

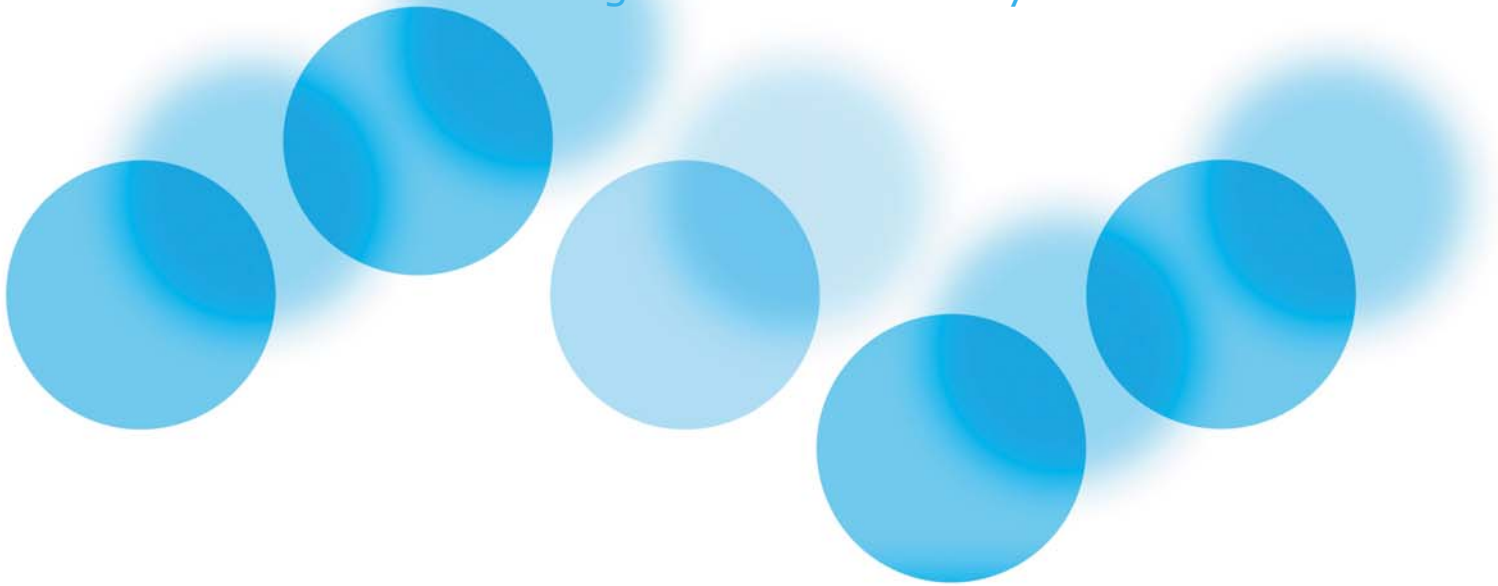


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ASSESSMENT AND DEVELOPMENT OF MUNICIPAL WATER AND WASTEWATER TARIFFS AND EFFLUENT CHARGES IN THE DANUBE RIVER BASIN.

Volume 2: Country-Specific Issues and
Proposed Tariff and Charge Reforms:
Bosnia i Herzegovina – Summary



WORKING FOR THE DANUBE AND ITS PEOPLE

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PREFACE

The Danube Regional Project (DRP) consists of several components and numerous activities, one of which was "Assessment and Development of Municipal Water and Wastewater Tariffs and Effluent Charges in the Danube River Basin" (A grouping of activities 1.6 and 1.7 of Project Component 1). This work often took the shorthand name "Tariffs and Effluent Charges Project" and Phase I of this work was undertaken by a team of country, regional, and international consultants. Phase I of the UNDP/GEF DRP ended in mid-2004 and many of the results of Phase I the Tariffs and Effluent Charges Project are reported in two volumes.

Volume 1 is entitled *An Overview of Tariff and Effluent Charge Reform Issues and Proposals*. Volume 1 builds on all other project outputs. It reviews the methodology and tools developed and applied by the Project team; introduces some of the economic theory and international experience germane to design and performance of tariffs and charges; describes general conditions, tariff regimes, and effluent charges currently applicable to municipal water and wastewater systems in the region; and describes and develops in a structured way a initial series of tariff, effluent charge and related institutional reform proposals.

Volume 2 is entitled *Country-Specific Issues and Proposed Tariff and Charge Reforms*. It consists of country reports for each of the seven countries examined most extensively by our project. Each country report, in turn, consists of three documents: a case study, a national profile, and a brief introduction and summary document. The principle author(s) of the seven country reports were the country consultants of the Project Team.

The authors of the Volume 2 components prepared these documents in 2003 and early 2004. The documents are as up to date as the authors could make them, usually including some discussion of anticipated changes or legislation under development. Still, the reader should be advised that an extended review process may have meant that new data are now available and some of the institutional detail pertaining to a specific country or case study community may now be out of date.

All documents in electronic version – Volume 1 and Volume 2 - may be read or printed from the DRP web site (www.undp-drp.org), from the page [Activities / Policies / Tariffs and Charges / Final Reports Phase 1](#).

We want to thank the authors of these country-specific documents for their professional care and personal devotion to the Tariffs and Effluent Charges Project. It has been a pleasure to work with, and learn from, them throughout the course of the Project.

One purpose of the Tariffs and Effluent Charges Project was to promote a structured discussion that would encourage further consideration, testing, and adoption of various tariff and effluent charge reform proposals. As leaders and coordinators of the Project, the interested reader is welcome to contact either of us with questions or suggestions regarding the discussion and proposals included in either volume of the Project reports. We will forward questions or issues better addressed by the authors of these country-specific documents directly to them.

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Executive Summary

The Country Report developed within the UNDP/GEF project include a "National Profile" that provides descriptions of existing situation in water sector in B&H and "Case Study" that provides descriptions of existing situation in selected municipal water and wastewater utility.

The National Profile is organized in the following way:

Introduction describe mainly Country back ground and characteristic of River Basin in B&H. Chapters 2 to 4 deals with administrative units in B&H, institutional and legislation framework related the water sector in B&H (describe state, entity, cantonal, municipal level). Chapter 5 covers Management units that describe mainly characteristics of water and wastewater utilities in B&H such as service area, management, administration, staffing, customer relations, and type of services, accounting system, rate structure and ownership. Chapters 6 and 11 deals with data: on water and wastewater service users, water and wastewater production, distribution, processing, wastewater effluent, economic data, infrastructure and economic regulation. Chapter 12 describe of status of national water sector reform. Chapter 13 and 14 are composed of recommendations for institutional and financial water and wastewater utilities.

The Case Study provides information and data of selected pilot municipal water and wastewater utility. Data are related regulatory, management and financial aspects. These aspects are described in Chapters 2, 3 and 4. The investment needs of pilot utility were then listed, prioritized and phased to implementation stages of short term priority investments, sustainable investments, and upgrade investments into a higher level of service. These phases also represent the urgency of the identified investments. The investments are described in Chapter 5. In chapter 6 scenarios are defined for the purpose of modeling with the ASTEC Model (Accounts Simulation for Tariffs and Effluent Charges Model), partly based on the investment priorities of Chapter 5, but also assessing other features, such as the requirement to recover costs and the availability of grant financing for the investments. Chapter 7 presents the results of the scenarios, supplemented with an analysis of the tariff and current account consequences, while Chapter 8 examines how the economic burden falling on service users changes through the scenarios.

Finally, in Chapter 9 policy recommendations are offered, as a way of concluding the case study.

Water and wastewater services are now generally provided in municipalities by a "Water and Wastewater Utility" (W&WWU), a company that usually provides only water and sewerage services. In earlier years and in smaller towns, water and sewerage were included along with many other municipal services, such as street maintenance, central heating, care of parks and cemeteries, solid waste collection and other services. Some municipalities still operate that way. All these services were provided by a public company under the municipality called a communal services company.

W&WWU have during the past decade experienced a number of changes in their working environment which have weakened their performance capability drastically. Even before the war (1992 – 1995) there was a serious disrepair of municipal services caused by strictly controlled and non-cost recovering pricing that did not allow proper investment and maintenance. The situation was compounded by serious operational deficiencies and outdated managerial practices. The sector was highly centralized and was operated in accordance with socialistic principles. The four-year war led to significant destruction and deterioration of facilities. It also caused major disruptions in operation and maintenance of utility systems, from both neglect and from extensive dislocation of population, including management and operators of the utilities. In some of the utilities practically none of the present management or staff has experience from a "normally" operating utility. To great extent utility know-how, maps and records are lost. Continuing poor financial situation in the country is effectively hampering efforts to improve water and wastewater services.

Most water utilities have rate structures that need to be changed and rates that need to be increased, in order to cover costs.

The customer charges varied, based on the size of the meter or type of service. Other water utilities charged a volume rate that was uniform for all water sold (a common practice for most water utilities).

The water utilities used a form of inclining rate structure in which larger users, such as industrial customers, are charged a higher (but still uniform within their class) rate per cubic meter than the smaller users such as residential customers.

Almost all water utilities metered most of the consumption of large commercial/industrial customers. For residential customers, if the water utility did not have working meters for residential homes or apartment buildings, the amounts charged were based on estimates. The bills were based on either an estimate of use based on historical usage (before the war), a lump sum per person estimated at the connection, or an amount based on an estimated per capita consumption (often very low) for an estimated number of persons at that connection.

Federation of Bosnia and Herzegovina and Republika Srpska have its own Water laws that impact the delivery of water and wastewater services, affecting most aspects of technical, administrative and financial matters

According to the Federal Law on Municipal activities (Official Gazette of Socialist Republic of B&H No. 20, July 26, 1990) and Law on Municipal activities of RS (Official Gazette of RS, No. 11/95), the Municipal Assembly defines the method of service pricing, but the service provider defines the price of the service

The first study of countrywide reform of the water and wastewater sector started at April 1999. The key recommendations were given for reform of water sector such as for reform of municipal water and wastewater utility.

Main results of the analysis and simulation in the case study the UNDP/GEF project could be summarized in following recommendations:

- Improved accounting information by introducing a second, parallel system that should be structured around “cost centers”, and include enough detail so that financial reports can be structured to accommodate the data needs of the management for tariff setting, investment decisions, etc.
- Increased autonomy from municipal from two main reasons:
 - Reforms will lead to better performance, and service users, the constituency of the Municipal Board, will be satisfied.
 - A well performing utility may be sold at an attractive price, resulting in revenues of privatization (as long as the Municipality receives those revenues, and not the central government)
- Improve the performance of MWWU Doboje, both financially and with regards to service level. Personnel costs make up 57% of all O&M costs while there is a claim that many of the employees are redundant and under trained. A reduced and partly replaced workforce would result in lower personnel costs and more effective operations. There are numerous other opportunities, including some investments, which will result in net cost savings at the company, or effective strategies to improve collection rates. Setting priorities among such cost-saving measures, carefully implementing them, and coordinating them with other issues, such as tariff reforms, is a challenging, but potentially greatly rewarding exercise for the company leadership. Starting with measures that stabilize the operations of the utility, e.g. besides ensuring improved or sustainable service, also reduce costs, seems to be a logical way to proceed
- Main conclusions regarding tariff changes are the following:
 - Any tariff reform should be based on good accounting information and proper financial analysis, and accompanied with an explanation of the use of the revenues;
 - In order to attain a fair and efficient tariff design, the tariffs of households will need to increase at a higher rate, than the tariffs of other consumer groups. In fact, the tariffs of some of the other SUs may stay constant or may even be reduced;

- Keeping a two part tariff, and increasing both the fixed and the variable component will result in an economically more efficient tariff regime, than if only the variable component was increased to cost recovering levels.