Terms of Reference

Title: Aerosol Scientist
Theme: Water and Air
Regional Programme: Cryosphere and Atmosphere

Background

The International Centre for Integrated Mountain Development (ICIMOD) is a regional intergovernmental learning and knowledge sharing centre serving the eight regional member countries of the Hindu Kush Himalayan (HKH) region – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan. Our aim is to influence policy and practices to meet environmental and livelihood challenges emerging in the HKH region. To do this we bring together researchers, practitioners, and policy makers from the region and around the globe to generate and share knowledge, support evidence-based decision making, and encourage regional collaboration. ICIMOD delivers impact through its six Regional Programmes of Adaptation to Change, Transboundary Landscapes, River Basins, Cryosphere and Atmosphere, Mountain Environment Regional Information System, and Himalayan University Consortium (emerging). These regional programmes are supported by the four Thematic Areas of Livelihoods, Ecosystem Services, Water and Air, and Geospatial Solutions and underpinned by Knowledge Management and Communication. ICIMOD seeks to improve the lives and livelihoods of mountain women and men, now and for the future.

Within the Regional Programme on Cryosphere and Atmosphere, the Atmosphere Initiative focuses on improving scientific knowledge about emissions, atmospheric processes, and change and impacts of air pollutants and climate forcers, as well as on analysing mitigation and policy options, building capacity, and disseminating knowledge. The Atmosphere Initiative is looking to build capacity in several interrelated areas including engineering approaches to emission controls, aerosol measurements, analysis of satellite observations of atmospheric composition, building emissions inventories, and running computer models to analyse emission reduction scenarios, as well as building university curricula in atmospheric science. The recruitment of two senior professionals, an Aerosol Scientist and an Air Quality Specialist, are being conducted simultaneously in the hopes that these two together will contribute to capacity in multiple areas.

Role of the Aerosol Scientist

Under the direct supervision of the Programme Coordinator, Atmosphere Initiative, and under the general guidance of the Water and Air Theme Leader, the Aerosol Scientist will contribute to improving the scientific understanding of atmospheric issues in the HKH region by setting up and maintaining high quality observations of aerosol composition, size distribution and optical properties, and by analysing in situ and remote sensing data.

Main responsibilities

The Aerosol Scientist will have the following responsibilities:

1. To set up and maintain high quality measurements of aerosol composition, size distribution and optical properties at ICIMOD observatories and at other sites.
2. To analyse in situ and remote sensing data, and publish high quality peer-reviewed publications together with colleagues at ICIMOD and elsewhere.
3. To train site technicians and other instrument operators; to participate in the management of ICIMOD observatories; and to develop or improve methodologies and measurement protocols.

4. To propose, plan, and manage intensive field measurement campaigns and instrument inter-comparison experiments.
5. To develop partnerships and collaborations with other research centres, both within and beyond the ICIMOD member countries, and to be a member of the global aerosol measurement community.
6. To participate in the writing of assessment reports, project reports, proposals, and other documents.
7. To be a member of the team at ICIMOD preparing a new degree programme in atmospheric science.
8. To mentor junior staff, affiliated students, and interns; to participate in capacity building and outreach activities in ICIMOD member countries.
9. To be an active member of the Atmosphere Initiative and the Regional Programme on Cryosphere and Atmosphere, and to participate in other activities including analysis of mitigation options and policy development.
10. To work as a team player within ICIMOD to support other activities and promote institutional goals; and to perform other duties as requested.

Minimum Qualifications

- Doctoral degree in a relevant field of study (atmospheric science, environmental engineering) with at least five years' experience working in atmospheric science.
- Track record of high quality peer reviewed publications.
- Demonstrated understanding of atmospheric chemistry (gas and aerosol), atmospheric dynamics, atmospheric microphysics, and climate science.
- Significant experience operating, maintaining, calibrating, and repairing instruments to measure aerosol size distribution, composition, and optical properties.
- Experience with instrument programming and with managing data logging, transmission, and archiving.
- Significant experience carrying out atmospheric measurements in remote field settings.
- Significant experience analysing and interpreting remote sensing data of the atmosphere.
- Some experience with measurements of meteorology and gas phase atmospheric composition, as well as working with using atmospheric models.
- Extensive experience with teaching and curriculum development in university settings.

General Competencies

- **Communication and outreach:** Excellent English written and oral communication skills and the ability to effectively present, explain and discuss complex ideas, to convince others, to listen to others and be able to integrate ideas from different people and sources.

- **Networking/stakeholder management:** Ability to identify relevant stakeholders, maintain existing linkages, and effectively communicate with stakeholders on different levels.

- **Research skills:** Knowledge and experience about relevant research methodology and analysis to create credible scientific evidence.

- **Impact and results orientation:** Ability to work independently, while drawing on long-distance support from the global community, with a strong sense of initiative, discipline and self-motivation.

- **Flexibility/innovation:** Continuous learning attitude, ability to proactively adapt to and stay abreast with changing contexts, technologies and approaches; ability to come up with innovations and make improvements in own work area.

- **Social/team competency:** Ability to work effectively and smoothly across teams taking into account intercultural sensitivities; ability to manage minor conflicts and to contribute to establishing commitment among work group members.

- **Report and proposal writing:** Ability to independently write good quality project reports for different target groups and to contribute to successful proposal development/writing.

The duty station is Kathmandu, Nepal; occasional travelling in the region and to international conferences will be required.

Duration

Three years, preferably starting as soon as possible, with the first six months on probation, and with a possibility of extension beyond three years subject to ICIMOD's future funding levels.

Remuneration

Salaries and benefits of ICIMOD are competitive with other regional organizations; remuneration is commensurate with experience and qualifications.

Gender and Equity Policy

Qualified and eligible women candidates and those from disadvantaged backgrounds are highly encouraged to apply. ICIMOD implements a gender equity policy and is supportive of working women. It operates a day-care centre at the campus and is committed to the integration of gender issues at organizational and programmatic levels.

Method of application

Applicants are requested to apply online before **1 Dec' 13** through <u>ICIMOD's Online Application system </u>at <u>http://www.icimod.org/vacancies</u>.

Please upload a cover letter and CV in the same file.

For more information or questions about the position please contact <u>apanday@icimod.org</u>.

Only shortlisted candidates will be notified.