge.

- ❑ **Naturalistic aspects**

And COASTLINE INSPECTION to:

- ❑ carry out a **territorial survey of all discharges** at sea, ducts, natural and artificial ditches, creeks, river mouths located along the shore
- ❑ To carry out their **GPS geolocation**
- ❑ To indicate them on detailed **territorial maps**

To obtain a **clear picture of the areas** at higher criticality concentration in terms of **pollution risks**



DATA ASSESSMENT

The **in-depth analysis of all information obtained from this study,** and the **comparison of results** with historical data on microbiological and heavy metal levels in clams and mussels, **will provide a complete and thorough** ***evaluation of pollution sources and their relevance for shellfish farming***

ALSO HIGHLIGHTING THE TIGHT CONNECTION BETWEEN ENVIRONMENTAL HEALTH AND FOOD SAFETY

THANK YOU FOR THE ATTENTION!

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