

## Review

# The Improvement of Drinking and Wastewater Infrastructure in the North Western Region

DARABOS J. A., Marilena ROZENBERG\*, J.I. BAGA

*Ministry of Environment, Intermediate Body of SOP Environment; Northwestern Region, Minerilor St. no. 7, 400409, Cluj-Napoca, Romania*

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## Abstract

The paper presents internal and external financing through pre- and post-accession funds, which were designated for the improvement of Romania's drinking water and sewerage infrastructure. Furthermore, the importance of water service regionalization; documents necessary to be sent for the applications by the regional operator and currently ongoing projects in the Northwestern Region are presented.

**Keywords:** internal and external financing, pre-accession funds, post-accession funds, Cohesion Funds (CF), Sectoral Operational Program for Environment (SOP Environment), regionalization, major projects

## 1. Introduction

Until nowadays, providing drinking and wastewater treatment services for the population was realized through small operators and only 52% of Romania's population had access to these facilities. In some areas of the country, drinking water lacks of the desired quality due to faulty treatment methods, sewerage and treatment of wastewater is missing and because of outdated pipe networks, providing drinking water has frequent interruptions. Without financing, most operators wouldn't have the necessary capability to comply with Community acquis.

## 2. Funds used in Romania for the improvement of drinking and wastewater infrastructure

Internal financing for the improvement of drinking and wastewater system had been accessed by the small water service operators through

Government funds (namely G.O. 7/2006 regarding the establishment of Rural Infrastructure Development Program).

During pre-accession period (2000-2006) external financing for the improvement of drinking and wastewater system had been accessed through European Union (EU) pre-accession funds like: PHARE, ISPA, SAPARD, MUDP I, MUDP II, SAMTID, Pre-FOPIP, FOPIP I and FOPIP II. After Romania's accession to the EU, external financing is being made by post-accession funds [1, 3, 4].

As a consequence of Chapter 22 – Environment negotiations, Romania committed itself to heavily invest in the drinking and wastewater sector, in a relatively short period of transition. Thus, according to the Treaty of Accession, Romania obtained transition periods in order to comply with the collection, discharge and treatment of municipal wastewater:

- 263 agglomerations having more than 10 000 equivalent inhabitants, by 2015;
- 2.346 agglomerations having between 2.000 and 10.000 equivalent inhabitants, by 2018.

\* Corresponding author.  
Tel/Fax: 0040 264 418714  
e-mail: marilena.rozenberg@mmediu.ro

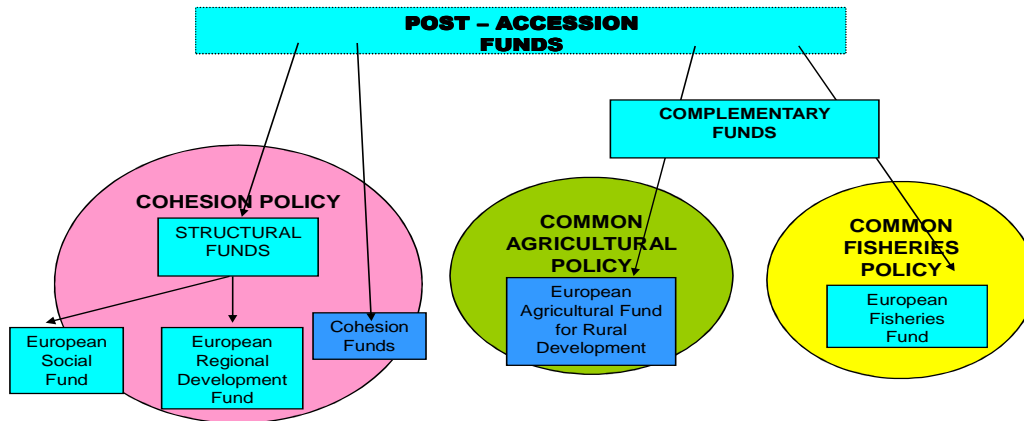


Figure 1. Post-accession funds

Also, transition periods were negotiated for water quality improvement till 2015, in order to comply with Directive 98/83.

External financing by post-accession funds (fig.1) for drinking and wastewater infrastructure is made by:

- European Agricultural Fund for Rural Development (EAFRD), which finances investments aiming the remedial of competence in agriculture and forestry, environmental protection, improvement of life quality and diversification of economic activities in rural areas;
- Cohesion Fund (CF) supports projects in the field of environment protection, trans-European transport networks and sustainable development. Also, supports projects aiming the improvement of air and road traffic, modernization of urban transportation, development and updating of multimodal transportation.

### 3.External financing through Cohesion Funds for the improvement of drinking and wastewater infrastructure

SOP Environment is one of the 7 operational programs. It is a strategic document approved by the European Commission on the 11<sup>th</sup> of July 2007 to finance investments for environmental protection [2, 7].

SOP Environment's global objective is the improvement of living standards and environment, focused on the fulfillment of the environmental aquis.

Its specific objectives are presented below for each Priority Axis:

- **Priority Axis 1** – Improvement of the quality and access to water and wastewater infrastructure, by providing water supply and wastewater services in most urban areas by 2015 and by setting efficient regional water and wastewater management structures, which means extension and modernization of water and wastewater systems;
- **Priority Axis 2** - Development of sustainable waste management systems, by improving waste management and reducing the number of historically contaminated sites in minimum 30 counties by 2015. This contains in the development of integrated waste management systems and rehabilitation of historically contaminated sites;
- **Priority Axis 3** - Reduction of negative environmental impact and mitigation of climate change caused by urban heating plants in most polluted localities by 2015 thus reduction of pollution and mitigation of climate change by restructuring and renovating urban heating systems towards energy efficiency targets in the identified local environmental hotspots;

- **Priority Axis 4** - Protection and improvement of biodiversity and natural heritage by supporting the protected areas management, including NATURA 2000 implementation, thus implementation of adequate management systems for nature protection”;
- **Priority Axis 5** - Reduction of the incidence of natural disasters affecting the population, by implementing preventive measures in most vulnerable areas by 2015 which means implementation of adequate infrastructure of natural risk prevention in most vulnerable areas
- **Priority Axis 6 “Technical Assistance”** - This priority axis provides the necessary technical assistance program run in optimal conditions.

The amount allocated for SOP Environment is 5,610 billion Euros, out of which:

- ☞ 4,512 billions Euros are Community contribution;
- ☞ 1,098 billions Euros are National contribution.

- Priority Axis 1 benefits of 2,776 billion Euros from the Cohesion Fund (CF), out of which 85% is co-financing from the EU;
- Priority Axis 2 benefits of 0,934 billions Euros from the European Regional Development Fund (ERDF), out of which 80% is co-financing from the EU;
- Priority Axis 3 has 229 millions Euros allocated from CF, out of which only 50% is co-financing from the EU;
- Priority Axis 4 has 172 millions Euros allocated from the ERDF, out of which is 80% is co-financing from the EU;
- Priority Axis 5 is receiving 270 millions Euros from CF, out of which 82% is co-financing from the EU;
- Priority Axis 6 benefits of 130 millions Euros from ERDF, out of which 75% is co-financing from the EU.

Priority Axis 1 of SOP Environment refers to investments for extension and modernization of water and wastewater systems.

### 3.1.Regionalization – a necessity

Romania’s accession to the European Union lead to the necessity of regionalization of water services, namely to constitute powerful, economically viable and financially sustainable regional operators, which can be competitive on the service market of the EU, after 2007 [5].

The process of regionalization consists of concentrating drinking and wastewater services into clusters of municipalities, which are in a delimited

geographical area. The main objective of regionalization is to create a competitive regional company (regional operator), which can successfully implement EU funded projects. Small operators have benefitted of the experience accumulated during pre-accession programs. Regionalization of operators in the water sector began in the period of SAMTID and FOPIP [6].

The necessary documentation needed by regional operators for the submission of applications through SOP Environment is as follows:

- **I.Application documents:** Master Plan; Investment Plan; Feasibility Study; other necessary studies; Environmental Agreement + EIM Procedure; Economical, Financial and Institutional Analysis (CBA); Application Form; other treaties and authorization, etc.

- **II.Documents, which prove an adequate institutional structure for regionalization**

- ☞ Documents, which certify the establishment of Intercommunity Development Association (IDA);
- ☞ Documents, which certify the establishment of the Regional Operator (RO).

- **III.Documents, which prove an adequate institutional structure for regionalization**

- ☞ Delegation of Services Treaty;
- ☞ Project Implementation Unit (PIU).

- **IV.Other relevant justificatory documents** (the legal situation of land, Planning Certificate, LCD).

Main investments in water management; Priority Axis 1 – SOP Environment:

- Constructing/updating water sources to obtain drinkable water;
- Construction/modernization of drinking water treatment plants;
- Construction/augmentation/renovation of drinking and wastewater duct networks;
- Construction/rehabilitation of wastewater treatment plants;
- Constructing/updating sludge treatment plants;
- Installing meters, laboratory equipments, loss signaling detectors;
- Technical assistance for project preparations (including tender dossiers) for management, for publicity and for institutional issues.

### 3.2. Major projects under preparation regarding Priority Axis 1 in Romania

Romania's surface is divided by 11 major hydrographic basins (fig.2). There are 3 hydrographic basins, which dominate the Northwestern Region: Someș-Tisa, Crișuri, Mureș [2].



Figure 2. Romania Map – Hydrographic basins

#### A. Water projects that obtained financing approval in 2008:

⇒ Cluj-Sălaj - 02.04.08 - 197 millions Euros

The portfolio of projects under preparation in the 11 major hydrographic basins includes approximately 42 major projects and can be grouped as follows:

- ⇒ Giurgiu - 02.04.08 - 72 millions Euros
- ⇒ Turda-Cămpia Turzii - 02.04.08 - 80 millions Euros
- ⇒ Călărași - 08.04.08 - 100 millions Euros
- ⇒ Tulcea - 28.05.08 - 114 millions Euros
- ⇒ Sibiu - 09.07.08 - 90 millions Euros
- ⇒ Teleorman - 29.08.08 - 122 millions Euros
- ⇒ Gorj - October 2008 - 90 millions Euros

#### B. Water projects that have been approved in 2009:

⇒ Olt – 13.01.09 - 73 millions Euros

#### C. Water projects for 2009: 34 projects, most of them are in Feasibility Study or in preparation of funding applications phase.

⇒ Estimated cumulated value of all 34 projects: 3, 3 billions Euros

### 3.3. Major projects in the Northwestern Region:

Table 1. Situation of projects regarding Priority Axis 1 in the Northwestern Region

Project data	Bihor County	Bistrița-Năsăud County	CJ Turda	Cămpia Turzii County	Cluj-Sălaj County	Maramureș County	Satu Mare County
<b>1. Application documents</b>							
Master Plan	Approved in March of 2008.	Finalized and approved in April of 2008	Completed		Completed	Revised and waiting for approval by MM	Completed
Feasibility Study	Completed	In the course of completion	Completed		Completed	In work	In work
Investment Plan	Completed	Completed	Completed		Completed	-	-
EIA procedure	It was started	It was re-started	Completed		Completed	Not started	Not started
Financing application	-	-	Submitted in November of 2007		Submitted in September of 2007	-	-
Funding decision	-	-	Received in April of 2008		Received in April of 2008	-	-
Financing contract	-	-	Signed in September of 2008		Signed in October of 2008	-	-
Project value (million Euros)	83	83	79		197	120	103
<b>2. Institutional structures</b>							
Intercommunity Development Association (IDA)	Established in February of 2008, has 21 members	Established in January of 2008, has 49 members	Established in September of 2007, has 9 members		Established in 2006, has 8 members	Established in Jan. 2008, has 48 members	Established in April of 2009, has 31 members
Regional Operator (RO)	Established in 2006, has 9 shareholders	Established in 2008	Established in January of 2008		It was the first established in Romania in January of 2006	Established, has 9 shareholders	Established in May of 2007, has 29 shareholders
Contract of delegation services	To be signed	Signed in September of 2008	Signed in September 2007		Signed	Signed in September of 2008	To be signed after establishing IDA
Project Implementation Unit -PIU	In process of establishment	Has 9 employees	Has 9 employees		Has 26 employees	In process of establishment	In process of establishment
<b>3. Other activities required after submission of funding application</b>							
Number of procurement packages	-	-	16		21	-	-
Signing service contracts, works or equipment	-	-	1 service contract		3 service contracts and 2 technical assistance	-	-
Application sent for pre-financing	-	-	12 <sup>th</sup> of March 2009		November of 2008	-	-
Date of receiving pre-financing	-	-	23 <sup>rd</sup> of March 2009		December of 2008	-	-
Received pre-finance	-	-	10		22	-	-

#### 4. Conclusions

SOP Environment will contribute, during the period of 2007 - 2013; to the protection of environment through major investment projects for the improvement of drinking and wastewater infrastructure.

For Priority Axis 1 there are 2.776 billions Euros allocated from Cohesion Fund (CF). Although Romania recently acceded to the European Union, it became the first Member State with 9 major projects (over 25 millions Euros) approved for financing by European Commission in the water sector, for the period of 2007 - 2013.

Regarding the importance of EU funds absorption, available under SOP Environment in the period of 2007 - 2013, the Ministry of Environment proposed to approve all eligible projects in 2009, accomplish actual workings and payment by 2013.

#### References

- [1] \* \* \*, Instrumente structurale și oportunități de dezvoltare pentru România
- [2] \*\*\*, 2004, HG 497/2004 privind stabilirea cadrului instituțional pentru coordonarea, implementarea și gestionarea instrumentelor structurale
- [3] \* \* \*, [www.fonduri-ue.ro](http://www.fonduri-ue.ro)
- [4] \* \* \*, [www.fonduri-structurale.ro](http://www.fonduri-structurale.ro)
- [5] \* \* \*, 2007, Programul Operațional Sectorial de Mediu - Ministerul Mediului și Dezvoltării Durabile, București, România
- [6] \* \* \*, 2007, Documentul cadru de Implementare al POS Mediu
- [7] \* \* \*, [www.mmediu.ro](http://www.mmediu.ro)
- [8] \* \* \*, [www.posmediucj.ro](http://www.posmediucj.ro)