

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Digital mapping involves the process of collecting, compiling, and visualizing spatial data to represent real-world features digitally. With the advent of Geographic Information Systems (GIS), digital maps have become essential tools in planning, management, and decision-making across various sectors. Schools are critical social infrastructures benefiting immensely from digital mapping for purposes such as planning, navigation, resource allocation, and safety management.

Federal Staff School Adewole, like many educational institutions, has a wide range of physical infrastructure facilities. However, the absence of a comprehensive digital representation of these features, managing the school environment effectively can be challenging that's why this study seeks to address this gap by exploring the application of digital mapping in Federal Staff School Adewole, Ilorin. By leveraging GIS technology, the purpose of this research is to create a comprehensive digital map of the school's infrastructure, providing a foundation for improved facility management.

A digital map of the school would provide a clear layout of the buildings, roads, recreational areas, and other important features within the school's premises, facilitating easier administration and navigation.

The findings of this research are expected to contribute to the improvement of knowledge on the use of geospatial technologies in education. This research can also help in understanding

the potential of digital mapping to enhance the operational efficiency, safety and sustainability in educational institutions.

1.2 STATEMENT OF THE PROBLEM

Despite the importance of accurate spatial representation, Federal Staff School, Adewole currently lacks an up-to-date digital map that clearly illustrates its spatial layout and facilities. This gap affects various operations such as emergency response planning, facility management, and infrastructure development. Without a reliable map, there is a risk of inefficient use of space and resources. These issues are often made worse by relying on outdated and manual methods of facility management such as paper-based records and static maps, which are time-consuming, error-prone, and lack the spatial context needed for effective decision-making.

The integration of Geographic Information System (GIS) and digital mapping technologies offers a promising solution to these challenges because GIS enables the creation of accurate, interactive, and dynamic maps that will provide a spatial representation of the school's infrastructure.

1.3 AIM AND OBJECTIVES OF THE PROJECT

The aim of this project is to carry out digital mapping of Federal Staff School Adewole, Ilorin, kwara State.

1.4 OBJECTIVES

The objectives of this project include:

1. To develop a digital spatial database of the school.

2. To produce a detailed and interactive digital map of the school.
3. To identify and map the physical features and infrastructures within the school premises.
4. To analyze the spatial distribution of facilities within the school.
5. To evaluate the role of digital mapping in improving maintenance, planning, and security, enabling proactive and cost-effective management of infrastructure.

1.5 SCOPE OF THE PROJECT

This study focuses on the digital mapping of Federal Staff School Adewole. It includes the identification and mapping of buildings, roads, vegetation, recreational areas, and other relevant infrastructures within the school compound. However, there are stages that will be involved to achieve our aims:

I. Project Planning

II. Reconnaissance

III. Data acquisition

IV. Data processing

V. Data analysis

VI. Data presentation

VII. Technical report writing

1.6 PERSONNEL

The students listed below are the members of this group who participated in the execution of the project.

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1.	DADA ELIZABETH OLUWAPELUMI	HND/23/SGI/FT/0043
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1.7 SIGNIFICANCE OF THE STUDY

The outcome of this project will aid the School Management in planning and decision making. It will also serve as a useful tool for visitors and new students for navigation. Furthermore, it will enhance safety and emergency response strategies within the school environment. Other importance of this study is listed below:

1. Improve facility management
2. Optimization of space utilization
3. Replicability of other schools or institutions

4. Contribution to academic research

1.8 STUDY AREA

The study focus on Federal Staff School, Adewole located in Ilorin, Kwara State, Nigeria. The school is situated in the Adewole area, a well-known residential and educational neighborhood within Ilorin West Local Government Area. The geographic location of the study area lies between Latitude 8.477702N and Longitude 4.5104184E.

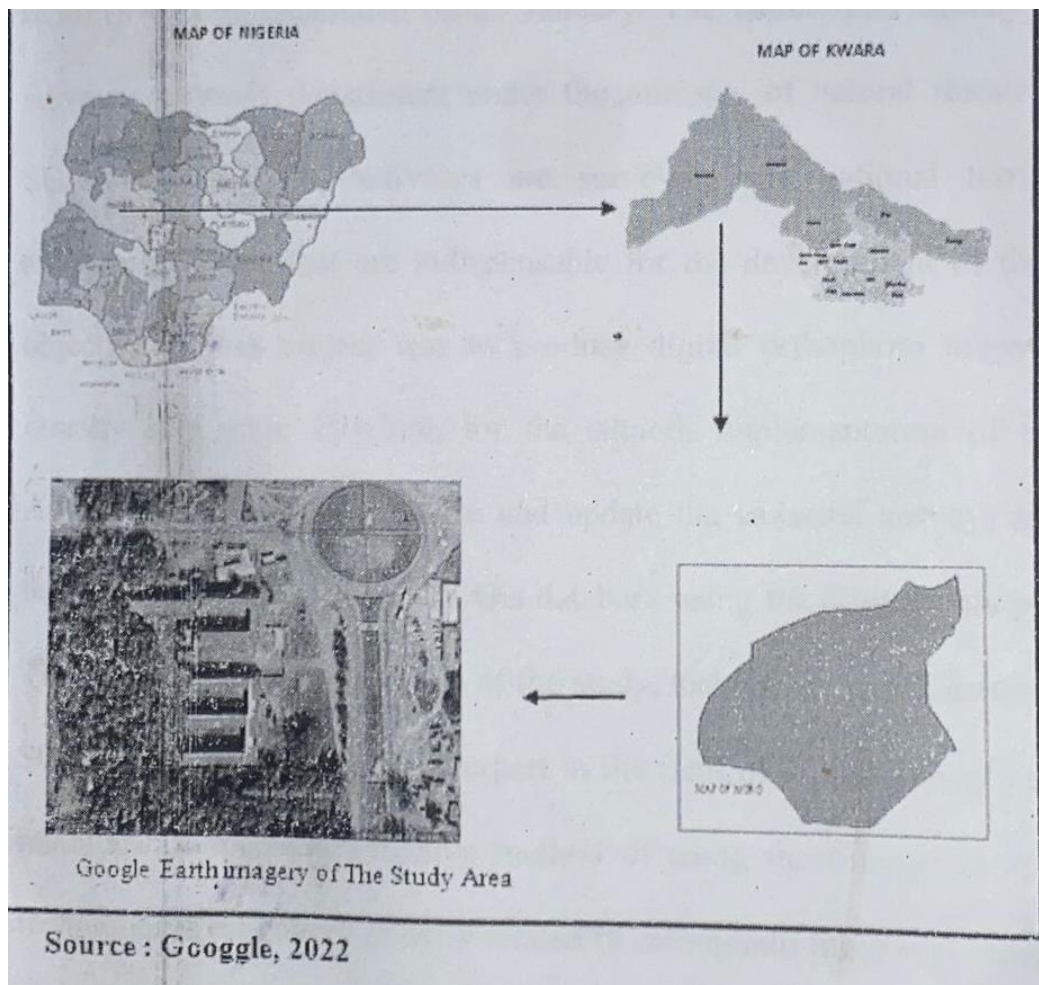


Fig. 1.1: Maps showing the Project Location