



# The European Community and water

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**S**een from space, our planet is a blue sphere. It looks that way because two-thirds of its surface is covered by water.<sup>1</sup>

However, only 1% of this water can be used directly by man – and that small part is threatened by all kinds of pollution. In the highly populated and industrialized continent of Europe, some of our hydrographic basins, lakes and coastal waters are polluted.

Another problem is that water is not always to be found where the people of Europe need it. On average the European Community has a metre of rainfall a year – but there are plenty of places that get more than four metres, and others where the annual rainfall is less than 10 centimetres.

Despite improved recycling techniques, certain difficulties could arise by the year 2000: by then the total demand for water will have almost doubled from 1970 levels.

### **Why Community action?**

The European Community cannot ignore the problems in regard to water.

- The water we drink, the water in which we bathe or fish, the water used by industry or agriculture: it is all part of the heritage shared by all Europeans. Many European lakes and water courses are shared by several countries: the Meuse flows from France to the Netherlands via Belgium, the Rhine from Switzerland to the Netherlands via France and Germany, and the Tagus from Spain to Portugal. Whether in rivers, coastal waters or rainfall, water does not respect national boundaries. Neither does pollution: it travels with the water, or makes its way into it having travelled through the air or seeped through the soil. In these conditions, how can one country protect its water if the neighbouring country goes on polluting it?
- Water also poses major economic problems. It is an indispensable raw material for industry, which uses enormous quantities of it. A certain amount of pollution is consequently inevitable. Not only must it be reduced to levels that are not harmful to human health or to plants or animals – but this must be done in a way which is fair to all companies, no matter which Community country they are based in. Otherwise some companies in the less strict countries could enjoy cost advantages which might threaten the very existence of their competitors, who are obliged to adapt their production equipment to more stringent national standards.

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<sup>1</sup> This file replaces our No 6/80.

- Finally, as we have seen, water is becoming a scarce resource. Since the major hydrographic basins often extend over the territories of several Community countries, any progress towards a measure of common management will permit greater effectiveness in the use and protection of these resources.

The Community therefore intends to improve the use of available or potentially available resources, to protect high-quality water resources and to improve the presentation and comparability of data on resources and demand forecasts.

Action taken by the Community has been of several types:

- A number of Community directives specify objectives which the 12 Member States must translate into their national legislation (water quality objectives, discharge limits for particularly dangerous pollutants). Certain elements of these directives can be adapted to scientific and technical progress, under procedures set forth in each directive.
- The Community takes an active part in combating major incidences of marine pollution.
- It carries out studies and scientific research into the problems of water and pollution.
- It gives financial support to investments intended to improve water quality.
- It is a party to international agreements embracing countries outside the Twelve.

### **Quality objectives for European water**

To limit or reduce water pollution, the Member States – acting on proposals from the European Commission – have jointly set quality objectives, which vary according to the purpose for which the water is to be used.

- Drinking water:** two European directives, adopted in June 1975 and June 1980, fix criteria applicable to surface waters from which drinking water is to be abstracted and to water intended for human consumption.

Verification methods and frequency of testing of surface waters have been harmonized by another directive, adopted in October 1979, which defines methods of measuring the physical, chemical and microbiological characteristics of water.

- Bathing water:** the safety of bathers in the rivers, lakes and coastal waters of the Community has become a major cause of concern. A European directive adopted in December 1975 gave Member States 10 years in which progressively to improve the quality of their bathing waters. Physico-chemical and microbiological quality objectives and testing methods were established for both freshwater and seawater. This has meant significant progress – but a great deal remains to be done.

- Fishbreeding waters: the quality of the fish, shellfish and crustaceans which we eat depends on the quality of the water in the rivers, lakes and seas. From flora and fauna fish absorb bioaccumulable pollutants which can be harmful in human consumption and occasionally cause serious danger, as happened in Minimata (Japan) following mercury pollution. The Community has therefore adopted directives which lay down quality objectives for water intended for breeding fish (December 1977) and shellfish (October 1979).

## **An end to dumping**

The Community has adopted a number of measures prohibiting or limiting the dumping of certain toxic substances and pollutants. The purpose is to supply protection and to ensure fair competition between all Community firms.

- The Community's most important contribution in this area must be its directive of May 1976 on the discharge of dangerous substances into the aquatic environment. This measure introduced a system of prior authorization for the dumping of toxic substances. It sets limit values and water quality objectives for the most dangerous substances, which are specified in a 'black list' (discharges of these can still be authorized, as long as the prescribed limits are not exceeded). Other, less dangerous, substances figure on a 'grey list': the directive provides for Member States to introduce programmes to reduce the pollution caused by products on this list.

In applying this framework directive, the Community has taken a series of specific measures:

- It has adopted directives limiting discharges of heavy metals, particularly mercury (decisions of March 1982 and 1984) and cadmium (October 1983). It is worth recalling that, until 1980, 94 tonnes of mercury and 200 tonnes of cadmium were discharged into the Rhine every year. In 1986 these discharges were reduced to 7.5 tonnes of mercury and 19 tonnes of cadmium.
- The Community has also adopted directives in respect of the following dangerous substances: HCH (lindane, used as an insecticide) in October 1984; in June 1986, DDT (another insecticide), pentachlorophenol (used to protect woodwork) and carbon tetrachloride (an industrial solvent); in 1988 chloroform (used mainly as a solvent and in the making of CFCs, propellant gases for aerosols), HCB and HCBd (heavy residues from the manufacture of chlorinated solvents), aldrin, dieldrin and isodrin (used as insecticides). A proposal in relation to chromium was also drawn up and submitted to the Council of Ministers.
- As the end of the century approaches Europe will rely increasingly on underground water sources and groundwater. These precious supplies are protected by a directive of December 1979, which prohibits the discharge of the

most dangerous substances and fixes limits for discharges of other materials, which are subject to prior authorization. Direct discharges into underground water are not the only concern: indirect pollution by seepage through the soil is also covered.

- Other Community measures are aimed at reducing pollution caused by specific industrial or agricultural waste.
  - Two directives adopted in November 1973 govern the production of detergents and define ways of measuring the biodegradability of the anionic surfactants they contain.
  - A directive adopted in 1978 is intended to stop pollution from the titanium dioxide industry. Waste from the manufacture of this product amounts to about a million tonnes a year; when dumped at sea it can form 'red sludge', which destroys plankton and breaks or disrupts the food chain. The directive instituted authorization and monitoring procedures for the handling of this waste; it obliges the Twelve to introduce programmes to reduce and then eliminate pollution from the liquid, solid and gaseous wastes from the factories already in operation. In 1988 the Council of Ministers agreed in principle on a proposal to harmonize these programmes. The industry, for its part, has developed less polluting processes which are in growing use.
  - The Commission has just presented the Council with a proposal for a directive on the protection of surface and underground freshwater, as well as coastal waters, from pollution caused by farm effluent and nitrogen fertilizers.
- Finally, the Community has a whole policy to fight marine pollution. Here too prevention and environmental protection are the priority. The policy is based on the directives mentioned above, which aim to reduce the effect of pollutants discharged directly or indirectly into the sea. Also, since the end of the 1970s, when public opinion had been alerted by cases of massive oil pollution such as the wreck of the *Amoco Cadiz* and the explosion of a platform in the Ecofisk oilfield, the European Commission has launched and progressively reinforced an important action plan for fighting accidental pollution. The main elements of this plan are:
  - A Community information system, created in 1984, which has four basic elements: an inventory of means for dealing with accidental pollution, a catalogue of means available, data collection on the properties of hydrocarbons and information about their effect on flora and fauna. In 1986 this information system was extended to the other dangerous substances listed in European directives.
  - An operational system for fighting pollution at sea. In case of a major pollution alert, a Commission team is available round the clock to provide valuable help to users of the information system. In this way the Commission can give administrative and technical assistance to authorities faced with an emergency.

- A Community Task Force, made up of government-employed and independent experts who are ready to follow up the work of the Commission team by offering assistance on the ground. The Task Force was set up following a debate in the European Parliament in December 1986, during which the idea of strengthening existing cooperation arose. The Commission intends allowing developing countries also to avail themselves of the Task Force.
- An annual programme of studies and pilot projects wholly or partly financed by the Community, as well as financial support for training programmes including general and specialized courses.

The Commission manages all these activities, with the help of an advisory committee of senior government experts (Advisory Committee for the Control and Reduction of Pollution caused by the discharge at sea of hydrocarbons and other dangerous substances).

The Commission also endeavours to coordinate its activities with various bilateral and multilateral initiatives: the Channel plan involving France and the United Kingdom; the Denger plan of Denmark and Germany; the Barcelona Convention on the protection of the Mediterranean; the Bonn Agreement on the North Sea; the Mediterranean Regional Centre for combating hydrocarbon pollution (set up in Malta under the aegis of the United Nations), etc.

### **Studies and research**

- Since 1973 the Community has been conducting various research projects into the problems of water, both in the laboratories of the Joint Research Centre and in certain universities and national centres which receive Community subsidies. Water quality is one of the major subjects of the new STEP research programme (Science and technology for environmental protection), which the Commission is proposing to launch in order to strengthen European cooperation in environmental research.
- Information exchange among Member States is on the increase. In December 1975 they decided to set up a constantly updated inventory of information sources on environmental problems. More specifically, the quality of surface freshwater has been the subject of joint monitoring programmes covering 18 different parameters at 123 'strategically' situated measuring stations on the main water courses of the 12 Member States. Since December 1977 the results of this monitoring must be made known to the European Community. The report for the years 1982 to 1986 has just been published by the Commission.

### **Support for investment**

- The European Investment Bank (EIB) gives long-term loans for investment in purifying used water and in improving the quality of drinking water. Other loans,

which are often beneficial for water quality, are aimed at reducing pollution at source, processing urban waste, fighting erosion, assisting reafforestation and preserving our heritage. These loans amounted to almost ECU 1 600 million<sup>1</sup> in 1987, of which ECU 700 million was allocated directly to water protection.

- The European Commission gives non-reimbursable subsidies from the Community budget for certain work on improving the availability and quality of water. In 1987 the European Regional Development Fund (ERDF) gave more than ECU 700 million for more than 1 300 water-related infrastructure projects: dams, catchments, distribution, treatment of used water, protecting and cleaning up sites, anti-pollution measures, etc. In the future the ERDF can be expected to put greater emphasis on financial support for protection of the environment in less-developed regions, through the 'Envireg' programme which the European Commission intends to launch as part of the reform of the structural Funds. The 'Guidance' section of the European Agricultural Guidance and Guarantee Fund (EAGGF) gives financial help to various operations for improving agricultural structures while taking proper account of environmental protection requirements; in particular, it subsidizes water supply work in certain rural areas.

### **Community action to protect the environment in the Mediterranean region**

The Mediterranean regions have their own specific ecological conditions. The nature and intensity of the pressures on the environment there are also very particular.

Conscious of the seriousness of the situation in these regions, and of their importance for the rest of the Community (100 million tourists visit them every year, mostly from Northern Europe), the Commission decided in 1984 to draw up a strategy and an action plan to protect the environment in the Mediterranean region. From 1986 to 1988 this initiative took the form of a preparatory phase, in which the aim was to gather the experience needed for embarking on action with adequate structures and resources.

The results of this phase enabled the Commission to table in November 1988 a proposal to launch a special action programme to protect and improve the Mediterranean environment (Medspa). This programme would be spread over two five-year periods, and would have the following principal objectives:

- To guide all the initiatives taken by the Community in favour of the Mediterranean environment and make them more coherent. By defining an overall strategy it should be possible to intensify action and to concentrate efforts, so that the situation can be markedly improved in the next 10 years.

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<sup>1</sup> ECU 1 (European currency unit) = about £ 0.65, Ir£ 0.78 or US\$ 1.1 (at exchange rates current on 3 April 1989).



- To strengthen cooperation with other international institutions and bodies with similar objectives: the European Investment Bank, the World Bank, the Mediterranean action plan, etc.
- To act as a catalyst for Mediterranean countries outside the Community by developing cooperation with regard to the environment, particularly in the framework of international organizations and of bilateral agreements between the Community and these countries.

### **International action by the Community**

To be effective, the fight against pollution must not stop at the borders of the Community. To protect their seas, coastal waters and international rivers, many Community countries have signed international conventions.

The Community itself participates in international negotiations which lead to such European agreements as the Bonn Convention (1976) on the protection of the Rhine against chemical pollution, the Barcelona Convention (1976) on the protection of the Mediterranean and the Paris Convention (1974) on protecting the sea against pollution from land-based sources.

In its studies and research, the European Community is also developing cooperation and exchanges of information with a range of outside countries, including its neighbours in Europe and in the Mediterranean basin.



The pollutants which affect the soil, air and water interact in various ways. As the ministers of the Twelve underlined at a meeting in Frankfurt on 27 and 28 June 1988, on the occasion of a seminar on the Community's future water policy, water cannot be treated separately from a global policy for environmental protection.

The ministers also recognized that control of water quality cannot be separated from problems concerning quantity. Even if Member States appear to have sufficient resources of water overall to meet their needs up to the year 2000, local or temporary shortages before then are not excluded. In view of the number of people living in regions with insufficient supplies, regional studies are necessary in order to collate and process information on the problem and find solutions.

According to the ministers' conclusions, 'in the European Community as a whole, water is a precious resource which must be managed with care'. By fighting pollution of all kinds, the Community is making its contribution to preserving our water

resources. At the same time it is laying the foundations for a more ambitious policy, to provide more effective management of this rare asset which is part of the common heritage of all Europeans ■

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