APPLICATION OF GEOGRAPHIC INFORMATION SYSTEM (GIS) IN HOSPITALITY AND TOURISM IN KENYA AND NIGERIA

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INTRODUCTION

Geographic Information System (GIS) can be used for managing a variety of information needed, estimating indicators, and generally assisting decision making in the planning monitoring and evaluation of the Hospitality and Tourism industry. It is particularly useful in capturing, analyzing and displaying both spatial and non-spatial (attribute) data.

Given the space limitation in Kenya and Nigeria, there is urgent need to consider alternative tourism sites in order to avoid further deterioration of existing zones. Therefore a spatial decision support system will be developed to support hospitality and tourism planning. GIS technology is considered as the appropriate platform for such a system because it can integrate both qualitative and quantitative information. It can provide a visual display of results thus permitting an easy and efficient appraisal of results, and can communicate information to all interested parties thus becoming a participatory and exploratory tool.

PROPOSED PROJECT

The School of Hospitality and Tourism proposes to execute a long-term project running from September 2014 to September 2034 with the aim of using GIS to map hospitality and tourism for sustainable planning, management and marketing. Past, current, and future static and interactive; spatial and non-spatial maps on hospitality and tourism in Kenya and Nigeria will be provided. This will be achieved through collaboration with key stakeholders in hospitality and tourism.
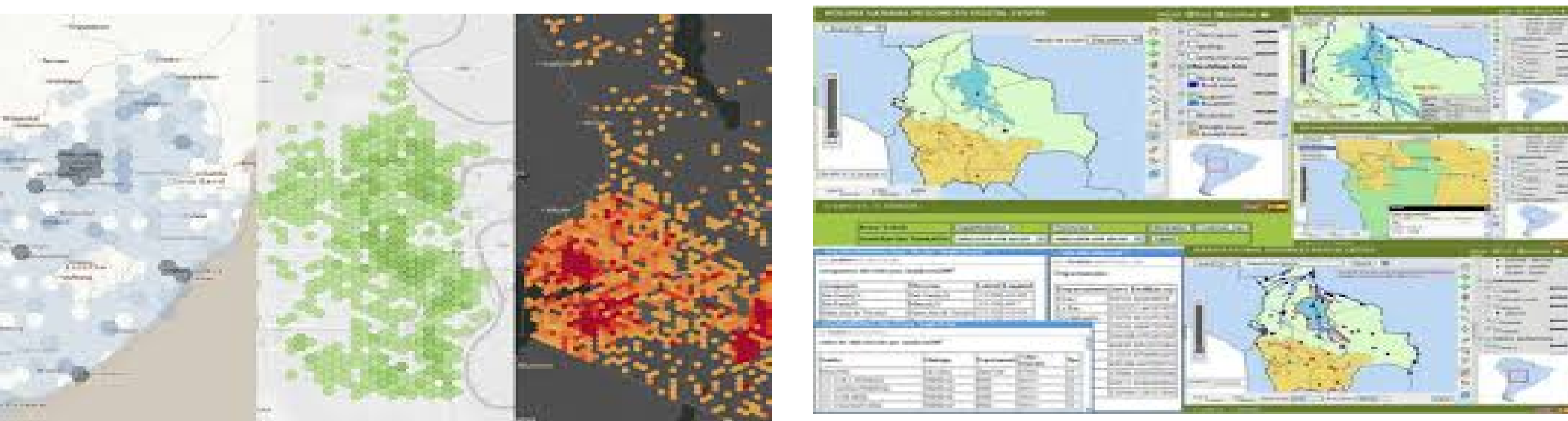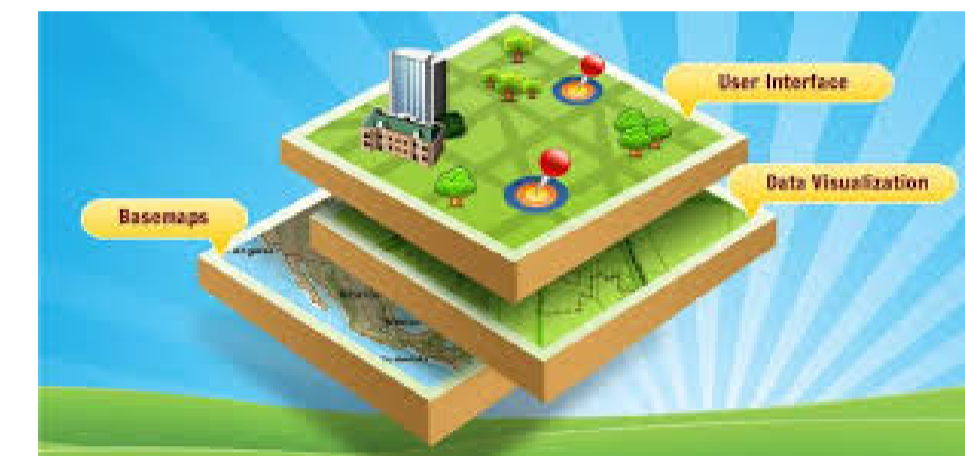
PROJECT OBJECTIVES

Inventory, evaluate management and package hospitality and tourism facilities, services, infrastructure, resources and attractions in Kenya and Nigeria
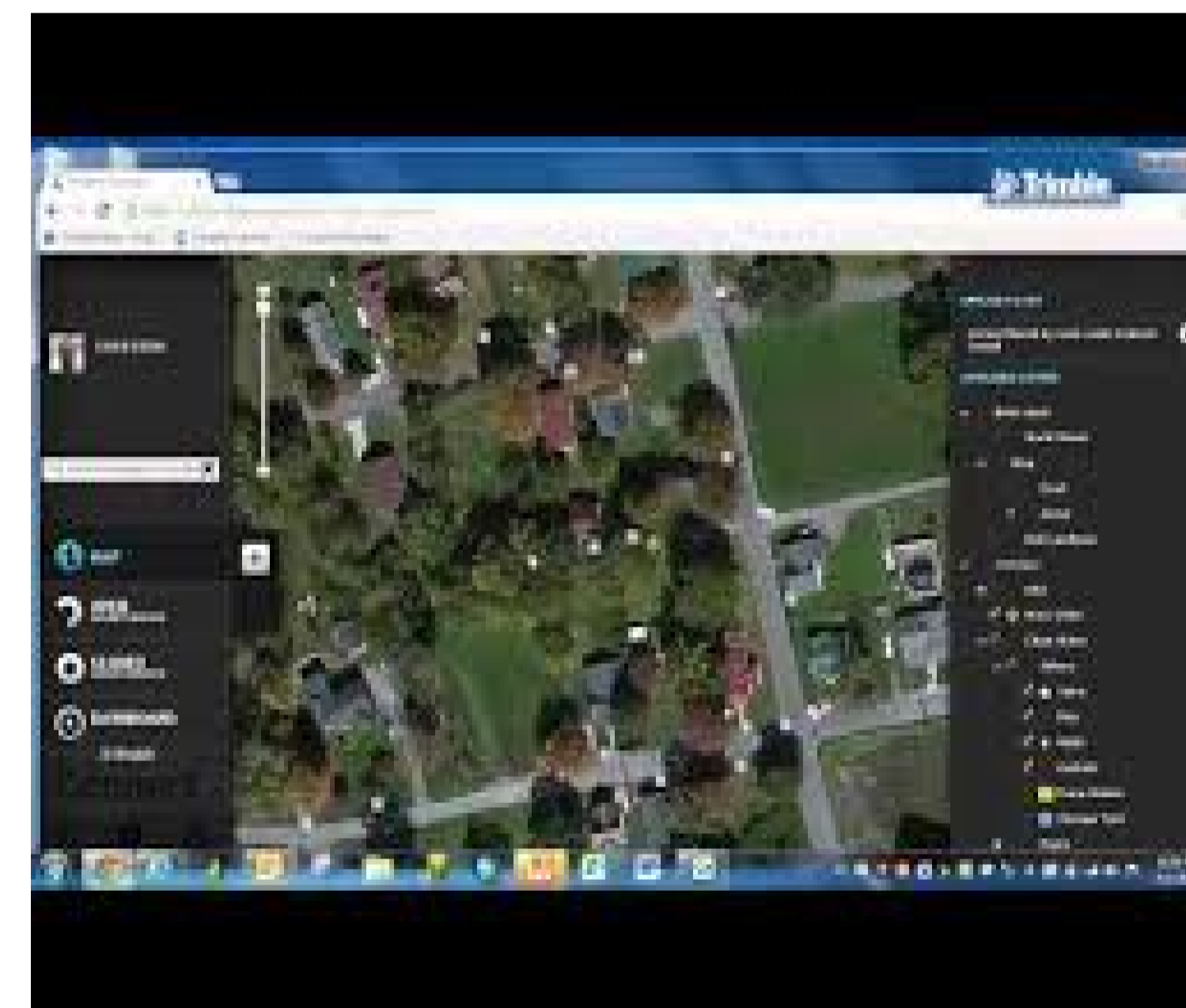
Analyze visitor flows from 1990 to 2034

Measure and monitor the economic, environmental and cultural impacts of tourism in Kenya and Nigeria

Assess the vulnerability of hospitality and tourism industry to climate change

Identify compliment and conflict on resource use in hospitality and tourism and map out possible solutions

Insecurity assessment

Benchmark hospitality and tourism development, management and marketing

PROJECT PROCESS

This project will run from September 2014 to September 2034. It constitutes five phases as detailed below.

Phase I: Use of secondary data to map hospitality and tourism
Phase II: Proposal writing
Phase III: Data collection and analysis
Phase IV: Use of primary data to map hospitality and tourism
Phase V: Monitoring, review and closing of the project
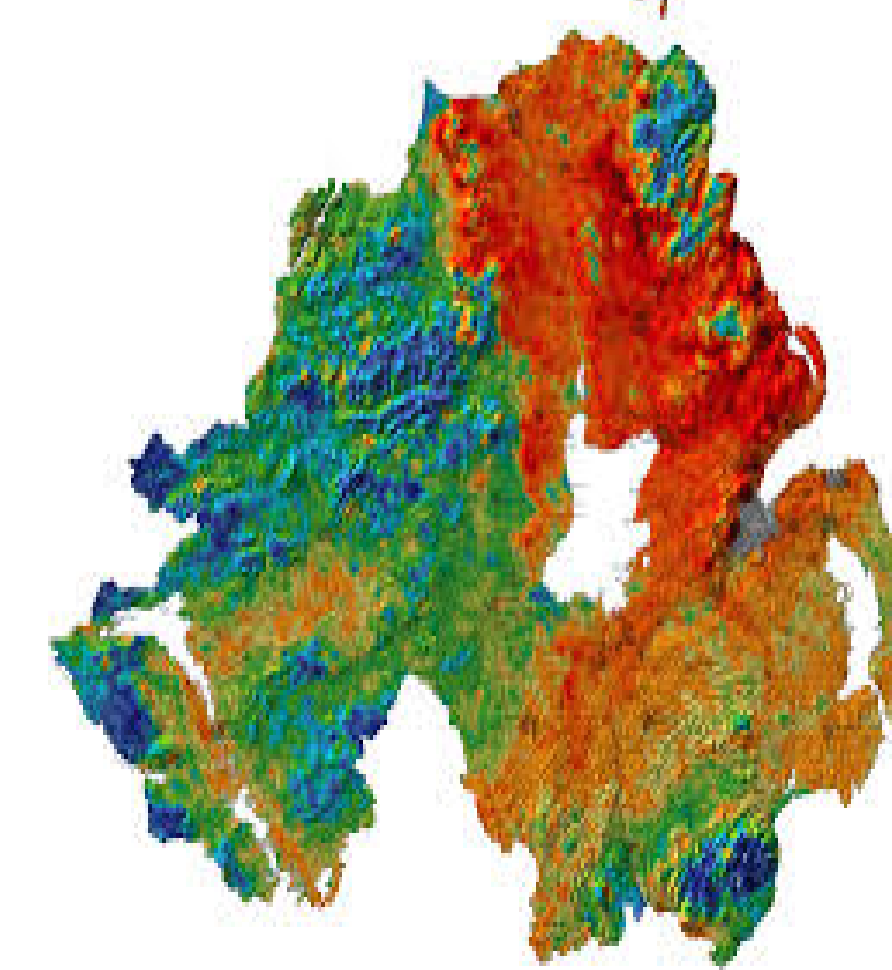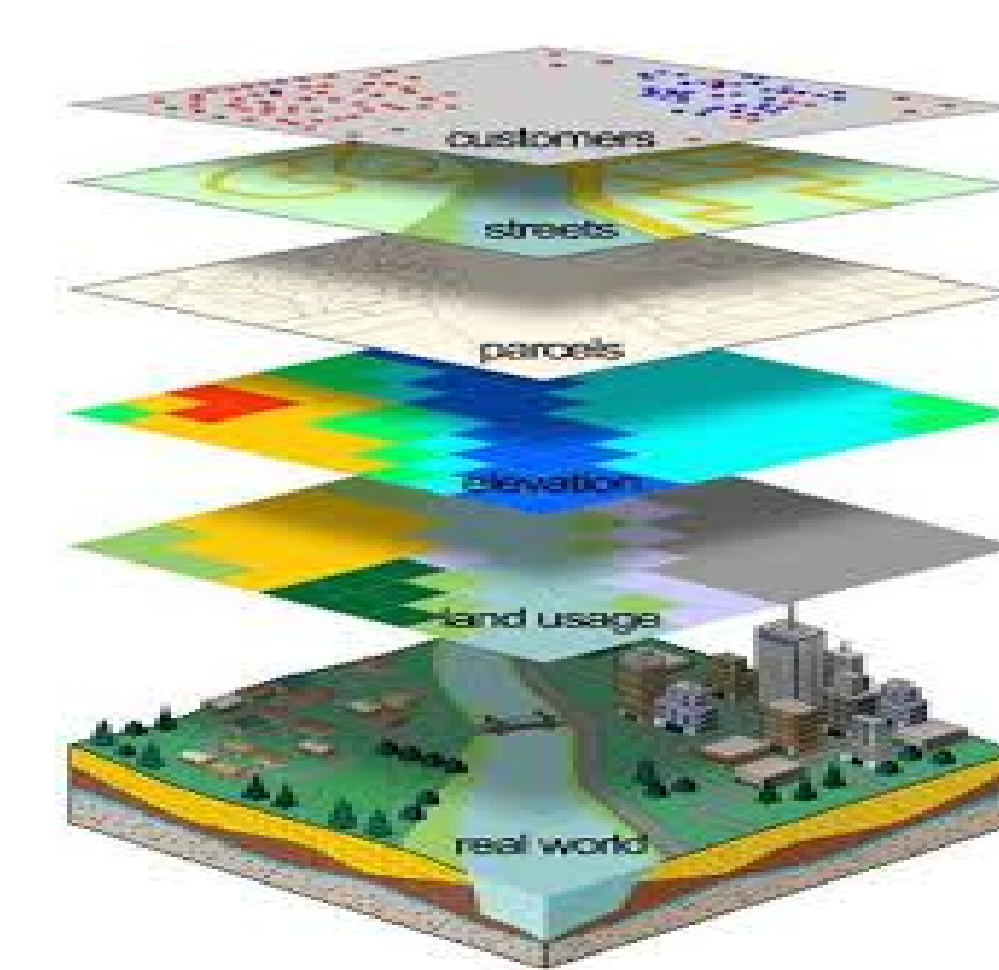
EXAMPLES OF SPECIFIC PROJECTS TO BE EXECUTED

1. Using GIS to monitor poaching and hunting of rhino, elephants and other flora and fauna in Kenya and Nigeria
2. Justification for the expansion of wildlife migratory routes using GIS
3. Creation of new cultural and heritage sites in Kenya and Nigeria using GIS
4. Assessment of vulnerability of the tourism sector to climate change using GIS
5. 3D models and virtual tours of major tourism sites in Kenya and Nigeria using GIS
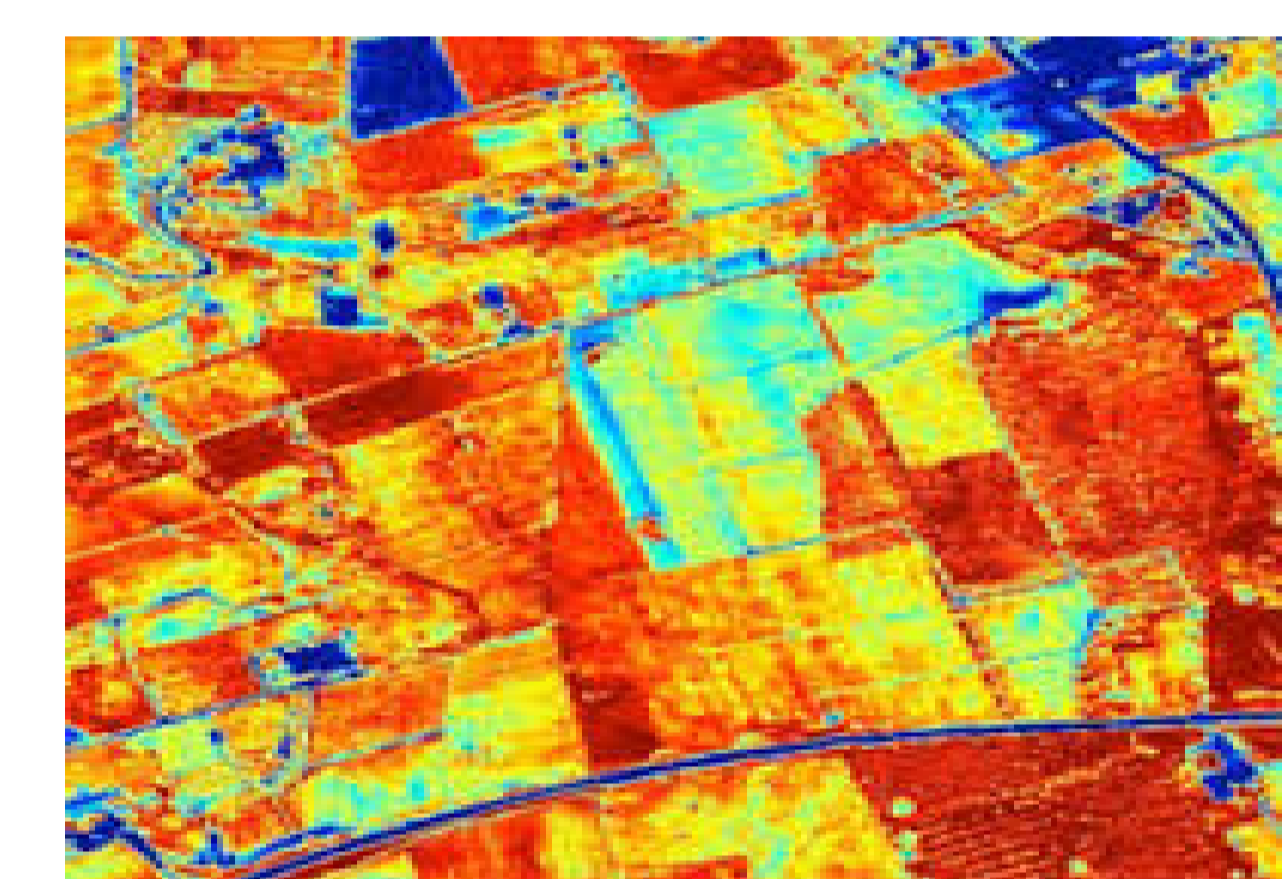
PROJECT OUTPUT

For development authorities:
• Knowing where Kenya's and Nigeria's customers are coming from
• Planning
• Domestic, regional and international marketing
• Infrastructure development and management
• Locating utilities
• Zoning
• Planning for new site selections

For tourists:
• Visualization of tourist sites embedded in GIS in videos, photos and product brochures such as route planning, accommodation, cultural events, special attractions etc.
• Provision of easily accessible information over the internet (Web Based GIS) as well as interactive maps that respond to user queries

For researchers:
This project will culminate in: 3 post-docs; 5 Phds; 10 Masters; 20 undergraduate projects for students from Kenya, Nigeria and other countries.