

CC-WaterS: facts and figures.

Project acronym **CC-WaterS**
project title Climate Change and Impacts on Water Supply
project code SEE/A/022/2.1/X

Funding Programme **South East Europe (SEE)**
priority protection and improvement of the environment
area of intervention improvement of integrated water management and flood risk prevention

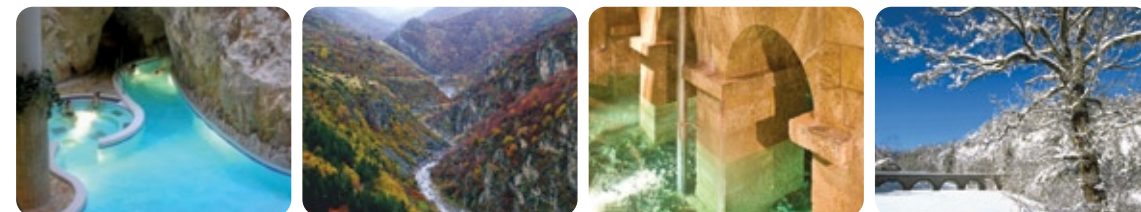
Project partners **18 partners from South East Europe programme area**
ERDF partners* 15 (1 lead partner, 15 project partners)
IPA partners** 2
10% partner*** 1
involved countries 9 (AT, BG, GR, HR, HU, IT, RO, RS, SI)

Project duration **01.05.2009 – 30.04.2012**

Project budget
total budget € 4.224.503,00
thereof ERDF budget € 3.903.233,00
thereof IPA budget € 321.270,00

More information
about the project www.ccwaters.eu
about the programme www.southeast-europe.net

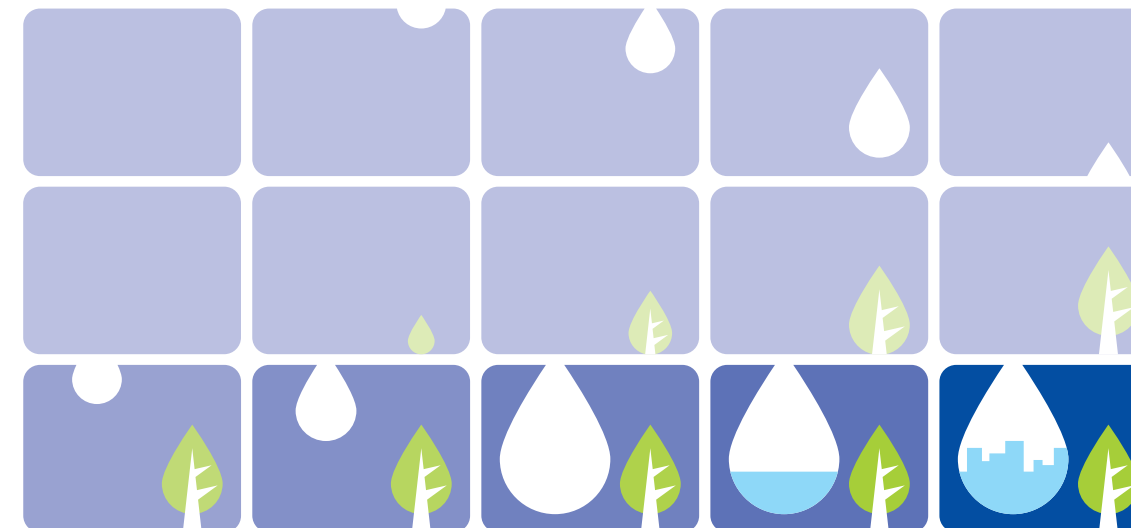
* partners supported by the European Regional Development Fund (ERDF)
 ** partners supported by the Instrument for Pre-Accession Assistance (IPA)
 *** partner sponsored by ERDF budget



CC-WaterS and South East Europe (SEE).

The South East Europe programme (SEE) is a unique instrument which, in the framework of the Regional Policy's Territorial Cooperation Objective, aims to improve integration and competitiveness in an area which is as complex as it is diverse.

The programme is supporting projects developed within four Priority Axes: Innovation, Environment, Accessibility, and Sustainable Growth Areas - in line with the Lisbon and Gothenburg priorities, and is also contributing to the integration process of the non-EU member states.



More information about CC-WaterS and SEE
admin@ccwaters.eu, www.ccwaters.eu
www.southeast-europe.net



Climate Change and Impacts on Water Supply

Jointly for our common future
 CC-WaterS is supported by means of the European Regional Development Fund and of the Instrument for Pre-Accession Assistance

CC-WaterS: the project.

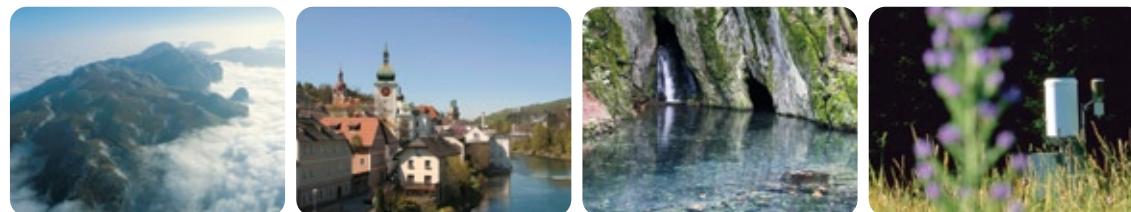
Climate change affects fresh water resources and may have significant influence on public drinking water supply. Land use activities exert pressure on water resources and are changing according to climate change. It is crucial for safeguarding future water supply to anticipate these climate and land use changes and to assess their impacts on water resources. In order to achieve this goal in the most efficient way, joint transnational action with a multisectoral and multilevel approach is required.

South East European Space (SEE) is facing the challenge of ensuring water supply in a changing climate. Policy makers and water suppliers are required to develop sustainable management practices for water resources, considering existing and future influences of climate change. Therefore, CC-WaterS identifies and evaluates resulting impacts on availability and safety of public drinking water supply for several future decades.

Elaborated measures to adapt to those changes build the ground for a Water Supply Management System regarding optimisation of water extraction, land use restrictions, and socio-economic consequences under climate change scenarios for water suppliers in SEE.

The joint actions to produce this technical system are performed on a transnational level in the Alps, Danube middle and lower plains and coastal areas representing different SEE-characteristic climates and topography.

In CC-WaterS, SEE key actors work together and implement jointly developed solutions, hence to be applied on regional and local level in SEE. The complementary knowledge of the partners, enhanced by further applicable results of past projects, provides a strong background.



CC-WaterS: the partnership.

In order to achieve the project objectives in the most efficient way, joint transnational action with a multisectoral and multilevel approach is required. The participating partners represent the geographical and meteorological diversity of SEE and show complementary expertise. Three types of partners from 9 countries, representing a multi-sectoral consortium, complement their functions and implement the activities to achieve the project objectives: water suppliers, governmental bodies and research institutions representing national, regional and local levels with transnational orientation.



Partners supported by the European Regional Development Fund (ERDF)

Lead Partner MA31
Municipality of the City of Vienna,
Municipal Department 31 –
Waterworks, Vienna, Austria
www.wienwasser.at

Project Partner 1 BMLFUW
Federal Ministry for Agriculture,
Forestry, Environment and Water
Management, Forest Department
Vienna, Austria
www.lebensministerium.at

Project Partner 2 MWY
Municipality of Vaidhofen
an der Ybbs, Waterworks
Vaidhofen an der Ybbs, Austria
www.vaidhofen.at

Project Partner 3 EARS
Ministry of Spatial planning
and Environment
Environmental Agency of
the Republic of Slovenia
Ljubljana, Slovenia
www.arso.si

Project Partner 4 UL
University of Ljubljana
Ljubljana, Slovenia
www.uni-lj.si/en

Project Partner 5 PUL
Public Company for Water Supply
and Waste Water
Disposal Ljubljana
Ljubljana, Slovenia
www.jh-lj.si/vo-ka

Project Partner 6 VKKI
Central Directorate for Water
and Environment, Department
for River Basin Management
Budapest, Hungary
www.vkki.hu

Project Partner 7 MOL
Regional Administration of Molise,
Environmental Protection Unit
Campobasso, Italy
www.regione.molise.it

Project Partner 8 IGAR
Academy of Romania
Institute of Geography
Bucharest, Romania
www.geoinst.ro

Project Partner 9 NMA
National Meteorological
Administration
Bucharest, Romania
www.meteoromania.ro

Project Partner 10 NIHWMM
National Institute for Hydrology
and Water Management
Bucharest, Romania
www.inhga.ro

Project Partner 11 SFA
State Forestry Agency
Sofia, Bulgaria
www.dag.bg

Project Partner 12 EYATH
Thessaloniki Water Supply
& Sewerage Co sa
Thessaloniki, Greece
www.eyath.gr

Project Partner 13 ADEP
Municipal Enterprise for Planning
and Development of Patras
s.a., Patras, Greece
www.adep.gr

Project Partner 14 AUT
Aristotle University
of Thessaloniki
Department of Civil Engineering
Thessaloniki, Greece
www.auth.gr

10% Project Partner VODA
(sponsored by ERDF budget)
Croatian Waters
Zagreb, Croatia
www.voda.hr

Partners supported by the Instrument for Pre-Accession Assistance (IPA)

IPA Partner 1 FMG
(IPA financial Lead Partner)
University of Belgrade
Faculty of Mining and Geology
Belgrade, Serbia
www.rgf.bg.ac.rs

IPA Partner 2 CERNI
Jaroslav Cerni Institute for
Development of Water Resources
Belgrade, Serbia
www.cerni.co.rs



CC-WaterS: tasks and schedule.

Most activities are not just a sequence of national activities, but show a genuine transnational character, since many common methodologies are jointly developed. CC-WaterS makes information applicable for concrete solutions, develops tools and instruments for public water supply and implements safeguarding measures. An accessory dissemination strategy ensures that CC-WaterS' durable results are transferred to the relevant users.

work package „Climate Change“

Development of transnational climate database and climate scenarios

- merge data sets of the chosen test areas in a transnational climate data base
- select climate change scenarios which will be subsequently applied in the project

Development, calibration and validation of an internal downscaling methodology

- assess uncertainties in existing models
- adjust a commonly selected model to catchment scale

Generation of future climate data and estimation of associated uncertainties

- simulate the climate in the test areas at catchment scale
- stakeholders and end users will profit from these climate change data and uncertainty estimations

work package „Water Resources Availability“

Establishment of transnational hydrological and water management database

- integrate data of past 50-60 years, with daily time series of meteorological and hydrological parameters
- estimate uncertainties of hydrological parameters

Present groundwater resources availability

- develop common water balance method on the basis of existing model, considering the requirements of the EU Water Framework Directive

Future water resources availability with regard to climate change

- assess the sensitivity of south-east European sub-regions to climate change

work package „Land Uses and Water Safety“

Production of an inventory of existing land uses and their impact on water quality at a catchment scale

- urbanisation, traffic, industry are mostly triggered by regional development and are not explicitly connected to climate change; agriculture, forestry, tourism and recreation are directly connected to climatic conditions

- make an inventory of existing land uses and their impact on water quality at a catchment scale

Evaluation of climate change-induced land use changes

- develop common methodology for estimation of climate change-induced land use changes

Evaluation of impact of future land use changes on water resources

- estimate future land use according to climate change scenarios, which is of crucial importance for public water supply strategies to adapt to climate change

work package „Socio-economic Evaluation“

Estimation of economic consequences of future water availability and safety for public water supply

- merge demographic prospective data about water demand with future water availability for water supply and estimate emerging consequences and costs

Estimation of economic consequences of future water availability and safety for public water supply

- assess economic losses or benefits due to water availability and safety changes

Estimation of emerging imbalances between different demands

- assess competing sectors and demands for safe water resources

Environmental aspects of water prices

- provide economic analysis of water management and land use changes for different scenarios to water managers

work package „Water Supply Management Measures“

Proposal of strategy change in spatial planning

- find strategies for managing the risks associated with future climate change impacts (cross-sectoral approach)

Promotion of (new) legislative rules and guidelines

- prepare legislative basis to mitigate possible negative effects of climate and land use changes on water supply management

Adaptation of water supply management system

- develop appropriate technical and organisational measures
- serve to solve conflicts between competing sectors and demands

Feedback cycle

- compare the resulting system with the project objectives

