# Position Description

**Position:** GIS & Database Officer  
**Position Type:** Contract  
**Salary Range:** NR 9 - NR 10  
**Location and Position No:** KMD/ISM NR-KD-003  
**Reporting Relationship:** Reports to Information Systems Management Manager  
**Subordinates:** NIL

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### 1. Position Summary

Reporting to the ISM Manager, the GIS & Database Officer will maintain the Institute’s database, working in collaboration with development indicators research in the development of the NRI GIS platform for broader use by the Institute and key stakeholders. The position will ensure that the District Information system is established and effectively managed, with relevant indicators and geographical boundaries data recorded into the system.

This position will also design, develop and manage inhouse computer database systems for certain requirements from individuals and or groups with ease of use and access to the information therein.

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### 2. Dimension:

<table>
<thead>
<tr>
<th>Budget:</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff:</td>
<td>N/A</td>
</tr>
<tr>
<td>Expenditure budget:</td>
<td>N/A</td>
</tr>
<tr>
<td>Equipment:</td>
<td>Laptop, application and database development tools</td>
</tr>
</tbody>
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### 3. Nature and Scope:

**Reporting Relationship**  
The Database Officer is one of five (5) positions reporting directly to the Information Systems Management Manager.
**Working Environment**
Located within the Knowledge Management Division, this position is responsible for plan, design and development of GIS database system in collaboration with development indicators research, and management of inhouse application development.

**Constraints, Framework and Boundaries**
The GIS & Database Officer's actions or activities are guided by set policies and practices (precedence) and Management directives or decisions. The conduct of this position is also dictated by the best practices, principles and various frameworks in strategy, governance, integration and quality of the ICT industry including ISO, ITIL, EDM, DAMA BOK, DMQM, W3C, International Guidelines on Interoperability, Privacy and Secrecy of official information pertaining to an organization.

**Challenges**
- The incumbent is often put under pressure both from staff and Management to provide solutions and translate organizational procedures and processes into database systems.
- A major challenge for the incumbent is to be well versed with various technical skills in the ever-changing ICT industry of database management and application development.
- The incumbent is seen to be competent and knowledgeable in identifying solutions to operational processes and translating them into a workable online system.

**Working Relationship**
**Internal**
- ISM Manager, NRI Researchers and Executive Management.

**External**
- Database Software and Service Providers, Researchers and Government Agencies.

4. **Key Outcomes**
- Assistance is provided to research and propose to management on database software to implement Public Policy Collection database system.
- Research and propose to management on database software to implement NRI Internal Policy Documents and other publication database system is conducted.
- Plan, design and develop database systems for Internal requirements as requested by NRI Corporate Sections or Research Programs are addressed.
- Management and administration of database systems for security, accuracy, up-to-date, relevance is maintained.
Ensure the information in database systems are kept lean and correctly structured for faster response to query and search tasks.

Liaise with database application suppliers and vendor for management and resolution of On-the-Shelf database applications deployed at NRI.

Liaise with Government Departments in relation to information needs from PNG NRI to GoPNG Departments and vice versa.

Participate in the concept, scoping, design, and development phases of the District Profiles Database System.

Develop and design GIS database system incorporating District Information System data and ensure it is presented on the Internet using ideal web-based technologies.

Collaborate with researchers and other key stakeholders (government sector agencies, National Statistics Office, DPLGA, development partners) to define database indicators and to establish the data foundations for those indicators.

Plan and profile different data sources and input into a database system.

Attend seminars and workshops as a resource person.

5. Key Duties & Responsibilities

- **Public Policy Collection Database System**
  Assist to research for appropriate database application. Liaise with ICT suppliers for relevant information on ideal database system for Public Policy Collection concept and plan to start the implementation of it.

- **NRI Internal Policies Database System**
  Liaise with ICT suppliers for relevant information on ideal database system for NRI Internal Corporate documents and plan to start the implementation of it.

- **Database Systems requested by CSD and Research Divisions**
  Plan, scope, design and develop database systems for Internal requirements as requested by NRI Corporate Sections or Research Programs.

- **Management of secure database systems**
  Ensure to implement regular maintenance regimes for the database systems deployed at NRI to mitigate security risks.

- **High Availability and Performance Database Systems**
  Ensure to implement regular maintenance regimes for the database systems deployed at NRI to provide faster response times for user searches and ease of recovery from disasters or accidental deletions.

- **Collaboration and Liaison with Researchers and External Stakeholders**
  Collaborate and liaise with NRI Researchers and relevant external stakeholders on behalf of NRI for information required or requested.

- **Participation with Researchers for Development of District Information Systems**
  Participate and collaborate in implementing DIS and ensuring its presence is made available on the Internet via relevant web Technologies.

- **Database Systems Documentation**
  Ensure all database systems deployed at NRI are adequately documented for ease of reference and troubleshooting.
• Perform other duties
Perform any other duties as directed by Information Systems Management Manager or as requested by Executive Management

6. Technical Knowledge and Skills
• Excellent Analytical and Problem-Solving Skills
• Thorough technical knowledge of major database technologies such as MS SQL, Oracle
• Thorough knowledge of Programming Languages such as SQL, HTML, CSS, PHP, JavaScript.
• Thorough knowledge of Systems Development Life Cycle.
• Thorough knowledge of Application Development Frameworks and Best Practices.
• Thorough knowledge of Web Server Applications and Security.
• Working knowledge of computer hardware and software.
• Working knowledge of Application Communication and Networking principles.
• Ability to work under pressure and with minimal supervision.
• Being proactive and self-motivated.

7. Qualifications and Experience
• Bachelor’s Degree in ICT or GIS
• Possess a minimum of 5 years’ experience in database systems management and application development language; HTML, CSS, JavaScript, ASP, PHP, MySQL
• Member of PNG Computer Society.
• ICT Industry Certification database or GIS application development is advantageous.

8. Personal Attributes and Skills
• People-centered attitude.
• Excellent communication skills.
• Team Player.
• Ability to respect and maintain confidentiality at all times.
• Honest and Trustworthy
• Works ethically and with integrity.
• Strives to increase productivity.
• Attention to detail

9. Levels of Supervision
• Entry level position reporting to the Information Systems Management Manager

Declaration:

I confirm that I have read and fully understand the role of the GIS & Database Officer and undertake to accomplish my tasks consistent with this position description and adhere to the changes that are instituted by Executive Management and the Council from time to time.

Sign: ............................................................

Staff: ............................................................ Date: ....................................................

ISM Manager: ........................................ Date: ....................................................