

*To provide, by 2025,  
sufficient, safe, clean and*

# Our Vision for Water in the **21st Century**

*healthy water for nature  
and people living in stable  
societies.*



# CENTRAL & EASTERN EUROPE

## Water for the 21st Century: Vision to Action

### SUMMARY

This report presents a Vision for the future of water resources management in the Central and Eastern European (CEE) Region, and a Framework for Action for realising the goals of the vision over the coming twenty-five years.

*Our vision is that in two or three decades there will be sufficient safe, clean and healthy water for nature and people living in stable societies in the region.*

This is a Vision held by the representatives of both the Danubian countries and the Baltic ones. Despite hydrological differences among countries the participants in consultation felt there was more in common than not, and the Vision is a shared goal which opens the door to substantial cooperation within the region.

### The background

These countries, more than most, have seen enormous changes in social political and economic circumstances. The long post war period of central planning has left a legacy of problems to be resolved in water management; but the changes of the past ten years also open doorways of opportunity for repairing damage and sustainable use of water in the future. While the circumstances in the individual countries differ one from the other, this history binds them with a link which in turn is strengthened by the shared goal of all to rejoin Europe, now under the umbrella of the European Union.

#### The 10 CEE Countries

Bulgaria
Czech Republic
Estonia
Hungary
Latvia
Lithuania
Poland
Romania
Slovakia
Slovenia

### THE ISSUES

Hydrological conditions and water resource endowments indeed vary significantly through the region yet the problems share institutional and historic causes. State planned economic activity based on heavy industry and large-scale state farms has left widespread and heavy pollution of both surface and ground water. There is institutional fragmentation and budget constraints limiting the scope and scale of investment in water. Environmental concerns have been neglected and drought and flood both pose continuing hazard.

#### Pollution and water quality

The poor quality of both surface- and groundwater is a problem common to all countries in the Region. Pollution by inadequately controlled discharges of waste of municipal, industrial and agricultural origin (including non-point sources) provides risk to human and ecosystem health alike.

Drinking water supply is unsatisfactory in rural areas across the region; wastewater collection and treatment is low and sludge management is poor.



The problem has many dimensions – legal, technological, sectoral and institutional. But structural economic change offers a window of opportunity, affecting levels of pollution and water use. A fall in industrial output during transition reduced environmental damage in most CEE countries during the early nineties. Effective regulation and economic reform can ensure that economic recovery does not lead to increased pollution.

The same applies to agriculture. In recent years, the use of irrigation, fertilisers and pesticides has declined, as their price has risen and state farms dismantled. But in future, agriculture may become more intensive. This will require preventive and protective measures. Thus the pollution problem is one of cleaning up a historical burden while ensuring that current lower levels of discharges are maintained.

#### **Priority challenges:**

- › Water quality improvement and management, including surface and subsurface waters, and the marine environment of the Baltic and Black Seas.
- › Water supply and sanitation in rural regions, but also in urban centres and settlements.
- › Protection of ecosystems at risk from pollution and changing hydrological regimes.
- › Rehabilitation of degraded and contaminated areas.

#### **Water resource issues**

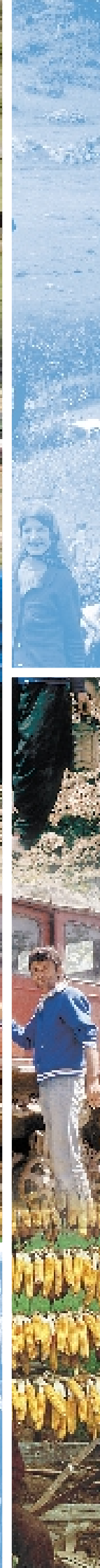
Here there is considerable diversity between countries. Estonia, Latvia and Slovenia have relatively abundant water resources and most of their problems lie on the 'demand side' (e.g. quality of drinking water, obsolete water infrastructure, and inefficient small water utility companies).

Poland and Lithuania in common with some of the Danube countries have problems both on the supply side as well, because of the considerable year-to-year variability of water resources and dependence on resources of external origin. Persistent water shortages cause resource allocation problems, conflicts and competition between different water uses.

Flood management is mostly a problem in Poland, Lithuania as well as in the countries located in the Danube River basin which are also highly vulnerable to excess waters.

Most of the current protection against floods is based on flood levees, with the relatively small capacities in the storage reservoirs due to the predominantly flat topography of the Region.





Uncontrolled urbanisation, land use changes and economic developments in the floodplains as well as institutional weaknesses are the major causes of high flood losses.

**Priority challenges:**

- › Flood management, as illustrated by recent floods of regional dimensions.
- › Satisfying water demands in areas with scarce resources.
- › Restoration of supplemental irrigation in the face of structural changes of agriculture.

**Complex institutional structures and transboundary links**

Water-related institutional arrangements in all CEE countries are over-complicated, non transparent and financially not self-supporting. Even though river basin approaches to water resource management are well known and indeed practised in some countries (e.g. in Poland, Hungary and the Czech Republic), agencies are typically not well nested into the countries overall institutional arrangements. Technical support to them is weak and this has transboundary implications, too.

The shared goal of accession to the EU offers a clear mechanism for institutional reform and restructuring through, for example, the Framework Directive, which ensures strong legal support for integrated water resource management through river basin organisations.

The six countries of the Danube group are strongly linked by the largest Central European river and it is essential that transboundary issues are addressed. This is not easy since they often conflict with problems at a national level which are of higher priority for the local population. Several transboundary issues must also be solved among the Baltic countries (including agreements with some of the countries that are not covered by this report – e.g. Belaruss, Russia) and the rehabilitation of the Baltic Sea is a shared concern.

**Priority challenges:**

- › Strengthening economic, regulatory and institutional arrangements at the regional (transboundary), national, river basin and local levels; compatible with the new political and economic realities of the CEE countries.
- › Capacity building and raising awareness in the area of water resources management.
- › Finding the financial resources for these challenges in a transition period when water as a whole may not be recognised as a primary issue.

## THE CHALLENGE: DEVELOPING A VISION REFLECTING ISSUES AND NEEDS

Our vision is an ambitious one. At present many areas of the CEE region face water shortages; inadequate flood control, drinking water supply and ecosystem preservation; and a polluted water environment. Societies are still in a transition period.

Under the Vision all these problems will have been sustainably resolved. To implement that vision will require a joint and serious effort from all of us. We know that the future will not look like the past. Economic development and the associated growth will put more pressure on water resources. But democratic and market forces are likely to affect water resources management in a positive way.

The private sector, which generally is more effective and efficient than the public sector, should grow and develop. EU accession provides a driving force supporting integrated water resources management. Policy reforms including changes in relative prices, privatisation and reduced state intervention will support better water management. Nevertheless to achieve the Vision as set below remains a challenging goal. The fundamental assumption is a strong commitment to implement integrated water resources management by all concerned - those who govern and those being governed.

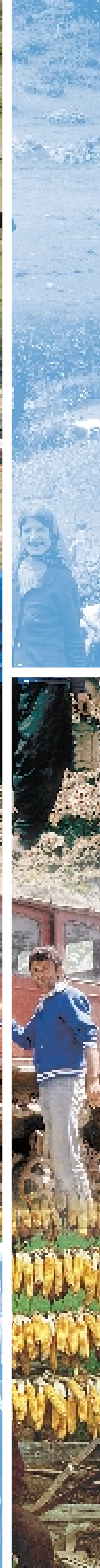
### The Vision-CEE by 2025

All ten CEE countries are EU members by 2025. They are characterised by stable societies and economies. The smallest per capita GDP is not less than half of the EU average. Principles of sustainable management and ecological economics are increasingly implemented in the practice.

#### Specifically:

- › Water shortage is no longer an issue;
- › Strategic actions and initiatives have made possible for people living both in urban and rural areas, to enjoy uninterrupted supply of safe, good quality water at affordable prices;
- › Floods and droughts are mitigated according to internationally accepted safety criteria through both structural and non-structural measures.
- › Eco-friendly farming with improved nutrient management and industrial practices, provision of extensive sewerage services and waste management systems, and their strict enforcement has substantially reduced point and non-point source pollution such that most rivers and inland seas have been largely restored; and many wetlands have been reconstructed.
- › Strengthened institutions, harmonised laws and legislation, as well as enforcement guarantee the implementation of integrated water resources management on river basin, national and international levels alike, as part of sustainable economic and social development.





› Water authorities are efficient, transparent and in good contact with NGOs and community based organisations (CBOs). Information is free to the public.

### **STRATEGY AND FRAMEWORK FOR ACTION**

The implementation strategy should follow the IWRM principles, which has implications at two levels. There should be integration between the different branches of the water sector with a special focus on the adoption of ecosystem management. Equally, water management must become integrated with wider institutional economic and social structure, and enter the mainstream of political discourse.

Central to achieving this shift in perspective is a need to improve communication between main actors in water resources management and to improve dialogue among politicians, water consumers, water specialists and other stakeholders.

Communication at every level - regional, national, community and household - enables us to find the right balance between competing initiatives that must be satisfied with efficiency, equity and sustainability criteria taken into account.

#### **Within this framework, there are six main themes for action:**

- › Making water governance effective
- › Complying with European Union directives
- › Generating knowledge for action
- › Increasing public participation
- › Tackling urgent water problems
- › Improving financial flows.

#### **Making water governance effective**

Governance is the framework of political, economic and legal structures within which societies choose to manage their affairs.

The priority action for governance is to take measures to clearly identify and separate water management actions from water delivery functions, and separate policy, planning, and regulatory functions from engineering, construction and operational activities.

Linked to this, action should be taken at the lowest appropriate level and decisions made bottom up. Government still have an important role, but they must concentrate on the things that they, and only they, can do: i.e. to define and enforce the appropriate legal, regulatory and

administrative framework. At the same time, it is important to encourage water managers to be creative in managing water resources and avoid making too many regulations.

Actions are also needed to mobilise political will for encouraging actions for better managing our water resources as an immediate priority in the region.

### Complying with European Union Directives

Entering the European Union is one of the most important goals for CEE countries. The EU framework has a major impact on water resource management, but it is demanding, some directives may not comply directly with local conditions and compliance cost is often high.

A key immediate action to support the CEE countries is to establish regional Water Clubs to develop appropriate water policies to comply with European Union rules, and to share knowledge and experience – ‘east-east dialogues’.

River basin least-cost approaches in water quality planning and management must be introduced across the region. This is central to the forthcoming EU Framework Directive and it is important that CEE countries offer mutual support in order to establish river basin management organisations that have the power and money to function. Information sharing and, for example, setting up pilot catchment studies will build capacity for implementing the Framework Directive.

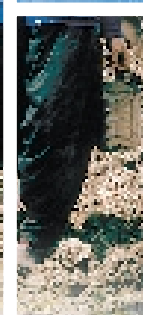
### Generating knowledge for action

Knowledge includes research and development and the collection of information and data, which are used for water management. Professionals of the CEE countries are well-known by their high level of theoretical knowledge but there are shortcomings in transferring this knowledge into practice.

Actions to build practical action oriented knowledge include a more creative approach to R&D, using pilot programmes and demonstration projects to ease implementation and technology transfer, and guiding technological research and development to take a leap-frog approach to address the needs of the region, rather than copying other European countries.

Monitoring and measurement is an important tool both for water resource management, and for effectively assessing actions already taken and their impacts. The present water quality monitoring networks are not providing appropriate information to governments and their agencies for either, although water quality effects are critical in the region. Effective monitoring means measure less, but do it reliably, and use the data obtained – this should be the underlining principle.





### **Increasing public participation**

Public participation is closely related to the empowerment of civil society to influence decision makers through strengthening public participation in the use of information and in decision making, with access to redress and remedy when things go wrong. Governments need to recognise people's rights to water related information and actively compile and disseminate information. The role of NGOs in participation in decision making should be strengthened.

### **Tackling urgent water problems**

By using integrated water resources management the most urgent water problems can be tackled today.

### **Reducing surface and groundwater pollution**

The urgent priority is to focus on meeting ambient water quality goals by identification and implementation of cost-effective, short-term priority actions (identification of 'hot spots'). Later, more weight can be given to meeting effluent standards and building a long term strategy to approach the requirements of EU policy and target sectoral issues (e.g. agricultural runoff, improved efficiency in the use of municipal wastewater treatment plants and better sludge disposal).

### **Protecting ecosystems and their management**

Ecosystem protection should be built to the largest extent possible into the water planning process in the context of river basin planning and application of the precautionary principle. To support this change in emphasis, it is proposed to develop and disseminate a 'toolbox' dealing with the valuation of ecological services in the CEE region – and the costs of maintaining or losing those services, that can be incorporated into standard decision making procedures.

### **Improving drinking water supply and sanitation**

Combating pollution of groundwater, the principal source of drinking water in most countries of the region, is an action of special importance. This is crucial in rural areas where polluted shallow wells are often used for drinking water and simple, cost-effective and efficient water treatment facilities are needed.

As well as research into new approaches, benchmarking should become an important tool to ensure that standards, quality, costs and expectations are constantly being upgraded. Effective actions also require the introduction of effective pricing and charging for water services to ensure sustainability of services.

### **Improving level of protection against floods and droughts**

The actions needed include basin-wide flood and drought management strategies to provide a framework for sound and timely investment and the development of local protection and response plans. The plans should be matched to a reliable and timely information system, accom-



panied by extensive and specific training for those who must play a role in the response systems as well as the general public. Flood protection infrastructure must be strengthened and modernised to account for recent and future economic development. In the rural areas afforestation and reforestation are essential to reduce flooding and combat erosion.

### **Promoting international co-operation to prevent water disputes and conflicts**

High priority must be accorded to improved methods for conflict resolution and joint management in transboundary water use and wastewater disposal, whether these involve two communities on opposite sides of a border or entire nations depending upon the same watercourse or aquifer. The agreements signed should have a crisis-management orientation, because management of international river basins or aquifers faces its most severe test during crises.

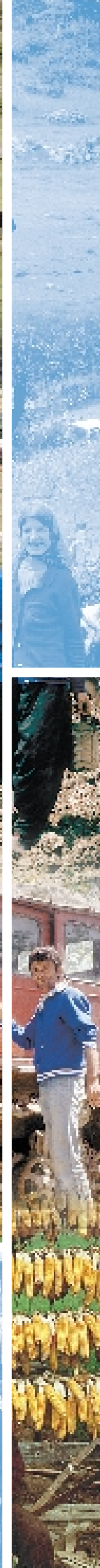
### **Improving financial flows**

Achieving the Vision will need resources and these will place pressure on the CEE countries whose economies vary widely in terms of development and resource needs. Although data are weak it is known that the costs of achieving the necessary standards for EU accession are high, in some countries as much as 5% or more of GDP annually. The other actions embodied in the Vision - flood and drought control, demand management, non-point pollution source control, urban storm water management, reconstruction of existing facilities, institutional re-shaping and strengthening - are just as important and also have resource needs.

These high financial demands mean that programmes and projects should be subject to extremely careful planning, and priority actions and investment should be those which bring the highest net benefits. It means too that countries need to prepare action plans that genuinely reflect the needs of transition and the length of the transition period and use these in negotiations with the EU.

There is a clear need for innovative financing approaches for financing specific actions. Public-private sector partnerships can increase the financial flows into water resources management but need a strong regulatory and institutional framework. It is proposed to undertake immediate analysis into scale of financial demands, the resource gap, and the investments offering the greatest benefit in order that clear action and investment programmes are developed.





## THE WAY FORWARD

As demonstrated there are a number of urgent and strategic actions that can be taken forward immediately within the CEE countries and with the help of regional CEETAC can be undertaken almost immediately.

### GWP CEETAC first step actions

The CEETAC of GWP has together with other actors in the region initiated a number of strategic first steps for action:

- › The establishment of country level Water Clubs to (1) foster cross-sectoral dialogue on water issues; (2) facilitate the introduction of IWRM, (3) give a voice to water professionals to create political will among decision makers and (4) to initiate to set up permanent non-political platforms for dialogue as a continuation of the Vision to Action consultations.
- › Introduction and strengthening of River Basin Organisations through the reinforcement of the regional RBO network of International River Basin Organisation (INBO). The first efforts should focus on gaining experience through pilot RBOs and sharing this experience between CEE countries.
- › Development of a toolbox on ecosystem valuation and a knowledge network for water quality management.
- › A creation of a platform for stakeholders in Water Supply and Sanitation under the auspices of Water Supply and Sanitation Co-ordinating Council (WSSCC).
- › A study on financial flows for investments and water resources management.

The overwhelming consensus emerging from the CEETAC consultations is that in two to three decades there will be sufficient safe, clean and healthy water for nature and people living in stable societies in the region. But the fact is that to achieve this dream requires profound changes in all institutions. Governments must take a lead and set priorities so that they can make the most efficient use of administrative and financial resources. Once priorities have been determined and appropriate actions designed, their implementation and the resolution of conflict become important. Other agencies – the business community and civil society – need to collaborate, and some ‘machinery’ for resolving conflict is needed to overcome the existing weaknesses. Better co-ordination mechanisms frequently necessitate the repeal of outdated laws and the codification of new concepts.

The key is firmly in the hands of all of us, for the single most important factor is political will.

## VISION TO ACTION

Water is widely mismanaged and unless we change our ways of managing this resource, we will face a serious crisis in the near future. The actions detailed above to redress this situation in Central and Eastern Europe are derived from the document, **Water for the 21st Century: Vision to Action – Central and Eastern Europe**, which was prepared for presentation at the Second World Water Forum and Ministerial Conference at The Hague, the Netherlands, March 17-22, 2000. The consultations resulting in this document were coordinated by the Central and Eastern Europe Technical Advisory Committee of the Global Water Partnership.

The Vision was prepared under the guidance of the World Water Commission on Water for the 21st Century – an initiative of the World Water Council. Development of the corresponding Action plans was executed by the Global Water Partnership (GWP).

The Vision to Action process was designed to be as broad-based as possible. Consequently, the building blocks for the development of the Vision and Action documents were constructed through consultations over the last 18 months with the principal stakeholders in the major regions of the world. Through regional meetings and workshops this consultation process brought many experts together – government agencies, key water practitioners, UN agencies, donors, the private sector, and others – to establish a shared view of appropriate strategies, mechanisms for implementation, and priorities for immediate action and investment. The participatory nature of the whole process will deliver new hope for sustainable water management in the new millennium.





The Global Water Partnership (GWP) facilitates the exchange of knowledge and experience, and the practice of integrated water resources management. Through a worldwide network of partners, GWP identifies critical knowledge needs at both global and regional levels, helps design programmes for meeting these needs, and serves as a marketplace for providers and financiers of the required knowledge services.

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