



The GLOWA Jordan River Atlas

Overview and Objectives

Interdisciplinary and multinational research projects lasting over several years gather vast quantities of data and finally produce multiple outputs of the most salient findings. However, after all these challenging years scientists and particularly project coordinators face the even bigger challenge to gather and present the results of the project, as well as to make them accessible to stakeholders and scientists.

This challenge has been overcome with the GLOWA Jordan River Atlas which is the first publicly accessible transregional and transdisciplinary end-user GIS for the Jordan River region.

Software

The GLOWA Jordan River Atlas has been assembled with Geopublisher, an atlas authoring system which has been developed within the frame of another GLOWA project (GLOWA IMPETUS). The atlas allows scientist to quickly create digital multimedia maps in order to present results. It supports the storage, presentation and publication of several data formats including texts, images, videos and geodata. Geopublisher is a digital, free and open source software available at Geopublishing.org.

The GLOWA Jordan River Atlas can be accessed online via the project server (<http://tobias-lib.uni-tuebingen.de/portal/glowa/?la=de>) and also stored offline on DVD, USB or hard disk. As it is based on Java, no additional software is needed to access and view the data.

The Atlas

The Atlas comprises a brief chapter containing background information on the GLOWA Jordan River Project as well as the models and tools developed within the framework of the project. However, the main parts of the atlas are maps of Climate, Hydrology, Water Management, Agriculture, Ecosystems, Socio Economy and Landuse, representing current and future scenarios of the Jordan River region. Each map comprises a short description containing key messages, methods, sources, citations, contact data and references which is displayed on the left hand side of the interface. Besides this description, each map consists of a certain number of datasets ("layers") which can

be viewed in the map. Points, lines and areas are stored as vector data, maps of larger extent are displayed as a raster image. Each layer contains individual metadata, consisting of information about the source, methodology, authors and year of the corresponding data. In addition to the thematic contents, further background information about cities, roads, waterflows and elevations can be added to each map.

Each layer has a symbology colour code which is explained in the legend. By overlaying several datasets, information of different types can be viewed in a combined way which helps to understand interrelations of different phenomena.

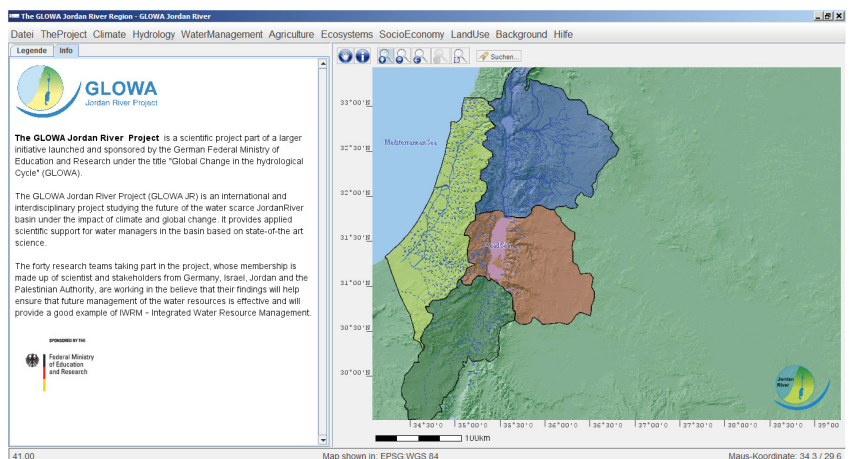


Figure 1: Main interface of the GLOWA Jordan River Atlas.

Teams of researchers from Germany, Israel, Jordan and the Palestinian Authority work on how best the hazards posed by global change to the future of the Jordan River basin can be faced and overcome.

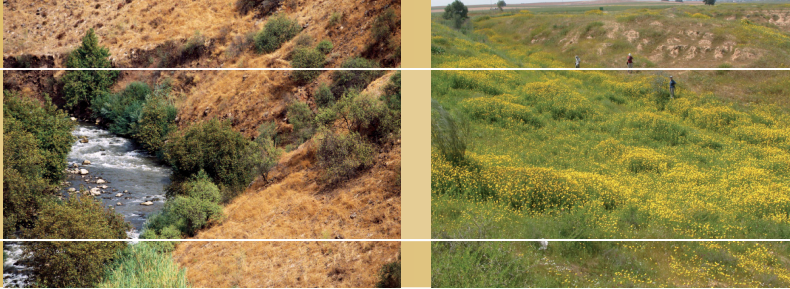
www.glowa-jordan-river.de

The GLOWA Jordan River project is part of a larger research initiative launched by the German Federal Ministry of Education and Research under the title "Global Change and the Hydrological Cycle".

<http://nbn-resolving.de/urn:nbn:de:bsz:21-opus-69338>

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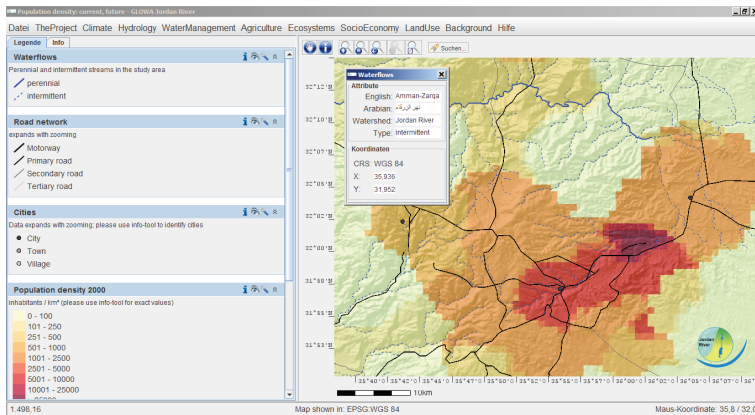


Figure 2: Legend and map contents of the GLOWA Jordan River Atlas.

users from all backgrounds, for example researchers, organizations, politicians, teachers and as well as private persons.

After launching the program for the first time, it will be checked if the required Java environment is already installed on the computer, otherwise it will be downloaded automatically. Once downloaded (or copied from another computer) and installed no further internet access is needed for running the application.

Users of the Atlas can

- view, print and store the maps (e.g. as PNG images),
- have a look at the attributes of the raster and vector files,
- change the colour, classification, labels or transparency of the displayed data,
- search and filter the data according to personal interests,
- add, remove, combine and overlay different layers,
- download the data (if allowed by the author of the dataset) in common filetypes (Shapefile, GeoTiff, ASCII, PDF), and import them into a personal GIS,
- make queries about the data

The Atlas can therefore be understood as a basic desktop GIS application which helps to organize, visualize, analyze and present data that have been investigated within the GLOWA Jordan River project. However, the user is not required to be an expert in data handling. It is therefore suitable for

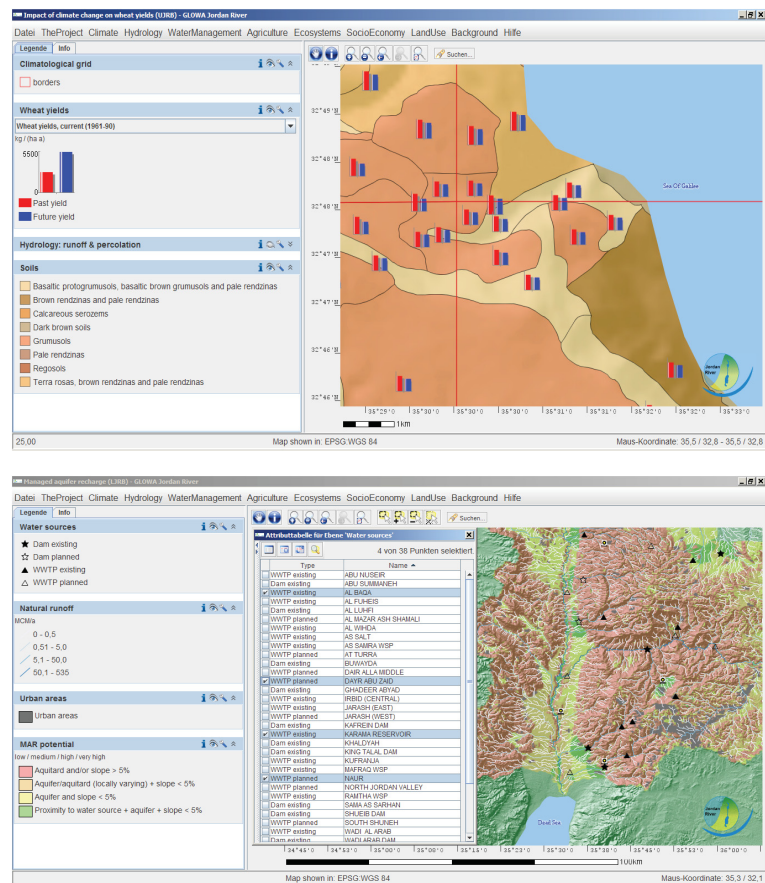


Figure 3: Working with colours and attributes.

References

Krüger, S. (2009): Geopublishing.org: towards easy publication of scientific (geo-)data. Data Management Workshop, Cologne, October 29-30.