



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

OFFICE OF THE PREMIER

**Geographic Information System (GIS) Policy for Limpopo Provincial
Government**

2020

ACRONYMS AND DEFINITIONS

ACRONYMS	
3D	Three Dimensional
4IR	Fourth Industrial Revolution
AI	Artificial Intelligence
EXCO	Executive Council
DPSA	Department of Public Service and Administration
CEO	Chief Executive Officer
GIS	Geographic Information Systems
IT	Information Technology
IOT	Internet of Things
GITO	Government Information Technology Office
GPS	Global Positioning System
OSD	Occupational Skills Dispensation
OTP	Office of the Premier
MTEF	Medium Term Expenditure Framework
PAIA	Promotion Of Access To Information Act
SOPs	Standard Operating Procedures
TOR	Terms of Reference
SOEs	State Owned Entities
DRDLR	Department of Rural Development and Land Reform

DEFINITIONS

In this policy, unless the context indicates otherwise—

"Executive Authority" means council established under section 23;

"Provincial administration" means a provincial administration referred to in section 7 (2);

"Provincial Government" means a Provincial Government established under Section 10;

"metadata" means a description of the content, quality, condition and other characteristics of spatial information;

"spatial information" means information about spatial objects or features and their attributes;

"Committee for Spatial Information" means the Committee as established in terms of Section 5 of the Spatial Data Infrastructure Act, Act No. 54 of 2003;

"Parastatal" means a company or organization which is owned by a country's government and often has some political power;

Contents

1. Introduction	4
2. Background	5
3. Purpose And Objectives Of The Policy	6
3.1 Purpose	6
3.2 The Objectives	6
4. Scope Of Application	7
5. Principles	7
6. Authority Of The Policy	7
7. Legal Framework/Policies	8
7. Policy Pronouncements	8
8. Policy Provisions	9
9. Roles And Responsibilities	9
10. Coordination Of Gis Function	11
11. Institutionalisation Of The Gis Function	11
12. Establishment And Functions Of Gis Forum	12
12.1. Constitution Of The Forum	12
12.2. Functions Of The Forum	12
13. Enterprise Gis	13
13.1 User Classification And Responsibilities	13
14. Data Administration	14
15. Data Ownership	15
16. Guidelines Of Data	15
17. Procurement Of Gis-Related Goods And Services	15
18. Data Sharing And Usage	16
19. Geo-Portal To Support Information Access And Data Exchange	16
20. Default	17
21. Inception Date	17
22. Termination And Review	17
23. Enquiries	17

1. INTRODUCTION

The Fourth Industrial Revolution (4IR) is upon us, and is paving the way for transformative changes in the way we live and radically affecting almost every sector of society. This is all happening at an unprecedented, whirlwind pace. The public sector is therefore not immune to the change called upon by this revolution and is thus faced with a huge challenge of

transforming and adapting its business processes accordingly. Failure to adapt to this imminent transformation challenge would soon catch up with government, thus compromising the state's ability to render public goods and services. Central to government's business processes is planning, budgeting and resources allocation, project implementation, monitoring and evaluation, as well as impact assessment. In all of these, informed decision making, through every step, is paramount.

Geographic Information Systems (GIS) have become central in management and planning around the world. The intelligent and analytic power of GIS enables organizations to solve problems that would be difficult to address using manual methods. Governments, given the vast challenges they have to address, also depend on GIS to address the pressing questions of where public goods and services can be optimally provided.

2. BACKGROUND

Geographic Information System has become central in management and planning around the world. Central to Government's business processes is planning, budgeting and resource allocation, project implementation and Monitoring & Evaluation. Governments, given the vastness of the challenges they have to address, also depend on GIS to address pressing questions of where public and services can be optimally provided.

The Limpopo Provincial Government's Executive Council (EXCO), upon realizing the strategic importance of GIS, took resolutions in 2004 aimed at ensuring that the Provincial Government has a GIS function to enhance planning and decision-making. The Office of the Premier was mandated to coordinate the establishment of an integrated Geographic Information System (GIS) for the Province. This responsibility was extended to provision of GIS support to municipalities to enhance the use of scientific evidence during the planning and decision-making processes.

3. PURPOSE AND OBJECTIVES OF THE POLICY

3.1 Purpose

The purpose of this policy is to provide a framework and guidelines for the implementation of GIS within the Provincial Administration. It is to provide GIS governance standards and procedures for spatial data management, custodianship and exchange of data. It is also to manage the acquisition of data and licensing of software across the Provincial Administration.

3.2 The objectives

The objective of the policy is to:

- a. Ensure GIS institutionalization/mainstreaming in the whole of the Provincial government, including municipalities and State-owned entities.
- b. Promote the effective use of and sharing of spatial information for integrated planning and informed decision-making in the implementation of all government policy priorities
- c. Advance and strengthen the role of GIS function in the Monitoring and Evaluation of government services.
- d. Establish the multi-stakeholder platform to coordinate GIS activities in the province
- e. Promote cost-effective measures with regard to data acquisition and sourcing and minimize duplication.
- f. To promote rational and equitable distribution of resources for effective service delivery
- g. Promote easy access to spatial information through provincial enterprise GIS.
- h. Protect and advance the interests of government in all GIS-related transactions with the private sector.
- i. Ensure that the necessary strategies for GIS implementation are developed, including Standard Operating Procedures, so as to enhance government's business processes.

4. SCOPE OF APPLICATION.

The policy shall be applicable to the entire Provincial Administration, including tertiary and Research institutions, any other private entity, civil society and/or individuals who want to provide GIS related services to the Limpopo Provincial Administration.

The policy shall be implemented, as is, by all Departments, municipalities and State-Owned Entities, i.e. without any customization.

5. PRINCIPLES.

The following principles underpin this policy:

- a. Collaboration: Emphasizing the importance of how sector departments, municipalities and other stakeholders work together.
- b. Symmetry: Recognizing the differences between municipalities and sector departments and level-appropriate GIS objectives are developed and implemented accordingly.
- c. Transparency: Information needed for good governance at all levels should be transparently and readily available
- d. Economies of scale: Emphasizing value for money with respect to GIS resource acquisition, data procurement and upkeep.
- e. Shared service: Promoting creative sharing of a variety of services amongst municipalities, provincial departments, and research and tertiary institutions. This includes sharing of human resources capacity, information, systems and tools that will advance GIS in the Province.
- f. Integration: Government's endeavor for integrated planning and development can be greatly enhanced and realized.

6. AUTHORITY OF THE POLICY

This policy is issued and authorized by the Executing Authority of the Limpopo Provincial Government.

7. LEGAL FRAMEWORK/POLICIES

This policy, as well as the usage of spatial information in the province, is subject to all applicable policies in South Africa, including the following:

7.1. CORE LEGAL FRAMEWORK

- a. The Constitution of the Republic of South Africa, Act No.108 of 1996
- b. National Environmental Management Act, Act 107 of 1998
- c. Public Administration Management Act, Act No.11 of 2014
- d. Geomatics Professions Act, Act No. 19 of 2013
- e. Spatial Data Infrastructure Act, Act No.54 Act of 2003
- f. Spatial Planning and Land Use Management Act, Act No.16 of 2013

7.2. GENERAL LEGAL FRAMEWORK

- a. Intergovernmental Relations Framework Act, Act No. 13 of 2005
- b. Local Government: Municipal Finance Management Act, Act No. 56 of 2003
- c. Local Government: Municipal Systems Act, Act No. 1 of 1999
- d. Promotion of Access to Information Act (PAIA), Act No.2 of 2000
- e. Protection of Personal Information Act, Act No. 4 of 2013
- f. Survey Act, Act No.8 of 1997
- g. Infrastructure Development Act, Act No.23 of 2014
- h. Municipal Systems Act, Act No. 32 of 2000
- i. Government Immovable Asset Management Act, Act No.19 of 2007
- j. Disaster Management Act, Act No.57 of 2002

8. POLICY PRONOUNCEMENTS

EXCO Resolutions listed below directed that there be “integrated provincial Geographic Information System (GIS) and or that the province prioritizes ‘the need for integrated information management (GIS capacity) within all departments and municipalities”.

- Resolutions 10/2004 10/2004 Ensure an integrated and accessible information management system/ GIS within government, to be coordinated through the Office of the Premier
- 70/2004 – the need for integrated information management within all departments and municipalities (GIS capacity) be prioritized

8. POLICY PROVISIONS

This Policy makes provision for all relevant stakeholders to ensure that GIS resources and data are properly managed, protected and exchanged between them for delivery of efficient services to the public.

9. ROLES AND RESPONSIBILITIES

The roles, responsibilities, and powers for the GIS function within the Limpopo Provincial administration are outlined in the table below. These roles, responsibilities and powers apply to departments, municipalities and SOEs policies.

Authority/ Office	Formulation & Drafting Policies	Policy Approval	Policy Implementation	Monitoring & Evaluation
Executive Authority	Approves new or reviewed policies. Might direct that certain policy provisions be reformulated or added.	Approves all policies applicable to the department	Oversees policy relationship of policy implementation with electoral mandates.	Approves amendment of policy resulting from a review

Accounting Officer	Recommends approval of draft policy to Executing Authority on advise of Executive Management or relevant Directorate	Can approve policies relevant to the department in line with powers conferred by law or delegation	Oversees implementation of policies	Can approve amendments to policies relevant to the department in line with powers conferred by law or delegation
Executive Management	Makes input into new or reviewed policy. Recommend the draft policy before submission to the Accounting Officer.	None	Implement policy within area of responsibility	Monitor and evaluate implementation of the policies at a strategic level
OTP GIS Directorate	Coordinate the drafting of new or reviewed policies.	Generates consolidated departmental input for consideration of Executive Management and/or Accounting Officer	Ensures that all employees are informed of the new policy.	Supports branches and the Executive Authority/ Accounting Officer in monitoring & evaluating implementation of policies
Departmental/ Municipal GIS Directorates/functions	Makes inputs and how the policy will be implemented through the SOPs.	Generates consolidated departmental input for consideration of Executive Management and/or Accounting Officer	Ensures that all employees are informed of the new policy.	Supports branches and the Executive Authority/ Accounting Officer in monitoring & evaluating implementation of policies

10. COORDINATION OF GIS FUNCTION.

The Office of the Premier shall coordinate the establishment of an integrated GIS for the province, especially the usage of spatial information by the provincial government. It will do so by focusing on the following:

- a. Develop and Manage GIS policy for the Province;
- b. Giving GIS technical support and advise to departments, municipalities and state owned entities
- c. Establishment and maintenance of the Corporate/Enterprise GIS
- d. Establishment and maintenance of the provincial Geo-Database and its infrastructure/ Corporate or Enterprise GIS.
- e. Provide advice to government entities on appropriate software to be used, informed by the requisite intelligent and analytic capability, as well as for ease of data sharing.
- f. Foster linkages and interface with National Departments and state owned entities.

11. INSTITUTIONALISATION OF THE GIS FUNCTION.

All Departments, municipalities and State-Owned Entities must have a fully established GIS function. The GIS function shall:

- a. Be provided with requisite human and material resources for the performance of the GIS-related activities; as provided by geomatics professions act (chapter 3 Section 13). All accounting officers in departments, municipalities and State-owned entities shall be responsible for this task.
- b. The GIS function shall be located in a branch or Unit responsible for development planning in the respective government entities.
- b. Advocate for maximum use of GIS in planning and decision-making;
- c. Capture data to record all projects planned and implemented by the department/municipality
- d. Ensure that the relevant metadata is properly captured.
- e. Assess and determine the organization's spatial data needs and ensure that such needs are met.

- f. Promote the usage of spatial information and conduct GIS awareness throughout the organization.
- g. Support the Monitoring and Evaluation function of the institution
- h. Provide any GIS-related data as may be requested by any decision-making authority;

12. ESTABLISHMENT AND FUNCTIONS OF GIS FORUM

12.1. CONSTITUTION OF THE FORUM

The Province shall establish GIS Committee which shall be constituted by:

- a. Representatives from all the Departments, Municipalities and State-owned Entities. The GIS Unit from the Office of the Premier shall chair the Forum.
- b. Representative from all Districts and Local municipalities shall have GIS District forums chaired by the GIS unit at the District level.
- c. Representatives from the tertiary education and research institutions in the Province.
- d. Representatives from transversal Development Planning, Monitoring and Evaluation, and Research Units.
- e. Any other relevant private or civil society body performing a reputable GIS function.
- f. The Provincial forum should be held twice annually.

12.2. FUNCTIONS OF THE FORUM

The function of the GIS Forum is to:

- a. Ensure that the mapping of all government projects is done
- b. Share and disseminate data;
- c. Coordinate data capturing needs and activities;
- d. GIS policy formulation and implementation;
- e. Setting of standards and procedures;
- f. Maintain data and provide enterprise GIS; (phrasing) since we are not all data custodians
- g. Build the GIS Capacity relevant of employees in the Provincial Administration;
- h. Network and collaborate with other bodies/institutions;

- i. Take decisions on issues of spatial information and planning in the province;
- j. Seek ways to reduce the cost of acquiring of GIS data;
- k. Promote the integration of GIS technologies to enhance business processes.
- l. The forum shall meet once a quarter.
- m. The Forum shall ensure that District fora are established as institutions to support the provincial forum, and shall develop the terms of reference of such fora.

13. ENTERPRISE GIS

The Provincial government shall have its own basic enterprise architecture which will serve as one centralized Geo-Database for government. This will be housed in and managed by the Office of the Premier. The Geo-Database will:

- a. Make Access to and sharing of spatial information possible;
- b. Store and manage relevant data;
- c. Be accessible to all Departments and such access shall be structured to ensure the Departments only have viewing rights of all datasets. Departments that serve as data custodians for their respective line-function datasets.
- d. Minimize duplication of datasets
- e. Promote informed decision-making by all departments

13.1 User Classification and Responsibilities

To ensure efficient utilization and support for GIS users, the use and level of GIS functionalities has been classified according to user types with different needs and responsibilities. GIS users are classified as follows:

a. Corporate GIS

The Office of the Premier will provide GIS co-ordination functions, GIS technical support on capturing, collection and maintenance of core and base datasets.

b. GIS units/Sections (Departments and Municipalities)

These units will capture data, conduct high- end data manipulation and require access to advanced software and hardware. They should also be equipped with GIS personnel to render necessary services at their departments/municipalities.

c. Departmental Users

These users only require access to GIS information via the Internet or through customized applications. GIS units and corporate GIS will deploy tools to enable access to GIS data and services for these users.

d. General Public

Any other individual with a specific GIS need at any point in time will be regarded as an Information Browser. Such needs can be fulfilled by hard copy maps, internet tools and/or customized products.

14. DATA ADMINISTRATION

All sector departments, municipalities and provincial entities are the data custodians. The responsibilities of a data custodian shall be executed by the relevant GIS function or designated office. Data custodians shall:

- a. Maintain, validate, describe and ensure accessibility of spatial data/information in their custody;
- b. Manage spatial data in a way that facilitates data sharing and use by other data custodians;
- c. Be accountable for the integrity of the data as generated by the custodian or data which is supplied by the vendor on their behalf; and
- d. Data custodians shall work together to facilitate data and information sharing in order to avoid duplication of data capture and cost to all spheres of government.

15. DATA OWNERSHIP

Data collated, generated or acquired by any data custodian, and or by a vendor appointed by a data custodian, becomes an asset of the Limpopo Provincial Government and shall be available for sharing among stakeholders in the Province. Data acquired through a vendor shall be used in line with the license requirements, and in the interest of advancing government's developmental objectives.

16. GUIDELINES OF DATA

- a. All data custodians shall ensure that data collated through surveys, field work or any other method, is captured electronically and have location attributes which will enable spatial referencing of data.
- b. The spatial referencing method should be the X and Y coordinates, or a properly captured street address according to the South African Address Standards (SANS 1883).
- c. All data shall be captured in accordance with open data standards that enable interoperability, i.e., to enable convenient conversion of data into usable data format such as shapefiles
- d. All data custodians shall ensure that data is accurate and current in terms of determined user needs for the purpose for which the data was captured. Where probable errors exist, the degree of probability of its correctness shall be reported.
- e. Data custodians shall ensure that the quality and the resolution of their data sets meet the needs of users.
- f. Data custodians shall ensure that the data provided for sharing and use, does not have gaps and has been captured and is ready for use. All field values of the attribute data shall be complete, and its accuracy validated.

17. PROCUREMENT OF GIS-RELATED GOODS AND SERVICES

- a. All government entities shall procure GIS-related goods and services on the basis of a written contract, duly compiled by that entity, with proper technical inputs from the GIS Unit within that entity, as well as inputs/opinion from Legal Services.

- b. Data custodians shall register with the Committee for Spatial Information and present their data collection or acquisition projects to the GIS Forum, prior to undertaking such a project, and update the register when changing the status of the project.
- c. All government entities shall ensure that the digital spatial data and associated metadata are clearly identified and listed as part of the deliverables in the contract/Terms of Reference.
- d. When procuring hardware, the minimum hardware standards for all GIS users shall be determined by and be in line with the software and data usage/requirements. These will be determined and agreed upon in line with the IT policy of that entity.

18. DATA SHARING AND USAGE

Spatial data collected, generated or owned by any stakeholder shall be shared through the Geo-portal and within the bounds permissible by applicable laws and the principles of data privacy. Data will be shared to achieve the objectives of:

- a. Delivering good quality services to the citizens;
- b. Quality policy formulation and evidence-based planning;
- c. Supporting strategic goals of Limpopo Provincial Administration; and
- d. Facilitating analysis and research.

19. CORPORATE GIS TO SUPPORT INFORMATION ACCESS AND DATA EXCHANGE

- a. The Corporate GIS shall be established as a central data and spatial information repository for all sector departments, municipalities and provincial entities.
- b. All data custodians shall make their data and information products available for sharing and publishing through the corporate GIS unless restricted by law.
- c. All data custodians with existing corporate GIS shall provide access for automated portal to portal collaboration and linkages.

- d. All data custodians without corporate GIS and hardware shall be hosted on the main portal to avoid unnecessary expenditure on hardware, licensing and storage.

20. MEASURES TO DEAL NON COMPLIANCE TO THE POLICY

Non-compliance with the policy shall constitute violation and shall be dealt with in terms of the Departmental/Entity's Disciplinary Policy and Procedures. The Office of the Premier, together with the Provincial and District GIS Fora, shall be responsible for ensuring the monitoring of the implementation of the policy, and shall be responsible for ensuring that the necessary disciplinary measures are taken in cases of non-compliance.

21. INCEPTION DATE

The inception date of the policy shall be with thirty (30) days, after approval, by the Executing Authority.

22. TERMINATION AND REVIEW

The policy shall be reviewed after every sixty (60) months or as and when may be deemed so by the Executing Authority.

The policy shall be in force until otherwise terminated or withdrawn by the Executing Authority.

23. ENQUIRIES

The enquiries regarding this policy shall be directed to the GIS Directorate in the Office of the Premier, Polokwane.

APPROVAL OF POLICY


Mr. N NCHABELENG

DIRECTOR GENERAL


Date