

Water for Peace in the Danube Basin

DRAFT¹

THE ROLE OF TERRITORIAL AUTHORITIES IN THE MANAGEMENT OF RIVER BASINS: AN ANALYSIS OF THE DANUBE BASED ON THE EXPERIENCE OF THE RHINE



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I: INTRODUCTION

The Danube River basin contains eighteen states at very different stages of development and spanning a wide variety of political systems. It is just ten years since the Cold War divide that split the basin between east and west was lifted; as the example of the Rhine river basin illustrates, ten years is a very short time in terms of developing integrated, cooperative river basin management. It is also a very short time to introduce a market economy, a decentralised democratic system of government, and change the fundamental relationship between human society and the environment from one of exploitation to one of interdependence and respect, all of which have been taking place simultaneously and with varying degrees of progress from state to state within the basin.

Integrated Water Resources Management (IWRM) requires a complex network of policy makers, government authorities at different levels, professionals, investors and consumers with full understanding and a responsible attitude to water use and conservation. In any river basin which crosses administrative or political boundaries, strong cooperation and joint management among these regions is also a pre-requisite for IWRM. When these regions are themselves located in different states the challenges are even greater as it is necessary to establish inter-state and multilateral cooperation, without forgetting the regional level where so much of the practical work which IWRM requires has to take place.

This is the challenge which the states and regions of both the Rhine and the Danube river basins face. Both rivers have been affected by and influential in determining the course of European history and defining the borders, cultures and demography of the continent, and there has been cooperation and conflict amongst the states and regions of both these great European rivers for centuries. From the end of the Second World War until the early 1990s, the majority of the states of the Danube basin were “Warsaw Pact” states under centralised socialist republics and this had a huge influence over the way in which the water resources were managed, and greatly reduced the degree to which members of the public and territorial authorities and administrators could be involved in the decision making process. During the same period, representative democracy within the states of the Rhine basin was further strengthened, and increased prosperity and closer European integration, combined with the beginnings of the environmental movement, led to the development of an unprecedented programme to rehabilitate the river.

In 1971, the public and governments of the Rhine basin were shocked by the all time low of the quality of the water, leading to states deciding to take concrete, specific steps to reduce the pollution of the river. Between 1971 and 1985, the countries along the river spent approximately \$40 billion on building a system of purification plants; however, as an integrated plan and long term vision for the basin were still lacking, until 1986 no real progress was made on the rate of cleaning up the Rhine. It took a serious accident, the Sandoz chemical fire which devastated aquatic life in the river in 1986, to spark the publicity and political attention needed to raise the issue of Rhine pollution higher among national and regional priorities. By 1987, three ministerial conferences had been held to address the problem and the Rhine Action Programme was agreed. Later, terrible floods in 1993 and 1995 turned attention on the need for cooperative action for flood protection and spatial planning in the basin, and the Action Plan on Flood Defence for the Rhine was adopted in 1998.

The transformation of the Rhine from the “sewer of Europe” which horrified the public in the 1970s, to a comparatively clean transboundary river which has met most of its pollution and flood protection targets and where salmon swim once again, has led to the Rhine initiative becoming an example for major river basins across the world and an important inspiration behind the development of the breakthrough European Union Water Framework Directive. While it is of course impossible to duplicate a model which worked on one river basin and impose it on another, it is certainly worthwhile identifying the elements of the Rhine programme which helped ensure its success and ascertaining how lessons-learned can be put to use in other basins, including the Danube.

As the European Union prepares for expansion into Central and Eastern Europe, the relevance of the comparison between these two rivers becomes clearer as the future water resources planning and management of both basins will be largely determined by the requirements of the EU Water Framework Directive which entered into force in 2001. For the EU accession states of the Danube basin, adherence to these requirements is the dominant water policy objective driving decision-making today.

EU expansion presents a huge challenge, but also a great opportunity for Eastern Europe and the Danube basin in particular. Substantial progress towards inter-state cooperation between Danubian states has been made in the last ten years, with the 1994 Convention on Cooperation for the Protection and Sustainable Use of the Danube River (DRPC), the Convention on the Protection of the Black Sea against Pollution and the establishment of the International Commission for the Protection of the Danube River (ICPDR)²: but while the institutional framework exists the co-ordination of the different initiatives and their implementation has been insufficient. There has so far been limited investment in the priority projects identified in the environmental programmes and strategies drawn up by the ICPDR and the environmental degradation and health problems in many parts of the region continue to worsen rather than be reversed.

Like the Rhine in the 1970s, the Danube is subject to increasing pressure from the supply of drinking water, irrigation, industry, fishing, tourism, power generation and navigation, and it is also too often the final destination of untreated wastewater. Also like the Rhine, the rehabilitation of the Danube needs an integrated basin-wide approach with the strong participation and commitment of all national governments, regional authorities and the public. It is in the area of the latter two groups that there remain many weaknesses in effecting much needed water management reform. It is often the case that institutions established to facilitate cooperation over transboundary watercourses concentrate at the state level, as this appears to be the greatest challenge, forgetting that public participation and the practical involvement of local and regional authorities within basin states is equally essential and must be integrated into the process from the beginning, for it is at the local and regional level that implementation of agreements and policies must take place.

Local and regional authorities in the CEE states of the Danube basin today face a great many challenges, and their roles have been fundamentally altered by the political transition of the last decade. In the field of water resources management, the rapid decentralisation of government authority has given local and regional authorities greater autonomy to manage natural resources and provide services to their communities. While this is welcomed as an essential element in the progress towards democracy, in the absence of corresponding increases in the institutional, technical and financial capacity of many territorial authorities, this decentralisation has at some levels caused disintegration and even deterioration in municipal and regional water management and utilities. The need to reach the standards of the Water Framework Directive (EU WFD) places additional pressure on territorial authorities, and has generated concern amongst them as to where the necessary resources to update inadequate infrastructure and implement the needed reforms will come from. This has highlighted the question of whether and how to involve the private sector in water services. The central role which local and regional authorities will have in meeting these EU standards will also require greater cooperation at the inter-regional level, including across state borders, and an enhanced role in decision-making and programme development within the transnational institutions of the Danube basin, such as the ICPDR.

On the positive side, the streamlined legislation of the EU WFD provides the CEE regions with a clear legal and policy framework, and the fact that the Directive supports the subsidiary principle indicates that the needs of territorial authorities will be taken into account by the mechanisms put in place to facilitate EU enlargement. In addition, closer connections and policy alignment with the EU will give the regions of the Danube basin greater access to the technologies, decision-support tools and experiences of regions in the transboundary basins of Western Europe, in particular in the Rhine basin where the regions have played an integral part in the successful development towards IWRM and democratic decision-making.

Whereas the nations of the Rhine were stimulated to improving water management and strengthening their cooperation by a negative event - the Sandoz disaster, the rehabilitation of the Danube has the chance to originate from the two most positive movements of recent European

² For fuller information about the ICPDR and other institutions and legal arrangements, including the EU WFD, governing the management of the Danube River, see the *Legal Analysis report prepared by Green Cross International as part of this project.*

history – the democratisation of the former Warsaw Pact states, and the enlargement of the European Union.

Only an estimated 60% of the population of EU accession countries currently have access to piped water supplies, just over 40% of waste liquids are treated, and the Danube, its tributaries and delta continue to be the depository of unacceptable levels of pollution and suffer from lack of coordinated and integrated management. As is evidenced in the case of the Rhine basin, it can take many decades and large amounts of dedicated financing to achieve cooperation and integrated water resources management on a major transboundary watercourse; but the social and ecological situation faced by the Danube-Black Sea region necessitates that, while states and regions should adopt a long-term vision, no time or effort must be wasted in enacting reforms and programmes to protect the region from further deterioration and regenerating the Danube for the future.

To achieve this, rather than focussing on controversial and seemingly irreconcilable differences related to the sharing or division of the water resources between regions and nations, the people and authorities of the Danube basin should turn their attention to developing ways to equitably share the benefits of integrated water resources management, and to neutralise their comparative disadvantages and weaknesses through cooperation and exchange of ideas. Territorial authorities must play a central role and be fully implicated in this process.

2. FRAMEWORK AND BACKGROUND TO THIS REPORT

The study on “The role of Territorial Authorities in the management of river basins: an analysis of the Danube based on the experience of the Rhine” and accompanying Resolution and set of Recommendations to be presented to the Congress of Local and Regional Authorities, are the result of broad consultation and in depth research across the Danube basin carried out by Green Cross International, with important comparisons and lessons-learned emanating from the Rhine Basin experience with the assistance of experts from the Province of Gelderland in The Netherlands.

The Consultation in the Danube Basin was carried out at three levels:

1. A questionnaire on the Role of Regional Authorities in River Management was sent to the regional authorities of 16 countries (Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, France, Germany, Hungary, Italy, Moldova, The Netherlands, Republic of Yugoslavia, Romania, Slovakia, Switzerland, Ukraine). The goal of this questionnaire was:

- to learn more about the different levels of responsibility held by regional authorities over water resources management;
- to obtain information about the most difficult problems experienced in the management of river basins and water services;
- to obtain proposals which could be useful for future elements for the Danube basin Project.

Although the rate of return of these questionnaires was disappointing, with only thirty regions responding, the replies received were very insightful and represented a broad range of regions – both geographically, with responses coming from nine different states spanning from EU, EU accession to former Soviet NIS states, and in terms of management structure and financial and technical capacity. The responses to this detailed questionnaire therefore provided a useful cross-section of problems and different levels of responsibilities amongst widely distributed regions. (see Annex 1)

2. A pilot project was implemented in Maramures County in Romania, near the Hungarian border, where more detailed questionnaires relating to water management, financing and decision-making were distributed in person with the help of volunteers and the cooperation of the regional authorities. One questionnaire was directed at the local and regional authorities, and another at local citizens. 500 of each questionnaire were distributed with an almost 100% return rate. Responses to these questionnaires provided in depth information about the problems faced, demands, and levels of information of public authorities and citizens in both large and small towns and rural areas. (see Annex II)

3. In Hungary, two consultation processes took place. The first was amongst experts, authorities and stakeholders in the Kapos basin, a sub-catchment of the Danube, and focussed on

obtaining experience in the development of catchment plans, conflict resolution and conflict prevention in the basin. The second focussed on the experience of a cross-section of local and regional authorities and consumers in the operation of both public and privatised water services in Hungary. (see Annex III)

In addition to the consultation process, research was carried out on “International and European Law, Privatisation and the Role of Local and Regional Authorities in the Danube River Basin”, and on the specific cases of the water resources governance systems and legal frameworks in Romania and Hungary. These two basin states were selected as the representative pilot states of this stage of the project for a number of reasons, not least because they together account for over 30% of the entire Danube basin, and between them they represent different levels of development – between Hungary, a front-runner EU accession state, and Romania which is struggling to meet the environmental, economic and other conditions of accession and has severe water problems. Despite their economic differences, their interdependence was clearly demonstrated at the time of the Baia-Mare (Aurul) cyanide spill in 2000 which wiped out most of the flora and fauna of the Tisza river, a major tributary of the Danube. Hungary and Romania are both located almost entirely within the basin of the Danube river, which is therefore the single most important natural feature of the two states.

This project has sought to identify the most pressing problems facing local and regional authorities and citizens in the Danube basin, with particular reference to the new challenges being faced as a result of decentralisation, changes in national and international legislation and commitments, increasing privatisation, and the need for adherence to the European Union Water Framework Directive.

3. CHALLENGES FACED BY TERRITORIAL AUTHORITIES IN THE DANUBE BASIN

Four very positive and inter-related movements have fundamentally changed the way in which water resources and river basins are managed in the Danube basin, and the role which regional authorities have to play:

- Democracy. Government accountability to the public and, as enshrined in the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, commitment to ensuring community participation and access to information about natural resources have greatly increased. As the most direct form of representation of the people, local and regional authorities are clearly the vehicle through which public interests and needs are reflected and hopefully championed. It can be argued that there is no better way to cultivate good governance than in the management of water resources because this is so basic to all human existence. In The Netherlands, it has been claimed that the management of water via “Waterschappen” or water boards became the foundation of the democratic process
- Decentralization. This process has taken place across the board, but in water management it has been particularly dramatic in many countries, with local and regional authorities going from having very little responsibility in this field to being the prime managers of the resource. The principle of subsidiarity, which calls for decisions and actions to be taken at the appropriate level, as close as possible to the citizen, is increasingly recognised in international law and called for in the preamble to the European Water Framework Directive.
- Integrated Water Resources Management. IWRM is a process which promotes the coordinated development and management of water, land and related resources in order to maximize the resultant economic and social welfare, paving the way towards sustainable development, in an equitable manner without compromising the sustainability of vital ecosystems. This system has become the accepted best practice in river basin management, reflecting increasing concern for and awareness of interdependent social and environmental aspects of water management.
- European Union Enlargement. This will bring the western and eastern states and regions of the Danube basin closer together, and remove problems caused by differing water policies and priorities across borders as every state is bound by the same requirements and general principles of management – most important being the recognition of the the basin as the logical unit of management and planning for water resources. Even the non-EU Accession

basin states have committed to respecting the EU Water Framework Directive as the framework for management of the entire Danube basin.

All of the challenges and problems faced by local and regional authorities outlined below stem largely from the combination of the above four movements, and successfully meeting these challenges will require full understanding of their effects and the opportunities which they present. Territorial authorities in the Danube basin states are increasingly responsible for water supply, wastewater disposal, maintaining water quality, land management and spatial planning, protection of public health and safety, and to varying degrees across the basin are also in charge of environmental aspects of water resources management in their regions, which can include flood prevention and pollution control. These are all services of central interest to the public and vital to the sustainable and economic development of every state in the basin; it is therefore essential that barriers and weaknesses which currently prevent territorial authorities being able to fulfil these crucial responsibilities be remedied. However, it is important to note that the below list of problems is inevitably a generalisation; most regions do not suffer from all of the shortcomings outlined, but this list is made up of the concerns which were identified as major problems affecting a large number of regions in the Danube basin.

Summary of Challenges and Problems

a. Rapidly shifting responsibilities:

During the last 100 years, several deep-rooted changes in regional water management and its social and economic implications have taken place in the Danube Basin. The first such shift brought about large scale river regulation and flood control which involved a significant modification of the natural features of existing riverbeds, especially effecting lower plain areas of the basin. The main goal of this social and economic development was to extend the size of areas used for agricultural cultivation and to manufacture easily marketable products. One implication of the works carried out, which were also aimed at improving the safety of life and property and accelerating social and economic progress, was that it was the people who enjoyed the benefits of water related interventions that also had to bear the risks and burdens. After the Second World War, when the centralised state systems came into being, the state became predominant in both taking responsibilities and bearing burdens. In many instances large scale developments and land planning (construction of infrastructure, community development, etc.) took place in areas which were converted from flood zones into usable land. For this reason, maintaining the safety of communities and property became an increasingly centralised issue.

The past ten years have seen rapid and massive changes in the political system, and consequently to the way in which responsibilities and costs for water management are distributed. Almost exclusive state domination has been replaced by governance structures based on the distribution of responsibilities and greater levels of autonomy at the regional level. This has made it necessary to develop new and more complex networks of partnerships, subsidies and regulation (a process which is still underway), and has raised the potential for conflicts to develop between the increasing numbers of different parties and players involved in water management, as there is still not a clear legal or regulatory framework in place in many states. In many cases problems have been compounded by the withdrawal of distorted incentives and subsidies in agriculture, energy, and water, before the establishment of a regulatory framework and development of institutional capacity for environmental management at the local/regional level has been completed. It also takes time for all parties to come to accept and learn how to deal with their new roles and responsibilities.

b. Incoherence and unpredictability of laws and policy:

In some instances, new and changing water-related legislation and policy have resulted in contradictions, confusion and even conflict between different levels of public authority and subsequently hindered the development of integrated water resources management and transboundary cooperation. Clarifying the legal framework in each country is likely to be a medium to long-term process, but identifying the list of specific legal contradictions can and should be done immediately. This varies from state to state. In Romania, the introduction of "Ordinance 32" in 2002 will, when ratified by Parliament, fundamentally change the principles applicable to the supply of water and sewage facilities throughout the country. It must be ensured that this Ordinance is compatible with the existing legislation concerning water resources management and provision of public services, and is accompanied by a regulatory framework. In Hungary, basic laws and regulations pertaining to the involvement of regional governments in water supply and sewage disposal services have been subject to repeated modifications. Rapidly

changing laws make long-term planning and financing difficult and the related unpredictability is not attractive to private investors. In addition, the incompatibility between international principles, EU policy, basin level agreements, bi-lateral treaties and national laws, is a potential cause for conflict, even in such otherwise basic issues as, for example, the application of the “polluter-pays” principle.

c. Lack of policy integration:

Closely related to the above mentioned problem of incoherence and contradictions, is the lack of sufficient integration between the management of different water-related issues. Again largely as a result of decentralisation, different elements essential to IWRM are in the hands of different authorities, and in some cases private individuals, land-owners and companies. Agriculture, industrial pollution, land development, forestry, tourism, transport, wild-life protection, etc. are all interconnected and need to be taken into account in river basin management planning. Unfortunately, decentralisation has in some cases been accompanied by dis-integration. New ownership structures, especially concerning agricultural land tenure and the transfer of control of water and sewage facilities to regional authorities, has from a certain perspective made the system more unstable, and negatively effected the level of professionalism, security and effectiveness of water resources management. In Hungary, before 1992, 28 council companies and five government companies were engaged in water supply, now there are 400 waterworks owned by local and regional authorities, as well as the five government companies; such major changes cannot happen over night without problems.

Again, this can be seen as a transitional problem and inevitable considering the changes which have been taking place, but it is a critical concern and will require a major shift in thinking on the part of regional authorities to fully integrate decisions related to the provision of local public services, and their role in the management of transboundary land and water resources. This requires a high level of expertise and coordination within and between the regional authorities. To date, regional authorities appear to concentrate foremost on their day-to-day duty to provide safe water for drinking and bathing, rather than seeing the strong links between this and the preservation of water resources and the integrity of river basins in their region. Regional authorities need to develop a “vision” for the basin, and relate the decision they take regarding water in pipes to the natural waters of the Danube and its tributaries.

d. Insufficient inter-regional cooperation and exchange; Different systems of governance within the basin:

While the simultaneous processes of decentralisation within and internationalisation of the Danube basin (through the Convention on Cooperation for the Protection and Sustainable Use of the Danube Basin, EU enlargement and International Conventions such as Aarhus and Ramsar) have led to, in the former case greater responsibilities for local and regional authorities, and in the latter case greater cooperation at the inter-state level, the practical links between these two processes are yet to be adequately made. Although in a highly inter-connected river basin such as the Danube one region’s problem is every region’s problem, there is insufficient emphasis on, or institutional facilities for, direct cooperation or information and experience sharing at the region-to-region level within and between the basin states of the Danube. This problem is made more complicated by the different systems of water administration and governance amongst the Danube basin states, ranging from those which remain highly centralised (such as Croatia), to nations where local and regional authorities have been granted prime responsibility (such as Hungary), to fully federal systems (such as the German “Bundeslander” and Swiss “Cantons”), which makes region-to-region cooperation and the identification of counterparts more difficult as they do not have the same responsibilities and competencies.

The basin-wide survey showed marked differences on this score: while direct cooperation and dialogue is fully established between the Province of Salzburg and the State of Bavaria, and the region of Upper Austria also reported good cooperation with neighbouring regions, responses from regions further to the East did not depict such a positive situation. There appears to be almost no direct inter-regional coordination or even discussion between bordering regions which are in different states – despite obvious need for this for issues such as flood warning and contamination control. This need has not been given priority in financing or in developing the institutional facilities for water management. Some matters which could be dealt with more efficiently through joint action and coordination between two regions on either side of national borders, or by several regions sharing a sub-basin, are still being handled via the central

governments often without adequate consultation with the regions in question or the public. Another cause for concern is that the central government representatives charged with dealing with bi-lateral water agreements and problems, are often not the same individuals dealing with multi-lateral negotiations. This can lead to inconsistencies between bi-lateral and multi-lateral agreements and commitments and further complicate the tasks of the local and regional authorities which must implement these commitments on the ground.

One of the main duties of regional authorities is to draw up a regional development plan and within that, a regional water management plan applicable for the territory. It is currently difficult to obtain information about the plans of neighbouring regions and therefore impossible to harmonise different regional objectives and to schedule coordinated implementation. The ongoing process of dividing the Danube basin into 15 sub-basins should serve to help this conflict of interests between regional and state boundaries and natural water catchments. The commissions formed for each sub-basin, many of which will still be transboundary, should be made up of both regional and national representatives and have as one of their main objectives the enhancement of inter-regional coordination and information exchange. Within and between these sub-basins, regions in different states which share common problems (location of major settlements, wetlands, flood-risks, industrial zones, etc) or border each other should be particularly encouraged to share experiences and develop cooperation systems. There must also of course be close links between these 15 sub-basin commissions and the Danube Commission, which has been charged with monitoring the implementation of the WFD in the Danube basin.

The complex task of balancing regional, national and basin-wide responsibilities is not unique to the Danube, but is one shared by all states located within transboundary basins. For example, the Netherlands has a long history of integrating and implementing national water policy in four different international river basins (Scheldt, Meuse, Rhine and Ems). The operational management of the national policy for the river basin is the combined duty of the state, the provinces and the Waterboards, whereas reporting to the European Union of the environmental objectives, the measures taken and monitoring is the duty of the national government. This clearly requires a great deal of coordination, and there is a wealth of institutional knowledge on how to manage this which could be of great help to Danubian states.

In addition, the International Commission for the Protection of the Rhine river (ICPR) has over the past decade or so become more and more open to non-state actors being granted observer status and engaging in discussions. Related river commissions such as the Central Commission for the Rhine navigation, the Moselle and Sarre Commission, the Lake Constance Commission, and even the Elbe Commission have had observer status at the Plenary Assembly and the meeting of the ministers of the ICPR since the early 1990's, and some Non Governmental Organisations which deal directly with Rhine issues have been invited to both meetings since 1998. The ICPR also enjoys the direct involvement of regions and regional associations, some of which (such as the RIWA in The Netherlands, ARW in northern Germany, and IAWR - the umbrella regional association for the whole basin) long pre-date formal inter-state cooperation in the Rhine basin. Methods of integrating regional authorities and associations within inter-state cooperation processes which have been successful in the Rhine could also be of interest to the Danube. The Danube counterpart to the IAWR, the IAWD, has already been established thanks to the close links between the City of Vienna and the Rhine basin which facilitated the creation of this body: a good example of West-East cooperation and exchange.

Two developments need to take place to address this problem. First is enhanced inter-regional cooperation, which are difficult as there is neither the institutional facilities, nor the tradition for regions to take part in international discussions. Second, regions need to be encouraged to be more actively involved in basin-wide decision making and cooperation, which has been primarily focussed on the nation state level, with both power and information remaining in the state capitals despite the fact that the implementation of agreements are increasingly in the realm of responsibility of local and regional authorities. A "trickle-down" of information, financial assistance and authority is needed to match the principle of subsidiarity which is becoming the standard in water management in Europe.

e. Lack of finance:

One point on which almost all regional authorities surveyed across the basin agree is that insufficient funds is a principal reason for their inability to carry-out much needed management reform and infrastructure development. In extreme, but not uncommon, cases, universal access to

clean water is being endangered by the deteriorating financial status of municipal and regional water and wastewater utilities – placing public health and nature at risk. The survey of local people in Maramures County in Romania demonstrated that improving water quality and services are considered matters of top priority by populations (higher than other essential services such as electricity and transport), but this is not always reflected in the allocation of regional development and service budgets leading to lack of correlation between public concerns and government spending.

EU resources (PHARE; TACIS; ISPA) are limited and available for the purposes of a few major investments only and are not always responsive to the priority issues identified in the water resources management plans of regions. Some local and regional authorities which previously received support have had this assistance withdrawn or reduced and the amount of available funds varies on a year to year basis and grants are subject to lengthy and complicated application procedures.

Most local and regional authorities still rely heavily on support from the state for both construction and maintenance of infrastructure and subsidising operational costs, but this can also be unpredictable and is usually conditional on the region raising at least a portion of costs themselves. In Hungary, for example, territorial governments can use central government support for up to 80-85% of the value of their investment projects. If a regional authority wishes to make an investment, it has to apply for the amount of its project to at least four different government sources. Residential contributions amount to 20-25% but in many cases this is difficult to raise (partially because people do not pay their water bills), often leading to delays and the failure of projects. Territorial authorities dedicate significant amounts of time to preparing applications and are often disappointed. Lack of self-generated funds prevents local and regional authorities from being either truly autonomous or effective in fulfilling their water management duties.

It is vital that systems through which local and regional authorities obtain funds from central government are streamlined and adapted to be most convenient for the regions; they should also be directed to the areas of greatest need in terms of public welfare and the environment. Territorial authorities should also be informed and trained to fully understand and make the best use of the system of accessing national funds. Local and regional authorities should also express the wishes of their constituents and place pressure on central governments to give more priority to water management and services.

In addition, territorial authorities need to become more financially independent. This will require establishing more varied and direct sources of funds so as to rely less on the central governments. One important aspect of this will be the correct pricing of water and wastewater services to the public and to industrial and agricultural users (see section i. below), and also implementing the “polluter pays” principle which can be an important source of revenue as well as an incentive to reduce pollution. Territorial authorities should be made aware of other sources of funds, and where appropriate coordinate their applications for funds or development of investment proposals with other regions and thereby pool their resources more effectively.

In many areas of the Danube, small and medium sized towns find it particularly difficult to obtain financing. In Romania for example, 17 municipalities of over 150,000 inhabitants have benefited from capital investment programmes for the rehabilitation of their water and wastewater infrastructure. However, of the country’s 263 urban localities, 230 are considered to be small or medium sized and these have not been able to attract funding from either international financial institutions or the private sector. Left with only central budget contributions, these towns have made little investment in the last decade and their infrastructure and quality of service is now very poor. That said, these towns must still comply with national and in the future with EU standards for drinking water and wastewater treatment, and ensure an adequate standard of living and protect the health of their populations. The funds available to rural areas have also been steadily declining in the past ten years leading to large service gaps. Particular efforts must be made to ensure that small towns and rural regions have the funds to invest in their water infrastructure ; this will require the adoption and implementation of carefully developed policies focussed on meeting the real needs of the population if services are to be available and affordable to everyone.

Other sources of financial support which should be investigated can also include region-to-region assistance and cooperation projects between themselves and regions in other countries (for example in Western Europe). There are already many examples of such region level initiatives. One example is a Tacis funded cooperation project between Latvia and the North Rhine

Bundeslander in Germany which is aimed at sharing the considerable water management expertise of the North Rhine region and establishing local and regional authority partnerships. Another notable case is the cooperation between the Netherlands Province of Gelderland, in the Rhine basin, and Lublin in Poland, in the Vistula basin, which focuses on policy exchange, training of local and regional authorities and identifying potential sources of funding for future projects.

f. *Inadequate institutional and human resources:*

It is clear from the results of the surveys that there is in many cases insufficient institutional capacity to manage the many water management responsibilities which have been relatively recently given to local and regional authorities. Some regions, for example Galati County in Romania, are fortunate to host an environmental or water research centre which can offer facilities and be a source of information and local expertise, but the majority indicated a lack of such resources and this has a very negative impact on management. If local and regional authorities are, as is hoped, to play a key role in water management in the Danube basin, they must have the institutional backing to permit them to keep up to date and involved in the myriad activities, meetings and policy developments taking place all the time. This requires both funding, and commitment on the part of the territorial authorities to build up their capacity in this field. It is also essential in areas or towns where any aspect of water service provision is privatised that the local or regional authority has the institutional capacity to implement and enforce regulations on the private contractor. This is at the moment often not the case (see section f. below).

Many territorial authorities surveyed also reported a severe lack of practical knowledge and skills in water resources management, and placed this problem at the same level of importance as the lack of finance. High turn-over of staff was a factor that was clearly shown in the more in depth survey of Maramures County in Romania, and this is likely to be a problem across the basin. As in many other regions of the world, it is becoming difficult to offer adequate incentives and prospects to attract the highest quality professionals to the civil service, and to encourage individuals to stay. This results in a lack of accumulated knowledge and experience and insufficient training of people in decision-making and administrative positions. Professional training programmes for the representatives and staff of territorial authorities, which can be sponsored and run by regional authorities with more resources (again, in particular from regions within EU states) would help address this problem.

g. *Poor information and data:*

This problem exists on two inter-related but distinct levels. The first is the simple fact that many local and regional authorities in the CEE basin states which are now responsible for crucial elements of water management have reported a lack of adequate information concerning many essential issues, including: changes to national legislation, the terms of the WFD, how to access EU and other grants and loans, privatisation and regulation of water services, and methods of involving the public in decision-making. This must be addressed and rectified by central government departments in charge of regional affairs, and other international (the European Commission, etc.), basin-level (the ICPRD, the IAWD, etc.) and national bodies which develop new policies, strategies and agreements. It should become standard policy for such bodies to disseminate information to the regions. However, it is also important for local and regional authorities to be more proactive in this regard and make the necessary requests for information and keep themselves informed through other means and sources than standard receipt of documents from the central government. One proposed output from this research and consultation project is the development of information handbooks for local and regional authorities, adapted for and in the language of territorial authorities in the different Danube basin states. Surveys indicated that this would be a welcome initiative.

The second tier of this problem is perhaps more serious and challenging to remedy. It is of great concern that the many extreme situations and crises which have occurred recently in the Danube basin (e.g. disruption caused by the Balkans conflicts during the 1990s, the Baia Mare cyanide contamination in 2000, devastating floods in 2002) have demonstrated that the mechanisms for rapid information exchange and coordinated action currently in place are inadequate to prevent severe transboundary damage. Local and regional authorities are often the first point of information on a contamination disaster or flood warning in their region, and are also responsible for warning their constituents of any risks, it is therefore imperative that they are well connected to the basin water information network and have their own effective communication system in place.

Efficient cross-regional and inter-state disaster alert systems is fortunately an area where the Danube basin has already benefited from the experience of the Rhine. The Alarm model developed to monitor pollution in the Rhine covers the Rhine river from the Bodensee lake to the North Sea, including the Aar, Neckar, Main and Moselle tributaries, and the model calculations involve the location and conditions of the initial pollution, decomposition and drift capacity of the harmful substances, water levels, and dispersion. If required, the progress of the pollutant wave can be envisaged from the source to the North Sea, and the speed of flow and therefore predicted arrival time of harmful substances can be very accurately forecast. The Rhine Alarm model was used as the basis for formulation of an alarm model for the Danube, but the Danube model went one step further and also calculates the cross flow of the pollution across the river. This additional feature was also included in the latest version of the Rhine Alarm model, at a later stage, making it an excellent example of inter-river cooperation with mutual benefits. It is necessary to ensure that the local and regional authorities of the Danube are incorporated into this alarm system and other essential data-exchange facilities as they have been in the Rhine.

As the data available on the different aspects of the Danube basin becomes more reliable and widely available with the development of integrated basin management plans, the use of sophisticated Decision Support Systems (DSS) should become more widespread and improve the quality of transboundary and inter-regional water management as it already has done in the Rhine and other river basins. Access to GIS and DSS tools will help local and regional authorities to meet their new management challenges, monitor human impacts and gain deeper understanding of the many inter-related aspects of water resources in the Danube basin and the sub-catchments. Initiatives to fully integrate information and DSS systems into decision making processes in the Rhine was largely pioneered by the regions, including Gelderland in The Netherlands.

h. Haphazard systems of public information and participation:

Levels of public participation vary greatly across the basin and are not sufficiently structured or transparent. Some regions described advanced and multifaceted public information and consultation processes involving multi-media (print, TV, internet, radio, etc.) information campaigns, regular public hearings and permanent consultation facilities. Other regions admitted to not involving or informing the public at all. There was a certain amount of correlation but far from uniformity amongst regions within the same country; and the authorities in Maramures reported that they supported involving the public but did not know how to go about this.

It is essential for local and regional authorities to establish effective systems of public information and permanent and transparent methods to actively involve and respond to the concerns of citizens regarding water resources and services. Citizens need to be not only informed of decisions after they are taken, but made aware and play a role in the decision-making process itself. A broad acceptance of the outcome of the process by the general public is an indicator of good quality of decision making. Just as decisions made by the central government need to involve the regional administrators in order to gain acceptance, decisions made by the regions should involve the people directly affected by them. The following questions should be asked when implementing decisions: Have the interest groups been able to bring forward their opinions, and have these interests been reflected in the policy? Were there formal public hearings? Were alternative plans presented to the public? Are adversely affected people being offered compensation? Is there a clear system for citizens to file objections to a project or appeal to an administrative or civil court?

The speed of legislative reform in many states has left stakeholders feeling that they have not been adequately consulted, and even though their rights to consultation and information have increased enormously in the past decade, lack of resources and established systems for participation mean that in many regions little has changed in this area. It is a major responsibility of regional authorities, as direct representatives of their communities, to fully engage the public in the decision making and programme implementation processes – especially regarding so essential an issue as water. As an excellent way of improving water understanding in the future, special information and education programmes should be developed to target children and young people, whether through schools or at home.

i. Need to manage pricing, develop partnerships and regulate the private sector:

There is a strong need to move from supply-side to demand-side management. At the moment, inappropriate water prices stimulate greater than necessary water use, perpetuate inefficient use, and result in increased stress on water resources, which in turn inevitably leads to disputes between

different uses and users. Rational economic instruments, including water tariffs with incentives for conservation and appropriate sanctions, are a necessary element of effective water management, ensuring that water services (different from water in its natural state) are treated as an economic good and used efficiently. At the same time, “lifeline” tariffs must be available to provide a safety net to ensure that the poor and vulnerable have access to adequate quantities of water. Demand management should also reduce the marginal cost of water, postponing or even canceling the need for enhancing water supplies through further storage and abstraction. Changes in pricing will result in a change in the way water is perceived by the public, and larger scale users in industry and agriculture, and assign more value to this essential and limited resource.

The responsibility to set the tariffs for water and wastewater services is assigned to different bodies in different Danube states, and also differs if the service has been privatised. Where it is the responsibility of the local or regional authority they are faced with a large number of complex questions and dilemmas. In Hungary, the change of ownership of waterworks to local authorities have been accompanied by the right to set prices. Therefore, 80% of the water services in the country are now rendered by 400 public utility waterworks owned by local authorities, and the remaining 20% is still in the domain of five public utility works still owned by the central government which also acts as pricing authority in these areas. The central government also influences pricing methods of local government through the subsidy system, but they are not centrally regulated. In Romania, Ordinance 32, also assigns responsibility to set prices to territorial authorities.

Territorial authorities now must balance their diversity of interests. Their responsibility to supply water to their citizens represents a general social interest. They also have proprietary interest as the owners of the public utility waterworks. Based on their pricing authority, local governments also have financial interest and responsibility. Their role as protectors of water quality and the natural features of their region adds the interest of the environment. Setting prices is a task which in itself must balance all these considerations and, as well as requiring economic skill to calculate the costs which need to be recovered in the prices, can raise many dilemmas for the authority. What should be done if providing services to protect the environment result in prices which people cannot afford to pay? How should the authority react to pressure from citizens demanding low prices?

The monopoly nature of water utilities creates many problems, especially when the local government which sets the prices is also the owner of all the waterworks and service providers in the region. Citizens that receive poor service cannot turn to another provider. Policies are needed to ensure that consumers have a voice, and also to ensure that the judgment of local and regional authorities (many of which lack the necessary trained staff in this field) is not clouded by political pressure from citizens demanding unreasonably low prices even at the expense of quality service for all people in the community, or the environment. In Romania, this is the job of the newly formed National Municipal Services Regulatory Authority which regulates water pricing across the country. However, in general the methods used for pricing are not subject to regulation even by means of mere recommendations and there is lack of social control over operating water prices.

Involving and informing the public of policies, and the rationale behind them, is essential. People must be made aware that the higher prices which they are being expected to pay are generating revenue which will lead to better quality service and protection of water quality, and they must have the ability to complain and demand action if these promises are not kept. The survey carried out in Maramures revealed that over 70% of citizens would be willing to pay higher rates for better quality service, even though many believed that the current rates were too high considering the standards of service received. Local and regional authorities must use awareness raising to combat the decline in peoples’ willingness to pay, which leads to liquidity problems for the service provider. In Hungary, lack of willingness to pay is a major problem as prices have been raised considerably at the same time as people have perceived a decrease in quality of service, and have themselves become less able to pay due to the economic situation in the country.

Water and sewage charges are high compared with the income of the population. In Hungary people pay an average of 2% of their income on water charges, compared with the average of 0.5-1% in the EU. In Maramures, 87% of people surveyed said their family does not have enough income to cover their monthly expenses (64% reported an income of less than 170 Euros per month), and 30% of these expenses are on utility bills (water, electricity, gas, etc.) representing the largest costs faced by the family. This reality clearly presents a huge challenge to the public authorities who must both protect the health and wellbeing of their citizens, especially the poorest people, and run an efficient and self-financing water service.

The use of an open decision making process for major activities and policies also provides the opportunity for constructive involvement of the private sector, which can be a source of innovation, creativity and investment. However, it is also a cause of major concern the privatisation of water and wastewater services, particularly in large cities in the Danube basin (Budapest, Pecs, Bucharest, Sofia), is taking place in situations of inadequate information or public participation, leading to insufficient regulation and consumer protection and therefore potential conflicts. Privatisation often takes place in locations facing scarcity of capital, placing great pressure on the public authority responsible, and this can also be a reason for going ahead with the privatisation process without full consultation with the public or fully investigating different options. The contracts drawn up with the private operator also need to be developed very carefully and with full information and understanding of the implications in different scenarios. In reality, many issues are currently settled outside the scope of contracts due to the uncertain relationship between the local authority and the private operator. This leads to uncertainty and potential for conflict.

This report does not aim to put forward any opinion or judgement on the positive or negative implications of privatisation, but to reflect the concerns of people and authorities consulted and recommend that, when privatisation is considered, full consultation be carried out with affected people and that the authority in question ensures that they have full information specialist legal advice in the drawing up of contracts. It is also fundamental that the local or regional authority has the technical and institutional capacity to regulate the private operator and the ability to impose the terms of the agreement. Already in the Danube basin there has been much public resistance to the privatisation of water supplies in cities and this negatively effects peoples' willingness to pay, and therefore the private company's ability to operate efficiently, and the ability of the local or regional authority to regulate. In Hungary, where privatization is most advanced, adverse opinions stem from the lack of an appropriate legal framework for the privatisation of public water supply and the fact that the general public was not prepared correctly and there was no publicity campaign. In Maramures, where water supply is in public hands, the people expressed the opinion that private suppliers would provide better service. This shows how opinions vary across the basin, and that more information on this subject is needed across the board, amongst both the public and the staff of local and regional authorities. It will not be desirable if local and regional authorities turn to the private sector in desperation due to shortage of funds and pressure to meet increasingly high standards, rather than as a result of a rational, informed and participative decision making process. Privatisation is a complicated issue, and it could be highly advantageous for local authorities to not only receive technical information about it, but have the opportunity to discuss the matter with other authorities who have faced similar dilemmas or who have longer experience in dealing with the private sector. This way each region will not have to learn from its own mistakes, but also the mistakes and successes of others.

j. Regaining/maintaining public and consumer trust:

Whether water services are public or privately managed, it is essential that all decisions and activities be fully transparent and that the public has easy access to information. The inadequate financial, human and technical resources of local and regional authorities to meet their new responsibilities in water management and service provision has led to near collapse of services in some regions, and this has been accompanied by a lack of consumer and environmental protection and loss of trust in the ability of public authorities to provide these essential services.

Misuse of public funds in the water sector is a problem faced all over the world, and as local and regional authorities in the Danube basin gain greater budgetary responsibility their accountability to the public also increases. All transactions must be fully transparent and penalties for any form of corruption or misuse should be severe. All surveys revealed that citizens consider water management and supply to be of the utmost importance to themselves personally and to their region: it follows that the manner in which local and regional authorities manage this resource will also be a major factor in determining peoples' judgement of the success or failure of their administration in general, and of their level of faith in the government.

ANNEX I

CROSS-SECTION OF RESPONSES TO THE DANUBE BASIN QUESTIONNAIRE

Q-1

Does your region have direct or indirect responsibilities in the management of river basins in your region?

- Direct responsibilities in river management are exercised by the basin units of National company “Apele Romane”. On November 27, 2001, the Somes-Tisa Basin Committee was established, which brings together the most important actors interested in the water field: local public administration representatives, water management units, local communities, NGOs, water consumption representatives. (Salaj County, Romania; Somes-Tisa and Crisuri Basins)
- Rivers are in state ownership, so the river water management is a direct state duty performed by the regional organs, so called decentralised organisations, of the Ministry of Environment and Water Management. These organisations are the water management directorships working in the three counties which form the region. (Békés County, Hungary; low-Danube Valley, Körös Region and low-Tisza Region.)
- In Germany as a federal republic the “Bundeslander” are completely responsible for the management of rivers. (Saxony, Germany; Odra and Elbe basins)

Q-II

What are the major river basin management problems which are, or have been, confronting your region?

- Absence of budgetary allocation for building modern stations of water purification. . (Chisinau County, Moldova; Dnister Basin)
- The Danube river represents the main industrial and drinkable source of water. Under these circumstances, pollution directly affects water quality and public health. Other problems included the non-existence of filtering stations in some zones, especially in Galati municipality, and also the existence of purifying stations with a high level of utilisation. (Galati Council, Romania; Prut basin and Danube basin in the pre-delta area)
- The most urgent problem is the disintegration of water management. (catchment programme involving 7 Hungarian counties within the Tisza Basin.)
- Vukovar is devastated, and infrastructure is completely destroyed by war. (Vukovar-Syrenia County, Croatia; Vukovar basin, within Danube basin)

Q-III

Has your region experienced any form of cross-border or inter-regional cooperation for the management and/or conservation of rivers?

- Foundation of international agreements rest on the two-sided international agreements. Works are performed in the joint committees and the connected specialised sub-committees led by the government delegates both in Romanian and Yugoslavian relations. The water management directorship also took part in their work, so there is opportunity for advancing also the local (regional) interests, but the decision-making is in all cases a central responsibility. (Békés County, Hungary, Low-Tisza Region Water Management Directorship)
- Special commissions and working groups with the neighbouring regions ensure coordination in different fields of water management like flood alert and alarm systems, operations control of hydro-power plants, water supply and wastewater treatments. . (Region of Upper Austria; Danube, Elbe, Traun and Enns Basins)

- Vrancea district is represented in the Committee of Siret Basin and through it participates in the sharing of experience with specialists and representatives of the local authorities from the Rhine-Meuse Basin in France. (Vrancea County, Romania; Siret Basin)
- The supra-regional cooperation between Austria and Germany regarding water supply and distribution in the catchment area of the Danube is provided for by the Regensburg Treaty, 1991. On the regional level direct contact and cooperation between the Province of Salzburg and the Free State of Bavaria is established via the departments of the Province of Salzburg responsible for water supply and distribution and the Bavarian authorities.... The pollution problems in the border rivers between Austria and Bavaria were also solved in a joint effort and in mutual understanding. (Province of Salzburg, Austria; Inn/Salzach, Traun, Enns, Mur and Drau Basins – all within the catchment of the Danube Basin)
- We had just one meeting of Danube-regions and counties in connection with water protection. (Vukovar-Syrenia County, Croatia; Vukovar basin, within Danube basin)
- We have not had any real action in cross-border cooperation with Hungary yet. But in some arrangements and plans for cross-border cooperation submitted to the Ministry for European Integration of Croatia, we have put this on the priority list. (Virovitica-podravska zupanija, Croatia; Drava Basin in West Danube Basin)

Q-IV

Has your region experienced any water/river basin related basin management conflicts or disputes between neighbouring regions/states, or competing sectors of the economy?

- Yes, with some sectors of the economy. The conflicts appear as regards the measure to prevent the accidental pollution of underground or surface water. (Arges-Vedea River Basin Directorate, Romania)
- We have problems with industry that pollute waters. They have no adequate wastewater treatment stations, so wastewater is going to streams and rivers. Also there is a problem of agricultural pollution of underground waters. Second problem is project of Croatian Electrical Utility, “HE Novo Virje”, the project for energy exploitation of the River Drava. (Koprivnica-Krizevci County, Croatia; Drava and Sava Basins.)

Q-VI

Is your regional authority kept well informed regarding policy development and new agreements and regulations?

- The flow of information on the policy development within Switzerland is excellent. The flow of information on the European level is less comprehensive and only on a general basis. (Canton of Berne, Switzerland; Aare, Emme, Lageteu, Sense and Soane Basins.)
 - Positive within the scope of the European Framework Directive, sometimes unreliable (especially regarding federal legislation). (Province of Salzburg, Austria; Inn/Salzach, Traun, Enns, Mur and Drau Basins – all within the catchment of the Danube Basin)
 - Not so well. The opinion of regional authorities should be more relevant. (catchment programme involving 7 Hungarian counties within the Tisza Basin.)
 - Our regional authority is well informed about local and nationwide developments, and about the European Water Framework Directive. (Jasz-Nagykun-Szolnok County, Hungary; Tisza Basin, large sub-basin within Danube basin.)
 - Yes, but only to have information does not mean to arrive at solutions. It is necessary to have a complex and global approach to water resources. (Teleorman County, Romania; Arges, Vedea and Danube Basins)
1. We are not well informed. (Vukovar-Syrenia County, Croatia; Vukovar basin, within Danube Basin)
 2. No; in Slovakia the state company rules all rivers. (Liptovsky Mikulàs, Slovakia; Vah basin)

- No, it is not, particularly not about conditions and implications of the European Framework Directive and privatisation. (Viroviticko-podravska zupanija, Croatia; Drava Basin in West Danube Basin)

Q-VII

What methods do you use to involve the general public in the decision-making process, and keep them informed of your activities regarding water management?

- Depending on costs, a construction project may be put to a public referendum. That is why we make very extensive information campaigns with: brochures, public inquiries, press conferences, reports to parliament are regularly published, information on the internet. (Canton of Basel, Switzerland; Rhine, Wiese, Birs Basins)
- At each river basin level exists one large representative committee – the Basin Committee – who take the major decisions in water management. All adopted decisions are presented in the mass-media. (Arges-Vedea River Basin Directorate, Romania)
- Discussions on nature and environment protection are intensive in Dubrovnik through public discussions dealing with problems of urban planning and environment protection. Such discussions are organised by the City of Dubrovnik in collaboration with scientific institutions. (Dubrovnik-Neretva County, Croatia; Ombla basin.)
- In general the involvement of the public is weak. (Region of Upper Austria; Danube, Elbe, Traun and Enns Basins)
- Our county government does not involve the public directly in decision-making in general. (catchment programme involving 7 Hungarian counties within the Tisza Basin, within Danube basin)

Q-VIII

Do you have any suggestions as to how the role of Regional Authorities in river basins could be enhanced?

- One of the most important pre-requisites to strengthen the role of regional authorities in river basin management is the complete compliance with the **principles of subsidiarity** in European water legislation. (Bavaria, Germany; Danube, Rhine, Elbe and Weser Basins)
- The role of Regional Authorities in riverian management is very important. We need to create **County Information Environment Centres** for monitoring environment quality and condition of water areas; to attract investments in monitoring of aquatic areas and subsurface waters; to develop forms of business and agreement in total accordance with recommendations of regional authorities and international agreements. (Chisinau County, Moldova; Dnister Basin)
- The role of Regional Authorities in river basin management could be enhanced by being **more implicated in the education** regarding water protection and water ecosystems, legal harmonisation, and the consolidation of the authorities' abilities at local level. (Vrancea County, Romania; Siret Basin, and other Danube tributaries)
- Regional Authorities should have **more power in process of decision-making** in river basins management, because State Directorate for Water Management and Croatian Waters have centralised process of decision-making. (Koprivnica-Krizevci County, Croatia; Drava and Sava Basins, within Danube.)
- A stronger role of the regions is desired. For this to happen, **personnel capacities** have to be strengthened and commitment should be financially promoted. (Berlin, Germany; Spree Basin.)
- The competencies and responsibilities of the Regional Authorities and their **financial and personal resources should be strengthened** and expanded in future. (Region of Upper Austria; Danube, Elbe, Traun and Enns Basins)

- Regional authorities should have a bigger role and with that comes bigger responsibilities for condition of waters. It must have supervision and other services, and the most important thing is to have **qualified people on the ground**. (Vukovar-Syrenia County, Croatia; Vukovar basin, within Danube basin)
- Solutions to improve the situation include: creation of **independent centres for environment quality control** (including waters). These centres should be based on local competencies, but with an independent budget, where the region has a major contribution resulting from local taxes raised in accordance with the principle “the **polluting agent pays the damages**”. Regional authorities could also host **advisory councils**, and be actively involved in **training programmes** for experts on environmental management issues. (Galati Council, Romania; Prut basin and Danube basin in the pre-delta area)
- The regional authorities must be real **partners in all institutions** – national or international, which are involved in the decision-making process in water management. (Teleorman County, Romania; Arges, Vedea and Danube Basins)

The questionnaire on the management of river basins was sent to the regional authorities of 16 countries (Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, France, Germany, Hungary, Italy, Moldova, Netherlands, Republic of Yugoslavia, Romania, Slovakia, Switzerland, Ukraine).

Responses were received from:

AUSTRIA / AUTRICHE

4 answers / réponses :

- MM Johann HATZL et Andreas ROMANEK, Wasserwirtschaftliches Planungsorgan, WIEN, 24/07/2002 & 04/07/2002,
- MM. Peter PFEFFER et Franz ÜBERWIMMER, Office of the Regional Government of Upper Austria, LINZ, 29/07/2002,
- MM. Josef HÖRMANDINGER et Alois HÖLLBACHER, LAND SALZBURG, 09/08/2002 & 22/07/2002,
- Mme Sonia FIALA et M. Andreas ROMANEK, City of VIENNA, Wasserwirtschaftliches Planungsorgan, 08/08/2002 & 04/07/2002.

CROATIA / CROATIE

4 answers / réponses :

- M. Nikola SAFER, Vukovar – Syrenia County, VINKOVCI,
- Mme Vesna PRIBEG, County of Koprivnica-Krizevci, 02/07/2002,
- M. Nike SUDAREVIC, City of Dubrovnik, 26/07/2002,
- M. Antun MIHOKOVIC, Viroviticko-podravska zupanija, VIROVITICA, 05/08/2002.

GERMANY / ALLEMAGNE

6 answers / réponses :

- Mme Barbara WEBER, WIESBADEN, 15/07/2002,
- M. Carsten ROSS, DRESDEN, 15/07/2002,
- M. Michael KLOOCK, SCHWERIN, 22/07/2002,
- Mme Franziska LANTZ, HAMBURG, 25/07/2002,
- M. Florian WALSLEBE, BERLIN, 30/07/2002,
- M. WAHLISS, MUNICH, 23/07/2002.

HUNGARY / HONGRIE

4 answers / réponses :

- M. Laszlo DOMOKOS, Bekes County, BEKESCSABA, 05/08/2002,
- M. Istvan LAKATOS, Jasz-Nagykun-Szolnok county, SZOLNOK, 30/07/2002,
- Mme Timea PAULIK, SZEGED, 29/07/2002,
- M. Zoltan KUN, Heves County, EGER, 05/08/2002.

MOLDOVA

1 answer / réponse :

- M. Vladimir BRAGA, Chisinau County Council, CHISINAU, le 19/07/2002.

ROMANIA / ROUMANIE

5 answers / réponses :

- M. Mircea VASILESCU, Romanian Water Authority, PITESTI, 30/07/2002,
- M. Dan-Lilion GOGONCEA et M. Dorin OTROCOL, Galati County Council, GALATI, 29/07/2002,
- Mme Aida CATANA, Teleorman County Council, ALEXANDRIA, 31/07/2002,
- M. Dumitru DIACONESCU et M. Dan RALUCA, Vrancea Rivers Management, Vrancea District, 28/07/2002,
- M. Leontin BORDAS et M. Dorel LUNGU, Salaj County Water Management Unit, Salaj County, ZALAU, 06/08/2002.

SLOVAKIA / SLOVAQUIE

1 answer / réponse :

- M. Alexander SLAFKOVSK_, Mayor of LIPTOVSK_ MIKULÁ_, 24/06/2002.

SWITZERLAND / SUISSE

4 answers / réponses :

- Dr. Marin HUSER, LIESTAL, 24/07/2002,
- Tiefbauamt Basel – Stadt, BASEL, 29/07/2002,
- M. Daniel KLOTZ, Canton of Berne, BERN, 22/07/2002,
- M. Werner EICHER, Kanton Obwalden, 09/07/2002.

UKRAINE

1 answer / réponse :

- M. A. BUGERKO, Chmelnicka County, 02/08/2002.

ANNEX II

RESULTS OF STUDY OF LOCAL AND REGIONAL AUTHORITIES IN ROMANIA, AND THE SURVEY OF THE PUBLIC AND REGIONAL AUTHORITIES IN MARAMURES COUNTY³

I. LESSONS LEARNED

The initial focus in our region was on the environmental implications of shifting from a command to a market economy, emphasizing the removal of distorted incentives and subsidies in agriculture, energy, and water and the establishment of a regulatory framework and institutional capacity for environmental management. More recently, the agenda has been broadened to natural resource management, biodiversity conservation, and global commons concerns, agricultural and irrigation practices, and access of rural populations to clean water and to sanitation facilities.

It is the time now for the countries from our region to focus on the following issues:

- Setting priorities, to develop a broad consensus on environmental issues among governments, donors, NGOs, and civil society, to better prioritize investments, and develop least-cost options;
- Promoting sector studies and analytical work, in order to understand the links between environmental problems and health; to evaluate the links between energy and environment; to argue the case for phasing out leaded gasoline, adopting cleaner fuels, improving traffic flow, and promoting more fuel-efficient vehicles; to quantify the fiscal and environmental impacts from better natural resource management particularly management of forests; to link increased tourism with better coastal management; and to link agricultural productivity and rural livelihoods to better agricultural practices and irrigation restructuring;
- Capacity development through received institutional development grants, GEF grants for enabling activities, and major technical assistance grants and loans. Now, governments are generally unwilling to borrow for technical assistance, and even grant assistance is often ineffective unless it is genuinely desired by the recipients and well integrated with local expertise;
- Environmental investments should be more focused on industrial pollution management, reform of water and district heating utilities, energy efficiency, rehabilitation of water supply and irrigation infrastructure, water resource management, land and coastal zone management, forestry, and biodiversity;
- Policy adjustments are important, because by ending subsidies of communal services, improving bill collection, increasing tariffs, and furthering housing privatization could improve the viability and prevent the collapse of some district heating companies and water utilities;
- Increasing support for private sector activities, by recognizing that environmental investments in a market economy are made primarily by the private sector, governments in our region should promote policies that help the private sector address past and future environmental liabilities.

II. RECOMMENDATIONS FOR CROSS-BORDER COOPERATION

Water is a key natural resource that will have a crucial impact on future prosperity and stability. Yet water is surrounded by conflicts over its use, and thus by conflicts of interest. The need to manage the availability of, access to and utilization of water can act as a catalyst for transboundary cooperation. Water is an opportunity for intensive regional cooperation, and an exchange of corresponding experiences. The following ideological and practical steps should be taken:

1. “Breaking down the walls in our minds” which separate parties from effectively cooperating in the management of transboundary rivers and lakes, for a more realistic and interdependent view of the development and environment context.
2. There are no fixed models or approaches to cooperation, so that each new situation should take into account examples and experiences, increasing opportunities for dissemination of knowledge within the region.
3. “Framework agreement” model has relevance, example the EU Water Framework Directive, for transboundary waters, where early commitment to cooperation is essential, but details of cooperative arrangements need time and dialogue, but can be developed later.
4. Experience with transboundary river and lake management clearly illustrates the importance of working at three complementary levels – international, national and subnational/county – to achieve successful and sustainable management programs. At the international level a commission

³ This Annex contains extracts from the full report prepared by Green Cross Romania, which is available in the original Romanian and in English.

provides a basis for joint approaches and actions among the cooperating parties. At the national level, different ministries integrate the actions of the commission into national policies, strategies and programs. At the subnational level, the participation of local governments, private sector, non-governmental organizations, civil society institutions and various stakeholders is needed to translate these policies and programs into actions and provide feedback. Civil society institutions are often important mechanisms for expression of views by parties concerned with environmental issues as well as marginalized social groups who with support can become advocates for sustainable water use.

5. **Shifting to Integrated Water Resources Management** from traditional and often fragmented approaches. The aim is to move the focus of the dialogue on transboundary water resources management issues from irreconcilable differences to areas that provide new opportunities for cooperation and common ground, and to avoid unsustainable strategies that are costly in the long run.

6. **Sharing Benefits Rather than Sharing Water**, through an effective flow of good and reliable information, essential to properly evaluate benefits, create confidence among cooperating parties, and guarantee political commitment and public support.

7. **Promoting Efficient Water Use**, through actions supported at the international level, by national governments at the country level and by a wide range of local authorities at the subnational/county level.

8. **Moving from Supply-Side to Demand Management**, at present, inappropriate prices stimulate greater water use, perpetuate inefficient use, and result in increased stress on water resources, which in turn leads to disputes between different uses and different users. Rational economic instruments, including water tariffs with incentives for conservation and appropriate sanctions, are a necessary element of effective water management, ensuring that water is treated as an economic good and used efficiently. At the same time, “lifeline” tariffs provide an essential safety net to ensure that the poor have access to adequate quantities of water. Demand management will also reduce the marginal cost of water, postponing or even canceling the need for enhancing water supplies through further storage and abstraction.

9. **Fundamental Importance of Information and Knowledge**. Information acquisition and sharing is a fundamental and critical issue in the development of transboundary waters.

10. **Expanding Cooperation – Broadening the Range of Partners**, including increased work with municipal and local government; private sector involvement; active participation of stakeholders and civil society institutions in a manner that encourages dialogue and discussion; and effective use of the media and other forms of information dissemination:

- *Working with Municipal and Local Government*. Municipal and other forms of local government are the most direct form of representation for the demands and expectations of the population. Increasing their participation in the design and implementation of the commission’s actions and policies would facilitate public support for the commission’s role and mobilize political support. A major problem in many countries, especially those in developing and transition economies, is the technical weakness of local governments.

- *Increasing Private Sector Involvement*. The private sector can be a source of resource mobilization, complementing its comparative advantages to manage the design, construction and operation (both technical and financial) of water and energy facilities located in transboundary drainage basins. In addition to investment and management efficiency, the private sector can be an important source of innovation and creativity. Private-public partnerships can be encouraged by developing an enabling environment for involvement of the

private sector includes national legal frameworks that provide credibility and security, and reduce political risks. The use of an open decision making process for major activities and policies developed by the commissions also provides an opportunity for constructive involvement of the private sector. An example is the adoption of transparent environmental impact assessment procedures, with full public consultation that provides an opportunity for the views of all parties to be expressed.

- *Encouraging Active Participation of Stakeholders and Civil Society*. Translating actions called for in the commission’s work on the international level into subnational/county activities on the local level is not an easy task. Participation of NGOs in partnership with other community organizations, scientific and applied research groups, central and local authorities, and other stakeholders is essential to promote local implementation of key measures. At the international level their participation can also assist in achieving transparency in the work of commissions, ultimately improving trust and generating a commitment for action. The participation of stakeholders and civil society institutions allows the objectives of agreements and investment programs to benefit from a “bottom up” rather than a “top down approach,” making them more responsive to the aspirations and needs of current beneficiaries and future generations.

- *Expanding Relationships with the Media*. All key stakeholders need to rally support for

their actions and policy proposals. To do so, they need to communicate and make available to the media, and through the media to the civil society, information and data necessary for the understanding of water as a natural resource, its specific ecological contexts, the type of interventions proposed and the results obtained. The media is a potential ally, but also an important reviewer of the effectiveness of the stakeholders, a role that must be recognized and requires open and transparent access to information to allow objectivity.

III. THE SUPPLY OF WATER AND SEWERAGE PUBLIC SERVICES IN ROMANIA

III.1 Relevant Country Background

The current state of affairs of water and waste water infrastructure for public services as well as the possibility for Romanian citizens to have access to these services are still inadequate both at regional and local level. The length of the public drinking water supply network is 38,238 Km (at the end of

2000) at the national level, far below necessary; in the localities where this utility exists, the installations are qualitatively degraded and have very reduced efficiency. In the urban areas there are centralized installations to produce and distribute drinkable water in all towns and municipalities, but the distribution network spreads to only 70% of the streets. In the rural areas, half of the villages (50.4%) have public network for water supply and only 55% of the rural population have access to it.

In the last decade, the water supply network was extended (to 35.7%, taking as base the year 1990), especially in the rural areas. The number of localities provided with installations for water supply increased from 2,331 in 1990 (from which 260 are municipalities and cities), to 3,029 in 2000 (from which 265 are municipalities and cities). At the end of 2000, the number of localities with public sewerage system was 674, from which 264 are municipalities and cities. The sewerage network was spreading to 16,300 km (almost half the length of the drinking water supply network). The sewerage network existing in the rural areas represent only 6.3% of the national sewerage network. Three quarters of the streets within the towns have both water and sewerage pipelines. Though in the last years the wastewater discharge network expanded, the overall situation has not improved significantly, due to antiquated and degraded sewerage network. The existing public utilities networks, at the national and local level, are insufficient and not corresponding to modern standards in the field, either in terms of dimension or quality.

Currently 17 municipalities, each with more than 150.000 inhabitants, have benefited from capital investment programs for rehabilitation of their water and wastewater infrastructure. Many of these municipalities also obtained funds through the ISPA Program to continue the rehabilitation and modernization of the water supply and wastewater systems. Bucharest and Ploiesti municipalities concluded concession contracts with private operators and succeeded in this manner to attract external capital for financing their local infrastructure. In total, 50% of the urban population of the country benefits from these programs.

In Romania, out of 263 urban localities, around 230 are considered small and medium-sized towns that have not been able to attract financing from either the international financial institutions or private operators. Depending, therefore, solely on central budget contributions, these towns have made very little investments during the last 10 years to maintain and develop their water and wastewater infrastructure. As a consequence, the condition of these systems is very poor. There is need to ensure that all towns can invest to maintain and upgrade their infrastructure in order to have good services able to meet EU standards. This will require the adoption and implementation of carefully development policies focused on meeting the real needs of the population if services are to be affordable to everybody.

Local public services have a special impact on the environment. On the one hand they can be an important pollution factor, but on the other hand they also can contribute in an essential way to limit the degree of pollution (adequate treatment of wastewater and improved solid waste collection and disposal). Compliance with environmental requirements during the life cycle of local infrastructure (building – operating – maintaining – demolition) plays an important role in the sustainable development concept.

For this, the Government intends to:

- provide financial support to those programs which contain measures for the development of environmental infrastructure (ISPA, SAPARD – EU Programmes, Rural Development Programme – World Bank programme, etc.);
- promote special programs for small and medium towns with the purpose of rehabilitating and

modernizing local environmental infrastructure (SAMTID);

- promote self sustainable regional utilities by introducing principles of cost recovery and efficiency into their operations.

The Ministry of Public Administration (MPA) is currently charged with preparing the overall strategy and drafting legislation. Over the last year, the government has identified many of the guiding principles it would like to follow in the area of municipal policy, as well as the major elements of the policy framework.

As a candidate for entry into the European Union, Romania must also be concerned with the guiding principles included in EU legislation. The overall vision on local government roles is presented in the European Charter of Local self-government adopted in September 1999. Guiding principles for specific sectors can be found in various EU directives. The recently passed Water Framework Directive (Directive 2000/60/EC) includes many principles that can be generally applied to municipal services, such as:

- expanding the scope of water protection to all waters, surface waters and groundwater.
- achieving "good status" for all waters by a set deadline.
- water management based on river basins.
- "combined approach" of emission limit values and quality standards.
- getting the prices right.
- getting the citizen involved more closely.
- streamlining legislation.

Balancing principles

One of the primary difficulties in converting municipal services principles into policies is that many of the principles and visions can conflict with each other, inevitably leading to sacrifices and compromises. Difficult questions arise that must be dealt with in policies. For example, if local governments due to their size and lack of resources are unable to provide sufficient services, should the central government take a more active role? What should be done if providing services that protect the environment result in prices that many cannot afford to pay? Should the value of environmental protection be compromised, or should the value of getting the prices right be compromised? If resources are limited, how much should go to environmental protection, basic health, and education?

Using standards as policy support tools

Legislation, enabling ordinances and other regulations are critical to implementing policy, however, non-legislative tools also support many aspects of municipal service policies. Generally Accepted Accounting Principles (GAAP) are an example where professional consensus and well-prepared standards can be as important as legislation in guiding policy. Drafting, vetting, and disseminating professional standards require a combination of technical expertise and well-organized professional networks and therefore make it an ideal task for professional associations and technical assistance providers active in this sector of activity.

Access to service

The framework law on municipal services states that services should be provided to all, yet the financing for this ambitious goal is not clearly presented. GO 32/2002 requires that water service to be provided to all within a particular community, yet at the same time affordable service is stressed. What will happen if serving a particular part of the community requires huge investments that will render service "unaffordable"? Access to service has also become an important issue between rural and urban areas. The funds available for rural services have declined steadily over the years leading to large service gaps. Guaranteeing access to all services to rural areas may require equalization funding, necessitating amounts that are currently not available. Assuring the financing of these services guarantees are a fundamental problem that will require financial analysis, extensive policy debate, and most likely compromise between what is desired and what can be achieved with existing resources.

Protection from monopolistic practices

Many municipal services are natural monopolies, and without proper policies, monopolistic practices may harm consumers. Whose responsibility is it to prevent monopoly practices? How should those be regulated? What policies assure that consumers have a voice if the quality of the service does not meet standards? Improper pricing is one of the most common practices. Pricing regulation and monitoring takes many different forms for different services and in different countries. EU policies in this area relative to municipal services are fairly general and will accommodate a range of different approaches.

In Romania, municipal service prices are currently regulated in several ways. Up until recently, the Competition Office, was responsible for reviewing water, wastewater prices. This responsibility has been transferred to a new National Municipal Services Regulatory Authority (NMSRA).

Centralized regulation takes power away from local authorities and requires centralized administrative and technical capacity. Decentralized control by governing units maintains local autonomy but some local governments lack trained staff. Also political pressure from citizens demanding low rates (even at the expense of poor service or environmental degradation) can cloud a local government from subjective regulation. The situation is more complicated when, as it is the case in Romania, local government units own most service providers.

The monopoly nature of service providers also poses threats in the quality of service provided. Citizens that receive poor service are not able to express their displeasure by turning to another provider. In this situation, policies are needed to set minimum standards and give citizens opportunities to complain if these services are not met. Under the framework proposed for water services, the National Municipal Services Regulatory Authority and local governments share responsibility for reviewing and monitoring standards for the activity of water operators.

Environmental protection

The by-products of municipal services can harm the environment and society in a variety of ways - air pollution from outdated and poorly maintained buses, groundwater contamination from landfills, water pollution resulting from wastewater discharges. On the other hand, other municipal services require or contribute to improving environmental quality. Water treatment provides an incentive for maintaining surface water quality. The EU has developed a well-defined framework for environmental protection that Romania will need to follow as part of its accession efforts. In many countries, as it is the case in Romania, responsibility for meeting pollution standards are separated from other consumer protection responsibilities. Local governments normally play a relatively minor role (compared with other consumer protection policies) in setting and enforcing pollution standards.

In countries like Romania with limited public funds, the low prices result in insufficient revenue for operators to install and maintain environmental protection technologies resulting in environmental degradation. In addition, the low prices for wastewater services result in an incentive to pollute, therefore adding to the problem. In many cases, policies should be established that protect consumers from artificially low prices as much as from unjustified high prices. Environmental protection advocates must enter into dialogue with “front line” local managers that are impacted by centralized environmental regulations. Strict environmental norms are often implemented without regard for the sacrifices in other services due to budget limitations. Financial projections for the cost of environmental norms such as wastewater treatment plants with biological nutrient removal should be clearly understood and debated prior to project implementation. “First come, first serve” view of assigning limited funds to specific services will have unavoidable on other services that require future expenditures.

Preventing inappropriate use of public funds

Preventing corruption and misuse of public funds in the provision of services has become a priority policy issue for international development organizations and the European Union. Assuring the proper use of public funds is fundamentally a consumer protection issue. Failure in this area will have repercussions in consumer’s faith in government and service providers. This policy area cuts across all aspects of municipal services and requires clear transparent financing, procurement policies, institutional, and management policies. A lot of attention and interest, in this respect, have raised the process of privatisation of water services in Bucharest and Ploiesti. For example, in the case of Bucharest, low bidding and renegotiation risks were a continuous concern during the structuring of the contract between the Municipality and the winner.

Legislative reform process

The speed of legislative reform underway has left many stakeholders feeling that they have not been properly consulted. The problem of broad consultation is especially difficult in areas such as municipal services with such a large number of stakeholders. For example, Law 326/2001 and GO 32/2002 are critical legislation controlling the relationship between central government, local government, consumers, and service operators yet the participation among these different bodies has varied considerably. Professional groups such as the local government technical service providers, the staff likely to play a large role in implementing this legislation have had little formal opportunity to review this legislation. During several meetings, representatives of different professional organizations cited the shortage of formal mechanisms in guaranteeing, and suggested that preparing a list of organizations to be consulted for municipal service legislation

would be an excellent start. The final policy decisions must be made by Romanian stakeholders; however, different international donors can play an important role in improving and facilitating dialogue between different interest groups. The heated, but structured debates of the working meetings showed that there are strong differences of opinions as to what the overall strategy should be. The policy reform requirements for integration into the EU are enormous leading to a backlog of policy research and require legal analyses and policy support beyond what the central government's staff can accomplish with their resources.

The abundance of new legislation has resulted in many contradictions. Clarifying this framework is likely to be a medium to long-term intervention, but identifying the list of specific legal contradictions can and should be done immediately. The following paragraph is intended to bring a small contribution in order to clarifying this environment only through legal policy analysis and support, and is trying to identify some contradictions and questions that exist within the new legislative framework of public services, with emphasis on water supply and sewerage services.

III.2 LEGAL FRAMEWORK

After a period of more than four decades of centralized management, Romania has decided to return to local autonomy principle, in this way transferring major and concrete responsibilities to the local administration. One of these, specifically mentioned in Law no. 215/2001 concerning the local public administration, enforced by the Law no. 326/2001 regarding the local public services, refers to their obligation to organize their functioning efficiently and adequately. In this context, the Ministry of Public Administration has assumed important responsibilities in promoting the investments in the field of local services.

Ordinance no. 32/2002 (“**Ordinance 32**”), sets up the rules and principles applicable to the supply of water and sewerage public services. Ordinance 32 came into force on 2nd March 2002 and fundamentally changes the principles applicable to supply of water and sewage public services in Romania. Whilst Ordinance 32 sets out the framework, there are a number of subordinate regulations concerning key issues such as procurement principles that have not yet been passed. Ordinance 32 is subject to ratification by Parliament and we understand certain amendments to it may be introduced at this stage.

The other key legislation is Law no.326/2001 (“**Law 326**”) which provides the general framework and principles applicable for the setting-up, organisation, monitoring and management of public services at a communal level. Whilst Law 326 compliments the provisions of the Ordinance 32, the provisions of Ordinance 32 will take precedence over the provisions of Law 326. Ordinance 32 sets out *the principles* to be observed by public local authorities (“**Local Authorities**”) whilst organising and managing the supply of water and sewerage public services and *the performance criteria* to be met for water and sewerage services. In this report any reference to Local Authorities means the local or county council. The main *principles* provided by Ordinance 32 for water and sewerage services are:

- (i) security of the services;
- (ii) equitable tariffs;
- (iii) quality and efficiency of the services;
- (iv) transparency and public responsibility; and
- (v) consultation with trade unions, as well as with customers and their representative associations.

The *criteria* that have to be met whilst providing water and sewerage services are:

- (i) continuity in quantity of supply and quality of service;
- (ii) adaptability to customer's demands;
- (iii) non discriminatory access to services; and
- (iv) compliance with specific regulations relating to water and environmental protection.

III.2.1 ORGANISATION OF THE MANAGEMENT OF THE SUPPLY OF WATER AND SEWERAGE PUBLIC SERVICES

Ordinance 32 provides that the management of the supply of water and sewerage public services falls within the competence of the Local Authority. The management of water and sewerage public services is organised at the most appropriate level (i.e. villages, cities, municipalities, counties or inter communal associations) by decision of the Local Authority. In taking the decision on how to manage, the Local or Regional Authority has to take into consideration the results of: (i) a study and (ii) consultations and public debates.

The frame regulation for the organisation and functioning of water and sewerage services (“**Frame Regulation for Organisation**”) – should provide details of the bodies with whom consultations will take place or the way of organising public debates. The study that shall be prepared in consideration of the organisation of the service shall have to take in consideration

criteria such as:

- (i) optimal cost/quality ratio for the services provided;
- (ii) the size, development stage, the economic - social features of the towns;
- (iii) infrastructure and operating assets; and
- (iv) the local financing opportunities for exploitation, maintenance and development.

III. 2.2 FORMS OF MANAGING WATER AND SEWERAGE PUBLIC SERVICES

The Local Authority also has to pass a decision in order to choose the most appropriate form of management to be implemented. This would normally be undertaken prior to commencement of any procurement process for a project. Ordinance 32 provides that the management of water and sewerage services should be undertaken **exclusively** in either of the following two forms:

(i) Direct Management

Under direct management, the Local Authority is directly liable for all duties and responsibilities deriving from the organisation, management, financing and control of the water and sewerage public services. Direct management is undertaken by **specialised departments** organised by the Local Authority or by **public services** organised under the supervision of the Local Authority.

(ii) Indirect or Delegated Management

Delegated management implies that the Local Authority will delegate part of its responsibilities to another legal person named an **operator**, which is granted the right to provide the water and sewerage public services by exploitation of the water and sewerage public system, together with the duties and liabilities applicable to the right granted. The Local Authority may delegate wholly or partially the activities of provision, supply, management and exploitation of water and sewerage services, as well as the preparation and financing of investments to be effected in the above mentioned services. The rights and the obligations of both the Local Authority and the operator will be stipulated in the delegated management contract. This contract is awarded only following a public tender. The public tender procedure will be provided in the frame agreement and in the frame regulation for the delegation of water and sewerage services ("**Frame Regulation for Delegation**") This is a different

regulation from the Frame Regulation for Organisation referred to above.

III.2.3 FEATURES AND COMPETENCIES OF THE LOCAL AUTHORITY

In respect of provision of public services generally the Local Authority has the features and competencies established by Law no. 215/2001 regarding local public administration ("**Law 215**"). However, in respect of water and sewerage public services, it has the specific features and competencies provided under Ordinance 32. Under delegated management, the Local Authority remains solely responsible for adopting:

- (i) the policies in respect of the development of the service and medium and long term development and management strategies regarding the service; and
- (ii) programs for the development of the water and sewerage public systems.

Furthermore, the Local Authority is responsible for scheduling and monitoring the level of agreed investments in order to permit the secure functioning of the system and within safety limits set out in technical requirements. Whilst preparing medium and long-term strategies Local Authorities have to target reaching levels compatible with the directives of the European Union, such as:

- (i) providing for a quality of drinking water compatible with directives of the European Union;
- (ii) improving the environment by rational utilisation of the natural resources of water and the treatment of used water, according to directives of the European Union.

The reference is to "target" standards and therefore such standards would not have to be implemented immediately.

The Local Authority has the right to supervise, control and oversee matters related to:

- (i) the compliance of the operator with contractual obligations;
- (ii) the quality and the efficiency of the services meeting performance standards set out in the delegated management contracts;
- (iii) the management, exploitation, preservation, functioning, development and /or modernization of public systems and infrastructure as identified in the delegated management contract; and
- (iv) the procedure of determining and setting up the tariffs for water and sewerage public services.

Under Ordinance 32, the Local Authority has **exclusive** responsibility for approving:

- (i) the strategy for development of the service;
- (ii) the regulation of organisation and management of the water and sewerage public services ("**Local Regulation**");

- (i) the criteria and procedures for exercising control.

In order to permit the Local Authority to exercise its powers, Ordinance 32 provides that the Local Authority will have free access to any information held by the Regulatory Authority in respect of the delegated services. The Local Authority is responsible for determining the level of the performance standards. The public services should meet the performance standards for customers provided by the Local Regulation, as approved by the Local Authority. The performance standards shall be approved by the Local Authority based on a study that will focus with priority on the following aspects (i) customers' requirements, (ii) technical condition and (iii) efficiency of the water and sewerage systems.

The performance standards, as proposed following the results of the study, shall be submitted to public debate before being approved by the Local Authority. When approving local quality standards the Local Authority has to comply with the provisions regarding quality standards stipulated in the Frame Regulation for Organisation which sets out minimum standards. The other performance standards other than quality standards) may differ from the standards provided in the Frame Regulation for Organisation, on the basis of specialised studies. The Local Authority is permitted to finance the development of the services only if the necessary budgetary sources are available and if specialised studies provided by independent bodies, evidence that customers cannot afford the level of the tariffs envisaged for the proposed development. Under delegated management, the Local Authority approves any financing of the services only if such financial assistance has the result of either decreasing the level of tariffs and/or increasing the quality of the services.

Raw water resources are owned by the State and currently administered by National Company Apele Române. Any provider of water services is likely to need a raw water supply agreement with National Company Apele Române.

III.3 DESCENTRALIZATION AND PRIVATISATION OF MUNICIPAL SERVICES

In the context of public service reforms, decentralization is regarded as an important means to achieve improved efficiency and quality of services. One of the challenges in this context is the financing of such services, since tax and fee systems are often not changed simultaneously or sufficiently. Consequently, municipalities and local government institutions opt for a variety of approaches to privatizing services provided in the public interest. Decentralization affects the terms of employment and working conditions of municipal workers, as well as labour-management relations, in a number of ways. Moreover, public employees from government agencies at district, regional and national levels are often transferred to local authorities.

Municipalities or local authorities, are the ones that have to face a great and growing challenge to meet the changing economic, social and environmental needs and expectations of the communities they serve within the constraints of budgets and policies determined at national and international level. In other words, they are being expected to provide for economic infrastructure, environmental protection and renewal and social need within parameters shaped not only by their own electorates but also by processes and institutions over which they have little if any influence. This calls for great resourcefulness, which the evidence of the experience of privatization and other reforms in municipalities in recent years suggests can best be mobilized through participatory processes in which all stakeholders are enabled not only to influence policy but also to contribute their capacities to implementing it. To the extent that solutions such as privatization are imposed from above and outside, these capacities – and, indeed, the capacity to devise local solutions to local problems at all – are undermined. Therefore, the rights and responsibilities of municipalities must be clearly defined under national law.

A fundamental challenge for municipalities and the social partners linked through them, therefore, is to work, in conjunction with others elsewhere (for example, through national organizations linking municipalities) to create a constitutional, policy and fiscal framework suited to the exercise of their legitimate roles within the international and national arenas.

Public sector reforms are most likely to achieve their objectives of delivering efficient, effective and high-quality services when planned and implemented with the full participation of public sector workers and their unions and consumers of public services at all stages of the decision-making process. Continuing dialogue between government and the citizenry as a whole, including public sector workers, should be ensured. Effective communication, consultation and negotiation with a view to reaching agreement with workers and their unions are essential during restructuring.

Given that the context is one of attempting to match growing need for more and better service outcomes with continuing and often tightening restraints on resources, it follows that a first step in such a participatory process of analysing whether or not privatization offers the best solutions, and

if so how it should be carried out, is to establish goals and identify available resources. Such an approach can prevent existing resources from being wasted, and might lead to a conclusion that the potential benefits and risks associated with privatization in this case are less favorable proportioned compared to alternative strategies. An important aspect of this analytical and decision-making process will be to evaluate the various options for monitoring and regulating the performance of whatever service delivery organization might emerge from these considerations.

In the case of Romania, one of the main objectives of the government with respect to municipal services, is to improve the standards of service delivery, focusing principally on water and wastewater services, and enhance the environment by promoting compliance with EU environmental directives. In order to achieve this goal, it is absolutely obligatory to elaborate a sound and clear legal basis for the provision of municipal services and the development of policies for municipal services which are in accordance with the requirements of EU Environmental Directives and include appropriate regulation of increased private sector participation. In drafting the special secondary legislation required for water and wastewater services, which will include regulatory requirements, the definition of the rights and responsibilities of municipalities, service providers and consumers, along with specific technical legislation, the consultation with professional associations and Civil Society should be considered. In developing policies for municipal services to implement EU Environmental Directives, the consultation with the Ministry of Water and Environmental Protection, in order to identify the implications of any new EU directives for municipal services is obligatory.

Another important issue for the sector is reviewing and updating, on a permanent basis, the investment programmes in the field of water supply, wastewater and solid waste, updating mainly cost estimates, reviewing funding needs, identifying potential new sources of financing and assisting with financial planning. The need of training for senior management, especially for implementing procedures for monitoring investment programmes and their impacts, understanding the fundamentals of contracts, also guidelines for concession contracts and those for other forms of private sector participation (PSP), the potential weaknesses in concession and other PSP contracts and association agreements, is more often present on the agenda of different stakeholders meetings.

Most of these aspects were raised in the survey conducted by Green Cross Romania in one of the counties located in the north-west part of Romania, Maramures County. The results of the questionnaires, comments and suggestions made by the citizens and local authorities interviewed are presented in the next section of the report.

IV. RESULTS OF THE FIELD WORK CARRIED OUT BY GREEN CROSS ROMANIA FOR THIS PROJECT

IV.1 Project Objectives

Activities focused on demonstrating that the main water-related challenged and issues in Romania, as presented below, are real problems that must be solved in the near future:

- Lack of information, awareness and interest for water issues both at the general public and decision makers level
- Privatisation of public water services
- Improper transboundary cooperation between neighbouring countries (Romania, Hungary, Bulgaria, Serbia)

The objectives of the project were as follows:

1. Conduct an analysis and recommendations concerning the prevention of water usage conflicts that may occur in the Danube River Basin, on the basis of regional and Romanian experience
2. Conduct an analysis of the level of information, understanding and awareness of the Romanian public and decision-makers with regard to the water issues and privatisation in the water sector.
3. Inform the public with regard to water issues and inform the local authorities and decision makers with regard to the implications of privatisation of the water services
4. Facilitate the dissemination of information and experience gained at the regional level (Hungary, Romania, and Bulgaria) to Romanian authorities that will be involved in privatisation of water sector.

IV.2 PARTNERS

In order to achieve the objectives of the project, GCR has engaged different partners, including:

- *The Federation of Romanian Local Authorities*
- *The Patronage of the Public Services in Romania*
- *The Romanian Water Association (ARA)*
- *The Agency for Development of Water Infrastructure (ADIA),*

- *Local active environmental groups*

The direct partners that have helped in the distribution and evaluation of the questionnaires are:

- Maramures County Council
- ADIL Maramures, The Local Infrastructure Development Association
- ASSOC, an NGO from Baia-Mare City

The questionnaires had different content, one for the citizens and one for local/regional authorities. The questionnaire for the citizens focus more on information regarding the satisfaction for the service delivery, level of tariffs, water quality, willingness to pay for improved services, etc. while the questionnaire for local authorities focus more on investments in municipal services and level of information about the status of privatisation of water services in Romania.

Of the total of 500 questionnaires for citizens, 472 were returned filled in, and from the total of 250 questionnaires for local authorities, all 250 were returned completed. All the questionnaires were distributed and collected between 20th of June and 20th of July, 2002.

A summary of the data stored and analysed by Green Cross Romania and ADIL Maramures, as agreed, are attached to this report. The information will serve to elaborate the leaflet and the brochure – information handbook, and also to replicate this project in other counties in Romania, develop further projects, elaborate new politics and strategies for water or amend and improve the existing strategies.

IV.4 OUTCOMES FROM QUESTIONNAIRES AND RECOMMENDATIONS

IV.4.1 Outcomes from the public administration questionnaire

1. INSIGHT INTO PUBLIC ADMINISTRATION STAFF

Outcomes from the survey:

- *39.1 % of those interviewed have between 1-3 years experience in public administration*

Considering that the questionnaire was posed to the public administration staff, this proves a high rate of staff changing within public administration. Based on the results, half of the public administration staff is renewed every 5 years.

- *25.0 % of those interviewed have only 2 years experience in public administration.* After 2 years, a quarter of the public administration staff is renewed. This might be influenced in this particular case by the local elections. If the hypothesis is true, about one quarter of the public administration staff it is renewed after each local election.

Recommendation 1:

- Any training or awareness programme designed for public authorities should take into account the relatively short term position of the staff from the public administration (after 2 years, a quarter of the public administration staff might be renewed).
- Any local, regional strategy, policy and measures should be embodied within the national, regional and local regulation frame to not be affected by the changing in personnel, local or regional decision makers and political parties.

2. AWARENESS ASPECTS OF THE PUBLIC ADMINISTRATION

Outcomes of the survey:

- More than 98% of the interviewed persons are aware of the main water supply sources for their city/county and who is the administrator/operator of them
- 42.5% are not aware of the new regulations from the municipality services (especially those related to water issues). 69.7% would like to receive more information concerning the latest regulations.
- 93.3% consider themselves open to the citizen's problems related to public services, but only 38.6% are informed about the citizen's complaints.

Recommendation 2:

- There is a need to increase and facilitate the access to information, about new regulations for public services delivery, for public authorities;
- Although the authorities claim themselves 'open to citizen's problems', it is necessary to establish an effective communication system between public administration and citizen and make it functional.

3. KEY POINTS IN WATER SYSTEM MANAGEMENT AS PERCEIVED BY THE PUBLIC ADMINISTRATION

Outcomes of the survey:

- Water supply and water sewage issues are recognized by the public authority as the priority sector in receiving fund assistance among all the other public services.

- The age of the pipes, low water pressure and poor water quality are most of the citizen's complaints;
- The current cost for water supply and sewage services is considered low by 19.3% and acceptable by 64.2%.
- 90.9% are accepting of an increased cost for water services (being aware of the social problem that might arise) if investment funds are allocated to improve the services.
- 37.4% would choose a grant, 14.2% a public-private partnership for financing the water system rehabilitation. Only 2.4% would consider loan financing for the water system rehabilitation. This proves the perception (and the reality, too) about current unfriendly loan system.
- 70.5% have or would like to have their projects for water rehabilitation internationally financed.
- 76.4% consider privatisation as solution for increasing the quality of the services.
- 35.4% do not have any performance indicators to monitor the activity of the water operator. This proves a high degree of lack of monitoring and control of the public administration on the water operator.

Recommendations 3:

- a. Water supply and water sewage issues need to be approached as a priority sector for the public administration in receiving fund assistance among all the other public services.
- b. Main general problems that need to be tackled for investment, are:
 - The age of the pipes,
 - low water pressure,
 - poor water quality,
 - sewage system,
 - water treatment plants
 - wastewater treatment plants
- c. Funds necessary to rehabilitate the water system need to come either from grant systems or from public-private partnerships
- d. Public administrations should increase their abilities in accessing international funds;
- e. In case of improving the water services through allocation of investment funds, public authorities can accept an increased cost for water services (being aware of the social problem that might arise).
- f. Privatisation of the water operators.
- g. There is a need to develop a set of performance indicators to monitor the activity of the water operators.

4. CIVIL SOCIETY ISSUE AS PERCEIVED BY PUBLIC ADMINISTRATION

Outcomes of the survey:

- 89.4% consider the involvement of Civil Society in water issues useful, Why?
 - to act as a link between public administration/water operator and citizen.
 - to be active in monitoring public administration
 - to monitor decisions regarding environment and uses of the budgetary funds.
- They agree on the need to be active in increasing the awareness of citizens on water-sewage service issues, such as:
 - natural resources (water) services need to have a price;
 - there is a need to avoid waste in resources (e.g. leakage);
 - public service must be paid for;
 - negative effects of the "infested/polluted" water.

Recommendations 4:

- a. Civil Society needs to play a better defined active role in monitoring decisions of the public authority regarding environment and the use of the budgetary funds.
- b. Civil Society needs to develop public awareness campaigns for citizens to increase the awareness for natural resources issues (water, mainly) and public services related to them.

5. NEW LEGISLATIVE ISSUES FOR THE SECTOR

5.1 The National Municipal Services Regulatory Authority (NMSRA)

Outcomes of the survey:

- NMSRA can act as a moderator regarding the tariff increase
- will manage more efficiently the services that are vital for each community
- will improve the water-sewerage operational parameters, in the benefit of the customer
- will ensure good quality services for competitive prices
- is established as a specialized authority that will regulate the watersewerage problems in all localities and will lead to the alignment to the EU norms
- should be involved in obtaining funds, and if possible grants

5.2 At county level the Association for Local Infrastructure Development (ADIL) Maramures was established in December 2001.

Outcomes of the survey:

- ADIL can play an important role in coordination of the local operators' activities, renewing the strategy for development and investors involvement.
- Will help the improving of the services to the beneficiaries and the modernization of the water supply system.
- Preparing and efficient implementation of the projects for existing systems rehabilitation.
- ADIL can represent an important step for the infrastructure projects management.
- ADIL is a positive factor for solving the problems of water-sewerage infrastructure.
- ADIL has an important role in the extension of the water-sewerage network and in obtaining funds,
- Through the involvement of this association, the water-sewerage services will improve, etc.

5.3 Establishment of holdings at the county level, to be responsible for the preparation and implementation of the investment programs... Do you think that is possible for your city/county to apply these measures in the near future?

Outcomes of the survey:

- Services quality could be improved
- Would be a solution for solving the sanitation problems in our city
- Life quality will improve
- Fund allocation from the local budget
- Fund allocation from the central budget
- Establishing holdings at the county level
- Depends on the collaboration between institutions
- Through establishing holdings at the county level to ensure a fast investment program, the solid waste problem can be solved
- To improve the performances in the water and waste water area, the measures contained in the "National Strategy" are required

Recommendation 5:

- a. Local authorities, from all levels and departments, need more information on the status of new legislative changes for the water and wastewater services sector
- b. Local authorities need and are willing to participate in training activities and to receive more information and knowledge regarding privatisation of water and wastewater services

IV.4.2 OUTCOMES FROM THE GENERAL PUBLIC/CITIZENS QUESTIONNAIRE

1. INSIGHT INTO CITIZEN SITUATION

Outcome from the survey:

- 71% of the interviewed persons range their family number between 2-4 members. Over 48% have one or two children.
- 84.7% consider that their family does not have enough income to cover all the expenditures. 63.4% have the family income less than 170Euro (5,000,000 lei) and only 4% have family income larger than 200 Euro (7,000,000 lei).
- Expenditure on food (31.7%) and bills for water and sewage, electricity, gas, etc. (30.0%) are by far the most important spending out of the monthly family budget. Education takes only 6.05% of the spending.
- 93.9% own the house/flat (their property).

Recommendations 1:

1. It is possible to reach up to 50% of the population through a public awareness and education programme targeted on children and young members of the families (this result might vary from one region to another depending on the age of the population, but it can be considered valid at the general level).
2. Avoid measures that will bring any extra burden on the family budget, as it is likely that this will be hardly accepted since already one third of the family budget is spent on “bills”.
3. The mobility of people is generally low. Citizens own their own flat/house and they do not easily move to another place. Therefore, the long-term measures targeting better facilities or maintenance of the house/flat are likely to be accepted and promoted by the citizens.

2. INSIGHT INTO LOCAL ORGANISATIONAL SCHEME

Outcome of the survey:

- 18.6% do not have any Owners' Association (this type of association is common within the block of flats, to be able to manage the block problems).
- Over 20% are not satisfied by the activity performed by the president and the administrator of the Owners' Association.

Recommendations 2:

1. Efforts should be made to provide incentives and tools so that all owners of flats/houses to be included in a local Owners' Association.
2. The performance and the skills of presidents and especially administrators of such local Owners' Association need to be improved. They should take advantage of practical education programmes in terms of management, building maintenance, and access to information and even funds.

3. AWARENESS ASPECTS RELATED TO CITIZENS

Outcomes of the survey:

- 51.9% recognise that have 2-3 leaking water taps in their flat;
- 29.4% do not have water metering on their block staircase;
- 36.4% do not have water metering in their flat;
- 46.80% are not aware of their own monthly water consumption;
- 48.7% are not aware of the cost of a cubic meter of water;
- 33.9% are not aware of the percentage of water bills out of the total maintenance costs;
- Only 2.1% have been complaining about the eventual sickness caused by the quality of drinking water to the Water Company or to other monitoring and controlling body;
- More than 50% are drinking mineral water if the quality of drinking water is not good enough.

Recommendation 3:

1. It is recommended a public awareness campaign targeting:
 - Increase awareness of citizens about water losses and consequently money wasted, produced by water leakage.
 - Increase the awareness of citizens about the need to meter the water consumption in their flat and block of flats;
 - Increase the awareness of citizens in terms of running water costs and their monthly water consumption.
2. An increase access to public authority and water operator is necessary in order to facilitate a feedback from the beneficiary to the water service provider. Citizens are not used to and do not know where to complain about the quality of water services.

4. WATER SYSTEM MANAGEMENT AS PERCEIVED BY CITIZENS

Outcomes of the survey:

- 49.8% are not satisfied with the water supply and sewage services.
- 35.2% did not have running cold /warm water for significant period during the week;

- over 70% consider the drinking water acceptable in terms of taste, smell and colour
- 22.5% do not like the taste of the water
- Investments in rehabilitation of the water supply and sewage system are considered by citizens as the main priority among all the other public services.
- 43% consider that if the county had available investment funds, these should be allocated to rehabilitation.
- 65.9% accept the water tariffs and 27.3% consider them too high.
- 72.0% would accept increasing of the water tariffs *if* this will improve the drinking water quality.
- 51.7% would accept an increase of up to 20% of the water tariff.
- 72.5% consider that privatisation of the water supply and sewage systems will improve the quality of the service.

Recommendations 4:

1. Investments in rehabilitation of the water supply and sewage system need to be highly prioritised by the local authority, as perceived by citizens.
2. Privatisation of the water supply and sewage services should to be done and in general, citizens consider that this will bring improvements in service delivery.
3. Any policy and measure that will increase the water tariff needs to carefully be weighted.
4. Already almost one third of the population considers the water tariffs are too high.

5. CITIZEN RIGHTS AND DUTIES IN RELATION WITH PUBLIC ADMINISTRATION

Outcomes of the survey:

- 92.8% consider themselves interested about the development and administration problems of the city/county.
- 80.3% are not aware if the city/county received international funds for the water supply and sewage system rehabilitation.
- 39.4% consider that the elected local authorities are not ‘open’ to citizen’s problems related with public services, especially to the water supply and sewage system.

Recommendations 5:

1. Create awareness within public administration about need to increase the access of citizens to information and the decision making process.
2. Create awareness among citizens that they need to be involved in a more structured and permanent way in the water-related issues by the public administration.

ANNEX III

EXPERIENCE DERIVED FROM CATCHMENT DEVELOPMENT PLANS, CONFLICT PREVENTION AND CONFLICT SOLVING IN HUNGARY BASED ON THE APPLICABILITY PLAN RELATED TO THE CATCHMENT AREA OF THE RIVER KAPOS⁴

Due to Hungary's geographic location, the number one priority is to ensure international cooperation with adjacent countries and in shared catchment areas. Hungary is located in the middle of the Carpathian Basin and 95-% of its surface waters originate from abroad. Hungary must cooperate with its neighbours because of the collective nature of its catchment areas and its exceptional dependence on external factors. However, historical issues should also be taken into consideration. Conventions related to Hungary's boundary rivers date back to the Trianon Peace Treaty, when, taking into consideration the geographic features of the Carpathian Basin, the representatives of succession states accepted a motion proposed by Hungary's representatives, urging the establishment of international committees to supervise any water management or forestry issues effecting the interests of more than one state.

Section 294 of the Trianon Peace Treaty defined the concept of "mutual interest", and in accordance with Section 293, the *Technical Standing Committee of Water Management* was established with competence in the Dabube Basin (in French: *Comission Technique Permanente du Régime des Eaux du Danube*, C.R.E.D.). The treaty also stipulated that the natural flow of waters may not be altered without previously obtaining permission from the authorities and the accord of the committee. In the case of disputes, an arbitration committee appointed by the Council of the League of Nations was made competent to decide. These principles also meet today's requirements for international laws.

C.R.E.D. was authorised to initiate agreements between countries, to supervise existing agreements and, in the urgent cases, to ensure implementation. It should be noted that principles adopted by the peace treaty were in accordance with the then effective Hungarian regulations, i.e. Act of XXIII of 1885. In order to ensure the operational safety of water systems divided by boundaries, several bilateral and trilateral water management committees were established under the auspices of C.R.E.D. In 1924, the committee engaged in the dissolution of water management associations along the Eastern border of Hungary established the Hungarian Romanian General Water Management Treaty. The first boundary water treaties with Austria and Czechoslovakia were signed in 1927 and 1937 respectively. Despite repeated efforts, no intergovernmental water management treaty could be signed with the Serbian-Croatian-Slovenian Monarchy. Water management issues at Kárpátalja made it necessary to establish the Hungarian Romanian Czechoslovakian Trilateral Technical Committee. Between 1924 and 1938, C.R.E.D., along with water management committees mentioned above, coordinated tasks related to boundary waters in diverse sub-catchments of the Danube. In 1938, the operation of these committees was terminated as areas that had been disjoined from Hungary by the Trianon Peace Treaty now came under the Hungarian administration.

The previously uniform catchment area was once again torn into pieces by World War II. Unfortunately, the Paris Peace Treaty closing the war, unlike the Trianon Peace Treaty, did not include any references to water management cooperation to be pursued in the shared catchment area. Until the conclusion of new treaties, the provisions of boundary water treaties entered into before 1938 were usually taken into consideration. The first new treaties were concluded with the Soviet Union and Romania following the negative effects of the 1948-1949 flooding of the Tisza. On July 9, 1950, a treaty on "measures directed at the prevention of flood damages and the regulation of downflow conditions of river Tisza along the Hungarian Soviet border" was signed, followed by another on December 5, 1950 in Bucharest on "boundary waters and trans-boundary watercourses between the People's Republic of Hungary and the People's Republic of Romania." The titles speak for themselves. It is discernible that the Hungarian Romanian treaty is more precise, but at the same time, treats the concept of boundary waters in a less flexible manner. In accordance with Section 10 of the Paris Peace Treaty, the treaty concluded with the Republic of Czechoslovakia in 1937 remained in effect temporarily, until in April 16, 1954, a new treaty was signed in Prague on "the regulation of technical and economic issues related to boundary waters."

⁴ This Annex contains extracts from the full report prepared by Green Cross Hungary consultants OKO-Rt, which is available in the original Hungarian and English.

Treaties on boundary waters with Austria and Yugoslavia were not concluded until the end of the 1950's. Finally, despite the prevailing political antagonism, the "Treaty on water management issues concluded between the governments of Hungary and the Yugoslavian Federal Socialist Republics" was signed in Belgrade on August 8, 1955. The use of the plural at the end of the word "republic" suggests that Hungary entered into an agreement with more than one contracting parties. Even at that time, this meant cooperation with Serbian, Croatian and Slovenian partners in practice, with the Yugoslavian identity present at higher level negotiations only. The Belgrade treaty was followed by the Hungarian Austrian treaty on "the regulation of water management issues related to the borderland," signed in Vienna on April 16, 1956.

During the following thirty years, the governments concerned modified some of the existing boundary water treaties and concluded some new ones. The Hungarian Czechoslovakian and the Hungarian Soviet treaties were renewed in 1976 and 1981 respectively. The Hungarian Romanian boundary water treaty was amended in 1969 and once more in 1986. The Hungarian Austrian and the Hungarian Yugoslavian boundary water treaties remained in force.

Political changes in Central Eastern Europe and in the Soviet Union at the early 1990's created a new situation for the parties of boundary water treaties as well. Ukraine, Slovenia, Croatia and Slovakia became independent states and Romania and Hungary adopted a new form of state. These changes called for the revision of earlier boundary water treaties and the conclusion of new treaties for such purposes.

(Full details of Hungary's water boundary treaties with neighbouring countries effective today are available in the full report.)

The provisions of multilateral treaties

Based on the fact that Hungary is located on a divided catchment area, international treaties provide guiding principles of water management in shared catchment areas and guarantee in the case of damages caused by partners are of utmost importance. Such treaties include the Helsinki Convention on the Sustainable Protection and Use of Trans-boundary Watercourses and International Lakes, as well as the Sofia Convention on the preservation and the sustainable utilisation of the Danube. In the course of cooperation involving boundary waters, the Belgrade Treaty on shipping on the Danube and related issues must also be observed. This is particularly relevant for the relationship between Hungary and Slovakia.

The stipulations of the Helsinki Convention are referred to in the preambles of three boundary water treaties whereas references to the Sofia Convention are made in the same sections of only two treaties. Also, much emphasis is placed on compliance with the stipulations of multilateral treaties in the course of present Hungarian Romanian and Hungarian Slovakian negotiations directed at concluding bilateral treaties.

The Water Framework Directive of the European Union will set additional requirements regarding cooperation related to boundary waters, primarily in connection with the preparation and the reconciliation of catchment management plans and in terms of water quality standards. Therefore, obligations arising from multilateral treaties and Hungary's accession to the EU will also have to be fulfilled in the course of the cooperation related to boundary waters in the forthcoming years. This requires that Hungary should coordinate its activities with all of its neighbours even more effectively.

A typology of conflicts and problems

The primary source of both existing and possible future conflicts are the effective boundary water treaties concluded by two adjacent countries. Entered into at different times, these treaties show significant dissimilarities in the way the Contracting Parties regulate the scope of the treaty (both geographically and in terms of subject), obligations, the sharing and the exploitation of water supplies, legal approval of water rights, the implementation (and reconciliation) of planning activities, maintenance works, the preservation of underground waters, hydrographic services, bilateral settlements and clearing, fiscal and technical control, state boundary issues including the procedure of crossing borders and customs regulations, the Committee's scope of authority, policies necessary for the implementation of water management activities, the scope of the treaty, and last but not least, issues related to the settlement of disputes.

From this point on, boundary water treaties will be examined from this perspective, with references to actual conflicts and problems. It is necessary to make a distinction between problems and

conflicts because, for the purposes of this study, any prevailing disputes over unresolved problems will be considered conflicts. Problems may arise in any fields regulated by a boundary water treaty. In some cases, such problems may develop into conflicts. In the event that a conflict may not be solved by the representatives (commissioners or, in more general terms, boundary water commissions) of the Contracting Parties (governments, or, in the case of Austria, at president of state level), it may become a conflict. Should commissioners fail to resolve the conflict, it will turn into a conflict between the governments concerned (or, in the case of Austria, at president of state level). This brings us to the question of resolving controversial issues.

It should be noted that conflicts may stem from any other issues which are not, or not precisely enough provided for in boundary treaties concluded by the Contracting Parties. Conflicts may also come from new requirements which the Contracting Parties were not aware of or did not intend to institute at the time of the conclusion of their boundary water treaty, but which have been regulated by international law (e.g. multilateral conventions or other legal devices) in the meantime.

a) Conflicts between the principle of national sovereignty and the catchment principle

Upon concluding interstate (or intergovernmental) treaties, a basic principle of the Contracting Parties was to avoid clashes between the international agreement representing shared interests and national sovereignty. For this purpose, all of the earlier treaties showed signs on the part of the Contracting Parties to impose limitations on the geographical scope in order to preserve national sovereignty. The Hungarian Austrian and the Hungarian Romanian boundary water treaties which stipulate very precisely the distance (in kilometres) from the state boundary within which the respective treaty is effective are good examples. Despite its strict geographical definition, the Hungarian Romanian treaty stipulates that “long term development plans pertaining to the catchment areas of watercourses subject to the Treaty” should be reconciled by the Parties (Section 9 (2)). Section 2 (4) of the Hungarian Austrian treaty stipulates that committee negotiations be held prior to the initiation of the procedure directed at obtaining legal approval of water rights in the case of measures and works intended to implement in areas “outside borderlands.” The Hungarian Czechoslovakian treaty, effective between Hungary and Slovakia at the moment, also refers to boundary and trans-boundary watercourses, canals and underground waters but without defining the strip of land concerned. However, the definition of the scope of the very same treaty makes reference to water management activities which “may cause alterations in mutually established watercourses in the section area of boundary waters.”

A closer look at the Hungarian Yugoslavian boundary water treaty (the one that has been in effect for the longest period of time) shows that the Contracting Parties “shall resolve all water management issues... which may have an influence on discharge rate or water quality.” In addition, this treaty defines water systems in terms of the impact principle. Also, the treaty defines water management as being inclusive of all elements described by the French expression “régime des eaux.” It may be observed that even earlier boundary water treaties attempt to make use of the catchment principle and to avoid negative effects on borderline watercourses. More recent treaties set forth that their scope includes “trans-boundary effects” (Hungarian Ukrainian treaty), including environmental effects. The Hungarian Croatian and the Hungarian Slovenian treaties use even more specific wording: “The Parties shall provide a solution to all water management issues, including works or activities influencing water yield, water quality and environmental conditions...” Most conflicts between the principle of national sovereignty and the catchment principle arise during negotiations aimed at the renewal of treaties.

b) Conflicts related to the sharing and the exploitation of water reserves

As far as Hungary’s relations with Slovakia and Austria are concerned, the Contracting Parties are entitled to “the half of the yield of boundary watercourses excluding the effects of technical interventions.” In the case of Ukraine, the Contracting Parties may use “half of the reconciled water reserves at a maximum.” As for Romania, an exhibit attached to the treaty stipulates minimum “public health” yields for each watercourse. The Parties decide on natural water yields and discharge conditions in the course of reconciling long-term water management development plans based on water management balances. Treaties with the three remaining countries treat water reserve sharing and utilisation as mere theoretical principles.

The question of sharing water resources first became a practical issue with Slovakia, Romania and Ukraine. Slovakia’s diversion of the Danube and the subsequent drop in water yield was an outstanding example. Conflicts occur in the course of determining the value of natural water reserves and the discharge rate that must be sustained in any specific river bed. The upstream country is interested in minimising the amount of water resources and discharge rates it has to pass on. Conflicts may also arise with countries whose treaties do not provide for such issues.

c) Conflicts arising from procedures aimed at obtaining legal approval of water rights

This issue is only addressed in the boundary water treaties with Austria and Slovakia. In good faith, obtaining legal approval of water rights may be construed as being included in the procedure of reconciling technical plans, but this is insufficient regulation of issues related to obtaining legal approval of water rights. The question is altogether neglected in the Yugoslavia boundary water treaty. It is possible that similarly to the Austrian and the Slovakian example, this issue may be regulated appropriately with the remaining five countries. Thus, there seems to be a solution to this theoretically prevailing conflict.

d) Conflicts arising from the implementation and the reconciliation of planning activities

This issue has been provided for in treaties with all neighbouring countries except for Yugoslavia. A conflict may result from a debate over the definition of the scope of interventions influencing boundary watercourses whose plans need to be reconciled. This question is linked to the drawing up of catchment management plans stipulated by the EU's Water Framework Directive (WFD). The WFD prescribes for member states (and prospective members) that its stipulations must also be implemented in "international catchment areas." For this purpose, the catchment area of the Danube qualifies as a single catchment area.

Therefore, Hungary is to cooperate with Austria, Slovakia, Romania and Slovenia in the process of drawing up the management plan of the catchment area of the Danube. In addition, attempts have to be made at cooperating with countries that are not prospective members to the EU (Ukraine, Yugoslavia, Croatia) in setting up a joint catchment management plan. Following a call from the Hungarian Director of Water Management, water management authorities of all countries having a water boundary with Hungary displayed their readiness to comply with the stipulations of the WFD. At a recent professional forum, even Yugoslavia's governmental commissioner responsible for water boundary issues said that his country is willing to observe WFD provisions. This suggests that all non-prospective EU member countries sharing water boundaries with Hungary are ready to comply with the WFD. Nevertheless, their declarations in this regard do not supersede their obligations assumed under water boundary treaties.

The International Commission for the Protection of the Danube River (ICPDR) has been made responsible for the introduction and the implementation of the WFD in the Danube Basin. Water boundary committees, being organisations established on the basis of international treaties, may also serve as a forum for bilateral coordination of WFD issues. The Danube River Basin Management Plan will only include catchment level issues and measures. However, in the case of some water management issues, it is sufficient to draw up sub-catchment level (or bilateral international level) water management plans. In the future, water boundary committees will have to cooperate with one another in the preparation of such plans. Therefore conflicts may result from disagreement concerning the amount and the significance of references made to WFD provisions in possible new boundary water treaty.

Another problem requiring reconciliation may be the demarcation of sub-catchments. For this purpose, planning units of the two countries must join each other. It should be noted that 15 sub-catchment have been demarcated within the catchment of the Danube under the auspices of the Strategic Action Plan for the Danube River Basin. These sub-catchments will be possibly applicable for the purposes of the WFD as well. Hungary is involved in four of them (Vág-Garam; Hungarian Central-Danube; Dráva-Mura; Tisza). However, these sub-catchments also require multilateral cooperation and may not be treated bilaterally. Regions should also be fully involved in the drawing-up of sub-basin catchment management plans.

e) Conflicts related to floods and inland waters

Despite existing regulations and the parties' readiness to cooperate, extraordinary flood and internal water situations may give rise to conflicts. For example, during the 1970 flooding of the Tisza, a commissioner level conflict occurred due to the tardiness of Romania's reactions. In some cases, mainly due to dam bursts, huge amounts of water flows unexpectedly from one country to another, which results in conflicts of not only the Contracting Parties but also the population. Among others, this happened on both sides of the Hungarian Ukrainian border (Tiszabökény and Tarpa). Flood related aid is usually provided by either Party to the other Party free of charge. However, protection provided by the aiding Party on the other Party's territory and for the interests of the other Party may incur substantial extra costs. In such cases, the aiding Party is entitled to expect the aided Party to pay reasonable consideration for its efforts. The aided Party's failure to pay such reasonable consideration may give rise to conflicts.

f) Conflicts related to water pollution prevention

Water quality preservation has become an integral part of cooperation related to boundary waters. Water Quality Preservation Subcommittees or Task Forces are present in every cooperative framework between Hungary and its neighbours. Measurements are carried out and analysed on a mutual basis in borderlands. Properly speaking, such events do not qualify as conflicts, but the methods and the regularity of sampling, joint analysing methods, and the extent to which tendency analyses are needed have been subject to dispute with some partners.

The problem of extraordinary water pollution, however, is a highly critical issue. For example, water pollution by the Slovakian crude-oil refinery, SLOVNAFT and the Sturovo paper mill used to be a recurring theme at Hungarian Slovakian negotiations on water boundaries. This was a highly problematic issue, and eventually a conflict, even back in the era of socialist cooperation.

In the 1990's, unexpected pollution by Romania gave rise to various problems. In 1995, the Berettyó was contaminated with oil, which resulted in a full-scale conflict. The most extreme example of such conflicts was the cyanide contamination in 2000. The infamous catastrophe suffered by the wildlife of the Tisza received much international attention. This conflict was so intense that it reached beyond the level of bilateral intergovernmental relations. The payment of damages and the application of the "polluter must pay" principle has become another basis for conflicts. The protection of surface waters against pollution and the preservation of the appropriate ecological and chemical conditions of waters in accordance with the stipulations of the EU's Water Framework Directive may give rise to conflicts in the future (concerning the amendment of treaties and policies as well as implementation).

g) Conflicts related to underground waters

The preservation of underground water reserves is provided for in five boundary water treaties. The scope of Hungary's treaties with Austria and Romania does not include underground water reserves, but the issue is addressed at committee level. Romania does not reject the idea of including the issue in the new treaty, but they do not want to extend the scope of the treaty to all underground water reserves. Therefore, this is a controversial issue between Romania and Hungary. Austria is ready to tackle the issue of underground water preservation, but declines to renew the treaty. Thus, no conflict arises between Austria and Hungary because of underground water reserves. The implementation of the provisions of the EU's Water Framework Directive, the related identification of trans-boundary underground water bodies, and the determination of the quantity and the chemical features of such water bodies represent a new approach of the issue. Efforts to adapt these objectives in new boundary water treaties or to implement them in the practice may give rise to conflicts between the cooperating Parties.

h) Conflicts related to mutual settlement and the balancing of costs

Settlement and the balancing of costs are regulated in all of the treaties. Most of them stipulate that each Party shall bear costs incurring on its territory or that both Parties shall bear 50% of the costs, with a clause allowing them to enter into separate agreements in specific cases. Settlement usually involves keeping a balance, and it takes place in kind. The most accurate regulation and settlement principles are stipulated in the treaties with Austria and Romania. At present, there are not any conflicts about mutual settlement, but the partners involved may not welcome efforts made at more accurate settlement. As for the future, the reinforcement of the "polluter must pay" principle and the completion of economic analyses required by the EU's WFD may give rise to conflicts, especially with the non-prospective EU member neighbours of Hungary (Ukraine, Yugoslavia, Croatia).

As for mutual settlement and the balancing of costs, the Parties concerned will presumably face conflicts related to this issue in the process of implementing the provisions of the EU's WFD. Conflicts may arise if a future expectation reveals some material defect in connection with any of the works prescribed by the Boundary Water Committee.

i) Conflicts related to state boundaries (including the procedure for crossing borders and customs regulations)

The only treaty containing a clause about the necessity to observe state boundary rules is the one concluded between Hungary and Ukraine. The Parties to the rest of the treaties apparently considered the competence of Boundary Committees sufficient. In the case of some countries, Boundary Committees and Water Boundary Committees communicate to one another on a regular basis. Changes in the riverbeds of boundary rivers and other watercourses may alter state boundaries. There have been examples where territories were exchanged with Austria and Slovakia. Such procedures may result in conflicts related to national sovereignty in the first place.

j) Conflicts related to policies

Hungary has diverse policies in place with all of its neighbours. Most of these policies are related to the operation of the respective Boundary Water Committee, flood control, inland water control, hydrological and hydrometeorological measurements and data exchange as well as water quality preservation. There exist some more types of policies, especially with Romania. In some cases, policies take a long time to draw up (reconcile) and amend, which may create tensions between the Parties.

k) Conflicts related to the scope of treaties

Clauses providing for scope are varied. Most treaties were concluded for five years, two others for three and ten years respectively, with an opportunity to extend them automatically. One of the treaties was entered into for an indefinite period of time. Most treaties may be terminated with six month's notice. However, in several cases expiration may not take place in any year, which may create tensions with the Parties. For example, in the case of the Hungarian Romanian water boundary treaty, one of the unsettled issues is the question of expiration and termination.

j) Conflicts related to the exploitation of hydraulic power

The exploitation of hydraulic power is only dealt with in the Hungarian Slovakian and the Hungarian Yugoslavian treaties. By coincidence, apart from the cyanide pollution incident, Hungary had the worst conflicts with these countries in water boundary cooperation and at an intergovernmental level. The implications of the conflict about the Bos-Nagymaros Barrage Power Station on domestic politics and international relations are well known. In the beginning, conflicts arose between technical and environmental objectives but remained an internal affair until Hungary terminated the previous international treaty. However, the termination of the international treaty changed everything. An irreconcilable conflict emerged between the different objectives of two countries. However, withdrawal from the construction of the Nagymaros hydroplant was no longer a water boundary issue, therefore, from the point of view of water boundary cooperation, it was "just" a conflict between Hungary and Slovakia. At the same time, boundary water cooperation was sustained without any disturbances.

In addition to the above, Hungary was unable to influence the operation of other Slovakian water reservoirs for a long time. The exploitation of hydraulic power may give rise to conflicts with Croatia too. Earlier socialist Yugoslavia had made efforts to install barrages along the Dráva. The representatives of Hungary and Yugoslavia had been engaged in continuous talks concerning the implementation of the Djurdjevac-Barcs Barrage System. In 1988, an intergovernmental treaty was concluded about the cooperation in the exploitation of the hydraulic power of the Dráva. Following the change of political system, the Hungarian government refused to cooperate in accordance with earlier principles and raised objections to the construction of a power plant. Hungary insists on the prevalence of environmental and natural preservation principles over hydraulic power considerations. However, independent Croatia has upheld its earlier plans (Novo-Virje Power Station) to this day. A subcommittee has been set up to settle the debate. Discord exists both at the level of the subcommittee and the Boundary Water Committee, therefore the conflict continues to survive.

The settlement of debates and conflicts

In boundary water issues the Contracting Parties (governments or, in the case of Austria, at the interstate level) often have dissents with each other. The interests of particular countries may be different, or even contradictory. In such cases, it is almost certain that conflicts will arise between the parties concerned. Given that there is a clash of interests, conflicts become permanent and the Parties cannot come to a settlement even after repeated negotiations of the issue. For this reason, the Contracting Parties should make agreements concerning the settlement of possible disputes as well. Hungary's boundary water treaties are highly diverse in this respect.

The more recent Hungarian Ukrainian, the Hungarian Slovenian and the Hungarian Croatian treaties equally stipulates that such disputes shall be referred to the arbitration court appointed in Section 22 (2) and Exhibit 4 of the Helsinki Convention, signed on March 17, 1992. However, recourse to the arbitration court may be delayed by the adverse Party (which has been the case during the debate between Hungary and Croatia over the power station).

References to multilateral conventions can be made even if a boundary water treaty does not include such references as the Contracting Parties of bilateral treaties have also signed multilateral conventions and accept such conventions as binding. Nevertheless, a multilaterally accepted recommendation is usually not sufficient basis for changing the other Party's position in a bilateral relationship. Another problem is that countries are often represented by two entirely different panels of professionals and officials in bilateral committees and at negotiations related to multilateral conventions. This is also the case in Hungary. Consequently, specialists on multilateral

issues are not available at bilateral negotiations.

It is also possible to use the results of cooperation involving an entire catchment area for bilateral purposes. For example, the Strategic Action Plan for the Danube River Basin defines the most significant concentrated polluting sources (“hot spots”) and so-called “significant” borderlands’ for the purpose of supervising the effects of such sources. From a bilateral point of view, these documents are only considered as studies without legal binding force.

The EU’s WFD River Basin Management Expert Group also operates under the auspices of the International Treaty on the Preservation of the Danube River, with representatives of all water management authorities in the Danube Valley except for Yugoslavia and Ukraine. The activities of the panel is supervised by a representative of the European Commission. As a result, it is expected that cooperation involving the entire catchment area will also be applicable in boundary water cooperation. Of course this does not mean that the geographic scope (which have a great significance from the point of view of national sovereignty) of specific bilateral treaties should be modified.

Participation in global water management organisations (e.g. the International Network of Basin Organisations, INBO and the Global Water Partnership may also be helpful in reconciling opposing sides through the mutual adaptation of a holistic approach to catchment areas. Extreme examples of settlement of disputes include the debate over the BCEs-Nagymaros Barrage Power Station at the International Court of Justice in The Hague and the steps taken after the pollution of the Tisza with cyanide in 2001. Given that the Boundary Water Committee accepted the report issued by the EU’s Baie-Marc Task Force, no further steps could be made on the water boundary front. With reference to the “polluter pays” principle, Hungary brought the case to court. However, the Parties may also disagree over the interpretation of court decisions. The decision made at the Hague was an example. It may take years before a final court decision is reached on the cyanide pollution case. Even if Hungary’s claim for damages is adjudicated, the amount of damages may not be collectable.

The above examples illustrate that conflicts cannot be solved perfectly even if the Parties resort to court. Therefore, it is best to prevent conflicts and to make extensive use of international connections to clarify any differences of opinion. There are several positive examples in this regard. For example, in 2001, the diversion of one the subsidiaries of the Leith River to another watershed resulted a real conflict with Austria at the level of the Water Boundary Committee. Following a deliberate and diplomatic negotiation of the issue, it became possible to ensure the low-water discharge rate stipulated in the treaty.

Hungary must cooperate with both Yugoslavia and Croatia in icebreaking on the Danube. Given that as of now no Yugoslavian Croatian treaty has been concluded, Hungary has successfully convinced the opposing Yugoslavian and Croatian water authorities to enter into negotiations about icebreaking. In order to prepare for the elimination of the adverse effects of extreme flooding of the Tisza, Hungary initiated the establishment of a minister level Tisza Flood Control Board in 2001. Under the auspices of the Board, seven professional task forces are working on the preparation and the implementation of a joint flood control plan.

In addition, the harmonisation of bilateral and multilateral cooperative activities is also a prerequisite to effective conflict resolution.

EXPERIENCE DERIVED FROM WATERSHED MANAGEMENT PLANS, CONFLICT PREVENTION AND CONFLICT SETTLEMENT ON THE CATCHMENT OF THE KAPOS

Typical and specific conflicts at the conception and planning stage

One of the difficulties of regional water management planning is based on the fact that water territories (watersheds, drainage areas) and the jurisdiction of authorities, special authorities and other partners (sub-regions) concerned do not correspond to each other. A partial solution to this problem is that along with sectorial plans (e.g. silvicultural planning, nature preservation plans) and regional plans (regional and community development and planning), separate watershed management plans are also prepared, and that procedures aimed at reconciliation and obtaining approval are included in all planning systems. However, it is very difficult to obtain and arrange information necessary for particular plans covering various areas, to summarise and harmonise different regional objectives of various plans and to schedule implementation.

The professional supervision and the hierarchy of water management planning is also complicated. Earlier years’ highly centralised planning has been replaced by the principle that, coordinated regionally, planning is a means of harmonising interests inherent at various planning

levels. The significance of the system of regional development institutions is that it places mixed development boards and associations in charge of each region, which in turn allows for the integration of water management into complex development processes.

One of the tasks of county local governments is to draw up a regional development plan and, within that, a regional water management plan applicable for the territory of the county. The Regional Water Management Board (Ministry of Water Management Decree 5/1998. (III. 11.)) harmonises the completion of regional and professional water management tasks, and provides assistance to the coordination of water management planning, hydraulic engineering and servicing. The Board gives an opinion on regional water management development plans, water reserve distribution plans, regional sewage purification and sewage disposal programs, tasks involving cooperation related to boundary waters, and applications for grants from the water management budget in its jurisdiction. The Board carries out its activities independently, in cooperation with the county regional development board and the regional development board.

Local and regional governments may assert their water management development conceptions in development conceptions and plans, whereas specific ideas may be implemented in community development plans. Of course, they must observe approved county/regional plans in the course of planning. Local governments may enforce their conceptions in compulsory higher level plans during the planning stage.

In summary, significant steps have been made toward integrated and complex planning in the last few years. However, we must anticipate that plans made in this framework will continue to yield several problems which may eventually give rise to conflicts.

Difference in the ability of parties concerned to enforce interests

Out of the various special fields, water management and forestry boast massive experience and long traditions in planning, background databases and well developed professional concepts. This fact in itself is sufficient for the identification and the enforcement of the interests in these fields. However, following the change of political system, the traditions and the scientific foundations of agriculture were either discarded or reformed. Most of the foundations are still useful but market economy, the structural reform of the industry, and the emergence of private farms instead of collective and state farms has created a new situation where earlier knowledge and experience can be used only to a limited extent. Today, visions and conceptions related to land exploitation, agricultural utilisation at a sub-regional level, local level and the level of the farmers are few and far between. The lack of such visions makes it impossible, or at least rather difficult, to exactly identify and take into consideration regional water management interests.

To make matters worse from the point of view of regional water planning and the operation of facilities, estate reforms did not take place following the land privatisation. Most "farms", i.e. family estates, are not viable from a profitability and management point of view. This is one of the reasons why their interests cannot be considered in merit in the course of planning.

A related problem has to do with land property lease. The term of leases currently extend to 1 or 2 years at a maximum, which is probably a practice that will change. Owners tend to consider land as a form of investment and consequently they are not willing to enter into long term leases or developments. In many cases tenants do have long term objectives but they refuse to make substantial investments (e.g. development of the irrigation system) as they do not find the term of tenancy agreements long enough. The Agricultural Environmental Program and its system of subsidies is still in its introductory stage. Experience in the first few years will show the extent to which this program can facilitate structural change as well as the impact it may have on regional water management. Unpredictable market conditions, the lack of resources and high interest rates on loans also discourage development projects. It is expected that the EU accession and subsidies may stimulate such projects to some extent.

The major environmental protection objectives and programs have already been clarified. However, regional and especially local plans and conceptions for the entire country have not yet taken shape. At the moment, mostly background work (e.g. survey of natural conditions, database building, development of thematic programs) is in progress. This practice causes some delay when the task of defining exact interests arise and when this task can be addressed by providing a well based answer.

Regional influences and dependencies (both direct and indirect) are not sufficiently discovered and known

The significance of watershed planning is that it enables professionals to handle regional processes and events in their entirety, taking into consideration all of their interdependencies. In fact, this

may allow us to root out certain problems instead of treating their symptoms, and to prevent the occurrence of new problems. The climatic, topographic, geographic, pedologic features and the surface characteristics of a watershed catchment area define the basic framework for the objectives and the scope of water management. As for infiltration, evaporation and drainage, these are significantly influenced by the way in which the area is exploited and its macro and micro structure—along with other natural conditions. The occurrence of water excesses or shortages resulting from natural effects and the spatial and temporal volatility of such situations may be a starting point for issues related to drainage or storage. In addition, specific requirements for land and water exploitation must also be taken into consideration.

Settlements and companies are usually unaware of role which the land they own or exploit plays in the hydrological regime of the watershed in which they are located. For example, as a result of gravitational paragenetic connections, flood risks regularly affect watercourse tracts located in lower regions of the catchment area. One possible (and quite widespread) method of preventing such water damages is the canalisation of watercourses and the implementation of flood-control works. However, this method has limitations based on its environmental effects. Making use of natural means of retaining of water (e.g. appropriate ratio and distribution of forests, clearings and cultivated land) and diverse storage techniques across the entire catchment provides a more comprehensive solution. The limits to water canalisation and dykes has also been realised in the Rhine, prompting the «Space for the River» initiative which resists such restrictions on and modification to the natural flow of the river. However, in Hungary, landowners in upstream regions are not motivated in any way to modify their land usage patterns and the means of cultivation they adopt in order to preserve downstream territories (although this would also be useful in erosion prevention). Apart from reservoirs that have been built with governmental support for specific water management purposes, the ability of storage basins to counterbalance flood peaks is very limited because of other uses (e.g. fish breeding, angling, preservation of nature). In addition, due to inappropriate maintenance, such fishing ponds and pond systems incur special risks related to dam breaks.

In the process of planning measures affecting the hydrology and the water regime of a catchment area, diverse methods (e.g. river bed forming, implementation of flood-control works, appropriate maintenance of existing infrastructure, construction of reservoirs, modification of land exploitation for the purposes of regional retention of water) should not be taken into consideration as mere theoretical solutions. When using such methods, their advantages and limitations should be examined equally. Assessment should also include the determination of the time in which certain efforts will take effect as well as their duration (for example, the water retaining effects of forestation are much slower than building and operating a reservoir). Similarly, seasonal dynamics must also be considered in the process of estimating water retaining capacities related to surface features. In general, the more complex the effect of the method we adopt (technical equipment, physical effects, surface features, physical, physiological, ecological and regional ecological cross effects), the more complicated and, in some cases, vulnerable the expected effect will be. Upon selecting specific solutions, cost effectiveness and the feasibility conditions are also important. It is much more “simple” to plan and implement a facility than, for example, change the land utilisation patterns in an area through the involvement of thousands of proprietors. Therefore, based on knowledge and experience available at the moment, combined solutions are recommended.

For this purpose, so-called opportunity plans will have to be prepared including all possible alternatives related to each watershed. It is important to be familiar with the position of all parties concerned from the beginning of the planning stage and to take them into consideration in the process of making recommendation. When completed, conceptions should also be finalised with the participation of those concerned and the general public. Following this stage, however, it is necessary to prepare a detailed task plan (with related responsibilities) so that the measures may take effect as planned. This procedure requires the development of a decision process that is more time-consuming, interactive and iterative compared to its predecessors. It is also important to introduce an appropriate set of instruments (mainly incentives) corresponding to possible interventions. In addition, comprehensive control and monitoring of the system is also crucial.

A typology of conflicts related to proprietorship and scopes of responsibility and authority in the field of maintenance and operation

The most significant and probably most well known practice of water-engineering is the construction of canals. Watercourses fall into two categories: lowland or highland. Lowland canals are more effected by human interference and reconstruction than highland canals. There are only a very few highland watercourses which have never been subject to any human interventions. This process is called the canalisation of highland watercourses.

The reason for such interventions is that canals, being intermediary outlets, have to meet specific legal and technical requirements. These requirements are set forth in operation permits issued by the First Degree Water Management Authority. The most important technical requirement related to water operation licences is probably that the drainage capacity of the river bed should be determined. In this regard, uniform principles have been set forth in *Section 117 of Chapter 8 of the 4/1981 (IV.4.) National Water Management Policy*. This document stipulates that conveying river beds must be calibrated to a flood discharge with a probability between 1 and 3 % within the boundaries of settlements and in the vicinity of facilities of national economy significance, whereas in other areas probability should be between 10 and 33 %.

Before 1990, various water management facilities were all owned, managed and supervised by the state government, which had several advantaged and disadvantages as well. Following the change of political system, the ownership structure along with community and individual interests began to change, which made water management less efficient during the time of transition. In accordance with effective laws and regulations, there are three types of proprietors: the government, local governments and individuals. Although they are also engaged in basic water management activities, water management or water organisations do not own any properties therefore they cannot be classified as proprietors.

After negotiable watercourses are transferred to the county level agencies of the Ministry of Agriculture and Regional Development, their operation is taken over by the associations. The government transferred the proprietary rights to much of its estates to local governments. In addition, a high number of facilities became private properties due to agricultural land privatisation.

Conflicts faced by local and regional authorities :

The implementation and the operation of local water management facilities of public interest is the responsibility of local governments. Within the field of surface drainage, the following water management facilities are regarded as being of public interest:

- inland water drainage canals and related structures relieving administrative areas of settlements, provided that the technical level of such works corresponds to the outlet;
- drainage works (rainwater drainage works) relieving municipal areas and structures, provided that the technical level of such works corresponds to the outlet;
- reservoirs located on waters transferred and inland water drainage works.

Waters and water management facilities of public interest are part of the local governments' principal capital assets and are non-negotiable. However, in most cases local governments entrust professional associations, for example water management associations, with the operation of such facilities.

At the moment costs must be almost entirely covered by local and regional governments because the central government has capitalised on and supported different infrastructural developments (drinking water, roads, gas, telephone, etc.). As a result, local governments' ability (or, in times of drought, motivation) to develop and carry out necessary maintenance has depended on their financial capabilities. The regulated and orderly drainage of *municipal rainwater* or its retention for subsequent use, water-damage prevention, the maintenance or possible development of the drainage system is the responsibility of local governments. Such efforts must be integrated into the municipal, sub-regional, and regional development conceptions. Settlements must be in possession of the basic municipal water management facilities. The modernisation and the maintenance of such works is conditioned by the respective local government's budget. Local and regional governmental budgets usually do not earmark any sources for such purposes.

Following the transfer of a property, the government participates in its maintenance and development only to the extent of public interest. However, the extent of public interest is not provided for, therefore such sources are rather scarce. The management and the maintenance of facilities (not to mention development) involves a number of unsettled issues:

- Local governments are primarily interested in the maintenance of municipal facilities (and within such activities, most pressing ones receiving government subsidies), and their financial capabilities do not allow them to participate, to a significant extent, in the operation of facilities located in on the outskirts. Consequently, it is difficult to harmonise activities (with the use of the limited sources of proprietors on the outskirts) even within a single settlement (municipal area and outskirts).
- There do not exist any specific expectations toward the operation, maintenance and development of inland water systems and drainage systems owned by local and regional governments. Before 1990, these tasks were carried out in an organised manner but have been neglected ever since. On

the whole, municipal and outskirts inland water drainage systems have undergone alluviation, structures and culverts have been obstructed and have broken, and they are incapable of ensuring rainwater drainage.

Issues related to primarily inland water drainage systems:

- Owners of outskirts properties must contribute to the maintenance of facilities in proportion to their ownership stake (in the case of facilities managed by associations), or owners themselves are obliged to maintain facilities on their properties in good condition.
- Landowners have different interests in the maintenance of facilities, and consequently the payment of costs as well (e.g. owners whose property is threatened/not threatened by inland water, erosion and floods within an association), not to mention proprietors who purchased their land for short-term investments purposes.
- Due to frequent changes in ownership and the disintegrated nature of lots, the proprietors are often unknown and the thus their responsibilities cannot be accounted for.
- Difficulties caused by changes in ownership are further aggravated by the fact that the conditions of membership in organisations that had operated smoothly before the 1990's have also changed.
- Following the division of factory farm lands into smaller lots, landowners failed to recognise the significance of inland water drainage, occasionally used the areas of inland water drainage canals for cultivation purposes or built passageways without drainage culverts.
- Along with the gradual deterioration of the technical level of inland water systems, areas have become more sensitive to damages, given that farmers cultivating few acre lands may become unable to carry on their activities even if there is a relatively small water damage.

Conflicts faced by water management associations

The advantages of the structure of water management associations:

- Following their formation by means of a majority decision, all users can be forced to become members and assume payment obligations,
- Associations are entitled use governmental grants available through applications (most applications are association specific),
- Professional help is available for the purpose of technical tasks.

Changes in recent years, such as the disappearance of industrial farming, changes in ownership, financial and farming difficulties and insolvency have had a negative effect on the operation of existing associations. Companies limited by shares, limited liability companies, cooperative societies, etc. have remained members of associations, but based on new land ownership and utilisation patterns, a large number of the members are now unknown. Under changing regulations, owners have not been obliged to report on their acquisition of land during this transition period. As a result, it has become rather difficult for associations to reconcile their interests on the basis of new land ownership and utilisation patterns. Individuals and new agricultural enterprises who became proprietors recently refuse to assume the obligations related to membership in associations. In many cases, associations fail to collect the entire amount of membership fees.

As industrial farming units were disappearing, they were not replaced by a group of solvent members. New and old association members with financial difficulties are unable to provide sufficient funds for the operation of their organisations. On average, only 50-60% of the membership fees are actually paid up which amount is usually too low even to ensure the operation of works. The non-payment of membership fees resulted in a situation where associations have carried out only the most indispensable tasks, leaving the river basin at risk.

EXPERIENCE DERIVED FROM WATER SUPPLY AND SEWAGE DISPOSAL SERVICES PROVIDED BY LOCAL GOVERNMENTS AND THE CORRESPONDING LEGAL FRAMEWORK IN HUNGARY

1. Experience of local governments and consumers related to the operation of privatised public utility waterworks in Hungary

In order to understand the operation of privatised public utility waterworks, one must be familiar with the circumstances of the development of today's public utility waterworks in Hungary, the framework in which they operate as well as the characteristics of the investment market. Prior to the change of political system, the supply of water to the and the provision of sewage disposal services were the responsibilities of the government, and water management and sewage treatment facilities were owned by the government. Water was supplied and sewage disposal systems were maintained and managed by companies acting as operators founded by the government or, for the most part, councils. Until 1992, 28 council companies (some of them responsible for entire counties) and 5 government companies were engaged in water supply. With the exception of the

capital and some large cities, these companies were in charge of both services, i.e. water supply and sewage disposal.

In accordance with the 1990 Local Government Act, public water supply became a responsibility of local governments, and so did sewage disposal and sewage treatment some time later. The transfer of assets required for the completion of these tasks took place. Local governments received the assets of former council companies, municipal waterworks and sewers which could be technically separated from the assets of government companies, provided that these latest items were needed by respective local governments. Along with the transfer of these facilities, their technical structure and supply functions were also established and there have been few changes in this regard ever since. Typically, the government is the exclusive owner of regional public utility waterworks (so-called non-negotiable assets). Other public utility waterworks were transferred to the capital asset portfolio of local governments as assets negotiable to a limited extent. Most of these public utility waterworks are used in local and sub-regional water supply, but some of them provide typical regional services. Finally, some public utility waterworks were capitalised in companies in the form of in kind contribution, thus becoming company property.

Immediately after the transfer of assets, existing associations began to disintegrate. As a result of changes in operating associations, their number decupled in a few years' time. During the last one or two years, the balance of changes has been stable at almost 400 associations nation-wide. New associations managing public utility waterworks have been formed through registration by the Registry Court. Associations applying for registration are not required to prove their ability to carry out their tasks or to present any operation licenses. Such licenses are provided by water management authorities. Professional control over the sector is currently exercised by the Ministry of Environment and Water Management. Compared to the former (central governmental) era, the National Water Management Directorate (National Water Management Directorate) has lost in significance. It is not directly involved in the professional control of services, but functions primarily as an authority.

The following institutions also have various levels of involvement in the water management sector:

- Ministry of Agriculture and Regional Development
- Ministry of Internal Affairs
- Ministry of Economics and Transport
- Ministry of Finance

The function and the level of involvement of the government in services related to public utility waterworks has changed altogether. Before the 1990's the sector was characterised by the exclusive responsibility, control and influence of the government. After 1990, the role of the government changed but its influence and network of contacts survived in many areas.

Despite the emphasis placed on local governmental tasks, the government has also retained some of its responsibilities in areas which local governments are not yet able to cope with on their own. The financial influence of the government is enormous. Examples include the financing of constructions and the subsidising of operational costs. These forms of support survived following the change of ownership.

The government plays a crucial part in constructions through the central budget by providing non-repayable subsidies. Local governments may use central governmental support for up to 80-85% of the value of their investments projects. If a local government wishes to make an investment, it has to apply for the amount of its several hundred million HUF construction project with at least four different central governmental sources. Residential contributions amount to 20-25% but in many cases this is difficult to raise, leading eventually to the failure of certain constructions. The primary source of local governmental investments is the system of direct subsidies of the Ministry of Internal Affairs. These subsidies account for 50-60% of the budget of investments. Investment of towns with county status in waste water facilities are an exception. In accordance with Government Decree 54/1995 (V.10.), such projects may receive only 25% government subsidy. At this moment, investment subsidies applied for by local governments are allotted by the Ministry of Internal Affairs in the basis of a professional list of priorities. Local governments with an intention to make an investment have to collect the remaining 25-30% from the Environmental Protection Fund (KAC), the Water Management Provision (VICE) and regional development subsidies available at the county level. European Union resources (PHARE, ISPA) are limited at present and are available for the purposes of a few major investments only.

The basic problem with central governmental subsidies is that the amount of available funds and the conditions of application vary on a yearly basis. In addition, ministries have changed the rules pertaining to the submission and the structure of applications nearly every year. Due to constant changes in the priorities related to subsidies, some local governments previously receiving support

have had assistance withdrawn from them. As a result, the completion of some constructions in progress has become uncertain or, in some cases, have been cancelled.

Under the current subsidy system, Budapest and towns with county status receive significantly less central governmental funds than other local governments. Such settlements also have limited access to international loans, which results in interruptions in the implementation of projects initiated by investors into public utility waterworks.

Given the fact that local governments have to gather funds from various sources, they have to prepare different applications and submit these to different ministries. Local governments devote significant efforts and financial resources to the preparation of each application. However, the shortage of any of the resources could potentially prevent the realisation of the entire project or make certain changes of plan necessary. Another problem is that most local governments intending to initiate constructions are lacking in self-generated funds which they try to compensate by filing exaggerated claims for central grants. Local governments pursue this practice because most of them face financial difficulties.

Nevertheless, the application system allows local governments to cooperate and build public utility waterworks by joint effort. Under current conditions of application, they may receive additional subsidies. This practice has certain advantages, but no cost-effectiveness calculations are prepared in the case of sub-regional projects, which sometimes results in situations where waste water has to travel several tens of kilometres to the sewage works. Such impractical solutions will raise costs of operation in the future, not to mention that it is also questionable from a technical point of view.

In summary, the role of the central government in financing public utility waterworks after the change of political system is as follows:

- subsidies derive from a high number of sources which are not harmonised and come into the competence of several ministries,
- the government does not exercise technical control, it provides financial support primarily,
- various governmental sources are not coordinated,
- more than half of the subsidies granted cannot be used due to a lack of self-generated funds,
- conditions pertaining to local governments willing to take action are subject to constant changes
- constructions are slow and unpredictable,
- connection to the sewage system is not a requirement in many places,
- applications related to constructions are evaluated in a complicated procedure.

Following the change of ownership, the right to set prices was also transferred to proprietors. Consequently, in most cases it is the local government that acts as pricing authority. At present, 80% of services are rendered by 400 public utility waterworks owned by local governments. In the case of the five public utility works (providing 20% of services) in government ownership, the competent minister continues to exercise pricing authority. Therefore, based on its proprietorship, the government acts as pricing authority in 20% of services. In addition, the government also influences the pricing methods of local governments through the subsidy system.

Based on the authorisation of the Budget Act, the government supports local governments where costs of operation are high proportionate to the pre-defined ratio of residential drinking water and sewage services through applications. More than one-third of settlements receive subsidies from the central budget. Subsidies are not provided on a social basis but are intended to reduce the cost of operation. This situation is a highly unique one. Although the provision of public water utility services is the responsibility of local governments, central government subsidies are still provided. This subsidy system is not in the least in conformity with EU regulations, but given that the welfare system in Hungary is not yet appropriate, such subsidies qualify as cost reducing support provided on a social basis. Authorities making decisions on subsidies face difficulties in determining whether fees contain only reasonable and relevant costs and if there are any economic reserves available, and in finding ways in which such reserves may be capitalised. Based on applications for subsidies submitted by local governments, more than HUF 4.9 billion has been distributed to local governments in 2002.

Along with the radical increase in service charges, there has been an unmistakable decrease in consumers' willingness to pay. Many providers have faced liquidity problems which is an apparent result of the disintegration process. In many cases, charges established by local governments do not cover reasonable costs of operation, especially maintenance. These fees do not usually have an element dedicated for development purposes, therefore low charges very often lead to losses. Local governments do not ensure sufficient funds for long term development.

At the same time, water and sewage charges are high when compared to the income of the population. The average of this figure is between 2 and 2.2%, which is higher than the EU average of 0.5-1%. This ratio is even higher in the case of subsidised settlements, reaching 3.2-4%. The government subsidy system also includes settlements at risk from a public health perspective. There are approximately 300 such settlements at the moment, but their number will increase due to a program aimed at improving the quality of drinking water (a pre-requisite of EU accession) and others to be initiated in the forthcoming years.

Another governmental task is to formulate legal regulations pertaining to services related to public utility waterworks. The basic rules of public utility services are provided for in the Water Management Act which also stipulates the tasks of the government and local governments, rules pertaining to proprietorship and the operation of properties, including regulations related to associations in charge of operation, the putting into use of public utility waterworks and applications aimed at concessions. The operators of public utility waterworks must fulfil other contractual obligations as well. Service providers must enter into contracts with their consumers in accordance with the Civil Code.

In summary, following the change of political system, a new ownership structure came to existence which underwent disintegration. From a certain perspective the system is unstable, the level of professionalism, security and effectiveness of associations in charge of operation is questionable.

Basic laws and regulations pertaining to the involvement of local governments in water supply and sewage disposal services have been subject to repeated modifications. The system and the main frameworks of water supply and sewage disposal services, the rights, obligations and tasks of the parties concerned are spelled out in these regulations. Legal frameworks were established in the early 1990's and have since undergone minor changes only.

Local governments are characterised by the diversity of their interests. Their responsibility to supply represents a general social interest. They also have proprietary interests as the owners of public utility waterworks. Based on their pricing authority, local governments also have financial interests. Finally, given that they are also engaged in supply they also have consumers' interests. These diverse interests are given various emphasis during decision making processes, and this phenomenon is especially characteristic in the case of decisions related to privatisation.

Following 1990, privatisation was extended to the sector of services related to public utility waterworks. Privatisation first took place among public utility waterworks owned by local governments and in places facing a scarcity of capital or featuring a combination of a single service provider and a local government. Between 1994 and 1997, partial privatisation among public utility water suppliers took place on six occasions, and in 2001, Borsodvíz Kft. was privatised. The following suppliers have been privatised:

Szegedi Vízmű Kft. – 1994

- water supply 163,000 inhabitants
- sewage disposal 119,000 inhabitants

Kaposvári Vízművek Kft. – 1994

- water supply 70,000 inhabitants
- sewage disposal 49,000 inhabitants

Pécsi Vízmű Rt. – 1995

- water supply 167,000 inhabitants
- sewage disposal 149,000 inhabitants

Fővárosi Vízmű Rt. – 1997

- water supply 1.8 million inhabitants
- sewage disposal 1.7 million inhabitants

Zsigmondy Béla Rt. – 1997

- water supply 62,000 inhabitants
- sewage disposal 34,000 inhabitants

GW Borsodvíz Kft. – 2001.

- water supply 146,000 inhabitants
- sewage disposal 71,000 inhabitants

Owners, i.e. local governments in charge of decision making considered the following as advantages of privatisation:

- they will become real owners of assets represented by public utilities, as they did not consider themselves appropriate owners based on their resource-poor circumstances ;
- local governments will not have to deal with this public utility ;

- service will be aided by advanced technology ;
- foreign capital will be obtained for constructions ;
As of now, the number of privatised waterworks is low. However, foreigners have continued to show interest in public utility companies although they encounter several obstacles.
The “healthy” development of the process is encumbered by the lack of several regulations and legal loopholes. Issues related to ownership have not yet been settled either. No regulations have been drawn up with regard to the use of assets represented by public utilities as contribution in kind, and the classification of such assets is negotiable to limited extent. Similarly, the relation between the government subsidy and privatisation has not been regulated either. As a result, investors face much uncertainty and ambiguity during the privatisation process.

The determination of prices and charges is also a problem. Based on laws and regulations, water and sewage charges shall be set by the authorities, whereas privatised companies provide for their system of charges in contracts. Usually, there is only one local government within the service area of each supplier. Based on the contract, prices in these areas should encourage the reduction of costs and economising within the relevant company, concurrently disallowing the company to realise unreasonably high profits for an extended period of time. The fulfilment of these two conflicting requirements is rather difficult, or almost impossible in reality. In the course of privatisation various “formulas” have been introduced. These formulas took some base numbers as a starting point, with a view to the level of costs. Formulas were intended to provide a method for the calculation of charges.

However, in practice this is impossible from an economic point of view. Services are provided under market conditions, suppliers are interested in the maximisation of their profits, whereas prices are subject to change and are constantly fluctuating. In the public utility sector in Hungary, pricing authority is exercised by central agencies, while residents and non-governmental organisations have no say in pricing, neither are they entitled to express their opinion on such issues. This practice elicits much aversion among residents.

Another impediment to the spreading of privatisation is the chaotic nature of the ownership structure. In the case of some suppliers, the so-called “assets represented by public utilities” are recorded in the books of the company, whereas in other cases such assets remained the property of the local government, therefore the company’s book include assets related to operation only. This disorder makes it difficult to record depreciation, which in turn results in lack of funds available for development purposes.

The participants in privatisation in Hungary include Vivendi, Ondeo-Services, as well as the German companies, RWE-Thames Water and Gelsenwasser. Several negative voices have appeared in the press regarding privatisation. A few selected examples of these are:

- “Municipal authorities wish to continue to sell off assets belonging to Budapest this year” (Magyar Hírlap, January 20, 1996)
- “privatisation is not an ultimate solution—the city of Pécs is fighting ardently but with varied results in order to sustain service levels” (Magyar Nemzet, March 6, 1996)
- “it is superfluous to privatise if there is no competition. As there will not be any significant public utility developments in the next few years, no contribution of capital is necessary. The new proprietor wants a return on its investments as soon as possible, therefore it will only pay as much money for water quality preservation as absolutely necessary, water charges may be subject to significant increase” (Népszava, June 11, Budapest)
- “The privatisation of Fővárosi Vízművek is unnecessary, but if it still takes place, the investor will be granted rights which may be easily abused, even at the expense of consumers... the new proprietor, in order to regain its investment, will increase water charges by at least 10% above inflation. ...It has come to our knowledge that one of the potential buyers is the French company that bought the waterworks of Szeged and subsequently installed its own water metres. As a result of this project, water charges at Szeged increased by 33% last year. (Népszava, June 13)
- “instead of privatising, municipal authorities should enter into a management agreement ensuring a decrease in significant loss of water in the network” (Magyar Hírlap, June 13, 1996)
- “The privatisation of Fővárosi Vízművek Rt. (Budapest Waterworks) will only serve the purpose of earning income and implementing spectacular constructions.” (Magyar Hírlap, June 27)
- “spontaneous privatisation may result in a situation where developments using funds acquired from government tenders could augment private properties” (Magyar Nemzet, 2002)

Adverse opinions stem from a lack of an appropriate legal framework for the privatisation of public water supply and the facts that the general public was not prepared correctly and there was no appropriate publicity program. Laws and regulation are ambiguous about the ownership of assets representing public utilities, the recording of depreciation is not regulated, and the method

used for determining charges has not been settled. The government continues to play a significant role in financing related services.

Another shortcoming of the present system (and an impediment to the spreading of privatisation) is the complete lack of the regulation of the legal relationship between the local government responsible for supplying and the operator. Similarly, in cases involving more settlements and a single operator, the relationship between owners and the operators is uncertain. The establishment of contractual relationships would be necessary even if the operator is a company owned by the local government. At present, many issues are settled outside the scope of contracts. But privatisation is primarily based on contractual relationships.

Most privatised water utility providers have carried out surveys concerning customer relations and the expectation of customers. These surveys have yielded the following general findings: (Quantitative survey on customer attitude, Módus, 1996)

- the general public still considers the management of public utilities as government tasks and would not leave it to the market
- customers do not approve of the monopoly of public utility companies, but they feel an aversion to privatisation, they do not expect it to result in a reduction of prices or an increase of efficiency,
- the young and the more educated are more critical toward public utility companies, they would rely more heavily on market conditions including privatisation,
- households having water metres consume less water, which is a result of their willingness to save,
- expectations toward service providers are not differentiated, all features listed were considered equally important,
- most complaints and problems arise in connection with billing and reading the metres,
- consumers think that the most important technical aspect of water supply is the level of cleanliness of the water they receive but there are not significant differences here, either. As for the physical qualities of water, consumers are only interested in figures related to softness and hardness,
- generally speaking, the means of payment available in the market are appropriate and sufficient, their reputation is good; in general, consumers do not expect any positive changes from privatisation (e.g. improvement in effectiveness),
- further developments are required in all fields of customer relations, with special emphasis on the speed and flexibility of administration.