



Mediterranean strategy for the protection of water

Issues at stake

- New regional strategy for the protection of water
- Water reuse
 - Quality issue
- Desalination
 - Impact of desalination on marine environment



Regional strategy for the Protection of water

Mediterranean Action Plan

Land-Based Sources Protocol and Amendments

- ❖ Entered into force in June 2008
- ❖ Eliminate land-based sources of pollution (substances that are toxic, persistent, liable to bio-accumulate)
- ❖ Implement action plans with measures and time-tables to eliminate pollution



Key Issues Addressed

Land-based sources of pollution

- ❖ 80% of marine pollution is land-based
- ❖ Sewage and waste water
- ❖ Chemicals from industrial activities
- ❖ Pesticides and nutrients used in agriculture
- ❖ Danger to human health and ecosystem



Art. 15 LBS Protocol

- 1 year after the entry into force of the amendments of the LBS Protocol (18 June 2008) countries should adopt regional action plans and programmes containing measures and timetables for their implementation for the general obligations under Art. 5
- Measures are binding

List of Priority Substances

- establish an **exhaustive list of substances** of concern for the Mediterranean
- establish a list of “**action substances**” out of the exhaustive list of substances of concern according to the following criteria:
 - the substance is covered by regional and/or international instruments regulating its use, release or phasing out,
 - the substance has an ELV or its ELV is under development either at national or at regional levels, and
 - there are evidences of the risk of the substance and /or its load on the marine environment and health
- or
 - the substance, falling under the above criteria, is accepted for inclusion after it is formally proposed by a Contracting Party during the Contracting Parties meetings.

Differentiation Process

- The implementation of temporal differentiation based on the establishment of common regionally ELVs for the “action substances” and relevant sectors.
- This process should be taken into account when preparing programmes of actions including measures and timetables.

Differentiation mechanism

- To submit to the CPs meeting in 2011 a framework regional differentiation mechanism, including accompanying measures such as :transfer of know how and technology, monitoring and evaluation, governance, good housekeeping etc...

Programme for 2009

- Programme/ action plan for the reduction of BOD5 from urban centers.
- Programme/ action plan for phasing out substances contained in Annex I of the LBS Protocol and Annex A of the Stockholm Convention in particular Aldrin, Chlordane, Dieldrin, Endrin, Heptachlore, Hexachlorobenzene, Mirex, Toxaphene.
- Programme/ action plan for phasing out the production and use DDT..

Regional Plan for reduction of BOD from municipal WWTPs

Paramètre	Zone/champ d'application	VLE (mg / l O ₂)	Observations/Dispositions
DBO ₅ à 20°C sans nitrification	Zone du Protocole "tellurique"	<=50	En postulant l'obtention d'une réduction de 70 à 90 % de la charge affluente (traitement secondaire) ¹
	Zone du Protocole "tellurique" – émissaires en mer (réf. art. 7 Protocole "tellurique")	<=200	En postulant l'obtention d'une réduction de 20 % de la charge affluente (traitement primaire) ¹ Ces VLE ne devraient être adoptées qu'en tenant compte des conditions locales et à sous réserve que les charges totales n'affectent pas le milieu marin récepteur.

Regional Plan for reduction of BOD from municipal WWTPs

- Preservation of Rights

The provisions of this Regional Plan shall be without prejudice to stricter provisions respecting the reduction of BOD5 from urban waste water contained in other existing or future national, regional or international instruments or programmes.

Regional Plan for reduction of BOD from municipal WWTPs

The Parties commit themselves to implement the above measures, according to two deadlines: **2015 and 2019.**

The Parties will decide on the deadlines for the implementation of the ELVs indicated in the table of Article III above, taking into account their national circumstances and respective capacity to implement the required measures.

A national programme of action, including the adopted deadlines, should be prepared and communicated to the Secretariat within 180 days after the adoption of the regional plan by the Contracting Parties.

Regional plans to be prepared in 2010-2011

- Mercury
- Food sector
- Additional POPs.

Needs for new water resources

- According to the results of BP scenario on water needs for 2025
- Mediterranean countries are committed to developing non-conventional water resources such as water recycling and sea water desalination.
- In this vision, seawater and waste water represent alternatives and inexhaustible reservoir that can provide much needed relief by the technical process of desalination and treatment of waste water.

Sea water desalination

- The current data from selected Mediterranean Countries shows that between 1997-2007 the production of fresh water from sea water desalination has changed more than 100% in Algeria with a projection to produce 1 million m³/d in 2020, Cyprus 60%, Spain and Israel more than 100% and Tunisia 0%.
- Sea water desalination conceptually is situated at the boundary between the needs for fresh water supply and conservation of marine environment .

Sea water desalination

- The issue is not only technical.
- Desalination has socio economic and environmental implications.
- Cost effective in countries where energy is affordable at low prices.
- Compared to reuse of treated waste water, desalination would ensure convenient quality .

Driving forces for water reuse

- The needs for more water
- Increasing public health constrains.
- Need to comply with environmental regulations and conservation
- Need for higher effluent quality.

Water reuse

- Water reuse is more than technical, economical and financial, health, regulatory, management and public perception issue. **It is certainly a political issue.**
- Reuse is determined by user demands according to the contractual water flows and delivery timing.
- Quality of water reclaimed and the type of reuse are controlling factors.
- Reuse has a direct connection with the national waste water management policy which is an integrated element of the national and local water policy.

Water reuse Hints

- Mediterranean countries are reusing treated wastewater
- Tunisia 24%
- Israel 70%
- Syria 3%
- Jordan is aiming at 100%



Thank you for your Attention