Our Partners:

Brandenburg University of Technology Cottbus, Section of Life sciences and Technology; Hydrology und Water management, www.btu-cottbus.de

Agency of Applied Hydrology, Berlin, www.bah-berlin.de

German Federal Institute of Hydrology, Berlin, www.bafg.de

Groundwater Research Centre of Dresden, www.dgfz.de

Research Association of Agricultural Policy and Agrarian Sociology, Bonn, www.faa-bonn.de

Freie Universität (FU) **Berlin**, Institute for Meteorology, www.met.fu-berlin.de

Association of Water Management and Environmental Protection, Berlin, www.wasy.de

Leibnitz-Institute of Freshwater Ecology and Inland Fisheries, Berlin, www.igb-berlin.de

Max-Planck-Institute for Meteorology, Hamburg, www.mpimet.mpg.de

Technische Universität (TU) **Berlin**

Institute for Landscape and Environmental Planning, Section Comperative Economy of Landscape

Institute for Ecology, Section Ecosystem Science / Plant Ecology

Institute for Ecology, Section Site Evaluation / Soil Protection,
www.tu-berlin.de

Thuringians Regional Office of agiculture , Jena, www.tll.de

Centre for Environmental research Leipzig-Halle , Section Economy, Sociology und Law, www.ufz.de/spb/oekus/

University Kassel,

Department: City Planning, Landscape Planning, www.uni-kassel.de

Research Centre: Centre for Environmental System Research, www.usf.uni-kassel.de/usf/

Centre for Agricultural Landscape and Landuse Research, Institute of Hydrology, Müncheberg, www.zalf.de

Project leadership and co-ordination:

Potsdam Institute for Climate Impact Research

Head of Project:

Dr. Frank Wechsung

Project co-ordination office:

Peggy Gräfe
Potsdam Institute for Climate Impact Research
Telegrafenberg, A51
PF 60 12 03
14412 Potsdam

graefe@pik-potsdam.de
Tel: 0331-288-2665
Fax: 0331-288-2600

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Federal Ministry for Education and Research

Overall project management:

GSF – Research Centre for Environment and Research
Project Management for Environmental and Climate Research

Further Information can be found under:

www.glowa-elbe.de

Januar 2003

GLOWA-ELBE

Integrated Analysis of the Impacts of the Environment and Society in the Elbe Basin

A Project in the GLOWA research initiative of the German Federal Ministry for Education and Research BMBF

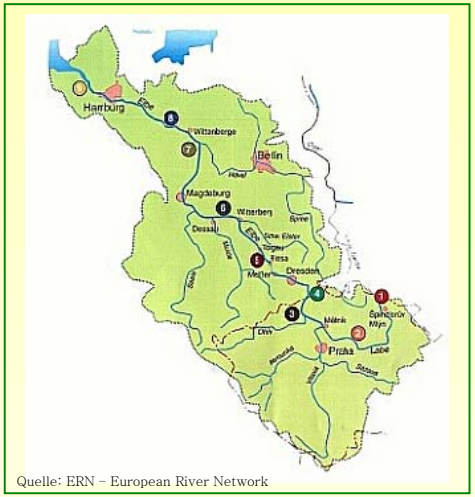
WWW.GLOWA-ELBE.DE
WWW.GLOWA-ELBE.DE

Aims

Development of integrated strategies on the sustainable management of water availability problems and water use conflicts arising from Global Change, and of related environmental and socio-economic problems in the Elbe Basin.

The Elbe Basin

The Elbe, 1,091 km in length and with a basin of 148,268 km² in area, forms one of the largest river systems in Europe. At the same time, when compared with other areas of Europe, water availability per inhabitant (680 m³) can be classified as extremely low.
Around 18 million people live in the German part of the Elbe catchment, and the basin supplies 80% of overall water requirements in the new federal "Bundesländer".



Quelle: ERN – European River Network

The devastating flooding in August 2002 suddenly brought the Elbe region into the focus of public attention . These floods brought destruction and damage to large parts of the Elbe catchment in which, until that time, the dominant problem had been low water availability.
The GLOWA-ELBE project focuses on the impacts of Global Change on water availability problems and water use conflicts in the Elbe catchment. For the Spree-Havel region, the project has the additional aim not only of identifying problems and conflicts, but of developing integrated strategies to tackle these in a sustainable way.

In the first phase of GLOWA-ELBE (2000 – 2003) the emphasis will be on investigating the consequences of a tendency towards decreasing water availability. In the proposed second phase (2003 – 2006), the effects of the heightened probability of extreme events will be examined. This includes both flooding and also long periods of drought.

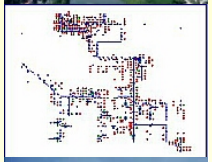
The starting point for the analyses in GLOWA-ELBE are scenarios for the future development of the essential defining quantities for water quantity and quality in the Elbe Basin. As well as climate change scenarios, scenarios for population development and settlement structure, the development of the energy sector, farming policy and land use are included.

First Results:

(pictures can be viewed under:
www.glowa-elbe.de/status_praes.html)

Integrative research in the GLOWA-Elbe network project

F. Wechsung, PIK



Large-scale water management models for area-related analyses

S. Kaden, WASY

Water availability problems and integrative management strategies for the Spree/Havel region

M. Kaltofen, BTU Cottbus

Integrated hydrologic-economic analysis of scenarios

F. Messner, UFZ

Impacts on the water budget of the Spreewald region and options for water management

O. Dietrich, ZALF

The ecological development of the Spreewald region

G. Wessolek, TU Berlin

Impact analyses of water quantity management and water quality management in the Berlin area

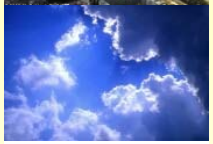
R. Oppermann, BfG

Citizens' scenarios for sustainable development

D. Ipsen, UniK

Summary of results achieved through integrative research

A. Becker, PIK



How is climate changing?

F.-W. Gerstengarbe, PIK

Regional climate scenarios

E. Reimer, FU Berlin

Precipitation in Elbe region – today and 30 years from now

K. Bülow, MPI

The water budget and agricultural yields under a changing climate

V. Krysanova, PIK

Changes in agricultural land use in the Elbe basin

H. Gömann, FAA

Nutrient levels in the Elbe river system and changes in these

H. Behrendt, IGB

Developing global change scenarios for the Elbe region

S. Vassolo, UniK-USF