



## **Terms of Reference**

### **National Data and Systems Management Officer**

#### **Background**

ICEM - the International Centre for Environment Management, established since 1999, helps governments and communities build capacity in the sustainable use of and management of natural resources. ICEM works across Asia, and focuses on climate change, water resources, biodiversity conservation and integrated assessments. ICEM seeks to integrate environmental concerns with development through spatial planning, socio-economic analysis and environmental assessment tools. The Centre draws from an active network of experts and organizations, nationally and internationally, and in public and private sectors to address critical conservation and development issues.

#### **National Data and Systems Management Officer based in Hanoi**

Reporting to ICEM's Senior Environmental Specialist and Server Administrator, the **Data and Systems Management Officer** will support the development and management of geospatial web-based applications that focus on real-world environmental and sustainable development-related projects. A core ICEM service is in the development of spatial and knowledge-based decision support systems for government, non-governmental organizations, and local communities.

#### **Key responsibilities:**

- Provide programming support for the development of web-based applications, primarily in using R, RStudio and Shiny.
- Involve in the design of user-friendly, navigable, interactive, and responsive web-based applications.
- Draft CSS for designing web-based interfaces that are user friendly, and accessible in large and small displays.
- Create, edit and visualize data and information, including geospatial and non-spatial data, in R and Shiny.
- Ensure development of code is written in a form that is accessible and understandable to other programmers.
- Install and maintain software systems used for web application development (including GeoServer, RStudio Server, Shiny Server, Docker).
- Support the Server Administrator in the management of ICEM's Linux-based servers (Ubuntu), including system backup, recovery, and updating of key software components.
- Provide additional support where the Officer's skillset permits for other data/software system-related tasks.

#### **Outputs:**

- Development of geospatial web-based applications in R and Shiny.
- Installation and management of software systems used for web application development
- Server administration support (currently Ubuntu)
- Other IT administration and web application development tasks as requested.

**Duration:**

- Full-time, 5 working days per week

**Requirements:**

- A minimum of a BSc in computer science, software engineering, or information technology - based discipline.
- 3+ years of experience in R programming, including in the use of R-Shiny to develop web-based applications
- 3+ years of experience in using geospatial data and web GIS (e.g., GeoServer).
- 5+ years of experience in designing and developing websites, including writing CSS scripts.
- 5+ years of experience in installing and maintaining software systems, and/or server administration
- A background or knowledge in environmental science, hydrology or environmental engineering would be highly regarded.

To apply, send a cover memo, updated CV with contact details of two references and minimum 2 writing samples on the topics listed above to ICEM at Ms Luong Quynh Mai ([mai.luongquynh@icem.com.au](mailto:mai.luongquynh@icem.com.au) and [admin@icem.com.au](mailto:admin@icem.com.au)). For more information about ICEM, visit [www.icem.com.au](http://www.icem.com.au).

Applications close on **9 February 2021**. Only short-listed candidates will be contacted.