



## ToRs – MODELER

### Job description

Job title	<b>Modeler</b>	Type of contract	<b>Fixed-term 3 years contract (renewable subject to a satisfactory performance evaluation)</b>
Duty station	<b>N'Djamena, Chad</b>	Staff under his/her responsibility	<b>XXX</b>
Supervisor	<b>Head of Division of the Basin Observatory</b>	Category	<b>C5 of the LCBC working regime</b>

### ABOUT LCBC

The Lake Chad Basin Commission (LCBC) is an Inter-State Organization which was established on the 22<sup>nd</sup> of May 1964 by the four Lake Chad riparian countries, namely Cameroon, Chad, Niger, and Nigeria. The Central African Republic (CAR) and Libya have joined the Commission in 1996 and 2008 respectively, with the aim of promoting cooperation and management of water and other environmental resources in the Lake Chad Basin. Its mandate includes (i) the sustainable and equitable management of the waters of Lake Chad and other transboundary water resources in the Lake Chad Basin; (ii) the conservation of the ecosystems of the Conventional Basin; (iii) the promotion of regional integration, the preservation of peace and security in the Conventional Basin. This is particularly through the implementation of projects and programmes aimed at improving access to drinking water, strengthening the resilience of populations to climate change and consolidating peace and security in the region. In recent decades, however, the LCBC has been facing complex multidimensional challenges such as environmental degradation, poverty, insecurity, drastic reduction in the surface area of the lake, due to droughts, undue exploitation of resources and climate deterioration, etc.

### THE FUNCTION

Under the direct supervision of the Head of Division of the Basin Observatory, the Modeler is mainly responsible for ensuring the operationalization of water resources planning and allocation model in support for the development of decision-making tools (quarterly bulletin, Annual monitoring report and state of Basin report).

### THE ROLE

The primary role of Modeler is to process and analyze hydrometeorological data collected from the member countries to generate useful information for proper management of Basin water resources.



## KEY RESPONSIBILITIES

The main duties and responsibilities of this position include, but are not limited to, the following:

- Develop, maintain, and manage the LCBC's Water Resources and Environmental Planning model;
- Use the Model to solve problems based on personal initiative in daily activities and according to the request of stakeholders and the focal structures of the LCBC;
- Prepare technical notes and technical information briefs to be communicated to the LCBC, its Member States and partners, with the aim of streamlining the use of the model for decision-making;
- Improve the model by incorporating the state of knowledge of groundwater and its interactions with surface water by linking the WEAP model to the groundwater model;
- Strengthen the LCBC (Lake Chad Information System or LIS) regional database through effective use of data in the LIS and the identification of its weaknesses and data gaps for effective production of useful information;
- Improve modelling of the functioning of floodplains and ecosystems in the Lake Chad Basin;
- Integrate data on rainfall, runoff, evapotranspiration, etc. directly into the WEAP model, thus allowing the inclusion of developed climate change scenarios (such as land cover modification);
- Facilitate linking the WEAP Model to the Water Quality Model (i.e. QUAL2K);
- Update the model based on improved knowledge of water resources (surface water, groundwater, quantity/quality) in the Lake Chad Basin, particularly in locations monitored separately (new in situ studies and measurements);
- Ensure update of the model following the update of the water resources management rules, particularly concerning the management of control structures, but also on the future application of the Lake Chad Basin Water Charter;
- Develop an economic interface using the economic modeling component of the WEAP;
- Work as a team with other LCBC experts and address their modelling needs;
- Model different water resources management scenarios of various Member States' projects, as appropriate, in accordance with LCBC procedures (including notification procedure, requests for water abstractions, water resources management projects that may have transboundary impacts);
- Contribute to discussions on the optimization of water resources measurement and monitoring networks in the Lake Chad Basin;
- Contribute to the preparation of the Lake Chad Basin Annual Monitoring Report (AMR) by preparing modelling results, which will be presented to LCBC experts, Member States and stakeholders;
- Participate or represent the LCBC in the internal and external functions of the LCBC with respect to the use or development of the model.



## QUALIFICATIONS AND EXPERIENCE

- Bachelor's degree in Hydrology, Water Resources or Environmental Engineering, Environmental Science, Data Science, GIS and Remote Sensing or any other relevant domain;
- Have at least five (5) years of professional experience in water resources or environmental management, data analysis and/or development planning;
- At least experience in the development and use of a hydrological model;
- Experience in working on Integrated Water Resource Management (IWRM) planning in an LCBC Member State and/or Basin Organization;
- At least 2 years of experience in hydrological modeling, with the ability to work with or use the WEAP model is an advantage;
- Experience working in multidisciplinary and multicultural teams is required;
- At least 2 years of experience in operational hydrology at the national or regional level, preferably in one of the LCBC Member States;
- Good command of the English or French language. Mastery of both languages will be an advantage.
- Proven computer skills, including the use of MS Office and GIS tools and software;
- Commitment to high ethical standards, integrity and transparency;
- **Age limit: Not more than 44 years old as at the date of application.**

To apply, please send your application (Letter of motivation, Curriculum Vitae, Criminal records dated less than 3 months, officially certified copies of diplomas and work certificates, with 3 employer reference persons (preferably last or recent employers), by ....., with the words "Application for the position of Modeler" at the LCBC Executive Secretariat, Place de la Grande Armée, N'Djamena, Chad – P.O. Box 727 or by email at : [vacancy@cblt.org](mailto:vacancy@cblt.org)

*Please note that LCBC guarantees equal opportunities for everyone, promotes the diversity of its team and a zero-tolerance policy for bribery and corruption. In addition, it does not accept any payment as part of this recruitment process. Only shortlisted candidates will be contacted.*

*In the event of a final selection, the following will be required:*

- *The originals of the highest diplomas declared;*
- *A copy of the police records dated less than three months;*
- *A medical check-up and follow-up certificate issued by an occupational physician;*
- *Other personal documents (civil status certificates of family members, etc.)*