

# WATER OUR WEALTH

THE POLICIES OF THE EUROPEAN UNION  
IN THE FIELD OF WATER  
AND SUSTAINABLE DEVELOPMENT

*Welcome to the EU pavilion in the EXPO Zaragoza 2008 where water and sustainable development are the primary focuses! Whereas water is now a threatened resource, sustainable development is an unavoidable concept that propels us towards a future where major economic, social and environmental challenges have to be faced so that everyone in our planet can enjoy an adequate standard of living. Water and sustainable development are interdependent concepts: without water, no sustainable development; without sustainable development, no more water.*

*Expo Zaragoza 2008 shows the dynamic relationship between water and human societies, and how water effectively supports life, livelihood and lifestyle worldwide. The European Union recognises that there must be a sustainable balance between water use and development. Water management is a cross-sectoral challenge with implications for healthcare, environmental protection, economic development, peace and security. Our commitment to sustainable development and a high level of environmental protection will ensure that future generations enjoy better quality of life, not only in Europe but throughout the world.*

*The pavilion and the programme of activities organised by the European Union in Expo Zaragoza respond to these challenges and show the efforts carried out by the EU for integrated water management. The European Union takes this major international event as a unique opportunity to reflect, share experiences and come up with imaginative solutions to the global theme of water. The aim of this publication is to present the main guidelines of the strategies, measures and tools used by the European Union in order to have an equitable and sustainable future for all.*



Hans-Gert Pöttering  
President of the European Parliament



José Manuel Barroso  
President of the European Commission



## ENVIRONMENT 2010: OUR FUTURE, OUR CHOICE, A MAJOR CHALLENGE FOR THE EUROPEAN UNION

The environmental challenges in the modern world are numerous. How to improve our quality of life without damaging the environment and without harming either future generations or growth in developing countries?

This question concerns the future of Europe and of the entire planet. In response, the European Union has set up a strategic framework for 2002-2012 for an environmental policy based on sustainable development.

The Sixth Environment Action Programme, entitled "Environment 2010, Our Future, Our Choice", concentrates on four priority action areas: climate change, biodiversity, the environment and health as well as sustainable resource and waste management.

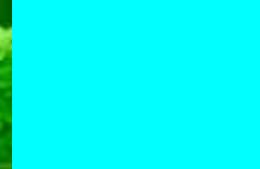
This programme places particular emphasis on the protection of water, a precious and threatened resource which we must all conserve for the future.

.....



*Water plays a central role in six areas of intervention implemented by the European Union:*

- The environment and climate change p. 4
- Research p. 8
- Energy and transport p. 11
- Agriculture p. 13
- Regional development p. 17
- Development co-operation p. 20



## EUROPEAN LEGISLATION ON WATER: SOME REFERENCE POINTS

*The Sixth Environmental Action Programme is based on a series of measures and supplementary laws with the aim of conserving water as a vital resource.*



### THE WATER FRAMEWORK DIRECTIVE

This Directive aims to ensure good water management and stipulates that water is not a commercial product but a heritage which must be protected and defended. It stipulates that water management should be carried out in catchment areas, and its objective is to develop an integrated Community policy which takes account of the needs of industry, agriculture and private individuals.

### LEGISLATION ON WATER QUALITY

The aim of the framework directives on water, potable water and groundwater is to protect water intended for human consumption, in addition to the environmental quality of the associated waters and ecosystems.

The Framework Directive on bathing water is part of a public health and environmental protection policy. Strict sanitary standards are defined therein.

The aim of the Directive on urban waste-water treatment is to protect the environment from the adverse effects associated with the discharge of sewage produced by private individuals and specific sectors of industry.

### CONSERVATION AND PROTECTION OF THE MARINE ENVIRONMENT

The good biological, chemical and physical state of the marine environment is at the centre of future marine strategy as defined up to 2021.

In December 2007, the Framework Directive "Strategy for the Marine Environment" determined common objectives and principles at European level. Having defined European maritime regions, the Member States will develop a common strategy and actively cooperate in marine environment management.



### INTERNATIONAL AGREEMENTS OF THE EUROPEAN UNION ON REGIONAL WATERS

Various international agreements and instruments of co-operation have been concluded in order to protect regional waters within the European Union. Some of the areas concerned are as follows:

- the Rhine basin,
- the Danube basin and the Black Sea,
- the Mediterranean basin,
- the Baltic Sea,
- the marine environment of the North East Atlantic.

### DISCHARGE OF SUBSTANCES, LIMIT VALUES AND NITRATES

A system of binding limits has been established for the discharge of harmful substances in order to conserve the aquatic environment. These directives target substances requiring priority attention, particularly nitrates discharged by agriculture, which are a source of pollution, as well as toxic chemical substances which may threaten surface waters.

### FLOOD PROTECTION AND SCARCITY OF WATER RESOURCES

In October 2007, the European Parliament and the Council adopted a Directive on flood risk assessment and management. After assessing whether catchment areas and adjacent areas are subject to a flood risk, the Member States will take adequate and co-ordinated measures to reduce the effects thereof.

In July 2007, the Commission published a Communication on the means to be implemented to tackle the problems of water resource scarcity and drought. Measures were defined to reduce the impact of these problems within a context of climate change.



In May 2007, the European Parliament proposed increasing from 33 to 61 the toxic products covered by European legislation on water quality. 45 of these were classified as priority substances and should no longer be used by 2015.

### HOW THE EUROPEAN UNION TAKES DECISIONS

Codecision is the most common decision-making system today. When the European Commission proposes new legislation, it is the duty of the Council and of the European Parliament to adopt the texts and give them the force of law. Legislative power is therefore shared by the European Parliament and the Council on the basis of strict equality. During the adoption process, other institutions, such as the Economic and Social Committee or the Committee of the Regions are also consulted for their opinions.

For more information,  
[http://europa.eu/institutions/decision-making/index\\_en.htm](http://europa.eu/institutions/decision-making/index_en.htm)



# THE ENVIRONMENT AND CLIMATE CHANGE

## WATER, THE SOURCE OF LIFE

*Without water, there would be no life on our planet. Today, all human activities depend on it and, on a large scale; water has become a limited and vulnerable resource which it is vital to protect. The European Union is committed to doing so.*

### SOME STATISTICS

#### AT A GLOBAL LEVEL

- less than 1% of the water on the planet can be consumed by human beings,
- more than 1.2 billion people do not have access to potable water and 2.6 billion do not have sanitation.

#### AT EUROPEAN LEVEL

Even if, compared to the situation in some regions of the world, the water resources in Europe are clearly less threatened, let us consider the matter in more detail:

- 20% of surface water within the European Union is seriously threatened by pollution,
- 60% of European cities overexploit their groundwater resources,
- since 1985, the area of irrigated land has increased by 20% in Southern Europe,
- the number of regions and populations affected by drought has increased by approximately 20% between 1976 and 2006,
- in 2003, one of the longest droughts affected more than 100 million people and one third of the territory of the European Union,
- droughts in the last thirty years have cost a total of 100 billion euros.

## FRAMEWORK DIRECTIVE ON WATER

This Framework Directive defines a global objective to be achieved by the European Union by 2015. By this date, it requires the Member States to commit to water protection and management with a view to sustainable use and to secure water resources for future generations, both in quality and in quantity. The objective of the Directive is to achieve a "good status" of all water in the European Union through management plans implemented at the level of each catchment network. It is based on five additional priorities:



### WATER KNOWS NO FRONTIERS

Large catchment areas such as the Danube and the Rhine cover geographical areas extending over several countries. The Framework Directive on water stipulates that the Member States concerned define a common management plan for these areas. Local, regional and national authorities are involved in these management plans, as are all the bodies in the water sector, particularly NGOs.

### WATER CONCERNS US ALL

We all use water in our daily activities, whether we are citizens, members of civil society, authorities at different levels, etc. Since we are better informed on the way in which we impair its quality and quantity, we can adapt our behaviour to achieve responsible and sustainable usage.

### WATER IS A FRAGILE RESOURCE

Human activities (agriculture, industry, domestic usage, etc.) cause water pollution. Apart from protecting rivers, lakes, coastal waters and other ecosystems, the aim of the Framework Directive is to conserve underground water with ambitious quality objectives which should be achieved by 2015.

### WATER AT A PRICE

Water, like the air we breathe, cannot be considered to be a commercial product. However, studies show that well-calculated charges based on accurate measurement of consumption is an incentive for rational and sustainable utilisation of this precious resource. The Framework Directive calls on all Member States to implement a charging policy based on the "polluter pays" principle, whilst differentiating among users. The Framework Directive also establishes that the basic supply shall remain accessible to all.

### INTEGRATED AND SUPPLEMENTARY MEASURES

To summarise, the application of the Framework Directive on water depends on the participation of everybody, within a European partnership approach, both at the level of the citizen and at the level of the top institutions of the European Union. Furthermore, this Framework Directive must, within a wider environmental perspective, be linked to all other legislation on this subject which makes up the European legislative arsenal of "Environment 2010: our future, our choice".

"The European Union is responsible for only 14% of global emissions. We must prove that it is possible to sever the link between economic growth and the increase in CO<sub>2</sub> emissions."

*Hans-Gert Pötering,  
President of the European Parliament.*

A recent study by the Commission shows that potential water savings are almost 40% at European level, comprised of 33% in public water networks and 43% in the industrial sector and in agriculture. How? By improving the efficiency of its utilisation and rationalising irrigation technology and management.



## CLIMATE CHANGE, ITS EFFECTS ON THE ENVIRONMENT... AND ON WATER

*It is a proven fact that climate change has become the greatest environmental, social and economic threat hanging over our future. In itself, it constitutes a brake on the sustainable development of our planet and we will see in the following sections how it affects agriculture, regional development and the situation in the poorest countries.*

As regards water, the effects in certain regions and on a global scale are already clearly tangible: melting snow and pack ice, changes to biological and hydrological systems, etc. All these effects have a direct impact, such as the increase in flood risks in certain areas of the world and of drought in others.

The latest scientific studies remove any doubt as to the disruptions caused by human activity to the global ecosystem of our planet. This phenomenon is at the centre of the concerns of everyone, and the knowledge we acquire every day on this subject compels us to take urgent measures.

### SOME STATISTICS

- Between 1970 and 2004, greenhouse gas emissions grew by 70%.
- In about a hundred years, the temperature of the earth's surface has increased by 0.74°C and will continue to increase by 0.7°C due to greenhouse gases.
- Between now and 2100, the average temperature will increase by between 1.8 and 4°C, depending on the changes in lifestyle and the political choices we make in the meantime.

### URGENT INTERNATIONAL MOBILISATION

In 1997, the international community agreed on the terms of the Kyoto Protocol with the main objective of significantly reducing greenhouse

gas emissions by 2012. For the longer term, negotiations on a global international agreement on climate change for the period following Kyoto were launched in December 2007 in Bali and should be concluded at the Copenhagen summit in December 2009.

### AND THE EUROPEAN UNION?

At the European Summit in the spring of 2007, climate protection was given a spectacular boost with the adoption of a decision to fix the objectives to be achieved by 2020 at 20% with regard to the reduction in greenhouse gas emissions, the use of renewable energies and energy efficiency.

In the near future, the European Union will become involved in challenges such as aviation emissions, renewable energies, vehicle

emissions and the capture and storage of carbon dioxide underground.

In June 2007, the European Commission started a consultation, in the form of a Green Paper, inviting anyone who so wished to express their opinions on adaptation to climate change. Subsequently, it envisages the adoption by October 2008 of a White Paper containing proposals for action.

#### TEMPORARY COMMITTEE ON CLIMATE CHANGE

The European Parliament set up a temporary committee on climate change in April 2007 in order to react to international events, to arouse public awareness on the question of climate change and to make the challenge of climate change one of the principal priorities on the international agenda. This committee is responsible for making transversal proposals by 2009 with regard to the policies of the European Union on these matters.

The committee will examine the various themes in depth through discussions with recognised experts. A series of public hearings have been planned for this purpose between September 2007 and June 2008 on the fundamental challenges: primary sources of emissions sources of emissions of all types, the outlook

beyond 2012, new technologies, emissions from the energy sector and also, the impact of climate change on international security.

Furthermore, the Temporary Committee on Climate Change has also planned visits by delegations to countries such as China, India, the United States and Russia, for example, because they play a crucial role in the international debate on a global agreement for the post-2012 period.

#### A CITIZENS' FORUM ON CLIMATE CHANGE

Faced with climate disruptions which are one of the greatest challenges today, the European Parliament has organised a Citizens' Forum on climate change on 12 and 13 June 2008.

The European Parliament has invited European civil society on this occasion to freely and frankly express its views on this crucial subject by setting out its analyses and proposals but also by defining its role in the actions that will have to be taken.

<http://europarl.europa.eu/agera>



## EUROPEAN RESEARCH TAKES THE PLUNGE

*Research, particularly in the field of water, may contribute to making the European Union “the most dynamic and competitive knowledge-based economy in the world by 2010, capable of sustainable economic growth with more and better jobs and greater social cohesion”.*

Since their launch in 1984, the framework research programmes have tackled the role of water in the environment and in society. This research contributes not only to promoting good water management from the technological and institutional points of view but also to developing a sound water knowledge base and an awareness of its political dimensions and of the necessity to actively protect the viability of our aquatic ecosystem. With a better understanding of the context and impact of global change, the aim is to identify ambitious objectives in order to develop new concepts and tools.

Therefore, in the Sixth Framework Programme (2002-2006), European environmental research has given priority to the development of new knowledge, strategies and instruments to reduce the impact of global change, including climate change, on water resources in Europe and elsewhere.

By launching its European Water Initiative as part of the Millennium Development Objectives, the European Union has ensured the inclusion of a “research” component with the aim of improving scientific co-operation on integrated water resource management and sustainable access to potable water and sanitary installations.

### THE SEVENTH FRAMEWORK PROGRAMME

The aim of this Seventh Programme (2007-2013) is to emphasise the role of research in a knowledge-based economy by promoting innovation and the competitiveness of European industry. Environmental research alone, including on climate change, has received a budget of 1.9 billion euros for a period of seven years. One of its major objectives is to promote research in the private sector. A series of technology platforms managed by the industrial world has been supported for this purpose. Of these it is appropriate to emphasise the role of the “Water Supply and Sanitation Technology Platform” (WSSTP).

.....

## PROBLEMS ASSOCIATED WITH WATER ARE GLOBAL AND CALL FOR GLOBAL SOLUTIONS

Some of the objectives of the Seventh Framework Programme are better understanding of the potential impact of global change and climate changes on water resources and therefore on European policies and the complete integration of international scientific co-operation into the research activities. By developing tools and technologies for the monitoring, prevention or reduction of environmental pressures, the European Union should acquire the means to adapt to this new context and to preserve the sustainability of the environment and of water resources. These actions are supplemented by the development of a policy of dissemination of the results to the benefit of the entire Community.

### THE WSSTP

This platform is a discussion and debate mechanism for participants from the industrial sector, the academic world and civil society with the aim of reinforcing the potential for technological innovation and the competitiveness of the European water industry, of water experts and of research institutes. It defines a common technological and scientific research programme and a realistic implementation plan.

Four major challenges requiring targeted research activities and real applications via pilot programmes have been identified:

- the increase in tensions between supply and demand as well as water costs,
- the urbanisation and management of the water cycle and its infrastructure in the city,
- extreme phenomena such as floods or droughts,
- the supply and treatment of water in rural and development areas.



THE JOINT  
RESEARCH CENTRE:  
TODAY'S SCIENCE  
AT THE SERVICE  
OF TOMORROW'S  
ENVIRONMENT

*The European Commission has its own science department, the Joint Research Centre. Its mission is to provide scientific and technical support for the conception, development, implementation and monitoring of European policies. Water initiatives implemented in this way enable better control of certain phenomena associated with climate change. Some examples?*

EARLY WARNING AND MONITORING  
OF FLOODS AND DROUGHT  
IN EUROPE

Common methodologies and information systems which anticipate phenomena associated with storms have been developed on a European scale in order to prevent natural disasters associated with exceptional rainy periods. It has become possible, for example, to trigger warnings three to ten days in advance for the majority of cross-border catchment areas.

A EUROPEAN DROUGHT OBSERVATORY

Managed by the Joint Research Centre, the European Drought Observatory's mission is to provide timely information on conditions indicating periods of drought. Amongst other things, the Observatory already enables daily monitoring of the humidity level of the soil in Europe in collaboration with national and regional authorities.

AN AID TO THE REHABILITATION  
OF EUROPEAN SEAS

This project concerns the excess of nutrients threatening the ecological equilibrium of European waters. Thanks to the Joint Research Centre, green tides and the proliferation of phytoplankton, which affect the appearance and disappearance of fish, can be monitored by measuring the concentration of chlorophyll via satellite.

GLOBAL PRODUCTIVITY OF THE OCEAN  
IN TERMS OF CO<sub>2</sub> ABSORPTION

The Joint Research Centre has developed a computer programme to enable monitoring of the biomass and of the carbon production by European oceans and seas by analysing the optical properties of marine surfaces.

• • • • •

## ENERGY AND TRANSPORT

*Energy and transport are at the heart of European policy on sustainable development. Climate change, security in general, economic development and sustainable modes of transport are political challenges which go hand in hand with the energy challenge.*

In March 2007, the heads of state or government of the European Union decided to go ahead with regard to energy policy by defining precise objectives for 2020:

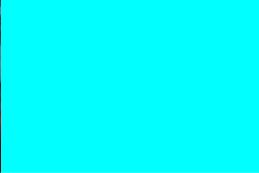
- to reduce greenhouse gas emissions by 20%;
- to achieve 20% renewable energies in the energy "mix" of the European Union;
- to use 10% biofuels in the transport sector;
- to save a minimum of 20% of total primary energy.

These objectives express the willingness of the European Union to counter global warming by developing policies which integrate energy and transport into a sustainable development concept.

### WHAT ROLE DOES WATER PLAY IN TRANSPORT AND ENERGY POLICY?

The aim of the energy sector approach is to promote energy savings and to improve energy consumption efficiency before considering any other alternative. This same approach is also applicable to the water sector. Saving water also means saving energy insofar as water abstraction, transport and treatment consume a great deal of energy.

In European transport and energy policies, water plays a role in the production of hydroelectric power and in river and sea transport.



## HYDROELECTRIC POWER

Hydroelectric power constitutes nearly 20% of power production in the European Union and does not discharge CO<sub>2</sub> or other harmful gases into the atmosphere.

However, the hydroelectric sector is closely linked to the geographical configuration of the Member States. Six countries produce 84.5% of European capacity: Italy, France, Spain, Germany, Austria and Sweden.

## OCEANIC ENERGY

In light of the depletion of fossil fuels and a concern for conserving the environment, the concept of using the power of the oceans offers opportunities on a European and global scale. This energy comes from multiple sources:

- waves
- tides,
- ocean currents,
- osmotic pressure (the difference in salinity of sea currents).

Whilst oceanic energy attracts more and more interest from scientists, efforts today are concentrated mainly on experimentation and research. The two greatest challenges remaining are the refinement of the technologies and the control of production costs.

## SEA TRANSPORT

This is a vital means of transport for trade within the European Union and with our trading partners throughout the world.

In order to ensure that this mode of transport is safe and environmentally friendly, the European Union has legislated that ships navigating in European waters must comply with strict safety standards.

Short-haul sea transport within the European Union, covered by a comprehensive network of sea lanes, relieves land transport and reduces sources of accidents in sea traffic.

With its TEN-T (Trans-European transport network) and Marco Polo programmes, the European Union supports the development of sea lanes in four regions: the Baltic Sea, Western Europe, South Eastern Europe and Eastern Europe.

## INLAND NAVIGATION

More than 37,000 km of river traffic routes connect hundreds of towns and industrial regions. This mode of transport is reliable, safe, economical and produces negligible quantities of emissions harmful to the environment.



## WATER AND AGRICULTURE

*Agriculture is an economic activity in a natural environment with a duty to respect and optimise balances. It is also by far the primary user of water resources: up to 75% of total consumption. Therefore, agricultural activity today must face major challenges: sustainable development, social and territorial cohesion, protection of the environment, tackling climate change, etc. To confront these challenges, the European Union is working towards integrating these into the CAP (Common Agricultural Policy).*

### THE MULTIPLE TASKS OF AGRICULTURE

The European agricultural model has several functions and makes agricultural activity a source of economic, social and environmental development. Therefore, today, its role goes beyond that of food production. It contributes particularly to the maintenance of populations and of the economic fabric in rural areas, to the economy of these areas, to land and landscape management and also to the protection of the environment.

- The European agricultural area covers 183.2 million hectares.
- This constitutes 47% of the total area of the Union.
- If forests are included, this proportion rises to 78%.

.....



## AGRICULTURE, AN ECONOMIC ACTIVITY WHICH USES LAND...

As this activity is closely linked to the land, agricultural activity depends on multiple factors: soil, water, climate.

European agriculture is carried out in diverse geographical and climatic zones with greatly variable access to water.

- Plains and peri-urban areas. The soil in those areas is of good quality and rich in water, but it is also exposed to a risk of contamination and subject to urban pressure.
- Areas with structural handicaps (mountains, Arctic regions, islands) make agricultural production difficult.
- Arid areas in the Mediterranean South, where there is little rainfall but which specialises in extensive agriculture (vineyards, olive trees, etc.).

Agriculture and forests occupy 4/5 of Europe. Associated activities are therefore at the centre of great ecological equilibriums. In the new CAP, agriculture should therefore integrate such dimensions as land management

and development, environment and water management and climate change.

## ... AND WHICH DEPENDS ON WATER

Agriculture clearly has an impact on the environment. With regard to protection of the environment:

- it guarantees the density and diversity of the European landscape,
- it has an impact on the capture of carbon in the soil,
- it sustains plant and animal biodiversity.

But neither must it be forgotten that as far as sustainable development is concerned, it is appropriate to avoid wasting water for intensive irrigation and to prevent depletion of groundwater. It is also essential to reduce water contamination as far as possible by plant-

protection products, by nitrogenous pollution, by fertiliser use and by the spreading of livestock manure such as slurry.

Environmentally-friendly water management was already taken into account in the CAP in its reform in 2003. Therefore, farmers today may see their direct subsidies reduced or even withheld if they do not comply with the provisions concerning the protection of groundwater or the use of nitrates (amongst other things).

The CAP reform process takes account of these challenges, particularly by strengthening its agri-environmental strand. The European Commission places emphasis on more efficient water management, biodiversity protection, optimum exploitation of possibilities linked to bioenergies and combating climate change.

- In some southern Member States, irrigated land may constitute up to 1/5 of the agricultural area and up to 50 - 60% of total agricultural production.
- Irrigation can boost production value sixfold and operating profits fourfold.
- Irrigated areas have increased by nearly 20% since 1985.
- The water volume for irrigation constitutes approximately 75% of total water consumption.

## EUROPEAN AGRICULTURE IN THE FACE OF CLIMATE CHANGE

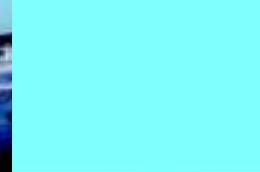
Three major themes emerge.

Agricultural activity receives the brunt of natural disasters (floods, storms, drought, forest fires). But the risks related to global warming are not uniform throughout Europe. The northern part of the European Union could see an increase in rainfall whereas in the southern regions could experience the opposite phenomenon. All this clearly has an effect on the availability of water resources, particularly in the South. More rational and sustainable water use has been on the CAP's agenda for some time now. One of the measures taken has been to no longer link subsidies to quantities produced. This disconnection has enabled a reduction in production even though the latter could previously exceed market capacities.

Another problem connected with climate change and its impact on yields is price volatility. The CAP shall necessarily involve concepts of risk management mechanisms in order to reduce fluctuations in production and income for farmers.

The CAP shall also consider the global impact of agriculture, particularly on climate change.

- Cultivated areas and forests do not emit CO<sub>2</sub> on a global scale. On the other hand, some livestock and cultivation activities constitute primary sources of nitrous oxide and methane emissions. The aim of Community strategy is to reduce these emissions by promoting good practice in fertilisation, animal feeding and control of energy consumption.
- By promoting biofuels using production methods which are sustainable and particularly economical with water resources, biomass products may replace fossil fuels and the capture of carbon from the atmosphere may be increased.
- Agricultural and forestry activities manage the land, protect it from rural depopulation, from soil erosion and fire risks; they are therefore part of the European strategy to prevent natural disasters.



## CLIMATE CHANGE AND SOME ASPECTS OF THE MULTIFUNCTIONALITY OF AGRICULTURE

### RURAL DEVELOPMENT

Some CAP money earmarked for rural development has already been used to reduce pressure on water resources by supporting positive measures such as financing more efficient irrigation installations or the incentive to change arable land into pasture requiring less water.

### THE BENEFITS OF IRRIGATION

Well-managed, irrigation can have significant environmental advantages. Some types of landscape may favour wildlife diversification. For example, the creation and management of rice fields generates food sources for certain species of birds.

### DISCHARGE OF CLEAN WATER INTO RIVERS

Water management is not only a question of quantity, but also of quality of surface and groundwater. Groundwater is the primary source

of potable water, but sometimes agricultural practices make it unfit for consumption (nitrate concentration, incorrect usage of fertilisers or pesticides). These same pesticides and fertilisers can get into rivers and lakes. The CAP has established strict standards concerning access by farmers to subsidies.

### COST MANAGEMENT

Protection of the environment has a price. The CAP provides additional subsidies to farmers working to improve the environment. The following are some of the measures promoted: not planting in areas too close to rivers or lakes in order to avoid contamination of these waters by fertilisers and pesticides, to give priority to crop rotation and also to dedicate a section of land to pasture. Finally, a special subsidy is paid to farmers who stop using pesticides.

In Spain between 2000 and 2005, 2,300 projects with the objective of improving irrigation systems enabled a reduction in water consumption by 2,800 hm<sup>3</sup> or the equivalent of 1,120,000 swimming pools.



## WATER AND REGIONAL DEVELOPMENT

### MORE GROWTH AND EMPLOYMENT FOR ALL REGIONS AND CITIES IN EUROPE

*The aim of the cohesion policy of the European Union is to reduce socio-economic disparities between all the regions of Europe and to help to regenerate areas seriously affected by industrial restructuring. Therefore, this policy concurs with the "Lisbon" strategy. It is estimated that growth in the new Member States could increase by an average of 6% and generate two million new jobs by 2013 thanks to this policy.*

#### THREE STRUCTURAL FUNDS TO FINANCE THE COHESION POLICY

- The European Regional Development Fund (ERDF),
- The Cohesion Fund,
- The European Social Fund (ESF).

These funds finance between 50% and 85% of a project total, the remaining 20 - 50% coming from either national institutions or the private sector. Investment supported by these structural funds often has a "leverage effect". In other words, third-party investments in projects co-financed by the European Union can be double the Community contribution, to the benefit of the regions concerned.

For the 2007-2013 period, the cohesion policy will have been implemented through some 450 operational programmes which will enable the financing of tens of thousands of projects co-managed and evaluated by national and regional authorities and the European Commission involving companies and non-governmental organisations.

The principal investment areas are:

- knowledge and innovation,
- transport,
- human resources,
- environmental protection and risk prevention, with particular emphasis on water.

The cohesion policy accounts for 347.4 billion euros or 1/3 of the overall budget of the European Union over a period from 2007 to 2013. 51 billion will be invested in the water sector and infrastructure for the decontamination of polluted areas in order to reinstate economic usage and from the point of view of prevention of environmental risks.



## THE COHESION POLICY SUPPORTS SPECIFIC WATER PROJECTS

The water industry is a major economic player in Europe and is a source of growth and jobs. This sector currently generates a turnover of approximately 80 billion euros, which is increasing by approximately 5% p.a. The employment rate in this sector is increasing by approximately 6 - 7% p.a.

On the basis of the proposals drawn up by the European Commission, the Regional Development Committee of the European Parliament has been co-legislator with the Council on new structural fund regulations covering diverse themes associated with water such as:

- the improvement in water management in urban and regional areas,
- projects concerning the development of inland waters,
- the construction of hydroelectric power stations producing renewable energy,
- new water treatment methods.

## INVESTMENT IN NEW INFRASTRUCTURES

The cohesion policy helps the Member States to develop infrastructures in order to comply with the Directive on "the quality of water intended for human consumption" and the Directive on "urban water treatment". In 2007-2013, a large part of the investments in the environment under the cohesion policy will be used to improve sewage systems in less developed countries (particularly in new Member States and in candidate countries).

## MARITIME POLICY

Water also contributes to defining geographical features. The development of coastal areas is closely dependent on water. In general, the aim of structural funds is to develop growth and create jobs in those regions where traditional industrial activity is tending to disappear. The European Union is focusing on the development of these coastal and island areas and is contributing to the preparation of a specific maritime policy. It supports projects in many varied fields, all catalysts for sustainable development: coastal tourism, marine research, port development, support for "the main maritime competition centres" (bringing together industrialists and researchers working on common projects to develop the maritime economy), etc. The cohesion policy also helps governments to implement cross-border



or trans-national projects in order to conserve existing resources or to develop the economy of geographical areas dependent on a sea or a river (for example, there are numerous projects around the Danube or the Baltic Sea).

## CLIMATE PROTECTION

The cohesion policy also plays an essential role in climate protection. In fact, the structural funds enable the financing of projects contributing to the objective of reducing CO<sub>2</sub> emissions, such as the creation of sustainable integrated transport networks.

## NATURAL DISASTERS

The abundance or lack of water may become a latent threat. It is sufficient to think of the natural disasters of the last few years which are becoming more and more frequent. The recent dramatic floods in the United Kingdom and in Eastern Germany bear witness to the fact that these storms constitute a threat not only to human lives but also to regional development in general. The same applies to droughts, which are often the origin of forest fires which also seriously affect regional development. This is why water is at the heart of the debates of the Committee on Regional Development of the European Parliament, aimed both at preserving

this unique resource and protecting us from specific adverse effects. To confront these natural risks, the European Commission, with the support of the European Parliament, proposed in 2002 the creation of a "Solidarity Fund", which the Member States may call upon following a natural disaster. The aim of a large number of projects co-financed by the European Regional Development Fund (ERDF) and the Cohesion Fund is also flood protection and measures for drought risk management.





# WATER AND DEVELOPMENT CO-OPERATION

## THE SUPPORT OF THE EUROPEAN UNION FOR DEVELOPING COUNTRIES

*The European Union is the principal donor of funds in the world, contributing 56% of the total volume of aid to developing countries. In 2007, the European Union's contribution was in the region of 46 billion euros.*

*The water sector accounts for almost 5% of the total development aid financed by the European Union.*

## WATER AND SANITATION CHALLENGES IN DEVELOPMENT

“Water is a primary human need and water supply and sanitation are basic social services. It is a fundamental economic and environmental resource, and is thus a key issue for poverty reduction and sustainable development.” (Resolution of the Council of the European Union of 17 May 2002).

The lack of access to potable water and sanitation in developing countries is one of the principal causes of disease and death. It is also one of the principal factors in holding back education and economic development.

Furthermore, potable water is a fragile commodity and its vulnerability may also generate social and geopolitical conflicts. For example, in the Middle East, a region where water resources are inadequate or distributed unequally, access to water is crucial and constitutes a major geopolitical challenge.

In other regions, particularly in Africa and Asia, access to water is complicated by large seasonal variations and periodic cycles due to droughts and floods which are more frequent than previously, due to the intensification of human activities. In fact, climate change today, which affects developing countries and more particularly the poorest populations within these countries, is adding to the “water crisis”.

- 1.2 billion people do not have access to a potable water supply.
- 1.8 million people die every year from diarrhoeal diseases, 90% of whom are children under the age of five.
- 2.6 billion people lack basic sanitation. Conscious of this distressing situation, the United Nations General Assembly declared 2008 The International Year of Sanitation.
- The minimum quantity of water which a human being should have for daily consumption is estimated to be 20 litres. In some regions, this volume is not even accessible.
- The daily consumption of a European is 200 litres. That of a North American 600 litres.



### THE MILLENNIUM DEVELOPMENT GOALS

Leaders from 189 countries meeting in New York in 2000 for a General Assembly of the United Nations adopted a declaration for the new Millennium. Eight Millennium Development Goals are the result of this declaration.

The aim: to reduce extreme poverty by half by 2015.

The aim of the Seventh Millennium Development Goal in particular is to reduce by half by 2015 the percentage of the population without access to potable water and without acceptable sanitation.

In order to achieve these objectives, the World Summit on Sustainable Development held in Johannesburg in 2002 placed renewed emphasis on the water sector. To be more precise, this Summit launched a European water initiative which, since then, has defined the political framework for co-operation between the European Union and third countries.

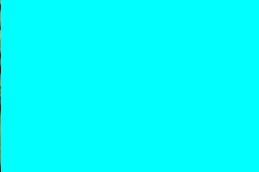
### A GLOBAL RESPONSE TO LOCAL CHALLENGES: INTEGRATED WATER RESOURCE MANAGEMENT

The most visible element of the water crisis is the increase in tensions between:

- the sub-sectors using this resource: agriculture, industry, the domestic sector, the environment,
- the countryside and towns and cities,
- various economic and social interests.

This crisis is not linked solely to demographic growth or economic development. It also results from deficient management, insufficient transparency and inequitable distribution of water and the almost non-existent action against water pollution.

Integrated water resource management is a process which aims to respond to these issues. Its objective is to promote good governance in this sector and efficient and sustainable management of this resource.



## INTEGRATED WATER RESOURCE MANAGEMENT IN BURKINA FASO

In March 2003, Burkina Faso approved the Action Plan for Integrated Water Resource Management (PAGIRE).

The aim of this tool, covering the period 2003-2015, is to re-focus the missions of the Government and to set up a national water council incorporating the government, local authorities, the private sector and civil society. It also provides for the creation of new management areas based on catchment areas and for the strengthening of the intervention capacities of local authorities, the private sector and civil society in the water sector.

.....

## AN INTEGRATED FRAMEWORK FOR A EUROPEAN APPROACH TO DEVELOPMENT IN THE WATER SECTOR

*Since the 2002 World Summit on Sustainable Development, the European Commission has brought together various political and financial instruments associated with water within a single integrated framework. These four instruments are:*

### EUROPEAN WATER INITIATIVE

This is an area of political dialogue and consultation among governments, decentralised government structures, civil society and the private sector in partner countries, the Member States of the European Union and the European Commission. The common aim is to achieve the Millennium Goals.

### THE ACP-EU WATER FACILITY

With the intention of financially supporting this initiative through positive actions, this facility has financed projects in countries in Africa, the Caribbean and the Pacific (ACP) with a total of 500 million euros between 2004 and 2007.

Additional finance could be granted from 2008.

### SUPPORT FOR NATIONAL AND REGIONAL PROGRAMMES

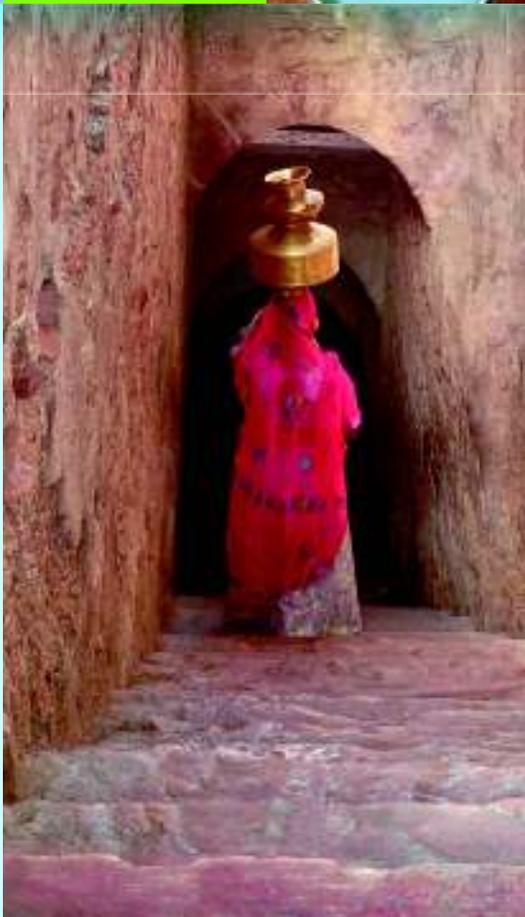
These programmes, which cover all development aid sectors, are in line with the co-operation agreements between the European Union and third countries

and regions. There are 66 countries and regions in the water and sanitation sector in particular which benefited in 2006 from the support of the European Commission, receiving a total of 271 million euros (excluding emergency aid).

60 countries will receive a total of almost 700 million euros (excluding emergency aid) for the period 2008-2013.

### THE EU-AFRICA PARTNERSHIP FOR INFRASTRUCTURES

This programme was created in 2006 to support the development of grand trans-African networks. The management of cross-border catchment areas, flood defence programmes, knowledge acquisition and water resource monitoring with a view to better management and sustainable regional infrastructures are the particular focus of this partnership for the water sector.



## A CONCRETE EXAMPLE: POTABLE WATER SUPPLY AND SANITATION IN RURAL AREAS IN NICARAGUA

*The hygiene conditions of the rural population in Nicaragua are very precarious and account for a large number of infectious diseases. The scope for assistance covers Matagalpa and Jinotega provinces in Northern Nicaragua. These regions are cut off from centres of production and decent health and sanitation services. These difficult conditions were made worse by hurricane Mitch in 1998.*

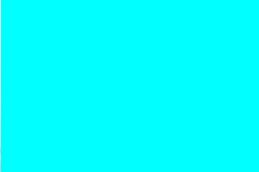
### IMPACT

- The mortality rate from infectious water-borne diseases and respiratory infections in children under five years of age has been significantly reduced.
- 105,000 people have benefited from training to manage and maintain better hygiene and health conditions: use and maintenance of latrines, construction of kitchens, basic health care, water system maintenance, etc.
- Various types of sanitary systems have been built in schools and houses.

### RESULTS AND STATISTICS

- Financing by the European Commission: 11 million euros.
- 52,000 people have access to potable water.
- 145,000 people benefit from access to basic sanitation.

.....



## THE EUROPEAN UNION, A COMMUNITY OF HALF A BILLION CITIZENS

*With 27 Member States, a population of almost 500 million inhabitants and 23 official languages, the European Union today constitutes the largest political and economic partnership in the world.*

### HOW DOES IT WORK?

The three principal institutions are:

- The **European Parliament**. It is elected by direct universal suffrage and its members, the European Members of Parliament, represent the interests of European citizens, their electors.
- The **Council of the European Union**. It represents the Member States. Depending on the subjects on the agenda, the competent minister from each national government participates in these meetings.
- The **European Commission**. It is the institution which is politically independent of national governments and which represents and defends the interests of the European Union as a whole. It draws up new European laws, which

it puts before the European Parliament and the Council, who adopt them or not in accordance with the codecision procedure (See page 3).

Other bodies also play a key role, for example:

- The **European Economic and Social Committee** is a consultative body which represents civil society (employers, trade unions, farmers, consumers and other special interest groups).
- The **Committee of the Regions** is a consultative body which represents the regional and local authorities of Europe. Its members all exercise local mandates. They must be consulted prior to any decision on matters affecting local and regional authorities, such as regional policy, the environment, education and transport.

### WHAT ARE THE ACHIEVEMENTS TO DATE?

Commercial and cultural exchanges without borders, a single currency (the euro), safer food and a greener environment, better living conditions in poorer regions, joint action against crime and terrorism, cheaper telephone communications and plane tickets, millions of opportunities to study abroad and many more...

It is through dialogue, respect for its values and its democratic principles that the European Union is building its future with you.

For more information on the European Union:

<http://europa.eu>



Photographs courtesy of: iStockphoto.com  
Photo of Mr Pöttering: European Parliament  
Photo of Mr Barroso: European Commission

*Today, serious threats are hanging over water and sustainable development in general. The European Union has set itself the goal of hedging its bets for the future by acting positively on a European and global scale. Our efforts concern a large number of action areas such as research, transport and energy, agriculture, regional development and development co-operation. With permanent objectives such as the conservation, protection and good management of water, but also more generally action on climate change, our aim is to reconcile social and economic development with environmental protection.*

*When it is a matter of safeguarding the future, every drop counts.*

*For more information:*

*European Union: <http://europa.eu>*

*European Parliament: <http://europarl.europa.eu>*

*European Commission: <http://ec.europa.eu>*

*Summaries of the EU legislation on Water protection and management:  
<http://europa.eu/scadplus/leg/en/s15005.htm>*

*EUROPE DIRECT is a free service which answers your questions about the European Union.  
<http://europedirect.europa.eu> - Tel 00 800 6 7 8 9 10 11*