Modernization of NSOs through Digitalization

OIC StatCom Meeting – Ankara, 2025

Modernization of the Gambia Bureau of Statistics (GBoS) through Digitalization

OIC StatCom Meeting, Ankara

1-3 September 2025

LAMIN L DIBBA

GAMBIA BUREAU OF STATISTICS

THE GAMBIA

WHY DIGITAL MODERNIZATION MATTERS FOR THE GAMBIA

Growing demand for **timely, disaggregated data** (SDGs, Agenda 2063, Vision 2025).

Rapid **digital and demographic transformations.**

Need to **reduce reliance on costly traditional surveys.**

Need for **high frequency** and more **granular** data-Emergency response

GAMBIA'S MODERNIZATION JOURNEY

Electronic Data Collection – Adopted since 2014; all surveys and editing tablet-based.

Digital Census 2024 – Successfully conducted with UNECA and ANSD (Senegal) support.

Social Registry Development – Fully digitized, achieving universal coverage.

Big Data Innovation (CDR Project) – Launched with WB (funding) and University of Tokyo (technical support), in collaboration with **PURA**; MoU signed to enable secure access to telecom data.

Upgraded IT Infrastructure – Comprehensive improvements for storage, processing, and dissemination.

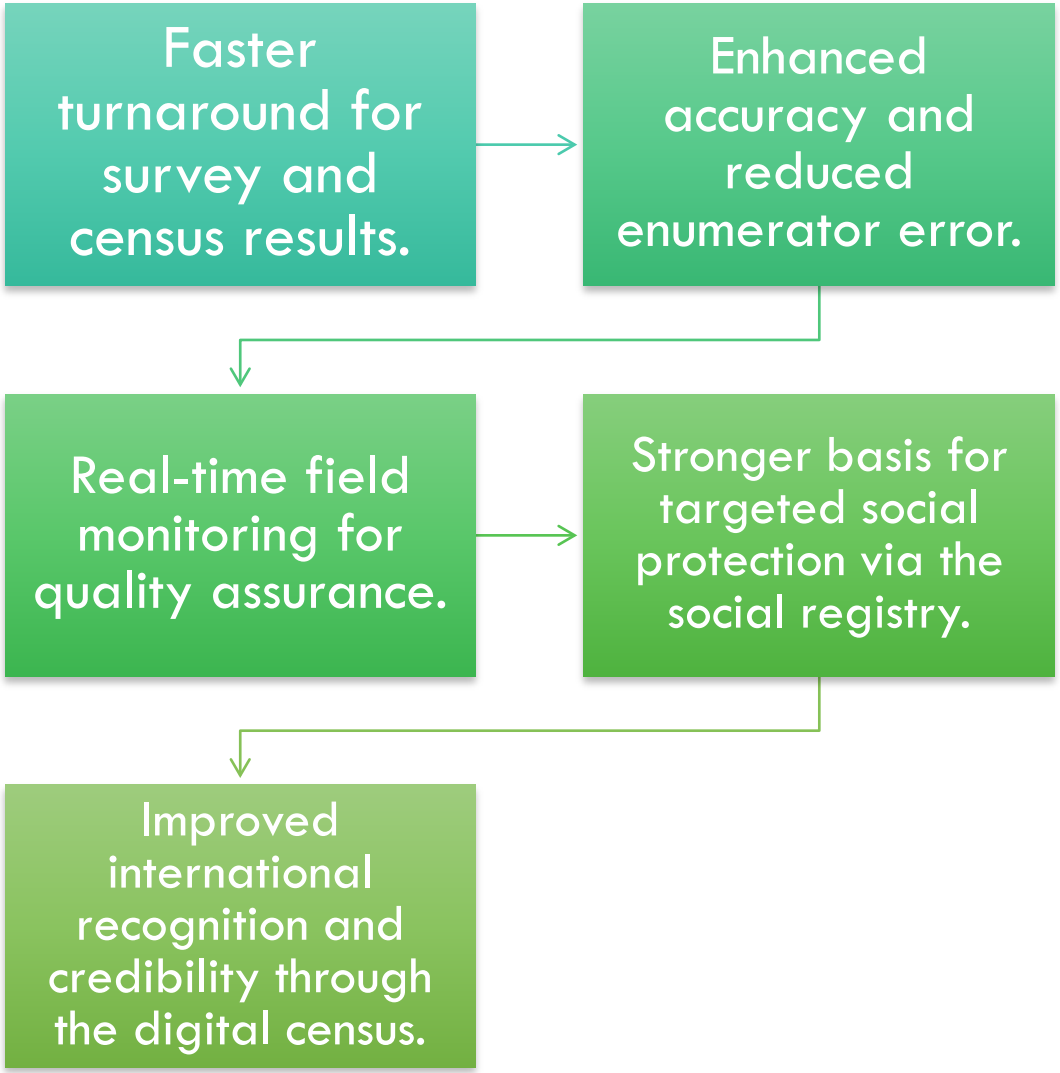
SAMPLE USE OF CDR DATA

Support the **MoH** during **COVID-19** by tracking people's movements and guiding surveillance site placement.

Applied to study **internal migration dynamics.**

Currently informing **urban transport planning** initiatives.

BENEFITS ACHIEVED



LESSONS FROM GAMBIA'S EXPERIENCE

Start small, scale gradually – pilot projects (e.g., CDR) help build evidence before national rollout.

Partnerships matter – modernization requires multi-actor engagement (government, academia, regulators, and development partners).

Digitalization is not just technology – requires institutional reforms, legal frameworks, and capacity building.

Sustainability challenge – reliance on external support highlights need for stronger national financing strategies.

- FUTURE PLANS IN DIGITALIZATION

INSTITUTIONALIZE DATA SCIENCE AND BIG DATA

Dedicated DS/BD Unit (BDDSU) – Establish a permanent structure within GBoS to lead innovation.

National Data Science Lab – Central hub for AI, ML, geospatial, and big data analytics.

CORE STATISTICS MODERNIZATION

GDP & CPI

- Use shipment, trade, transactions, and web scraping for real-time estimates.

Labour & Social Indicators

- Leverage job portals, mobile data, and social registries.

Environment & Demographics

- Apply geospatial, satellite, and drone data.

Poverty Mapping

- Combine household surveys with big data for granular insights.

NEW DATA ECOSYSTEMS

Geospatial & Remote Sensing	Satellite imagery, drones, GIS for urbanization, agriculture, and climate monitoring.
Shipment & Customs Data	Real-time records for trade and GDP analysis.
Financial & Transactions Data	Partnerships with banks/fintechs for consumption and financial inclusion.
Social Media & Web Data	Sentiment, price, job, and migration trends from online platforms.
Administrative Data	Integration of CRVS, education, and health systems for SDG tracking.

LOCAL CAPACITY GAPS – SHORTAGE OF SKILLED DATA SCIENTISTS, GIS SPECIALISTS, AND BIG DATA ANALYSTS.

IT INFRASTRUCTURE CONSTRAINTS – LIMITED SERVER STORAGE AND NEED FOR MORE ROBUST, SCALABLE SYSTEMS.

SCALING UP – PILOT PROJECTS (LIKE CDR) PROMISING BUT REQUIRE SIGNIFICANT INVESTMENT.

DATA GOVERNANCE AND SECURITY – FRAMEWORKS ARE EVOLVING; NEED STRONGER SYSTEMS TO PROTECT PRIVACY AND ENSURE COMPLIANCE.

FINANCIAL SUSTAINABILITY – MANY INITIATIVES RELY HEAVILY ON DONOR SUPPORT; LONG-TERM FINANCING REMAINS UNCERTAIN.

MANAGEMENT SUPPORT – THERE IS STILL A DIFFICULTY TO DIRECT THE MANAGEMENT'S MINDSET ON THE JOURNEY

CHALLENGES IN GAMBIA'S DIGITALIZATION JOURNEY

THE NEED FOR SUPPORT

Capacity Development – training and retaining a new generation of data scientists and statisticians.

Infrastructure Investment – expanding secure storage, servers, and cloud-based systems.

Technical Assistance – continued partnerships with global and regional institutions to strengthen innovation projects.

Sustainable Financing – mechanisms to reduce reliance on short-term donor projects.

WHY PARTNERSHIP IS KEY FOR GBOS MODERNIZATION

1. Capacity Building	Access to specialized expertise (data science, AI, cybersecurity, geospatial).	Training opportunities through universities, international organizations, and tech firms.	Knowledge transfer from technical assistance (TAs) and joint projects.
2. Financial Support	Digital transformation requires sustained investment in IT infrastructure, software, and human capital.	Partnerships with development partners, donors, and private sector reduce financial burden.	Co-financing and joint innovation programs ensure sustainability beyond government budget cycles.
3. Credibility & Trust	Collaboration with reputable partners strengthens the credibility of GBoS statistics.	External validation and peer review enhance confidence in outputs.	Partnerships create transparency, build public trust, and foster acceptance of new digital approaches.

CONCLUSION

1

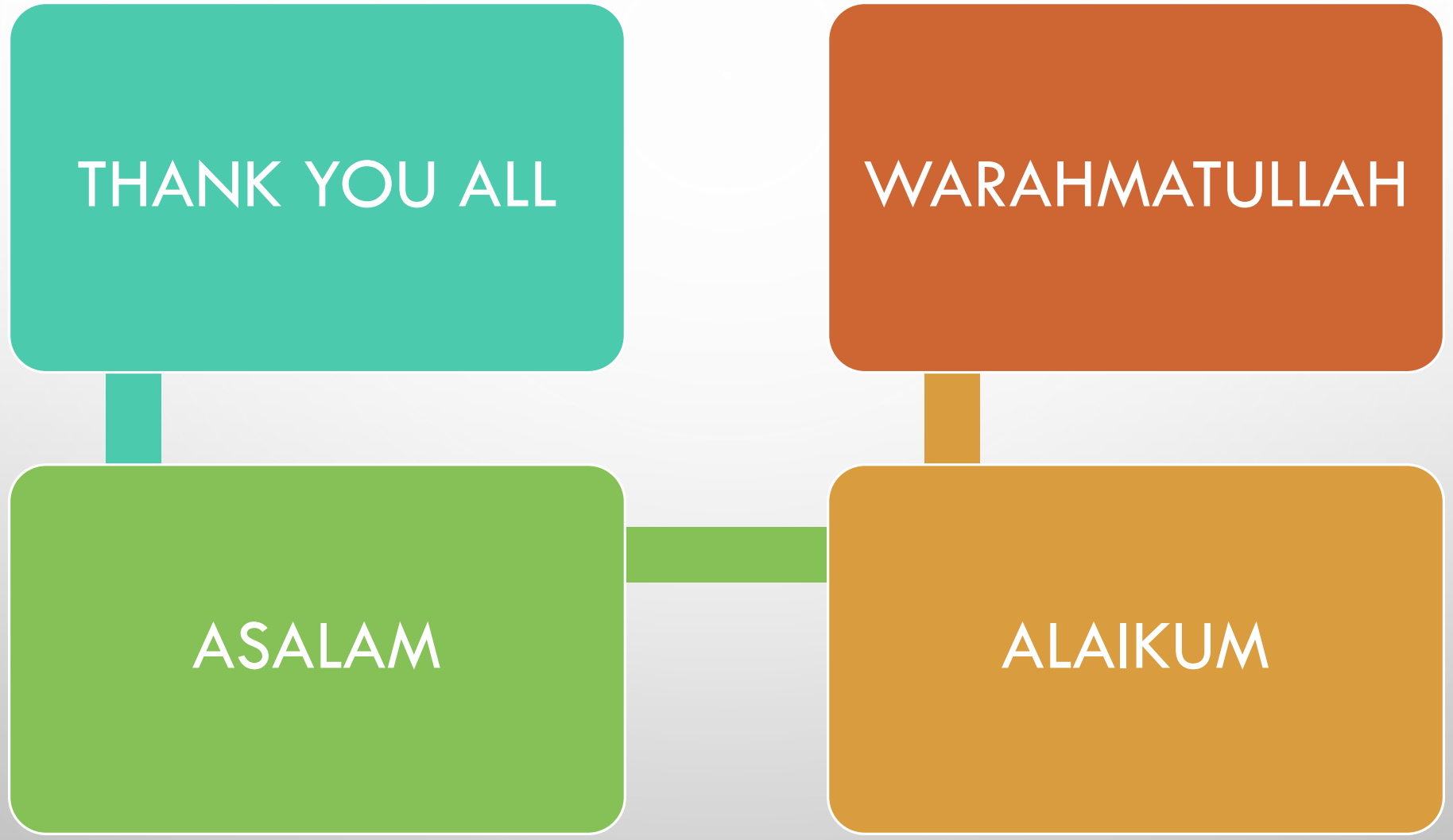
Gambia's experience shows that **early adoption of digital methods** can transform statistical systems.

2

While significant progress has been achieved, **gaps in capacity, infrastructure, and financing remain.**

3

Partnerships and sustained support will be critical to fully realize the potential of digitalization in GBoS.


THANK YOU ALL
WARAHMATULLAH
ASALAM
ALAIKUM