



TERMS OF REFERENCE

Junior Professional Officer (JPO) Associate Scientific Officer (Cryosphere) P2

Organizational Unit:

Infrastructure (I) / Global Cryosphere Watch (GCW)

Responsibilities:

Under the overall guidance of the Director of the Infrastructure Department (D/SI), of the Head/Earth System Monitoring Division (H/ESM), and the direct supervision of the Project Manager/Scientific Officer, Global Cryosphere Watch (PM/GCW), the incumbent will perform the following duties:

- a) Support the infrastructure-related activities of the World Meteorological Organization (WMO), on the application of cryospheric sciences in support of weather forecasting, climate and water resources monitoring, hazard monitoring and risk assessments, etc. with a focus on high mountain and polar regions, as coordinated through the Global Cryosphere Watch;
- b) Support from a technical and scientific perspective, the development of indicators of cryosphere changes, e.g. for hydroclimate monitoring in high mountain areas, by identifying, accessing and analyzing data (in-situ, remote sensing, satellite retrievals, model outputs), interpreting the information available, with recommendations to be piloted by current initiatives, e.g. the Third Pole Regional Climate Centre (TPRCC) Network;
- c) Carry out assigned activities in support of the integration of cryospheric observations from operational and research networks in the WMO Integrated Global Observing System (WIGOS), including the definition of observing requirements, and in coordination with key relevant initiatives, e.g. expansion of Global Basic Observing Network (GBON), TPRCC-Network, etc,
- d) Carry out assign activities in support of the integration of cryospheric data in the WMO Information System, WIS 2.0 architecture, including the representation of cryospheric observation metadata and data and the understanding of necessary data access protocols, to foster the engagement with data centres (operational and research);
- e) Support activities of expert teams and contribute to the preparation of their written outputs, e.g. reports, draft papers, inputs to publications, etc.;
- f) Develop and maintain the Cryosphere and GCW webpages on the WMO website, prepare and recommend cryospheric information for communication purposes (brochures, newsletters, visuals, etc.);

- g) Perform additional tasks commensurate with the role and as assigned by the supervisor.

Qualifications:

Education: PhD from a recognized university or technical institute in physical or earth sciences with a focus on cryospheric sciences, climate science, water resources and environmental studies, engineering, or other relevant field of study.

Training in software tools and statistics for data management is an asset.

Experience:

Experience applying cryospheric science knowledge to projects related to weather, climate, water resources, for polar or high mountain specific activities:

- a) accessing and utilizing in situ, remotely sensed and satellite data,
- b) conducting data analysis and data visualization,
- c) using current software applications for data processing and visualization (e.g. Python, R, etc.), GIS or equivalent, and Microsoft Office applications,
- d) contributions to field campaigns or projects,
- e) being familiar with numerical models,
- f) preparing scientific papers and reports,
- g) being familiar with current practices and standards for data discovery and access protocols.

Other requirements

Analytical abilities, results oriented, initiative and creativity;
Ability to manage assigned work with minimum supervision;
Ability to communicate clearly and succinctly orally and in writing;
Good interpersonal skills and ability to work in teams, in a multicultural environment;

Understanding the United Nations and WMO mandates and programmes would be an advantage.

Language: Excellent knowledge of English (both oral and written). Knowledge of other official languages of the Organization would be an advantage.

(Note: The official languages of the Organization are Arabic, Chinese, English, French, Russian and Spanish.)

Learning Elements:

On completion of the assignment, the JPO will have:

- Deep understanding of Cryosphere knowledge and skills.
- Complete WMO mandatory trainings.
- Carry out the main cryosphere processes, and understand the challenges of cryosphere management in a multicultural environment of an international specialized UN Organization.
- Demonstrate strong oral and written communication skills, and opportunity to attend UN language training organized by UNOG.
- Develop and maintain relations with various stakeholders and develop networks with considerable insight into the cryosphere within the UN system.

