

SAMUEL BAHAGO GABRIEL

GIS ANALYST | REMOTE SENSING | HYDROLOGY AND ENVIRONMENTAL PLANNING

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PROFESSIONAL PROFILE

GIS Analyst and geoscience professional with seven years of experience applying geospatial analysis, remote sensing, terrain modelling and hydrologic methods to climate resilience, water resources, dam, flood risk, mining-impact and catchment-management assignments. Experienced in delivering spatial inputs for ACREsAL and government-led projects across Nigeria, from field data integration and analysis to decision-ready maps and technical-report figures. Strong command of ArcGIS Pro, QGIS, Google Earth Engine, satellite imagery, DEM analysis, watershed delineation, land-cover change and multi-criteria modelling.

CORE EXPERTISE

GIS and Cartography	ArcGIS Pro, QGIS, spatial analysis, geodatabase management, georeferencing, map production, field-data integration and spatial QA/QC
Remote Sensing	Google Earth Engine, Sentinel-2, Landsat 7/8, ASTER, SRTM/DEM, supervised and unsupervised classification, change detection, NDVI, NDBI and NDWI
Water and Environment	Watershed delineation, drainage analysis, flood hazard and risk, groundwater potential, erosion susceptibility, RUSLE, climate and rainfall analysis
Modelling and Data	Weighted overlay and multi-criteria analysis, HEC-RAS, HEC-HMS, Microsoft Excel; developing Python for ArcGIS and JavaScript for Earth Engine

PROFESSIONAL EXPERIENCE

GIS Analyst | MECON Geology and Engineering Services

2024 - Present

Jos, Plateau State

- Deliver GIS and remote-sensing analysis for water resources, climate resilience, infrastructure and environmental-management assignments.
- Integrate satellite imagery, DEMs, climate records, field observations and stakeholder data into standardized geospatial databases and thematic outputs.
- Perform watershed and drainage analysis, LULC and vegetation-change assessment, flood and erosion modelling, groundwater-potential mapping and terrain analysis.
- Prepare report-ready maps, figures and spatial datasets; support field validation, technical reporting and multidisciplinary engineering teams.

Groundwater Site Geologist | JustFixIt Synergy Ltd

2023 - 2024

Abuja, Nigeria

- Supported groundwater investigations through geological field observation, site documentation and interpretation of available geospatial and geophysical information.
- Prepared site maps and field records to support borehole-siting decisions, project documentation and technical reporting.

GIS Analyst | Geodiscovery Nigeria Ltd

2019 - 2023

Remote | Minna, Niger State

- Produced GIS and remote-sensing outputs for geological, environmental and natural-resource assignments.
- Compiled, digitized, georeferenced and analyzed spatial datasets; interpreted satellite imagery and prepared clear cartographic products for remote project teams.

SELECTED PROJECT EXPERIENCE

Strategic Catchment Management Plans for 20 Catchments

2024 - Present

Federal Project Management Unit, ACREsAL

- Delineated 20 strategic catchments covering the 19 Northern States and FCT; standardized topography, drainage, land-cover, erosion, flood-risk and ecological outputs and converted stakeholder inputs into spatial evidence for planning.

Baseline Survey and Mapping of Project Sites in Kwara State

2025

Kwara State ACREsAL

- Conducted baseline mapping with satellite imagery, DEMs and field data; completed 1995-2025 LULC change analysis, multi-year NDVI assessment and integration of rainfall and temperature datasets for the final technical report.

Survey and Design of Three Earth Dams and Irrigation Schemes

2024 - 2025

Adamawa State ACREsAL | Timdore, Guyaku and Wuro-Gayandi

- Mapped dam sites, catchments, drainage, reservoir footprints, spillway alignments and irrigation command areas; integrated field-survey data and derived terrain parameters for rainfall, runoff and flood-estimation studies.

Flood Hazard Vulnerability and Risk Assessment

2024 - 2025

Plateau State ACREsAL

- Combined topography, drainage, rainfall and LULC through multi-criteria analysis; mapped hazard, risk, exposed settlements, roads, farmland and critical infrastructure for mitigation and early-warning planning.

Climate Resilient Water Resources Assessment in Wamakko

2024 - 2025

Nigerian Hydrological Services Agency | Sokoto State

- Mapped surface water, drainage, catchments, recharge and runoff zones; integrated climate and environmental data for water conservation and adaptation planning.

Mining Induced Environmental Degradation Assessment

2024

Plateau State ACREsAL | Jos South and Barkin Ladi LGAs

- Mapped active and abandoned mining areas and used LULC change, NDVI, erosion and drainage analysis to assess degradation and support remediation planning.

EDUCATION

Diploma in Project, Quality, Safety, Environment, Risk and Sustainability Management

2024

QHSES Leadership Academy, Lagos State

Bachelor of Technology in Geology

2023

Federal University of Technology Minna, Niger State

National Diploma in Mineral Resources Engineering

2016

Petroleum Training Institute, Warri, Delta State

PROFESSIONAL DEVELOPMENT

- Esri MOOCs: Going Places with Spatial Analysis (2024); GIS for Climate Action (2023).
- Coursera: GIS Data Acquisition and Map Design; Spatial Analysis and Satellite Imagery in a GIS; Introduction to GIS Mapping; Fundamentals of Graphic Design (2020).
- Central University of Karnataka, India: QGIS Certification Course (2020).

PROFESSIONAL MEMBERSHIPS AND LANGUAGES

Memberships: Nigerian Association of Petroleum Explorationists; Nigerian Society of Physical Sciences

Languages: English, Hausa and Numana

References available on request