

REQUEST FOR PROPOSAL (RFP)

Supply, installation and managed cloud hosting with platform support for the ICIMOD PURE platform

Item	Detail
Date of Issue	16 October 2026
Submission Deadline	28 October 2026, 11:59 AM NST
Submission Email	procurement@icimod.org

1. Background

The International Centre for Integrated Mountain Development (ICIMOD), Kathmandu, Nepal, invites proposals from qualified service providers to supply a cloud server, install and develop the geospatial tool, and operate managed cloud hosting for the productive use of Renewable Energy (PURE) platform. The service includes automated backups, server security, monitoring and ongoing platform support.

The PURE platform, developed by ICIMOD in collaboration with the energy nodal agency, supports geospatial planning and preliminary assessment of renewable-energy applications for irrigation. Administrators manage users, project records, reference datasets, cost models and GeoServer layers.

Component	Current baseline
Frontend	Nuxt
Backend	Django REST Framework
Database	PostgreSQL / PostGIS
Mapping stack	OpenLayers and GeoServer
Caching	Redis
GIS data	Approx. 38 GB
Codebase and static data	Approx. 1 GB (estimated)

Actual data volumes and component versions shall be verified at inception.

2. Objectives of the Assignment

The selected service provider shall:

- Provide reliable cloud infrastructure for the web application, geospatial services, database and supporting components.
- Deploy or migrate the approved Nepal platform and datasets with verified data integrity and controlled service interruption. Application to be maintained and updated via a GitHub or GitLab repository, with ownership of the repository eventually transferred to ICIMOD.
- Protect platform data and access through secure configuration, monitored backups and tested recovery procedures.
- Maintain service availability through proactive monitoring, incident response, routine maintenance and bug fixes.
- Provide operational documentation, a separate server setup and configuration documentation including backup configuration, regular reporting and a complete handover to ICIMOD or its designated successor.

3. Scope of Work

The service provider shall carry out the following activities in coordination with ICIMOD, the government nodal agency where designated, and the existing platform development team.

3.1 Infrastructure assessment and provisioning

- Review the current deployment, application dependencies, GIS datasets, database size, network requirements and access arrangements.
- Submit an implementation plan, component inventory, hosting architecture, data-centre location and capacity assessment.
- Provision at least the minimum server resources in Section 4.1, with a supported operating system and a documented path for increasing capacity.

3.2 Deployment and migration

- Configure the Nuxt application, Django APIs, PostgreSQL/PostGIS, GeoServer, Redis and required web or reverse-proxy services.
- Transfer the approved codebase, database, GeoServer data directory, spatial files, styles, configuration and uploaded media.
- Preserve user accounts, projects, analyses, reference data and layer identifiers.
- Take a verified pre-migration backup; agree a maintenance window, rollback plan and cutover procedure.

- Configure the ICIMOD-approved domain and HTTPS, and verify the migrated environment before switching production traffic.
- Do not retire the previous environment until ICIMOD accepts the migration and backup recovery has been demonstrated.
- Maintain and update the application through a GitHub or GitLab repository, with ownership of the repository eventually transferred to ICIMOD.

3.3 Backup and disaster recovery

- Configure automated, monitored backups covering the database, GIS files, GeoServer workspaces and styles, application code or release references, media and configuration.
- Backups shall be encrypted, access-controlled and stored separately from the production server. A copy on the same VPS disk is not sufficient.

3.4 Server security and access management

- Apply key-based administrative access, least privilege, firewall rules, HTTPS, secure secret storage and controlled administrator credentials.
- Restrict direct public access to the database, Redis and management interfaces.
- Enable multifactor authentication for the cloud control panel where supported.
- Maintain network-level DDoS mitigation and appropriate application rate limiting.
- Apply supported security updates, maintain access and security logs, and remediate relevant findings.
- Coordinate application dependency updates with regression checks and rollback arrangements, so that security maintenance preserves platform functionality.

3.5 Monitoring and service operations

- Monitor the public platform, API and representative GeoServer endpoints, along with CPU, memory, storage, database health, certificates and backup-job completion.
- Configure automatic alerts and named escalation contacts.
- Review capacity trends and notify ICIMOD before resource exhaustion or additional costs arise.

3.6 Platform support and maintenance

- Provide routine server and platform maintenance, fault diagnosis and bug fixes needed to keep the accepted deployment operational.
- Support map publishing, report generation and existing project-analysis workflows when affected by technical faults.

- Maintain a change register and test updates in a safe environment before production release.

The following are excluded from this scope: New modules, substantial redesign, new analytical models, major data preparation and additional country deployments. These require a separately approved scope and quotation. Infrastructure and platform-support charges shall be itemised separately. Existing development-contract obligations shall be identified at inception to avoid duplicate billing.

3.7 Documentation and handover

- Maintain a deployment and operations manual covering architecture, component versions, service configuration, server setup and configuration, startup and shutdown, backup and restore, monitoring, incident handling, release deployment and rollback.
- Provide at least one practical knowledge-transfer session for ICIMOD or its nominated administrators.
- Keep ICIMOD-approved ownership and access arrangements for cloud accounts, domains and backups. Accounts controlled by ICIMOD are preferred. If provider-managed accounts are used, disclose ownership and guarantee transferable access and export.
- On expiry or termination, provide current data exports, spatial files, source or release references, configuration, documentation and credentials through a secure channel.
- Assist transfer to the designated successor and verify that the exported backups can be restored.

4. Technical Requirements

4.1 Minimum infrastructure requirements

Bidders shall confirm compliance with each item and state the offered specification.

Component	Minimum requirement
Compute	16 vCPU cores. Bidder to state processor class and whether resources are shared or dedicated.
Memory	32 GB RAM allocated to the hosting environment.
Primary storage	500 GB NVMe SSD usable storage. Backup storage to be sized and priced separately.
Platform compatibility	Nuxt, Django REST Framework, PostgreSQL/PostGIS, GeoServer, Redis and required runtime dependencies.
Network and protection	Public HTTPS access, network-level DDoS mitigation, firewall and rate limiting. State bandwidth, transfer allowance and overage rates.
Hosting location and scaling	Declare cloud provider and primary and backup regions. Obtain ICIMOD approval before placing or moving data. Describe upgrades and associated downtime.

4.2 Service levels

The following minimum service levels apply from production acceptance. Bidders shall state compliance, any exclusions and the remedies offered for failure. The final agreement shall record the approved service-level arrangement.

Measure	Required service level
Availability	At least 99.5% monthly availability of the production platform, measured continuously at intervals of no more than five minutes.
Availability calculation	Available minutes ÷ (total monthly minutes – approved maintenance minutes). Third-party exclusions must be explicitly agreed. Provider-managed component failures count as downtime.
Planned maintenance	At least 48 hours' notice, scheduled outside agreed peak-use periods. Up to four hours per month excluded only when approved in advance by ICIMOD.
Recovery point objective (RPO)	No more than 24 hours of data loss, supported by successful daily backups.
Recovery time objective (RTO)	Restore the production service within eight hours of a declared recovery incident. Feasibility to be demonstrated through a recovery test.
Monitoring and contact	Continuous automated monitoring and 24-hour critical-incident contact. Routine support during agreed Nepal business hours.
Security incidents	Notify ICIMOD immediately upon confirmation, and no later than four hours after detection of a suspected material compromise. Preserve evidence and provide updates.

4.3 Incident response and escalation

Priority	Example	Response	Restoration or action target
P1 Critical	Platform unavailable, confirmed compromise or severe data loss	1 hour, 24/7	Restore or implement an effective workaround within 8 hours; updates every 2 hours.
P2 High	Major feature or map service unavailable with limited workaround	4 business hours	Restore within 2 business days; daily updates.
P3 Normal	Minor defect or routine support request	1 business day	Resolve within 5 business days, or agree a documented fix schedule.

- Response means acknowledgement by a qualified engineer and the start of diagnosis.
- Targets run from receipt or monitoring detection, whichever occurs first.
- A workaround does not close the underlying defect. The provider shall agree a permanent-fix plan and promptly escalate any likely breach.
- Major incidents require a cause and corrective-action report within five business days.

5. Deliverables, Timeline and Acceptance

Mobilisation is expected within four weeks of contract commencement, subject to timely access and provision of the approved platform package. The provider shall identify dependencies and obtain ICIMOD approval for the detailed work plan. Hosting and support shall continue for the agreed contract term from production acceptance.

5.1 Deliverables

S. No.	Deliverable	Timeline	Acceptance evidence
1	Inception and hosting plan	Week 1	Inventory, architecture, regions, capacity, migration and rollback plan, access responsibilities and service contacts approved.
2	Provisioned and secured environment	Weeks 1 to 2	Resources verified; services installed; HTTPS, restricted access, firewall, monitoring and DDoS protection demonstrated.
3	Migrated production platform	Weeks 2 to 3	Data reconciliation and agreed functional checks completed; cutover and rollback records provided.
4	Backup and recovery demonstration	Weeks 3 to 4	Separate backup storage, schedules and retention verified; full restore demonstrates recovery targets.
5	Managed hosting and platform support	Throughout the agreed contract term	Service levels, maintenance, backup checks, incident records and monthly reports reviewed.
6	Recovery and capacity reviews	Quarterly	Restore-test results, capacity trends, security actions and recommendations submitted.
7	Final handover and exit support	Before expiry or agreed exit date	Restorable exports, operational documents, access transfer and successor handover accepted.

5.2 Production acceptance checks

Acceptance shall be confirmed in writing by the ICIMOD focal person after joint verification. At minimum, the provider shall demonstrate:

- Login and authorised administration
- Province, district and municipality filters
- Dashboard charts and map layers
- Creation and retrieval of a project
- Agreed surface-water and groundwater analyses
- PDF report generation and download
- Administrator layer preview or publishing with a test dataset

The provider shall also verify database record counts and representative project and analysis outputs against the approved source deployment. It shall check representative GIS layers, styles and file integrity, HTTPS, restricted management access, alerts and backup restoration.

Representative load-test scenarios shall be agreed at inception and the results recorded. The specified server size alone does not establish application performance or high availability.

5.3 Reporting and supervision

The service provider shall work under the supervision of, and report to, the Intervention Manager – Renewable Energy, ICIMOD, with regular guidance from the Energy team and the Web team.

6. Proposal Submission Requirements

Interested service providers shall submit a complete proposal with the components below. The technical and financial proposals shall be submitted as separate files.

6.1 Company profile and legal documentation

- Valid company or firm registration certificate.
- Tax registration certificate (PAN/VAT or equivalent in the country of registration).
- Latest tax clearance certificate, where applicable.
- Completed and signed ICIMOD Vendor Registration Form.

6.2 Technical proposal

The technical proposal shall address, in detail:

- Understanding of the assignment and proposed approach and methodology for each scope area in Section 3.
- Proposed hosting architecture, cloud provider, primary and backup regions, and data-centre location.
- Statement of compliance against the minimum infrastructure requirements (Section 4.1), including processor class and whether resources are shared or dedicated.
- Migration plan, including pre-migration backup, maintenance window, cutover and rollback procedure.
- Backup and disaster recovery plan, including backup location, encryption, schedule, retention and restore testing.
- Security and access-management approach.
- Monitoring, alerting and escalation arrangements, including named escalation contacts.

- Statement of compliance against the service levels (Section 4.2) and incident targets (Section 4.3), with any exclusions and the remedies offered for failure.
- Proposed ownership and access arrangements for cloud accounts, domains, backups and the code repository.
- Exit and handover approach.
- Detailed work plan aligned with the deliverables in Section 5.1.
- Proposed period (in years) of managed hosting and platform support after production acceptance. The agreed period will be confirmed in the contract.
- Identification of cloud infrastructure and backup subcontractors, their responsibilities, and how the firm will remain accountable for service delivery.

6.3 Qualifications and experience

The firm shall demonstrate relevant experience in managed cloud hosting and production operation of web applications and geospatial systems. The proposal shall include:

- Examples of comparable managed hosting assignments, with client references and service responsibilities.
- Experience supporting Django or equivalent Python services, Nuxt or equivalent JavaScript applications, and spatial datasets.
- Experience in developing GIS-based decision support software.
- A practical escalation and continuity arrangement, including access to qualified staff for critical incidents at all times.
- Details of any prior knowledge of the PURE platform. Preference will be given to service providers with prior knowledge of the PURE platform.

6.4 Team requirements

The service provider shall nominate personnel for the three roles below and submit their CVs with the technical proposal. One person may cover more than one role where the proposal demonstrates the required competence and sufficient availability.

Role	Minimum qualifications and experience	Responsibilities
Technical Lead / Service Manager	Relevant degree in information technology, computer science, engineering or a related field, or equivalent professional experience; at least five years in web-platform delivery or operations.	Lead technical delivery, architecture, service coordination, escalation, reporting and system handover.
Cloud / DevOps Engineer	Relevant degree or equivalent professional experience; at least three years managing Linux production environments, deployment, backups, monitoring and security.	Manage cloud infrastructure, secure deployment, monitoring, backups, recovery, patching and incident response.
GIS and Database Engineer	Relevant degree in GIS, geomatics, computer science or a related field, or equivalent professional experience; at least three years working with GeoServer, PostgreSQL/PostGIS and spatial datasets.	Manage geospatial services, spatial-data integrity, database administration and performance, layer configuration and migration validation.

6.5 Financial proposal

Bidders shall quote their prices as per the scope and requirements of this RFP. Infrastructure (hosting) charges and platform-support charges shall be itemised separately, along with any initial setup or migration fee, backup storage, bandwidth and overage rates, and all applicable taxes. No unapproved capacity upgrade, third-party service or overage may be billed to ICIMOD.

7. Evaluation Criteria

All compliant proposals will be evaluated on a combined technical and financial basis. The evaluation criteria will be applied consistently to all substantially responsive proposals. The evaluation committee will assess the relative strengths, weaknesses and overall suitability of

each proposal based on the evidence provided by the bidder and the requirements of the solicitation.

#	Evaluation criterion
1	Technical approach, hosting architecture, migration methodology and compliance with scope and infrastructure requirements
2	Firm's relevant experience in managed cloud hosting, geospatial systems and GIS-based decision support software (including prior knowledge of the PURE platform)
3	Qualifications and experience of proposed key personnel
4	Security, backup and disaster recovery, and compliance with service levels and incident response
5	Financial competitiveness and value for money

ICIMOD reserves the right to conduct clarification interviews or technical presentations, request additional information, or undertake reference checks as part of the evaluation.

8. Submission Instructions

Item	Detail
Submission Email	procurement@icimod.org
Email Subject Line	RFP Submission – Managed Cloud Hosting and Platform Support – ICIMOD PURE Platform
Submission Deadline	28 October 2026, 11:59 AM Nepal Standard Time
Queries / Clarifications	To the above email at least three (3) working days before the submission deadline. Responses will be shared with all interested bidders.

Proposals shall be submitted as PDF or Word documents and shall include all components in Section 6. Proposals received after the deadline, or that are incomplete, will not be considered.

9. General Terms and Conditions

- ICIMOD reserves the right to accept or reject any or all proposals, to cancel or modify the RFP process at any stage, and is under no obligation to award a contract.
- Submission of a proposal does not guarantee award of contract.
- ICIMOD may seek clarifications from any bidder without this constituting acceptance or rejection of the proposal.
- Proposals shall remain valid for at least 90 days from the submission deadline.

- Renewal or capacity expansion shall require ICIMOD approval.
- Any additional costs beyond the agreed financial proposal must be pre-approved in writing by ICIMOD. No unapproved capacity upgrade, third-party service or overage may be billed to ICIMOD.
- New modules, substantial redesign, new analytical models, major data preparation and additional country deployments require a separately approved scope and quotation.
- The service provider shall not assign or subcontract any part of the engagement without prior written consent from ICIMOD. Proposed subcontractors shall be disclosed in the proposal (Section 6.2).
- Data shall not be placed or moved to any location without ICIMOD approval.

10. Payment Terms

Payments shall be made as per the terms agreed in the contract, in line with ICIMOD policy, against satisfactory delivery and invoices. ICIMOD shall retain 10% of each payment as retention money. The retained amount shall be released after the service provider completes the agreed support period of managed hosting and platform support after production acceptance, subject to satisfactory performance and written confirmation by ICIMOD. Retention money shall not carry any interest. Contract commencement, acceptance and end dates shall be specified in the agreement.

11. Confidentiality, Data Protection and Ownership

- All information shared by ICIMOD in connection with this RFP, including platform data, datasets, credentials and system details, is confidential and shall not be disclosed to any third party without prior written authorisation from ICIMOD.
- Platform data, code repository, documentation and backups remain the property of ICIMOD. Repository ownership shall be transferred to ICIMOD as agreed in the contract.
- The service provider shall not use ICIMOD's name, logo or project information for promotional purposes without written approval from ICIMOD's authorised representative.
- This confidentiality obligation shall survive the conclusion or termination of the engagement.