

Horizon 2020 cleaning up the Mediterranean



Foreword

Around 460 million people live in the Mediterranean countries and territories. Two thirds of them live in urban areas concentrated along the coastal zones. Whether they live in the EU, other European countries, the Middle East or North Africa they and future generations all have the right to a clean environment.

The wealth of natural resources and the wide variety of landscapes of the Mediterranean basin make it an outstanding eco-region. Yet this environmental heritage is deteriorating. The impact of climate change, the risks for the bio-diversity, soil erosion, desertification and emissions of pollutants are threatening the sustainability of the region's development. The Mediterranean Sea is one of the top five seas for species diversity but sadly it is also one of the five seas that are the most threatened by biodiversity loss.

EU Mediterranean cooperation has environmental issues at its heart. From «de-pollution» being a key priority of the Union for the Mediterranean to the environmental cooperation encouraged under Association Agreements between the European Union and its neighbour countries, the framework is in place to pursue cross-border cooperation across the Mediterranean.

The objective of Horizon 2020 is to tackle the top sources of Mediterranean pollution by the year 2020. I am committed to ensuring that we make substantial progress towards this objective during my term as European Commissioner for the Environment.


Janez Potočnik
Member of the European
Commission

Mediterranean Hot Spots Investment Programme:

- Four year programme up and running (until April 2013)
- Comprehensive review giving updated list of potential de-pollution projects
- Providing project development for implementing national action plans
- Transferring know-how in project implementation to the national authorities and promoters in the Mediterranean region

Strengthening resources for environmental protection

- Promoting research projects on integrated water resources management and clean technologies
- Building a Mediterranean Shared Environmental Information System to monitor progress

Horizon 2020

Horizon 2020 is an "umbrella" initiative to enhance and catalyse coordination between the various actors present in the Mediterranean. It also aims to improve the efficiency and effectiveness of environment activities in the region. It was intended from the outset that Horizon 2020 would build on existing institutions and results, filling gaps where it can bring added value. It supports the implementation of the commitments undertaken in the framework of the Barcelona Convention for the Protection of the Mediterranean Sea against Pollution.

In the four years since its launch, Horizon 2020 has operated against a backdrop of increased political interest in the Mediterranean region with the launch of the Union for the Mediterranean. The development of the Union for the Mediterranean and its focus on concrete projects has given a positive boost; de-pollution of the Mediterranean is one of the six key initiatives adopted by Mediterranean Heads of State at the launch summit in July 2008.

The Horizon 2020 initiative is built around four elements:

- investment projects to reduce the most significant pollution sources focussing on industrial emissions, municipal waste and urban wastewater responsible for up to 80% of pollution in the Mediterranean Sea;
- capacity-building measures to help neighbouring countries create environmental administrations that are able to develop and police environmental laws at various levels (national, regional, local);
- funding research activities to develop and share knowledge of environmental issues relevant to the Mediterranean;
- developing indicators to monitor the results of Horizon 2020.

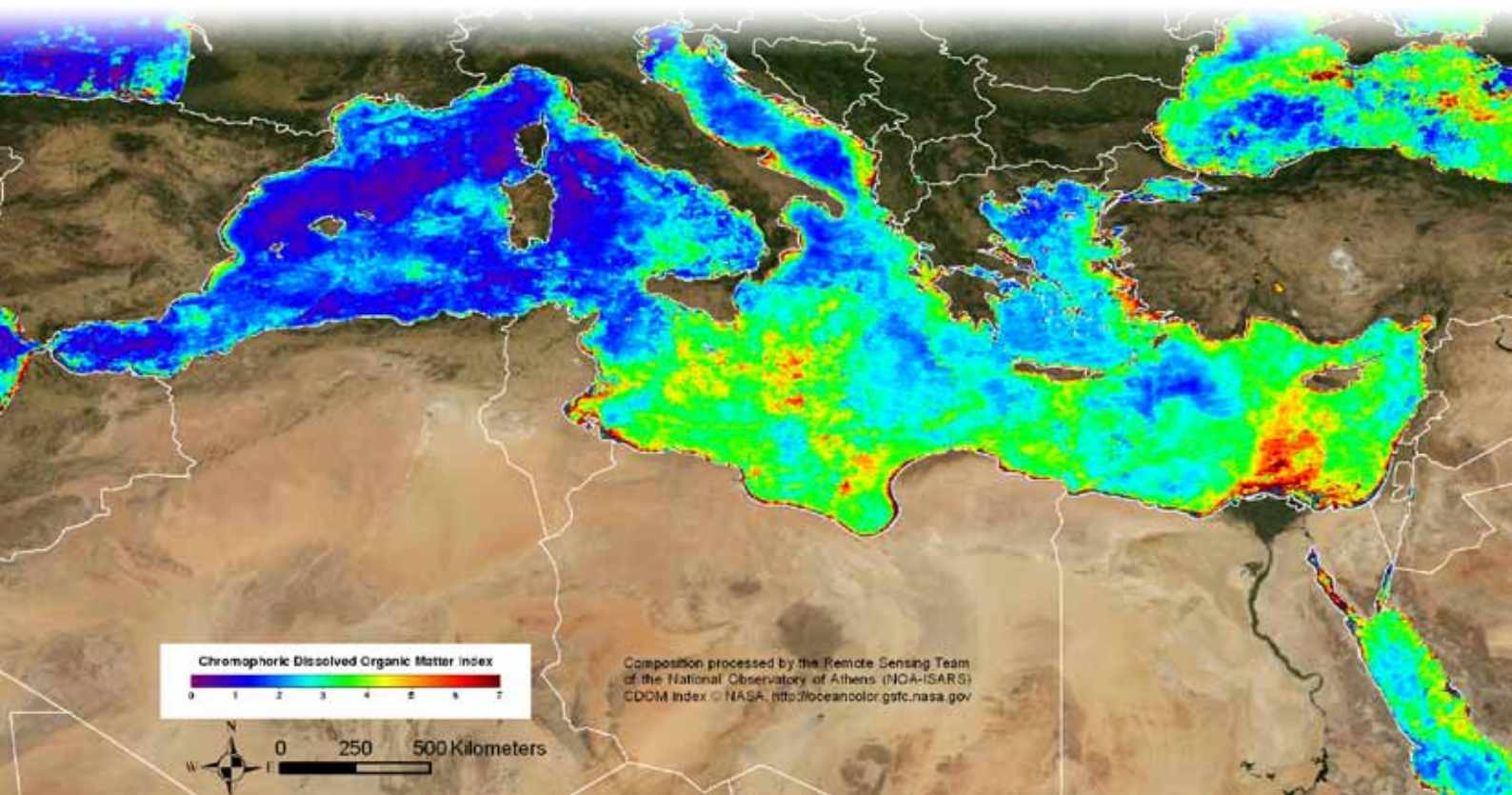
A pipeline of projects reducing pollution

In 2006, Euro-Mediterranean environment ministers backed development of a pipeline of pollution reduction projects that are both environmentally significant for the region and financially viable for a lending institution. The European Investment Bank (EIB) in collaboration with the United Nation's Environment Programme's Mediterranean Action Plan (UNEP/MAP) and the European Commission identified a number potential priority hotspots investments through the Mediterranean Hot-Spot Identification Programme. The list used projects identified by seven Mediterranean countries in their National Action Programmes. By providing assistance in project development, the hot-spot programme aims to

speed up potential loan commitments by the European Investment Bank and other financial institutions such as the World Bank, the French Development Agency AFD and the German Development Bank KfW. Through this programme, the European Commission could provide up to €6.2 million of grant aid.

Monitoring:

The European Commission is supporting the development of a Mediterranean Shared Environmental Information System. This system should help partner countries produce reliable, comparable and timely statistical data and information to monitor the environment in the Mediterranean. Two key players, the European Environment Agency and UNEP/MAP, are collaborating on streamlining Mediterranean reporting activities.



Capacity building:

Capacity building at regional, national and local levels is a necessary complement to any infrastructure based initiative. A regional programme to which the European Union contributes €4.5 million is running from 2009 to 2012. Its purpose is to support implementation of Horizon 2020 through capacity building and awareness raising activities. It will also promote integration of environment issues in the policies of other sectors such as transport and energy. To date a number of capacity building activities have been undertaken. These include events such as a conference on municipal waste management and a seminar on integrated pollution prevention and control, best available techniques reference documents and pollution prevention in Mediterranean countries. The expected results of this programme include the strengthening of resources dedicated to environmental protection in respect of policy, legislation and institutional capacity, and the mobilisation of civil society in the partner countries.

Examples of de-pollution projects

The Egyptian Pollution Abatement Programme includes an EIB global loan of €145 million, subsidised by the European Commission, targeted to private and public sector industrial companies to invest in pollution abatement measures. It focuses on selected heavily polluted industrial areas in and around greater Cairo and Alexandria and aims at the improvement of water and air quality in these areas. The project is co-financed with the World Bank, the EIB, AFD and the European Commission and its implementation is well underway, as shown in two of the underlying sub-projects:

Arab Abou Saed Brick Factories

The project site is situated approximately 40 km south of Cairo where the largest cluster of brickworks in Egypt is located. The brick kilns are a major source of air pollution. The project aims at converting about 200 brick kilns to operate with natural gas instead of heavy oil. The switching from heavy oil to natural gas kilns will entail a large reduction in pollution loads (96% reduction in particulate matter, 72% reduction of sulphur oxides, 69% reduction of carbon dioxide). The project involves the replacement of burners, the upgrade of the electrical systems and the repair of kilns to ensure they are able to operate with the new burners. Individually, the brick factories are very small businesses, therefore the only feasible way to convert these factories was to bundle them into a cluster group, which makes the required extension of the gas infrastructure economically feasible.

Abu Zabaal Fertilizer Company

Abu Zabaal fertilizer company is located in the greater Cairo area. Pollution abatement measures have been taken for this project:

- Rehabilitation of phosphoric acid production units to increase the line efficiency with regard to energy and raw materials consumption
- Revamping of existing mills and replacement of five rock phosphate grinding mills with two new efficient mills with the same capacity

These measures combined will reduce dust and hydrogen fluoride emissions to bring them down to acceptable levels and will eliminate soil contamination. They will also increase plant productivity.



Training courses on urban waste-water treatment in Delft (Netherlands), September 2010

"This training provided the necessary technical basis for informed decisions concerning the appropriate selection of urban wastewater treatment technologies."

Mr. Stojan Vuletic, Programme manager, National Project Implementation Unit in the field of Communal Services and Environment, Montenegro.

"This training was not only captivating, it was exactly what was needed!"

Ms. Maja Pokrovac, Director of Branch Associations, Croatian Employers' Association (CEA)

"This course was cutting edge in terms of content and training quality."

Mr. David Weinberg, National Planning and Treated Effluent Engineer, Ministry of Health, Israel

"I found this training course to be extremely useful. I have gained knowledge on new waste-water treatment technologies and on the related future challenges that we will have to address in our country."

Mr. Ayman Elnakeeb, Alexandria Sanitary Drainage Company, Egypt.

"This training course has been of extreme importance to me, as I received a lot of useful information on waste-water treatment technologies. Of course not all of these technologies can be applied in our country. I found the lectures on modelling particularly interesting and useful."

Ms. Nisrin Tamimi, Head of Division of reuse of unconventional water in irrigation, Ministry of Agriculture, Palestinian Authority.

Research:

In the water sector, MELIA is a project aimed at establishing a strategic dialogue with other ongoing or past research projects that deal with integrated water resources management and other Horizon 2020 aims, and between research centres, governments, regulators and water users and suppliers. MELIA is also studying the scientific needs for implementation of Horizon 2020. A topic on «integrated pollution prevention and control of industrial emissions in the Mediterranean region» is included in the 2010 work programme of the environment theme of the EU's Seventh Research Framework Programme. Research proposals submitted under this topic should aim to: assess the scope for preventive and abatement technologies in key industrial sectors with significant local or regional negative impacts on human health and the environment in the Mediterranean region; adapt relevant information from the European best available techniques reference documents to the regional and local conditions in the Mediterranean region; disseminate information on those techniques among public authorities and industrial operators in the region.

Barcelona Convention

For over thirty years the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean – known as the Barcelona Convention – has been an instrument used by the 21 Mediterranean coastal states to protect the Mediterranean environment. The European Union is also a party to the convention.

With its network of focal points and Regional Activity Centres, the United Nations Environment Programme's Mediterranean Action Plan is a valued partner in Horizon 2020 providing input from its 30 years of experience in areas ranging from analysis of environmental threats to data and information systems.

Pooling our resources

The costs of protecting the Mediterranean are beyond the means of any single partner, so pooling resources is essential. The European Neighbourhood and Partnership Instrument and the Neighbourhood Investment Facility provide the possibility to promote environmental infrastructure projects by offering partial grants to catalyse the loan needed for a particular investment. In partnership with other sources of finance such as the European Investment Bank and other international financial institutions, the Global Environment Facility, bilateral donors and national resources, the European Commission is multiplying the effectiveness of its grant assistance.

More information:

European Commission's Horizon 2020 web site:

http://ec.europa.eu/environment/enlarg/med/horizon_2020_en.htm (in English and French)

European Environment Agency's Horizon 2020 web site:

<http://www.h2020.net> (in English)

EU Environment cooperation with Mediterranean Neighbours:

<http://ec.europa.eu/environment/enlarg/med/index.htm> (in English)

European Neighbourhood and Partnership Instrument EuroMed Portal:

http://www.enpi-info.eu/indexmed.php?lang_id=450 (in English, French and Arabic)

European Investment Bank:

<http://www.bei.org> (in English and French)

United Nations Environment Programme's Mediterranean Action Plan:

<http://www.unepmap.org> (in English, French and Arabic)



Publications Office

ISBN 978-92-79-17041-6



9 789279 170416

