

UNITED NATIONS ENVIRONMENT PROGRAMME MEDITERRANEAN ACTION PLAN





MEDITERRANEAN GEF PROJECT



in the future.

## Reducing Pollution from Land

The population of Mediterranean coastal states has almost doubled over the past 40 years, and is expected to reach approximately 600 million in 2050. At present, one- third of the population of Mediterranean countries is concentrated in its narrow coastal areas. At the same time, rural areas are increasingly being abandoned in favour of the large urban agglomerations on the coast.

Most of the 200 million tourists arriving in Mediterranean countries each year come to the coast, a figure that doubled over only 20 years. The pressure of mass tourism is likely to further increase

## ISSUES AT STAKE: PRESSURE FROM LAND-BASED ACTIVITIES

The dense human settlements established along the Mediterranean coast produce large amounts of municipal wastewater. At present, wastewater treatment plants only serve around 55 % of coastal cities with over 10,000 inhabitants.

With the intensification of agriculture, the use of pesticides has increased greatly in Mediterranean countries over the past 20 years, threatening the quality of ground and surface waters.

Petrochemical and energy installations and chemical industries are widely located along Mediterranean coasts and rivers, as are many refineries, cement plants, steel mills, tanneries, food processing plants, textile industry and pulp and paper mills.

Industrial wastewater is an important carrier of pollutants, including oils, metals, detergents, solvents and organic chemicals. Of the substances produced and released by industry, the most harmful are the Toxic, Persistent and Bioaccumulative pollutants (TPBs). These include mercury, cadmium and lead, some organometallic compounds and numerous organic compounds, known as Persistent Organic Pollutants (POPs).

Along coastal sites and in the nearby offshore areas, eutrophication phenomena have increased due to the excessive amounts of phosphorus and nitrogen released.

Although incidents at oil terminals account for only one-tenth of the accidents which cause pollution by petroleum hydrocarbons, these incidents, along with routine discharges from land-based installations, contribute to elevated concentrations of petroleum hydrocarbons in the Mediterranean.



In the 1970s, it became obvious to Mediterranean countries that marine pollution was mainly due to land-based activities. As a result, shortly after adopting the Mediterranean Action Plan (MAP) and the Barcelona Convention, the Mediterranean countries and the European Community (EC) adopted and signed the Protocol for the Protection of the Mediterranean Sea against Land-Based Sources (the LBS Protocol), which entered into force in June 1983.

## THE REVISED LBS PROTOCOL

The 1992 Earth Summit in Rio signalled a change in direction which eventually consolidated the shift in MAP's MED POL Programme towards the prevention and control of land-based pollution. As a result, the Mediterranean States and the EC approved an Agenda MED 21 promoting the integration of environmental concerns into general policies. This was closely followed by the revision of the Barcelona Convention and its Protocols, starting in 1995.

The revised LBS Protocol, entitled the Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources and Activities, covers not only the Mediterranean

Sea itself, but also the entire watershed area and the waters on the landward side of territorial boundaries, as well as brackish waters, marshes and coastal



One of the major breakthroughs in efforts to combat land-based pollution is the adoption by Mediterranean countries in 1997 of a Strategic Action Programme (SAP) to address pollution from land-based activities.

> The SAP is an action-oriented MED POL initiative which identifies priority categories of substances and polluting activities to be eliminated or controlled through specific interventions and according to a predetermined timetable. The SAP is the basis for the implementation of the Land-Based Sources Protocol over the next 25 years.

The activities addressed in the SAP are linked to the urban environ-

ment and to industrial activities, with particular reference to those responsible for the release of toxic, persistent and bioaccumulative substances, and particularly POPs.

Shortly after its adoption, the SAP was recognized by the Council of the Global Environment Facility (GEF) as an important programme dealing directly with some of the major concerns relating to international waters. As a result, in 1998 the GEF Council approved a three-year Mediterranean GEF Project, starting in January 2001 and entailing a contribution of six million US dollars for the long-term implementation of the Strategic Action Programme.

The adoption in each country of all the targets and activities identified in the SAP is to be followed by the development of National Action Plans (NAPs). Indeed, the implementation of country-specific National Action Plans to com-

bat land-based pollution is the long-term operational output of the SAP. The preparation of pre-investment studies for selected hot spots is

one of the most important components of the SAP, and is expected to lead directly to a reduction of polluting inputs. These pre-investment studies are intended to lead to investments by countries and donors in projects for the elimination or reduction of transboundary pollution in the selected hot spots.

## ASSISTING IN THE IMPLEMENTATION OF THE SAP

The successful implementation of the SAP will largely depend on the sustainable financing of its individual components at the national level. The goal of the MAP Secretariat is therefore to develop administrative, legal and fiscal mechanisms for the sustainable financing of the SAP and to assist governments with the implementation of these mechanisms by adapting them to their national requirements.

In addition to providing assistance to countries for the preparation of compliance monitoring programmes, the MED POL Programme is introducing initiatives in the field of inspection and the enforcement of legislation through the establishment of an informal regional network to create contacts and facilitate the exchange of information between regional environmental protection professionals and other concerned networks.

With a view to improving prospects for the successful implementation of the SAP, other issues are also being tackled in each country, such as the nature of the body that will coordinate SAP activities and the type of mechanism that will monitor and evaluate the progress made in all the activities that are being carried out.

Detailed instructions are also being provided to countries on how to calculate national budgets for releases of individual targeted pollutants and the actual reductions in pollutants required on a national basis to reach the targets set out in the SAP. To this end, an operational plan also provides guidance on the identification of the baseline values against which pollutant









**United Nations Environment Programme** Mediterranean Action Plan Coordinating Unit

48, Vassileos Konstantinou Avenue | 116 35 Athens | Greece Tel: +30 10 72 73 100 | Fax: +30 10 72 53 196/7 E-mail: unepmedu@unepmap.org www.unepmap.org

Programme for the Assessment and Control of Marine Pollution





