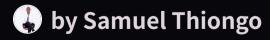
Enhancing Water Access and Quality: A Data-Driven Approach to SDG 6

This presentation outlines a data-driven approach to improving water access and quality, focusing on SDG 6: Clean Water and Sanitation.





Water Water aatl rclling

Hyle matewity, regionsre of liitng water creater, water starging placiances wateraridctation of water access challenges coodery wser tade to man and bule and futlor water that royal lblup.

Playfil, and loud to water ar-wal ciction



Understanding SDG 6: Clean Water and Sanitation

1 Global Goal

SDG 6 aims to ensure access to safe water and sanitation for all by 2030.

2 Health and Productivity

Clean water is crucial for health, economic productivity, and environmental sustainability.

3 Rural Communities

Challenges remain in many areas, especially in rural communities, where water quality and access are insufficient.



The Problem: Inadequate Water Access and Quality in Rural Communities

Health Issues

Many rural communities lack reliable access to clean and safe drinking water, leading to health issues.

Economic Hardship

Inadequate water access can lead to economic hardship and limit opportunities for development.

Project Budgets

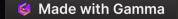
Inadequate water purification and infrastructure budgets exacerbate the problem.



Committee Connunity Lotts Fales Fast Fast Noted Sparien Community Papely Culle Provins West Postaty Fortests Pendic Watersources Cacctining Local Technoy Fot Source Cotal Names Penerits Water Secucity Water Sourcy **ERD** Fankling Foduly Avia Neters Polections Eatgle cout tine Weler Pulity Purt Sourvees Pletet Faigilty Przies Faylom Procticed Hory Inte Con Water Sonting Prejects Nd Profer Welt Fanile POWNET FRA Piat Fat Toilie Purlidgs Peyalty renaldred on locality overy of the lanner. WATER DO

Database Design: Entity-Relationship Diagram (ERD)

Communities	Water Sources	Purification Projects	Water Quality Reports
Community Name	Source Type	Project Name	Water Quality Rating
Population	Location	Budget	Date



SQL Schema and Data Retrieval

SQL Schema

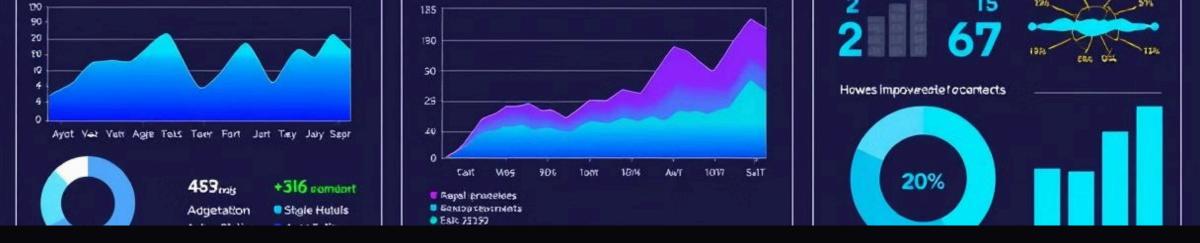
The database schema includes tables like Communities, WaterSources, Projects, and WaterQuality.

Sample Queries

Retrieve average water quality by community: SELECT
CommunityName,
AVG(WaterQualityRating) FROM
WaterQuality GROUP BY
CommunityName.

Data Retrieval

The schema is optimized for efficient data retrieval and analysis.



Key Insights from Data Analysis

Water Quality Trends

Certain communities consistently report lower water quality, indicating a need for targeted intervention.

Access Improvement

Data shows that communities with diversified water sources have better access and quality.

Budget Allocation

Disparities in purification project budgets suggest inefficiencies in resource distribution.



















Interactive Dashboard Overview

Interactive Elements

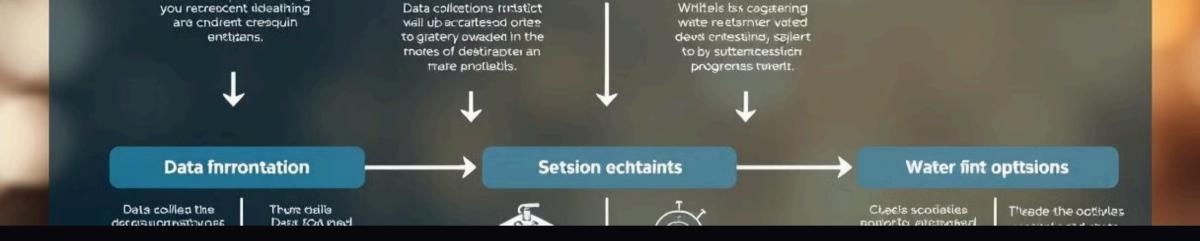
The Excel dashboard includes interactive elements like slicers to filter data by community or project.

Key Findings

Key findings are visualized, such as the distribution of water quality ratings and budget allocations.

Dynamic Exploration

The dashboard allows stakeholders to dynamically explore data and generate reports.



Impact on SDG 6: Clean Water and Sanitation



Data-Driven Decisions

The project equips decision-makers with critical insights to allocate resources effectively and improve water quality.



Community Focus

Targeted interventions in lowperforming communities can significantly enhance water access and health outcomes.



Scalability

The framework can be adapted and scaled to other regions facing similar water challenges.

