

NOTES ON THE ENVIRONMENTAL STATUS OF MARITIME SPACES

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- Introduction
- Evolution of marine pollution
- Future of pollution in the coastal areas and oceans
- European Union initiatives
- Conclusions

“Prestige “ (Spain)



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INTRODUCTION:

- **Evolution of the state of marine pollution with references to policies, strategies and international and national legislation to reduce the discharges of pollutants from ships and other sources.**
- **Rol of IMO, United Nations and other international and regional Organizations,**
- **European Union initiatives for its Members States and neighbouring countries**
- **The EU Sustainable Development Strategy was set up in 2001. World Summit on Sustainable Development in Johannesburg, 2002,**
- **The EU Integrated Maritime Policy**
- **EU Marine Strategy Framework Directive**
- **Rio+20 United Nations Conference on Sustainable Development, Rio de Janeiro year 2012,**

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MARINE POLLUTION FROM SHIPS

- Oil and hydrocarbons in general
- Noxious liquid substances
- Sewage and Garbage
- Air pollution from ships
- Off shore production
- Paints and antifouling
- Ballast water and sediments
- Ships recycling
- Alien species in the ballast water



Aegean Sea (Spain)

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LAND BASED SOURCES OF POLLUTION

Rivers: substances discharged into the rivers or mixed with the rain water,

Urban waste water: Pollutant can be illegally discharged into the collecting systems of the towns.

Urban sediments: Pollutants deposited in the soil (eg. oil leakage from cars) can be washed by the rain water and discharged into the rivers or the sea.

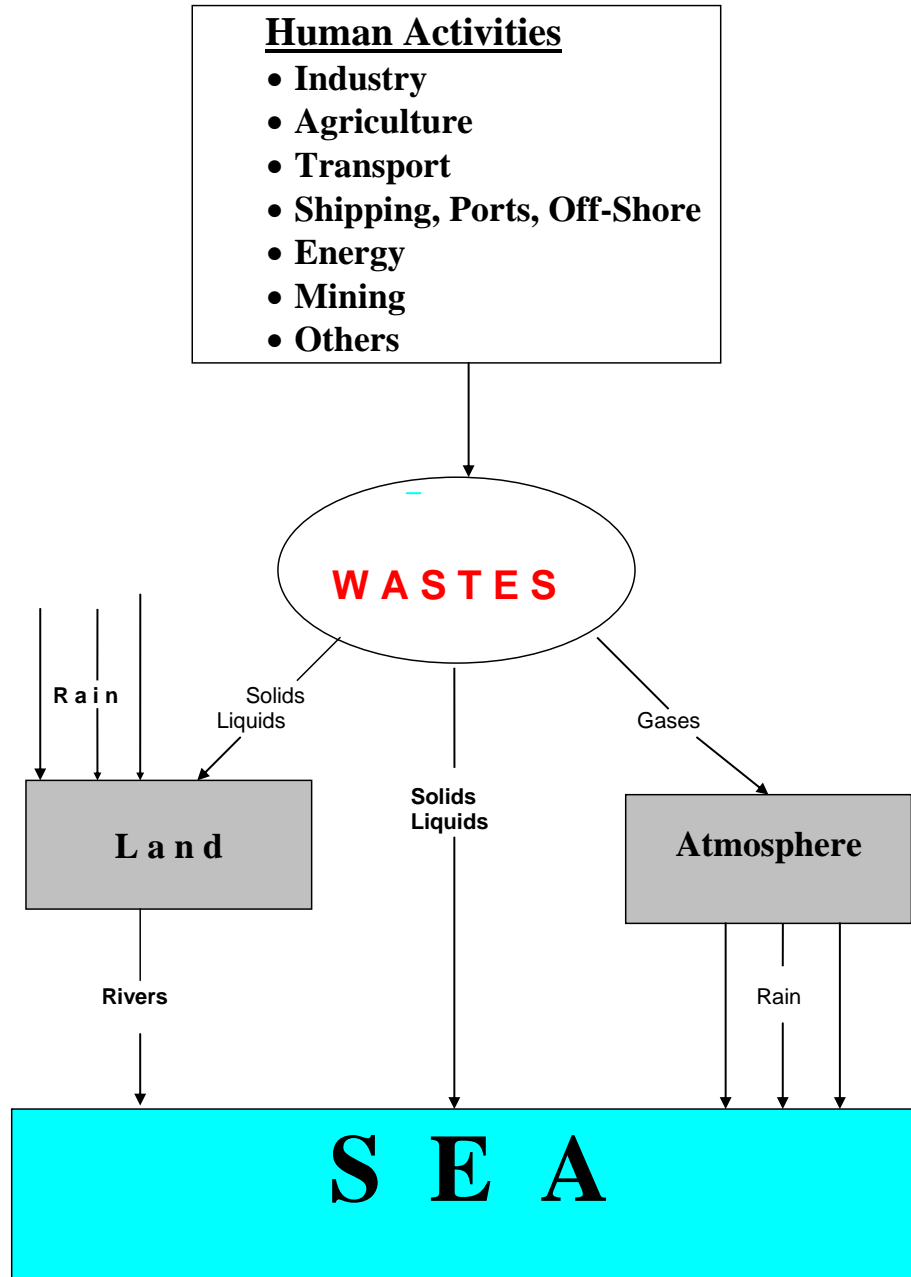
Industrial discharges: Not treated effluents can discharge pollutants into the rivers or the sea.

Atmosphere: Pollutants released into the air can be deposited in the soil or in the sea by the action of the rain.

Natural seeps: The oil can flow from the natural deposits in the earth.

Sediment erosion: Removal of oil sediments can contaminate the sea.

ORIGIN OF MARITIME POLLUTION



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EVOLUTION OF MARINE POLLUTION

BEFORE 1950 - FROM 1950 TO 1983 - AFTER 1983

OILPOL: Oil Pollution Convention of 1954

UNCLOS: United Nations Convention on the Law of the Sea, 1982, establish that States will take measures to prevent, reduce and control marine pollution,

MARPOL: International Convention for the Prevention of Pollution from Ships, 1973/1978 in force 1983,

In 1973, (MARPOL adopted) oil entering into the sea estimated in 6,110,000 tons,

In 1998 (MARPOL effect) oil entering into the sea estimated in 2.442.000 Tons

Oil into the se from maritime transport reduced from 2.130.000 to 582.000 Tons

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EVOLUTION OF MARINE POLLUTION BY OIL, 1973 and 1981 and 1998

SOURCE OF POLLUTION	1973	1981	1998 (Estimated)
Ships (maritime transport)	2.130.000	1.420.000	582.000
Municipal/Industrial waste water	2.700.000	1.230.000	1.260.000
Atmosphere	600.000	300.000	300.000
Natural, erosion, filtering etc.	600.000	200.000	250.000
Off shore production	80.000	50.000	50.000
TOTAL	6.110.000	3.200.000	2.442.000

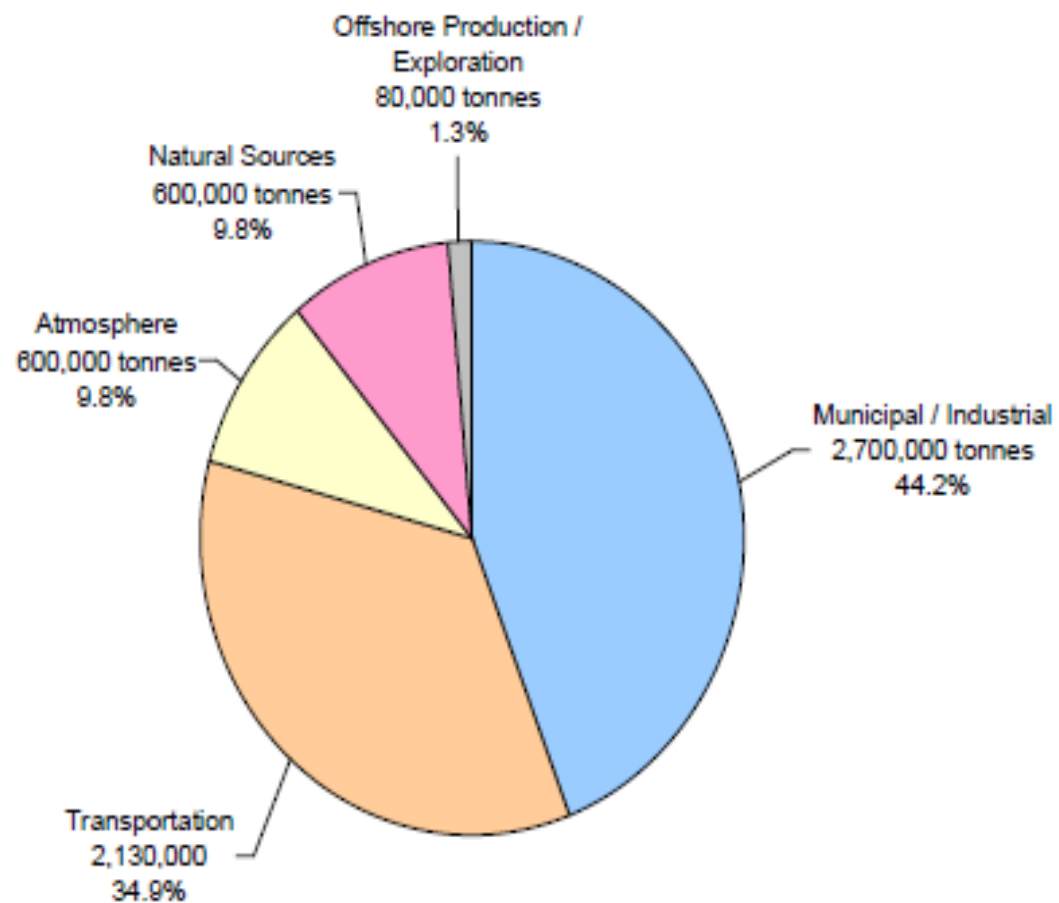


Figure 1. 1973 Estimated annual input, total: 6,110,000 tonnes, Source: National Research Council 1975

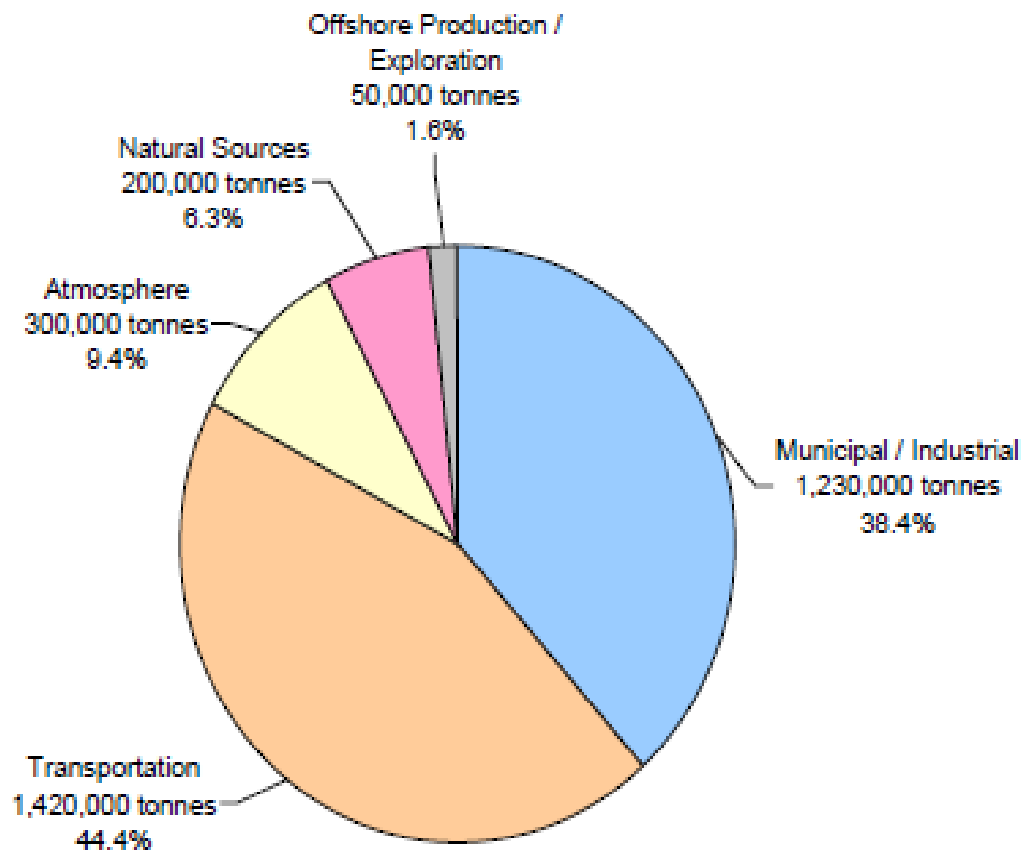
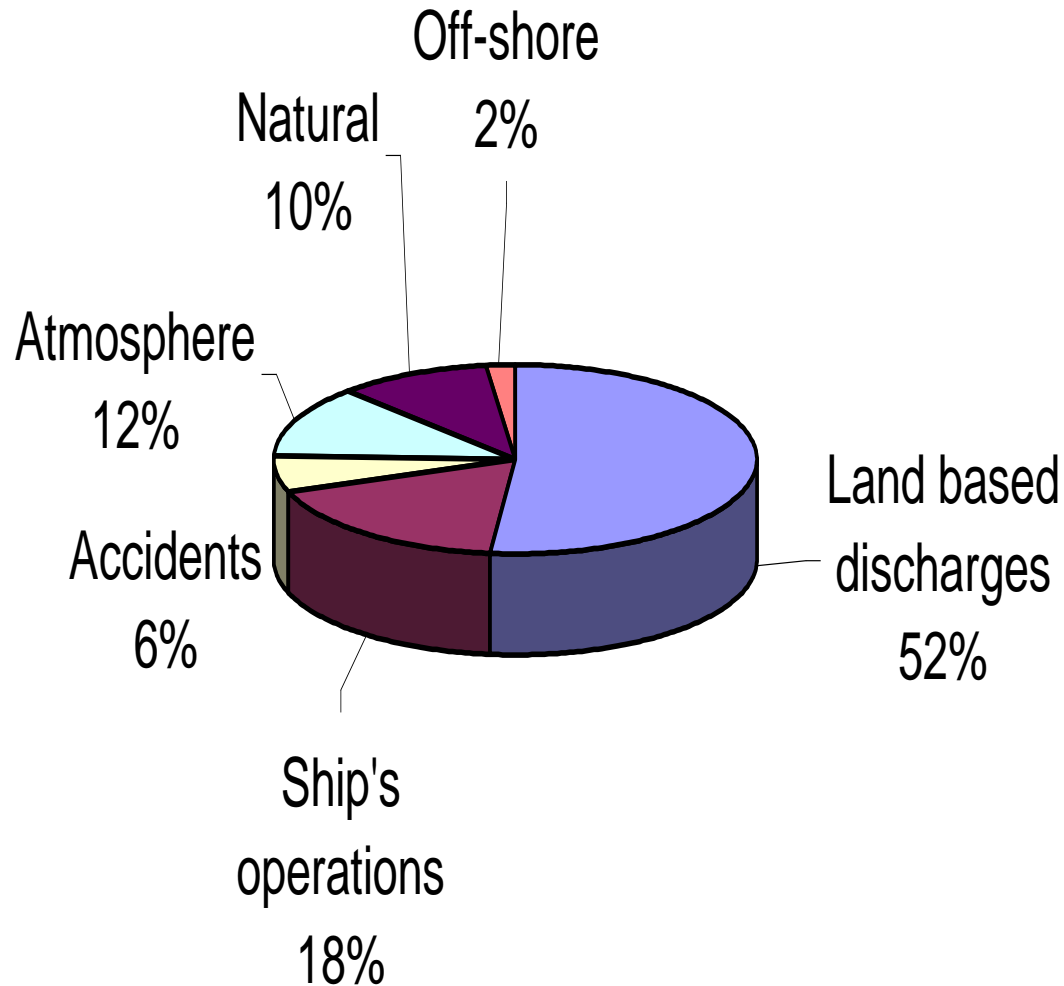


Figure 2. 1981 Estimated annual input, total: 3,200,000 tonnes, Source: National Research Council 1985

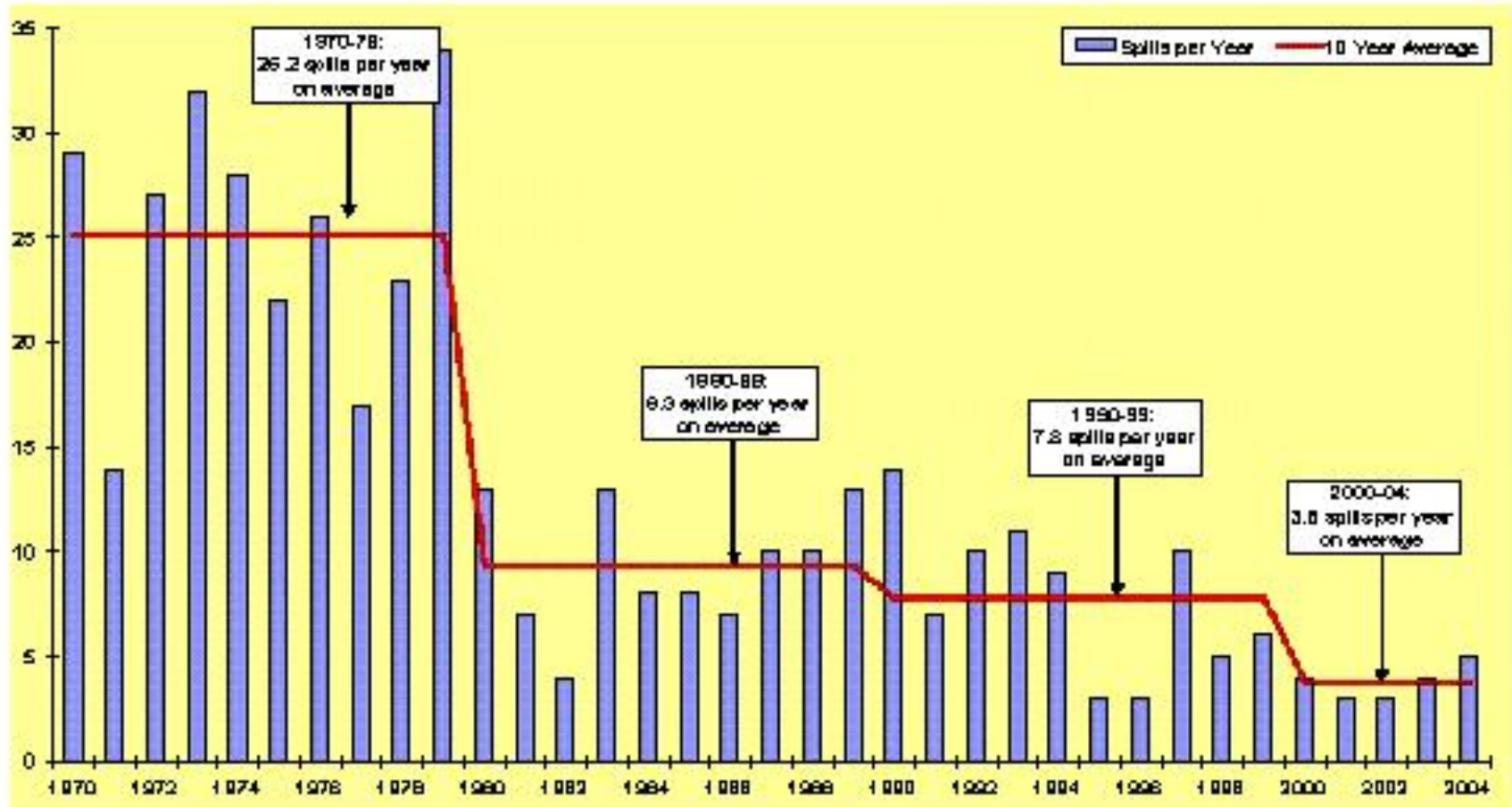
MARINE POLLUTION BY OIL, 1998 (ESTIMATED)



EVOLUTION OF MARINE POLLUTION BY OIL FROM ACCIDENTS 1970 to 2004

Effect of SOLAS Convention from 1978 . Convention adopted in 1974 and important ammendments in 1978 and 1988

Trend of oil spills by tankers



Source: ITOFF -2005 Statistics

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FUTURE OF POLLUTION IN THE COASTAL AREAS AND OCEANS

Reduction of marine pollution is expected through the effective application of international /national/regional regulations and other initiatives:

INTERNATIONAL LEVEL:

- **MARPOL convention, prevention of pollution from ships.**
- **UNCLOS: The States will adopt laws and regulations on marine pollution,**
- **OPRC: preparedness and response to oil pollution, 1990**
- **AFS Control of Harmful Anti-fouling Systems on Ships, 2001,**
- **BWM Convention: Ships' Ballast Water and Sediments, 2004, Not yet in force.**
- **Hong Kong Convention on Sound Recycling of Ships, 2009. Not yet in force.**
- **BUNKERS: on Civil Liability for Bunker Oil Pollution Damage 2001**
- **NAIROBI WRC : On the Removal of Wrecks, 2007. Not yet in force**



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REGIONAL LEVEL: Agreements in main maritime regions, Mediterranean , Kuwait, South-East Pacific, Red Sea and Gulf of Aden, Wider Caribbean, Eastern Africa, South Pacific, Black Sea, North-East Pacific.

ATLANTIC COAST OF AFRICA: ABIDJAN CONVENTION for Cooperation in the Protection, Management and Development of the Marine and Coastal Environment of the Atlantic Coast of the West, Central and Southern Africa Region (1981) and related action plan WACAF.

MAIN CHALLENGES:

- Ship generated wastes including ballast water discharges
- Land and ships generated wastes management
- Oil spills, prevention and effective response
- Air pollution, including the Annex VI of MARPOL introduced in 1997.
- Dredging and dredged material disposal

Protocol on land-based sources of pollution (adopted in *Cote d'Ivoire* , 2012)

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ATLANTIC COAST OF AFRICA (Continuation)

STRATEGIC ACTIONS

- **Capacity building**
- **Training programmes**
- **Exchange programmes**
- **Strengthen regional cooperation**
- **Develop Environmental Management systems**
- **Engage with international regulatory frameworks as MARPOL, BWMC, London Convention, OPRC etc.**



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EU Sustainable Development Strategy contain:

- **Objectives and policy measures to tackle key unsustainable trends,**
- **Social and environmental policies which mutually reinforce each other**

World Summit on Sustainable Development in Johannesburg, 2002, topics areas of discussion:

- **Water and sanitation,**
- **Energy**
- **Human health,**
- **Agricultural productivity,**
- **Biodiversity and ecosystem management**

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EU INTEGRATED MARITIME POLICY (EU IMP)

The EU Integrated Maritime Policy (created in 2007) is a good example that can be applied in other regions in particular the neighboring countries

EU IMP main actions:

- Maximizing the Sustainable Use of the Oceans and Seas
- Building a knowledge and innovation base for the maritime policy: Marine science, technology and research.
- Delivering the Highest Quality of Life in Coastal Regions.
- Promoting Europe's Leadership in International Maritime Affairs
- Raising the Visibility of Maritime Europe

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INTEGRATED MARITIME POLICY FOR THE MEDITERRANEAN

The project's overall objective is to improve governance of maritime affairs in the Mediterranean sea-basin by promoting an integrated and co-ordinated approach to policies impacting on the sea.

The project is implemented in 10 countries including Morocco.

The following main sectoral policies are considered:

- Maritime transport and ports including shipbuilding**
- Oil and Gas**
- Fisheries and aquaculture**
- Tourism and cruises, Yachting and leisure**
- Marine energy and networks**
- Planning and infrastructures**



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DIRECTIVE 2008 MARITIME STRATEGY FRAMEWORK

Protect and preserve the marine environment, prevent its deterioration and restore marine ecosystems in areas where they have been adversely affected;

Prevent and reduce inputs in the marine environment, so as to ensure that there are no significant impacts on or risks to marine biodiversity, marine ecosystems, human health or legitimate uses of the sea.

The following marine strategies can be developed in other maritime areas in particular in the EU neighbouring countries:

- An assessment of the current environmental status of marine waters;**
- A “Good Environmental Status” (GES) is defined in the Directive;**
- Targets and indicators designed to show whether a GES is achieving;**
- A monitoring programme to measure progress towards GES.**

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CONCLUSIONS

**Before 1950 almost no legislation on pollution prevention. UNCLOS 1948.
OILPOL 1954**

Confirmed reduction of pollution from ships after MARPOL in force 1983.

Important reduction of oil spills from 1980 probably due to the new SOLAS Convention (1978) and improved ships' construction and operation equipment.

Land base pollution has also decreased from 1973 but no reduction is observed in the last period evaluated, probably due to the lack of efficient national regulations and control of discharges.

A strict application of international and national regulations and an efficient control of compliance through **Port State Control and Flag State Implementation would produce a positive impact in the marine pollution.**



**INTENDED RESULTS:
CLEANER AND SAFER SEAS**

MANY THANKS FOR YOUR ATTENTION