



International Workshop
***“Water and Climate Change in Southeastern Europe:
Understanding Impacts & Planning for Adaptation”***

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Tirana, Albania

Information Note

Organized by the

World Bank

in cooperation with the

Albanian **Ministry of Environment, Forestry and Water** Administration
Global Water Partnership – Mediterranean

In the framework of

Petersberg Process Phase II / Athens Declaration Process
and the
Mediterranean Component of the EU Water Initiative (MED EUWI)

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Introduction

The Petersberg Phase II Process / Athens Declaration Process (Process) for South-Eastern Europe is jointly coordinated by Germany, Greece and the World Bank.

The Petersberg Process, initiated in 1998, concerns cooperation on the management of transboundary waters. The Petersberg Process – Phase II is intended to provide support to translate into action the current developments and opportunities for future cooperation on transboundary river, lake and groundwater management in the SEE. It is supported by the German Ministry for the Environment, Nature Conservation and Nuclear Safety and the World Bank.¹

The “Athens Declaration” Process concerning *Shared Water, Shared Future and Shared Knowledge* was initiated in 2003. It provides a framework for a long-term process to support cooperative activities for the integrated management of shared water resources in the SEE and Mediterranean regions. It is jointly supported by the Hellenic Ministry of Foreign Affairs and the World Bank.

The two processes progressively came together in order to generate synergies and maximize the outcomes for the benefit of the SEE region. The Global Water Partnership – Mediterranean (GWP-Med) is the technical facilitator of related activities.

The main joint objective is to build capacity and share experience on Integrated Water Resources Management (IWRM), and to develop IWRM plans for shared water bodies as a response to the targets of the 2002 Johannesburg Summit. The Process supports a series of complementary activities that provide a forum for transboundary water management issues in SEE.

The Process complements the EU integration processes and other ongoing initiatives in the region. It contributes directly to the scope and objectives of the Mediterranean Component of the EU Water Initiative (MED EUWI)² and the Global Environmental Facility (GEF) Strategic Partnership for the Mediterranean Large Marine Ecosystem³.

¹ More information can be obtained at www.watersee.net

² Further information on MED EUWI is available on the website: www.minenv.gr/medeuwi/

³ Further information on the GEF Strategic Partnership can notably be found on the website: www.medsp.org

Background

Already prone to water-scarcity and droughts, the Mediterranean and to a large extent the South-Eastern parts of Europe as well are expected to face even more water challenges in the near future due to the looming climate crisis. According to recent studies by IPCC and the Blue Plan⁴, the region is among those that are projected to be most severely hit by climate change: by 2100, the rise in temperature would be in the range of 2.2 and 5.1°C, while total precipitations are likely to fall by 4 to 27%, with an especially marked drop in summer.

§ *Forecasting climate change impacts in South-Eastern Europe*

In Southern and South-Eastern Europe, the increasing frequency and severity of droughts, floods and other extreme weather events will not only mean an increased water supply-demand gap, but are also foreseen to have (and have already) other important corollary impacts such as damages to human settlements, forest fires, increasing desertification, soil degradation due to saltwater intrusion and loss of inhabitable and arable land and natural habitats from sea-level rise in low-lying coastal areas, as well as health issues, hence jeopardising people's overall well-being.

Economic activities depending on water availability such as agriculture, tourism, industry, energy will be adversely affected, since increased climate variability will threaten *inter alia* infrastructures, waterways, hydropower, crop yields and timber harvests as well as recreational environments.

River flood hazards, especially flash floods, across much of South-Eastern Europe will increase even further, endangering settlements, infrastructures and waterways, hence requiring significantly more investment in flood control and water management in the region, especially at river basin level.

In some countries of the Western Balkans – such as Albania, Bosnia and Herzegovina and Serbia –, which are heavily depending on hydropower for the energy and electricity supply, decrease in precipitation and hence in river flow and run-off will impact -and already impact- severely on electricity generation, and thus putting at risk countries' energy security.

In the coastal zones of the Adriatic shoreline, the risk of flooding, erosion, and land loss (due to storminess and sea-level rise) will grow substantially with implications for human settlements and coastal natural habitats.⁵ This represents a major threat to the important ecosystems (especially wetlands), precious landscapes as well as to the rich biodiversity of the countries of the region (e.g. Croatia). In combination with increasing temperatures and heat waves, this could also become a major concern for tourism development in the region.

Given the transboundary nature of the main water bodies in the region – i.e. the Sava and the Drin river basins – regional cooperation for the design of sound coping strategies will play an important role and should therefore be further enhanced.

§ *Exploring adaptation responses in South-Eastern Europe*

In this context, further down-scaling of climate change projections (see the latest IPCC review) in selected areas at the sub-continental scale as well as the elaboration and implementation of adequate adaptation strategies will play a major role in helping South-Eastern Europe to enhance overall resilience; a broad range of options to being available.

⁴ Regional Activity Centre of the United Nations Environment Programme's Mediterranean Action Plan

⁵ *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, UK

Among the possible adaptation options to protect against floods, in addition to reservoirs and dykes in highland and lowland areas respectively, other options could be further explored and developed, i.e.: expanded floodplain areas, emergency flood reservoirs, preserved areas for flood water, flood forecasting and warning systems, especially for flash floods, disaster preparedness and response schemes as well as multi-purpose reservoirs serving adaptation to both floods and droughts.⁶

To adapt to the increasing water stress in the region – in particular during summer and in coastal regions –, the most common and planned supply-side measures are the impounding of rivers to form in-stream reservoirs, rainwater harvesting, water storage and conservation techniques, wastewater reuse and desalination. As for the demand-side strategies, these consist mainly of household, industrial and agricultural water conservation, reducing of leaky municipal and irrigation water systems and water pricing policies. Irrigation water demand may be reduced by introducing crops more suitable to a changing climate.⁷

Climate change risk management and adaptation planning need to be mainstreamed into existing policies, programs or decision-making processes related to sustainable development, resource management, community development, livelihood enhancements, coastal zone management, and broader disaster risk management. These aspects should not only be taken into account in the design of national IWRM plans and the existing governance structures but also in regional- and watershed-level strategies and cooperation due to the transboundary nature of the main water bodies of the region, crucial to the overall “climate-proofing” of the region in the years, if not decades, to come.

The Workshop

Within this background, the World Bank, in cooperation with the Albanian Ministry of Environment, Forestry and Water Administration and the Global Water Partnership Mediterranean, is organizing the International Workshop “*Water and Climate Change in Southeastern Europe: Understanding Impacts & Planning for Adaptation*” in Tirana, Albania, 24-25 June 2008. The workshop contributes to the Mediterranean Component of the EU Water Initiative (MED EUWI), as well as collaborative efforts by the Bank, client countries, and other partners on current and emerging water issues. The event is another milestone on transboundary water collaboration across SE Europe under the Petersberg Phase II/Athens Declaration Process.

The Workshop’s main objective is to explore the key issues Southeastern European countries will have to cope with vis-à-vis the emerging challenges relevant to climate change, climate vulnerability and water resources management.

It will bring together national, regional and international water sector experts and key decision makers to discuss experiences, capabilities and needs for climate trends analysis, climate projections, vulnerability and impact assessments and adaptation strategies over the coming decades. The Workshop will also provide the opportunity for participants to reflect on the implications for applied scientific research and infrastructure planning on water resources.

§ Aims

The Workshop will provide an informal venue for participants to:

- (i) learn about and reflect on the most recent analysis of climate trends, projections and implications by national, regional and international organizations,

⁶ IPCC Technical Paper on Climate Change and Water, IPCC-XXVIII/Doc.13, April 2008

⁷ Ibid.

- (ii) review potential impacts on vulnerable sub-regions most notably the Drini-Mati Basin, Sava River Basin and Adriatic Coast,
- (iii) examine what additional analytical work is needed to assess impacts and adaptation options for specific water sector investments in these sensitive locales,
- (iv) reflect on national and international adaptation planning to advance "climate-proofing" of infrastructure and water sector investments,
- (v) consider linkages to the analytical services and investment programs of EU-based and United Nations Institutions, as well as those of the World Bank and other multilateral investment banks, and
- (vi) suggest additional activities that could be advanced under the Petersberg Process Phase II/Athens Declaration Process, World Water Forum, MED EUWI and other professional collaborative fora.

§ Scope and Themes

The Workshop will focus on three geographical areas within SEE identified as particularly vulnerable to climate change impacts and where adaptation challenges should be explored in priority: the Sava River Basin, the Drini-Mati River Basin and the Adriatic Coast.

The themes that will be reflected on and discussed will result from the specific needs of the chosen 'pilot' areas; *inter alia* hydropower, multi-purpose use of waterways, tourism, biodiversity and ecosystems, urban settlements, coastal zone management.

§ Target Audience

Experts from the water sector and hydro-meteorological services from Southeastern Europe, in particular the Western Balkans; experts from relevant international organisations; key decision-makers and stakeholders from SEE, especially from the selected sub-regions.