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Group Six (6) Assignment

Data Quality Assurance Framework

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# **Data Quality Assurance Framework for Ahanta West Municipal Assembly**

## **1. Introduction**

A Data Quality Assurance Framework is a structured plan or system that an organization uses to make sure its data is accurate, complete, timely, consistent, valid, and secure at every stage from collection to storage, analysis, and reporting.

However, reliable and high quality data is critical for effective decision making within local government institutions. The Ahanta West Municipal Assembly (AWMA), as mandated by the Local Governance Act, 2016 (Act 936), is responsible for ensuring the planning, budgeting, implementation, and monitoring of local development initiatives. However, data quality is often assumed rather than systematically assured, resulting in errors, inefficiencies, and reduced public trust. This paper proposes a Data Quality Assurance (DQA) Framework tailored to AWMA's operational context, integrating internationally recognised data quality dimensions with local legislative and institutional structures. The framework outlines governance structures, implementation steps, monitoring and evaluation strategies, and continuous improvement mechanisms to institutionalize data quality management.

## **2. Legislative and Institutional Context**

The AWMA operates within a well-defined statutory framework. Key provisions relevant to data quality include:

- Act 936, Section 12: Mandates assemblies to formulate and execute plans, programmes, and strategies for the mobilisation and utilization of resources.
- Sections 82 – 88: Establish district planning authorities and require public hearings on development plans.
- Section 47: Ensures public access to information, emphasising transparency in data handling.
- Part Six (Sections 175 – 180): Establishes internal and external audit mechanisms.

The Local Government Service Scheme of Service (2014) further specifies departmental

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roles, staff responsibilities, and performance expectations, providing a structural basis for integrating data quality controls.

### 3. Data Quality Dimensions

Data quality dimensions are measurable aspects or characteristics used to define, assess, and improve the quality of data. They break down the broad concept of "data quality" into specific, actionable components. Think of them as different lenses through which you evaluate how well your data serves its intended purpose. Below are some data quality dimensions and its significance for AWMA.

Dimension	Definition	Significance for AWMA
Accuracy	It is the degree to which data correctly reflects actual conditions.	Prevents misallocation of resources and also ensures decision is based on correct information.
Completeness	All required data fields are filled with no missing values.	Avoids gaps in revenue and development data and also impact planning.
Timeliness	Data is available when needed. That is data is up to date.	Enables prompt decision-making.
Consistency	Data is uniformity across systems.	Ensures Planning, Finance, and MIS agree on figures.
Validity	Data conforms to formats and standards.	Ensures compliance with standards (Ghana national data formats)
Integrity	Protection from unauthorized changes.	Maintains audit readiness and public trust.

## **4. Framework Structure**

This framework establishes a systematic approach to ensure high-quality data management across the Ahanta West Municipal Assembly. It addresses current challenges of inconsistent data, incomplete records, and untimely reporting that hinder effective decision-making. The framework aligns with Ghana's Local Governance Act and supports the Assembly's digital transformation agenda. This framework component consists of Governance structure.

### **4.1 Governance**

- Establish a Data Quality Steering Committee (DQSC) chaired by the District Coordinating Director.
- Members: Heads of Statistics, MIS, Finance, Planning, Budget, Revenue, and Physical Planning.
- Approve a Data Quality Policy specifying ownership, accountability, and validation procedures.

### **4.2 Implementation Steps**

1. Baseline Assessment – Conduct a data quality audit across all departments.
2. Standards and Procedures – Develop uniform templates, data dictionaries, and validation rules.
3. Data Collection and Entry – Implement double-entry verification and mobile data tools.
4. Monitoring – Track Key Data Quality Indicators (KDQIs) such as error rates and report delays.
5. Evaluation – Quarterly review meetings to compare reported vs. verified data.
6. Continuous Improvement – Annual training, procedural updates, and technology adoption.

## **5. Monitoring, Evaluation, and Continuous Improvement.**

Ensuring sustainable data quality requires ongoing tracking, assessment, and enhancement of data management processes. For the Ahanta West Municipal Assembly (AWMA), this process involves three interconnected components, Monitoring, Evaluation, and Continuous Improvement each reinforcing the other in a cyclical manner.

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**5.1. Monitoring Definition:** Monitoring refers to the continuous observation and measurement of data-related processes and outputs to ensure compliance with established quality standards.

**Strategies for AWMA:**

Real time Dashboards: Implement web based dashboards linked to the Assembly's Management Information Systems (MIS) for live tracking of Key Data Quality Indicators (KDQIs), such as error rates in revenue records, percentage of missing data in departmental submissions, and timeliness of monthly reports from units such as Finance, Planning, and Revenue.

- Monthly Internal Audits: Conduct departmental audits every month to detect errors early. The internal audit unit should verify data entries against source documents to ensure accuracy and consistency.
- Exception Reporting: Configure systems to automatically flag unusual patterns for immediate review.

**5.2. Evaluation Definition:** Evaluation involves the periodic, structured assessment of data quality performance to identify strengths, weaknesses, and areas for improvement.

**Strategies for AWMA:**

- Quarterly Committee Reviews: The Data Quality Steering Committee (DQSC) will convene every quarter to review KDQI performance trends, analyse audit findings, and recommend corrective actions.
  - Field Verification: Randomly select datasets for on-site verification to ensure reported data reflects ground realities and complies with the Local Governance Act, 2016 (Act 936).
  - Comparative Analysis: Compare current data quality performance with previous quarters to assess the impact of corrective measures and identify persistent problem areas.
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**5.3. Continuous Improvement Definition:** Continuous improvement is the process of systematically refining data quality processes, tools, and staff skills based on monitoring and evaluation feedback.

**Strategies for AWMA:**

- **Staff Capacity Building:** Organize regular workshops for data entry clerks, revenue collectors, and departmental heads on best practices in data collection, MIS tool usage, and data ethics.
- **Adoption of Advanced MIS Tools:** Integrate mobile-based reporting, upgrade MIS for AI-based validation, and implement secure cloud backup systems.
- **Process Refinement:** Update SOPs for data handling, introduce automation where feasible, and strengthen departmental accountability mechanisms.

## **6. Expected Outcomes**

The implementation of the proposed **Data Quality Assurance (DQA) Framework** is anticipated to generate multiple strategic benefits for the **Ahanta West Municipal Assembly (AWMA)**, extending beyond technical improvements to foster institutional efficiency, accountability, and stakeholder confidence.

### **6.1 Enhanced Compliance with National Reporting Requirements**

By aligning data management practices with standards set by the **National Development Planning Commission (NDPC)**, the **Local Government Service Secretariat (LGSS)**, and the **Ministry of Finance**, AWMA will be better positioned to:

- Submit **accurate, timely, and complete reports** for statutory and developmental purposes.
  - Comply with fiscal and development reporting requirements stipulated under the **Local Governance Act, 2016 (Act 936)** and the **Public Financial Management Act, 2016 (Act 921)**.
  - Reduce the risk of audit queries and penalties related to data inconsistencies.
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## 6.2 Improved Internally Generated Fund (IGF) Mobilisation Accuracy

The integration of structured data validation mechanisms and real-time monitoring will:

- Minimise revenue leakages due to recording errors, fraud, or unreported transactions.
- Provide **reliable financial data** to inform revenue mobilisation strategies, such as targeted market toll collection, property rate reforms, and digital payment systems.
- Enable evidence-based budgeting and equitable resource allocation.

## 6.3 Strengthened Credibility of District Development Plans

Accurate and consistent datasets will enhance the:

- Quality of **Medium-Term Development Plans (MTDPs)** and Annual Action Plans.
- Credibility of project proposals submitted for donor funding and government support.
- Confidence of stakeholders; including residents, NGOs, and development partners in AWMA's planning and execution capacity.

## 6.4 Increased Public Trust in Governance

Transparent data management practices, supported by regular public communication of verified statistics, will:

- Improve citizen engagement in planning and decision-making processes.
- Build confidence in AWMA's ability to deliver services efficiently.
- Reduce public suspicion of mismanagement, fostering a **culture of accountability** within the Assembly.

## 7. Conclusion

This framework provides Ahanta West Municipal Assembly with a practical, phased approach to achieving and maintaining high data quality standards. Its implementation will significantly enhance the reliability of information used for planning, service delivery, and performance reporting, ultimately leading to better outcomes for citizens. Institutionalizing data quality within AWMA is not merely a technical exercise but a governance imperative.

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The proposed DQA framework integrates global best practices with local legal mandates, ensuring that decisions are based on reliable, consistent, and timely data.



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