

Terms of Reference

Technical Expert on GIS (Geographic Information Systems)

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Technical Expert on GIS

Description of the Position

The expert is part of a team of experts that provides technical support for the Contracting Parties, and to the Information Management and GIS Expert Group (IMGIS EG) in particular, on issues related to Geographic Information Systems in support of the Danube River Protection Convention (DRPC). The expert will coordinate work of the ICPDR on collecting, processing and mapping of geodata and the DanubeGIS and in support of the fulfilment of the obligations under the Danube River Protection Convention, the EU Floods Directive (EU FD) and the EU Water Framework Directive (EU WFD). This will involve planning, development and operational management of the GIS infrastructure and its integration with related information systems and informational infrastructure of the ICPDR. Technical input and support associated with GIS will be provided to the other Expert groups and the Secretariat.

He or she will be responsible in collaboration with the other members of the Secretariat, the IMGIS EG and other Expert Groups (EGs) to organize the GIS-related activities of the ICPDR to meet the existing and future needs and compile and edit technical reports, produce maps and organize information for presentation and analysis. In addition, the expert will assist in ensuring that the countries of the Danube River Basin are able to provide the necessary inputs to the reporting required under the Convention and the EU WFD and EU Floods Directive, and in implementing, reviewing and updating the Danube River Basin Management Plan (DRBMP). The expert will support the development and maintenance of the DanubeGIS and the Danube Hydrological Information System (DanubeHIS) of the ICPDR in close cooperation with the Technical Expert on Information Management.

The specific tasks may in future be adjusted on the basis of a revised ICPDR Work Programme. The time period of employment is three years with an option of another three-year extension upon satisfactory performance.

Key Qualifications

- Knowledge about the technical aspects of geographical data management and utilization.
- Familiar with GIS software (e.g. ArcGIS, QGIS, spatial DBMS (PostGIS), web map server (GeoServer) and related tools,), coordinate geometry transformations, data conversion and validation, spatial analysis and visualisation.
- Knowledge about data processing and evaluation in the field of river basin management and in organizing the collection, storage and usage of geographic data.
- Knowledge and experience in water management issues in the Danube River basin.
- Ability to solve GIS-specific problems and convey GIS information to non-GIS people.
- Experience with working in international and interdisciplinary environment and as a facilitator to reach specific implementation tasks.
- Ability to handle a large volume of work in an effective and timely manner.

Attitudes

- Interest and enthusiasm to work in a team.
- Willing to travel on short notice.
- Willing to perform tasks outside professional fields as and when required/requested.
- Good communication skills.

Tasks

- Technical co-ordination and support of GIS activities of the IMGIS EG and associated Task Groups.
- Plan and develop the geographic data management tools and processes of the ICPDR specifically related to data collection templates in the frame of the EU WFD, EU FD and other reporting requirements.
- Support of data collection processes, harmonization, review and quality assurance of data, preparation of data analysis and presentation.
- Advice and support to technical experts, EGs, sub-basin activities and ICPDR-related projects on issues related to use and development of GIS systems to meet the needs of the ICPDR.
- Support to the Technical Expert on Information Management in the development and maintenance of the Danube GIS and DanubeHIS systems.
- Support to the IMGIS EG to provide necessary inputs to the reporting required by ICPDR, review existing and incoming data and metadata for currency, accuracy, usefulness, quality and completeness to facilitate consistent and harmonised datasets.
- Create and maintain combined/merged datasets of reference datasets for the Danube River Basin District.
- Advice and support on enhancing the compatibility of data and metadata structures with related systems, standards or regulations (e.g. WISE, OGC, ISO, INSPIRE).
- Advice and support to technical experts, EGs, sub-basin activities and ICPDR-related projects on issues related to use of GIS systems to meet the needs of the ICPDR.
- Prepare online maps for data review and analysis as well as reporting.
- Prepare spatial data queries (with PostGIS database) for maps, graphs or tables.
- Produce printable maps (with ArcGIS or similar software) for reporting.
- Collect, compile, or integrate external cartographic data as required for analysis or reporting needs.
- Support the preparation of presentations and reports related to GIS activities of the ICPDR.
- Answer requests by external users on GIS activities and data of the ICPDR.
- Promote the exchange of geographical data and metadata between the members of the IMGIS EG, other EGs, and other related projects and institutions.
- Project management where necessary.

Qualification requirements

- University degree in Geography, Computer Science or GIS related field.
- Preferably 5 years experience in GIS for a private or public organization.
- Experience with GIS related to water resources.
- He or she has to be fluent in English and one or more languages of the Danube River Basin, preferably German.