

# Harnessing the Power of Local Data

Facilitating better availability, access and use of data for sustainable development at the subnational level

A SUBNATIONAL DATA ROADMAP FOR KYELA DISTRICT COUNCIL



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This document is part of a package of resources. A budget template and roadmap methodology document are also available to encourage others to replicate and improve on this process. Visit [www.bit.ly/kyeladataroadmap](http://www.bit.ly/kyeladataroadmap).



Is this document useful to you? Please let the authors know by clicking the icon above or by contacting the Tanzania Data Lab, who continue to steward this roadmap, at [info@dlab.or.tz](mailto:info@dlab.or.tz).



This is an English-version document for communication purposes only. The Kyela District Council continues to develop the roadmap in Swahili. For details, contact the authors using the information above.



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**Cover photo:** Youth representatives in Kyela District Council contribute to a focus group discussion about how young Tanzanians can advance the cause of evidence-based, data-informed decisionmaking in their community.

**Credit:** Tanzania Bora Initiative

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# Abbreviations

ARDS	Agriculture Routine Data System
BEMIS	Basic Education Management Information System
BEST	Basic Education Statistics in Tanzania
CBO	Community Based Organization
CRVS	Civil Registration and Vital Statistics System
CSO	Civil Society Organization
DHIS2	District Health Information System 2
DLI	Data for Local Impact Innovation Challenge
EGA	e-Government Agency
GPSDD	Global Partnership for Sustainable Development Data
HMIS	Health Management Information System
iMES	Integrated Monitoring and Evaluation System
LC	Listening Campaign
LGA	Local Government Authority
LGMD	Local Government Management Information System
LGRCIS	Local Government Revenue Collection Information System
LGTI	Local Government Training Institute
LSF	Legal Services Facility
MCC	Millennium Challenge Corporation
MDAs	Ministries, Departments and Agencies
MIS	Management Information System
O&OD	Opportunities and Obstacles to Development
PEPFAR	President's Emergency Plan for AIDS Relief
PLANREP	Planning and Reporting System
PO-PSGG	President's Office—Public Service Management and Good Governance
PO-RALG	President's Office—Regional Administration and Local Government
PS3	Public Sector Systems Strengthening Project (USAID)
TASTA	Tanzania Statistical Association
WDC	Ward Development Committee
WEO	Ward Executive Officer

# Key terms

Community	a group of people living in the same place or having certain attributes in common that can be used to identify them.
Data	a collection of facts or information about people, things and/or issues usually following certain patterns that makes them possible to process for insights
Database	an organized collection of data, generally stored and accessed electronically from a computer system
Data dashboard	an information management tool that visually tracks, analyses and displays key performance indicators and key data points to monitor performance of a business, a department or a specific process
Data management	an administrative process that includes acquiring, validating, storing, protecting, and processing the data to ensure the accessibility, reliability, and timeliness of the data for its users
Data governance	a collection of practices and processes which help to ensure that the management of data assets within an organization is in compliance with the prescribed organizational policies and procedures for Data management. It can be defined simply as 'Doing things right' by complying with the appropriate rules, policies and procedures. It includes aspects such as methods, technologies, and behaviors and roles and responsibilities around the proper management of data, security and privacy, integrity, usability, integration, compliance, availability, and overall management of the internal and external data flows in an organization
Data roadmap	a plan of how to achieve improvement and closing of gaps in data availability, accessibility and use
Data portal	any website serving as a point for accessing data on the internet. It lists datasets including information about how they were created (metadata) and pointers to how those datasets can be accessed
Data value chain	the process or set of logical activities by which an organization adds value to data from the production stage to dissemination/distribution and provision of post distribution support services to users.
Data flow	the movement of data through a system and can combine both movement through electronic and offline processes and mechanisms
Evaluation	an analysis of completed or ongoing activities that determine or support management accountability, effectiveness, and efficiency
Monitoring	supervising activities in progress to ensure they are on-course and on-schedule in meeting the objectives and performance targets.
Hyperlocal level	the lowest level in the communities. In the context of this publication, this refers to wards and villages/mitaa (sub-wards)
Subnational level	this could refer to a second level of administrative division of government (region or province) and the third level third level (districts or municipalities). In the context of this data roadmap subnational level refers to districts or municipalities
Statistics	for the purpose of this document, statistics means numeric values or summaries that interprets aggregates of data too large to be intelligible by ordinary observation.





Citizens of Kyela District Council practice using OpenDataKit, a free mobile app for data collection.

K15 Photos

## Context

Data roadmaps help enable the use of real-time, dynamic, disaggregated data to achieve and monitor the Sustainable Development Goals, bridge data gaps, and improve capacities to generate, share, and use data.<sup>1</sup> Several national data roadmap processes have been initiated, including in Tanzania, with the support of the Global Partnership for Sustainable Development Data (GPSDD) global stakeholders.<sup>2</sup>

While these efforts in Tanzania have centered around a national level roadmap, the gap in availability and use of disaggregated data reflects the need and opportunity to extend such initiatives to the subnational level. For the first time this document, developed to address data challenges at the subnational level in a developing country context, can serve as a blueprint for others to repurpose or improve in other contexts, both national and subnational to enhance data development.

This document was developed in collaboration with Kyela District Council through the Data Zetu project, funded by the Data Collaboratives for Local Impact (DCLI) partnership between the Millennium Challenge Corporation (MCC) and the President's Emergency Plan for AIDS Relief (PEPFAR). Learn more at [www.datazetu.or.tz](http://www.datazetu.or.tz) or [www.dcli.co](http://www.dcli.co).

As part of the Data Zetu project outputs, the Data Road Map draws heavily from the project's own experiences while supporting subnational data use in Kyela District Council and others where the project was implemented, insights from discussions and interviews with local community leaders and officials, other

<sup>1</sup> Learn more about the GPSDD by visiting: <http://www.data4sdgs.org/initiatives/data-roadmaps>

<sup>2</sup> See Argawal, Aditya "Data Roadmaps for Sustainable Development" (December 2017). [http://www.data4sdgs.org/sites/default/files/services\\_files/RoadmapsAssessmentReport\\_Dec2017\\_FINAL.pdf](http://www.data4sdgs.org/sites/default/files/services_files/RoadmapsAssessmentReport_Dec2017_FINAL.pdf)

development actors, and key findings from two parallel research products about the subnational and hyperlocal (i.e. facility level) flows of health data in Kyela District Council.<sup>3</sup>

A summary of this output was presented to stakeholders in Kyela on 3rd November 2018 at a District Action Planning session in Kyela DC organized by Data Zetu partners. The session included, among other activities, an introduction and initial validation discussions about the draft roadmap with local stakeholders. The discussions continued through individual meetings with other stakeholders, a work session with the Planning and Economics Department of the District Council in December, and round table discussions with the Council Management Team and with local leaders and for Kyela between December 2018 and January 2019.<sup>4</sup>

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3 See Van Schalkwyk, Francois "Mapping health data flows and use in rural Tanzania" (January 2019). <https://medium.com/data-zetu/learning-about-hyperlocal-data-f78084136cf>

4 Please visit [here](http://www.bit.ly/XX) to see the presentations of this roadmap that were delivered at the District Action Planning session and to the meetings with the Council Management Team and Councilors between November 2018 and January 2019: [www.bit.ly/XX](http://www.bit.ly/XX)



A woman with short dark hair, wearing a blue shirt and large gold hoop earrings, is smiling and writing on a flipchart with a white marker. The flipchart has some blue and white markings. The background is a bright, slightly out-of-focus indoor setting.

Participants of a data literacy training in Kyela District Council share their projects with each other.

K15 Photos

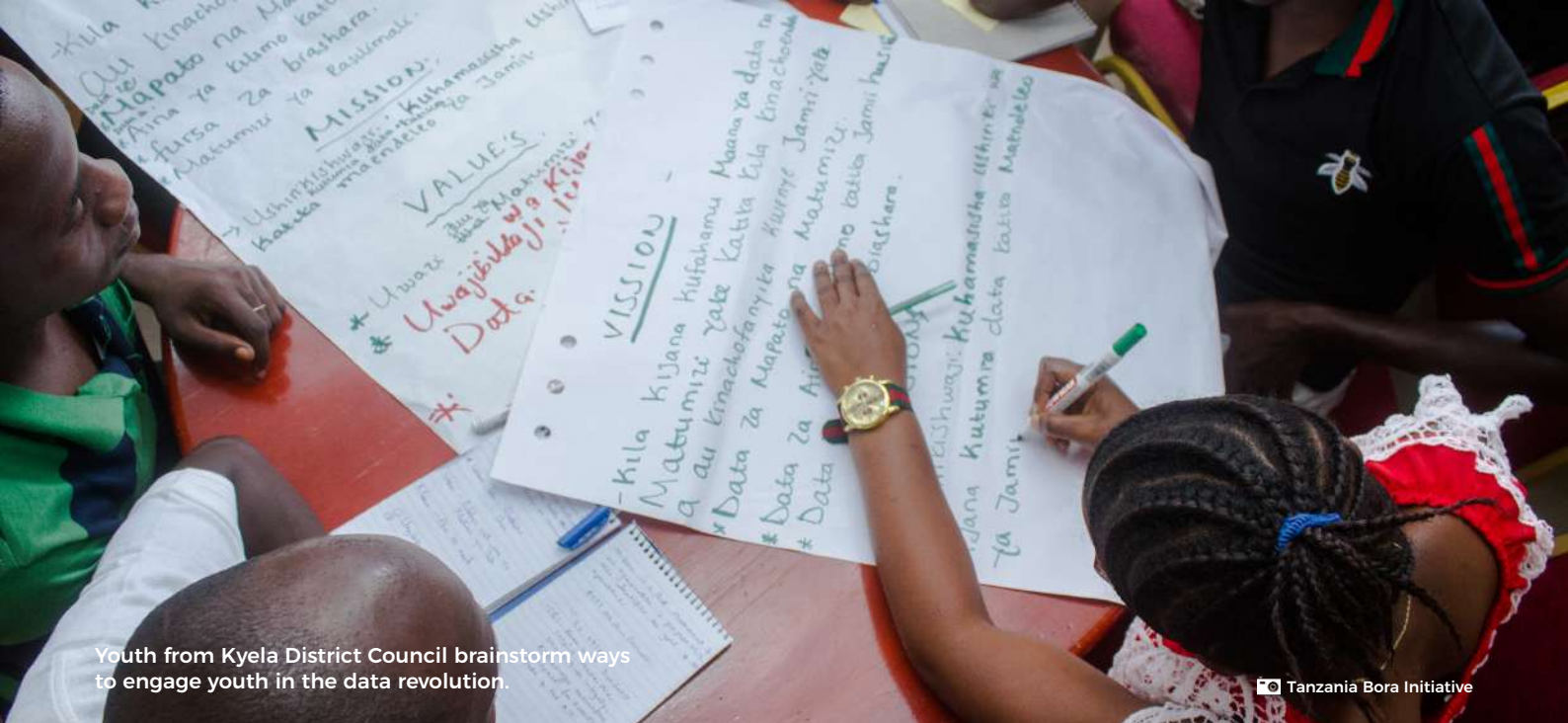
## Key findings and recommendations

- Mechanisms for understanding and incorporating data about citizens' priorities into ward development plans exist on paper, but several factors limit the implementation of these practices.
- Data is mainly collected for reporting purposes and is rarely used to inform policy and decision making at subnational level.
- Some community priorities, as identified through Data Zetu's citizen feedback "Listening Campaigns",<sup>5</sup> are already aligned with objectives in Kyela's most recent strategic plan.
- However, hyperlocal data needed to understand and address those community priorities are rarely available in sufficient disaggregation, quality, or timeliness to inform decision making or action.
- Despite the existence of at least eight sector-specific management information systems (MIS), their use varies and diminishes at more hyperlocal (e.g. village) levels, due to a variety of factors including low connectivity, skill gaps in working with data, gaps in auditing collected data, insufficient tools for collecting data, or low interoperability between these systems.
- While Kyela district regularly reports data to these MISs to meet national deadlines, the forms and templates are defined by national ministries, meaning districts may not have room to adapt them to accommodate local data needs.
- Discussions with ward officials and other stakeholders in Kyela suggest

<sup>5</sup> See Vasdev, Samhir "A problem-driven approach to fostering data use" (May 2017). <https://medium.com/data-zetu/a-problem-driven-approach-to-promoting-data-use-978456f60e63>

that the low level of awareness and understanding of the importance and value of data is a primary factor undermining not only the quality of data that is being collected on communities, but also the extent of data and information that can be made available and shared back with their constituents.

- Despite these challenges, there remains an eagerness and commitment across the subnational ecosystem to better manage and utilize data to inform local decision making. Specific and actionable steps to achieve this include:
  - Developing and maintaining a repository of data collection tools and templates for use by districts and wards in collecting community-level data;
  - Training for district-level staff on good data collection and management practices and tools;
  - Establishing and disseminating data dissemination guidelines;
  - Conduct regular analyses of data requests to identify community priorities and data of high demand, and provide summaries of these to the public;
  - Provide technical capacity or training to staff in local governments and CBOS / CSO actors in community level to build skills on how to “join up/enrich” data from various institutional databases and other sources for analysis;
  - Establish mechanisms for regular thematic dialogue among subnational actors on data challenges, and efforts to enhance data driven development.



Youth from Kyela District Council brainstorm ways to engage youth in the data revolution.

Tanzania Bora Initiative

## Introduction

We resolve, between now and 2030, to end poverty and hunger everywhere; to combat inequalities within and among countries; to build peaceful, just and inclusive societies; to protect human rights and promote gender equality and the empowerment of women and girls; and to ensure the lasting protection of the planet and its natural resources. We resolve also to create conditions for sustainable, inclusive and sustained economic growth, shared prosperity and decent work for all, taking into account different levels of national development and capacities.

— Declaration No. 3 of UN General Assembly Resolution 70/1. Transforming our world: the 2030 Agenda for Sustainable Development

In order to be able to achieve the resolution above, one of the key components that countries must invest on is to make sure that high quality data that will help them to make good quality evidence-based decisions are available in the course of implementation of different strategies for attaining sustainable development.

### Why this data roadmap?

Inclusive development – development that ensures no one is left behind – is at the centre of the 2030 agenda for sustainable development. It underscores the fact that progress starts and ends and is felt the most in communities where people live, households and individuals grapple with challenges to meet their needs on a daily basis, and local governments and authorities must work to deliver public services and other development infrastructure.

Availability, accessibility and use of data/evidence from the ground for solving community problems and creating opportunities for advancement through

innovations that use data to foster change are key to delivering inclusive development. Knowing where the most vulnerable groups are, who they are, what their experiences are and aspirations are, requires availability of more granular data than is often not readily available. High quality disaggregated data on aspects such as location (e.g. urban/rural, and administrative units such as regions, districts, wards, mitaa/villages), age, gender, socioeconomic status (e.g. employment and income/poverty levels), disability, vulnerability and indigenous/migration status is therefore important to have. But beyond availability, and perhaps more important, is how and whether the data is actually used to deliver the needed impact.

This data road map for Kyela District Council is a tool that aims to support efforts to deliver more inclusive development by facilitating better understanding of subnational data ecosystem challenges/gaps and by identifying initiatives to address them, to facilitate more evidence-based decision making for social and economic development. In the frame of this document, a subnational data ecosystem is taken to refer to Local Government Authority (LGA) level and other administrative units that fall within it. Thus, the data roadmap is expected to facilitate achievement of these aims by fostering collaborations among the various actors in the local governments in addressing the gaps contributing to low availability, accessibility and use of data to address community problems.

In the Strategic Plan for 2011/12-2015/16, Kyela District Council set a strategic object to improve data management for planning across its various departments and in all villages in the district council by 2017. As the challenges in availability and accessibility of data, and experiences in usage of data highlighted in this document will show, however, this target is far from being achieved and more efforts are needed to deliver on it. One of the areas where this roadmap is, therefore, expected to be useful is to facilitate coalescing of stakeholders' efforts around the specific challenges in the subnational data ecosystem, and in building of lasting partnerships, to address the challenges across the data value chain. As the custodian institution of subnational level development within its area of jurisdiction, the Kyela District Council is expected to provide the leadership in delivering on the aim of achieving better availability, accessibility as well as improved usage of data to inform decisions.

The data roadmap is informed by insights from the Data Zetu project, funded by the Data Collaboratives for Local Impact partnership between MCC and PEPFAR,<sup>6</sup> and extensive discussions with various stakeholders in Kyela and beyond on subnational data ecosystem issues.

Since it is the first attempt of this kind, it provides a template of what other subnational governments and subnational level actors in Tanzania and beyond

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<sup>6</sup> After January 2019, the Data Zetu project was absorbed by the Tanzania Data Lab (dLab), a premier center of excellence for data and innovation. Learn more at <http://datazetu.dlab.or.tz>

could do to strengthen/transform their data ecosystems (with regard to how data is collected, managed, shared and used to harness its power to foster community progress). This is especially important since many challenges facing people in hyperlocal communities, as insights from Data Zetu intervention shows, are quite similar. It is therefore open to adaptation to fit contexts in other sub national levels and in councils in Tanzania and beyond, and may be enriched as situations in different localities demand.

### **Intended audience for this document**

The primary user of the data roadmap is Kyela District Council. It is also expected to be useful to other actors in the government (other local government authorities and regional administrations, as well as the central government) and to other development actors across various sectors who are working on local development issues (civil society organizations, development partners / aid agencies, private sector). The audience for this document therefore includes, but is not limited to:

- Kyela District Council and its lower administrative units (wards and villages) – through facilitating adoption of actions to improve functioning of the subnational data ecosystem to enable the district deliver better development results to local constituents;
- Other development actors at the subnational level such as Civil Society Organizations (CSOs)/Community Based Organizations (CBOs) and others at the LGAs level – by having clear understanding of where change is needed, prioritizing investments, and drawing partners to address the challenges;
- Central government and other national level actors (President's Office Regional Administration and Local Government, National Bureau of Statistics, private sector, and civil society organizations including Tanzania Data Lab (dLab), Data for Local Impact Innovation Challenge (DLI) and other Data Zetu partners) - by having clear understanding of where change and investments are needed, prioritizing investments, and drawing partners to address the challenges for improving availability and quality, accessibility and use of data; and,
- Regional and global level partners (including the MCC-PEPFAR partnership, members of the Global Partnership for Sustainable Development Data, UN Agencies and others) with interventions or interest in interventions that tackle subnational level development challenges - by having clear understanding of potential areas of collaboration with Local governments and other local actors to facilitate availability, ease access and improve use of high-quality data to improve lives.

Ultimately, the benefits from application of the data roadmap are expected



to be felt by citizens in various ways such as better availability of data, more opportunities for meaningful engagement with the local governments and other development actors, and better development outcomes from local governments increasingly making and implementing evidence-based decisions.

### **Structure of this document**

This document has six chapters. The next chapter describes the methodology followed in its development. Chapter three highlights lessons and insights on pressing community needs or challenges, based on Data Zetu activities and discussions with stakeholders in Kyela and beyond. Chapter four describes the subnational data ecosystem, while chapter five provides a diagnosis of the gaps and opportunities for improvement of the subnational data ecosystem. The discussion in this chapter is centered around challenges along the data value chain (production and management, dissemination, and use and impact). Chapter six, which is the final one pulls this together and describes strategic actions that can be implemented and level of effort (financial and other resources) needed to address the challenges and improve the functioning of the data ecosystem for better availability, accessibility and use of data.



## Methodology for developing this roadmap

This data roadmap is based on insights and experiences of communities obtained during Data Zetu Listening Campaigns and share-back meetings, experiences of Data Zetu program partners while working to address community pain points, discussions with and experiences of local government officials in Data Zetu Districts, as well as information from discussions with other subnational data ecosystem stakeholders. Specifically, the following approaches were used:

1. Review and synthesis of insights from the Data Zetu experiences on data related challenges at the hyper local communities including:
  - a. Insights and data from Listening Campaigns, which highlight priority areas of interest identified by community members;
  - b. Insights from the Data Zetu team’s experiences while seeking and utilizing data on/related to the community pain points in the course of design and implementation of solutions to respond to those challenges;
  - c. Insights from the “Connecting Flows and Places” and the “Health Facility Level Health Data Stocktaking” researches;
2. Validation of insights from (1) above with local government counterparts (regional and district administration, local CSOs), to ensure Data Zetu partners and insights are in congruence with how other stakeholders (such as local government leaders, and non-state actors implementing initiatives in the communities) experience data related challenges. This provided an important mechanism for crosschecking information from discussions with various actors, while also gauging interest and building buy in of local

actors. It involved:

- a. Interviews with representatives from Mbeya Regional Office, Civils Society Organizations and government officials in Kyela District Council July-August 2018;
- b. Discussions with stakeholders (District Council Staff, Ward Councilors and Ward Executive Officers) during district action planning meeting organized by Data Zetu partners (November 2018);
- c. Round table meetings with the District Council Planning Department (December 2018), Council Management Team (CMT) and Ward Councilors (January 2019) to review and enrich the data road map.

Discussions with stakeholders covered challenges and opportunities along the data value chain (production, management and governance, and dissemination and use) and how they limit or facilitate availability, accessibility and use of data. The consultations with stakeholders addressed three dimensions in the data value chain, further explained below, of the institutional data readiness model.<sup>7</sup>

- **People**—the expertise/skills, receptivity, and commitment to using data;
- **Process**—the interactions among people and guidelines necessary to ensure that data are shared widely, and processes are in place to produce information that the institution can use;
- **Data management** (governance)—procedures and infrastructure for storing and retrieving information and how information that is critical to the institution becomes transparent with good management.

Information and insights from (1) and (2) have been further enriched with information gathered from secondary sources from review of reports and programs at the subnational level, and others such as the Tanzania Second Five Year Development Plan<sup>8</sup> and the 2030 Agenda for sustainable development as they are being applied at the subnational level.

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<sup>7</sup> See [https://www.ccsse.org/center/ssbtn/docs/Tools/Institutional\\_Data\\_Readiness\\_Assessment\\_Tool.pdf](https://www.ccsse.org/center/ssbtn/docs/Tools/Institutional_Data_Readiness_Assessment_Tool.pdf)

<sup>8</sup> The National Five-Year Development Plan is the medium-term tool for translation and implementation of the Tanzania Development Vision 2025. Accessible at: [http://www.mof.go.tz/mofdocs/msemaji/Five%202016\\_17\\_2020\\_21.pdf](http://www.mof.go.tz/mofdocs/msemaji/Five%202016_17_2020_21.pdf)



## Insights from the Data Zetu project

### About the Data Zetu project

Data Zetu partners worked with hyperlocal communities (citizens, local governments, citizen representatives and other development actors in wards and mitaa/villages) in Tanzania (in Temeke Municipal Council, Mbeya City Council, and Kyela District Council) since the beginning of 2017 through 2018, on an innovative initiative to enhance use of data to address community problems. In Kyela District Council, the initiative was implemented in four wards (Kyela, Matema, Ngana and Mwaya) out of its 33 Wards.

The project covered 5 thematic areas (**Figure 1**), and involved the following:

- Engagements (Listening Campaigns) to identify and rank community Pain Points, and share and discuss the pain points with local government leaders and potential partner organizations;
- Development and implementation of data driven tools and skills-building efforts to address the community pains/challenges;
- “Shareback” or feedback engagements with community members and leaders in the Data Zetu intervention wards;<sup>9</sup> and
- Higher Level “share back” and action planning with local government leaders, including ward leaders and executives from all wards in the intervention districts.

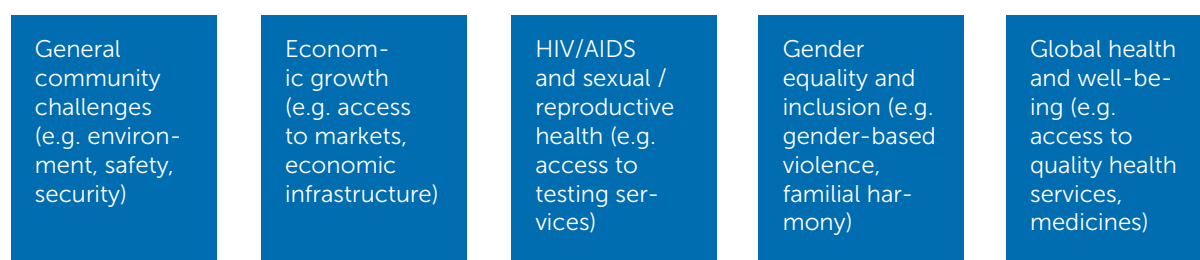
The questions Data Zetu aspired to answer across these thematic areas and work with communities to address included the following:

<sup>9</sup> See Adinani, Hawa “We borrowed data from citizens. Now, we’re giving it back” (September 2018). <https://medium.com/data-zetu/we-borrowed-data-from-citizens-now-were-giving-it-back-c1d256cdbc52>



- What are the challenges being experienced in various hyper local communities?
- What are their root causes, and potential solutions to address them based on community views?
- What data exists (and where can it be obtained) to corroborate views raised by community members, provide in-depth understanding of severity of the challenges, (incidence/depth and spread) and facilitate prioritization, design and implementation of joint actions to address the problems?
- Which organizations are working on the issues and could serve as custodian organizations in efforts to address the challenges in collaboration with community members and leaders?
- What tools (online and offline) can be developed to assist communities in addressing their pressing challenges, and/or what data literacy skills could be built to address them?

**Figure 1: Data Zetu project thematic focus areas**



## Listening Campaigns and Community Insights

Data Zetu partners worked with community members in mitaain urban settings and villages (in rural settings) to identify key challenges (pain points) affecting them through Listening Campaigns (LCs), a type of community focus group discussions.<sup>10</sup>

During the Listening Campaigns, a small sample of participants from the communities provided insights on their problems and ranked them based on their perceived importance to them. The list of pain points, often a long one in each community, was narrowed down to the most pressing 10 in each ward through a ranking process facilitated by the Data Zetu Team. Finally, a list of 10 pains that cut across all the intervention wards were identified.<sup>11</sup>

Following this exercise, Data Zetu partners:

- synthesized the insights from the LCs to make the information more meaningful accessible to spark action;

<sup>10</sup> The Data Zetu approach and the Listening Campaign methodology is described in detail in the community insights package available at: [www.bit.ly/dzinsights](http://www.bit.ly/dzinsights)

<sup>11</sup> This information as published as open data by the Data Zetu team: [www.bit.ly/dzinsights](http://www.bit.ly/dzinsights)



- brokered engagements between citizens and local leaders as well as other potential partner organizations (also referred to as Custodian Organisations) in the three districts by bringing the issues from LCs to their attention for action.
- designed and implemented interventions to support communities to address some of the pain points in collaboration with local government leaders and custodian organizations in the districts, and,
- organized “share back” engagements to share the insights with broader audiences in the districts, and “action planning” engagements discuss future actions to respond to Community Pain points.

**Box 1** provides the top ten crosscutting pain points raised by communities in Kyela District Council during Listening Campaigns. Data Zetu program partners worked with local leaders, custodian organizations and communities to implement actions to address some of the challenges. The “share back” engagements in Kyela, to share experiences and what has been achieved, commenced in September 2018.

**Box 1: Top ten cross cutting pain points raised by community members in Kyela District**

**Economic infrastructure:** Unconstructed roads, bridges, water and Electrical systems.

**Lack of markets:** Lack of market places and indicative prices for the agricultural products.

**Male dominance:** Women restricted or not allowed to own land, business, inherit properties and run for leadership positions.

**Drug abuse:** Excessive Usage of marijuana and a local brew called “sogodo”.

**Shortage of health facilities:** Inadequate number/lack of health facilities including Dispensaries and health centers.

**Low sexual and reproductive health (SRH) knowledge:** Teenage pregnancy and early marriage challenge.

**Poor quality of health services:** Shortage of medicines and lack of medical equipment in health facilities.

**Lack of capital:** Difficult access to capital and unfavorable lending conditions for unemployed and low-income earners who want to start a business.

**Poor quality of health insurance services:** Poor services for the people who are using the CHIF and NHIF insurance cards

**Moral decay:** Young people through internet and mobile phones learning behaviors that are unacceptable to their communities.

## Accessing data for planning interventions to address community pain points

Choices had to be made by Data Zetu program partners about where to focus, and how to prioritize interventions to address the community pains. To be able to do this effectively, Data Zetu team identified additional data and information that would be needed and sought it from the local government authority and

other sources. Often, however, the needed disaggregated data (to the ward and mtaa/village levels) could not be accessed to the level of granularity requested.<sup>12</sup> Either the data could not be obtained at all, or when it was eventually obtained it was too limited/patchy or was only available at a higher level of aggregation. For example, statistics on teen-age pregnancy, incidence of gender-based violence and drug abuse, and access to infrastructure (e.g. electricity, water) could not be obtained in disaggregated form to the ward level and below (Table 1 provides more examples).<sup>13</sup>

**Table 1: : Some of the Pain Points for Which Data Zetu Partners Developed Interventions and Data Availability on Local Communities**

Pain point	Example of relevant data	Availability of relevant data
Awareness and knowledge of sexual and reproductive health and rights (SRHR)	Levels of awareness and knowledge at the ward, mtaa/village level & other SRH statistics	Highly aggregated information (mostly from Demographic and Health Survey & HIV/AIDS and Malaria Indicators Survey & (national)
Teenage pregnancy and girls dropping out of schools	Incidence at the ward and mitaa/village level including trends	Highly aggregated information (up to the district); no comprehensive information at the ward, mtaa/village level
Drug abuse and alcoholism	Incidence at the ward and mitaa/village level	Disaggregated information is currently not available
Gender based violence	Incidence at the ward and mitaa/village level including changes overtime	Highly aggregated information from DHS (up to Regional level). Patchy, and fragmented; limited efforts to join up information from other data sources
Access to health services from government facilities	Geo-location data on health facilities in relation to where communities live; availability of medicines at health facilities	Was not available in wards, mitaa/villages
Access to and quality of water	Water points location and households served; testing data on water and historical information on treatment administered at the water points	Patchy information

This experience highlighted important gaps in availability (the quality of being possible to be obtained), accessibility (the quality of being easy to be obtained), and use of data (application in decision making, and monitoring and tracking of progress) at the hyper local levels to address community problems. Underlying

<sup>12</sup> For example: for youth underemployment, how severe is the problem; for under-age pregnancy and school drop-out rates how deep is the problem in different wards, and mitaa/villages; on drug abuse, what's the prevalence rate; on limited access to electricity, what proportion of households are connected in the various wards etc.

<sup>13</sup> Due to thematic focus of program funders, the Data Zetu Initiative was guided to focus conversations on issues most relevant to PEPFAR (for instance, we pre-identified and facilitated discussions about some areas like gender and sexual/reproductive health). This list of areas with gaps is therefore biased to towards more gender/SRH challenges relevant to PEPFAR).

these gaps however are more complex issues such as gaps in infrastructure for collection and storage of data, lack of documented procedures for storage and retrieval of data at the ward and mitaa / village levels, limited data management skills and lack of tools. Discussions with stakeholders, moreover, confirmed that these experiences were not unique to Kyela. Instead it illustrates a systemic problem affecting all subnational administrations in Tanzania.

As a result, Data Zetu partners had to rely on available regional or national level averages instead, as proxies of the incidence of the pain points (e.g. on drug abuse, on teenage pregnancy and gender-based violence). In some cases, some of the data driven tools and actions for addressing the challenges could not be implemented due to lack of disaggregated data relevant to local communities' priorities. For example, budget tool for tracking flow of resources to local communities and their use could not be implemented due to lack of relevant disaggregated data.

These insights highlighted a need for a deeper understanding of the challenges contributing to the data and information gaps and a further need for a framework or action plan that would facilitate their correction. They also sparked two research efforts described earlier in the methodology section which are published as separate Data Zetu products that complement this roadmap: "Connecting Flows and Places" and "Facility-Level Health Data Flows in Kyela".<sup>14</sup> The latter research effort specifically provides a useful perspective into how health data workers actually use and share health data within and across facilities, based on a survey of 31 health facilities, and its insights have also informed this roadmap.

Within this backdrop an opportunity presented itself to work with stakeholders in Kyela District Council, one of Data Zetu intervention districts on development of a subnational data road map – a tool that would facilitate collaborations in addressing the gaps in the data ecosystem contributing to low availability, accessibility and use of data to address community problems, and to foster development.

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<sup>14</sup> See Van Schalkwyk, Francois "Mapping health data flows and use in rural Tanzania" (January 2019). <https://medium.com/data-zetu/learning-about-hyperlocal-data-f78084136cf>



Health and HIV workers from southwestern Tanzania, where Kyela district is located, at a health data training session.

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## Kyela's subnational data ecosystem

This chapter looks at the structure/organization arrangements at the council level and relations among actors that make up the subnational data ecosystem. It also looks at the decision-making processes and how community issues enter ward and district level planning documents/decisions. These details are important because they help us understand which stakeholders are involved in the ecosystem, what they do, and how they can work together or be coordinated to support data for development efforts.

Tanzania operates a two-tier system of government, with a Central Government and Local Governments/subnational government. Local Government Authorities/subnational governments are either urban Authorities (city, municipal and town councils), or rural authorities (district councils). Kyela District Council falls under the latter category.

The subnational governments serve two kinds of purposes - political and economic. From the political perspective, they are closest to the people which suitably places them to provide an interface/interfaces for ordinary citizens to have a say in how their communities are governed. They, therefore, provide opportunities for democratic participation of citizens in matters that affect them directly. From the economic side, they provide basic services that affect people in their areas of jurisdiction. Being close to the people, they are expected to know better the needs of the local areas and not only what the people can contribute but also how to engage them in economic activities (URT, 2018).<sup>15</sup>

The various laws that established the Local Government Authorities, and relations with other actors in the government have set a standardized structure for their

<sup>15</sup> The structure and responsibilities of subnational governments are prescribed by the Local Government Authorities Acts of 1982 (amended in 1999), and the Regional Administration Act (No. 19) of 1997

running (e.g. departments and sector areas and staffing arrangements are the same, depending on their cluster (rural or urban)). Thus, the reader will quickly notice that the description of the subnational data ecosystem in this chapter sounds somewhat generic in form. This is because it applies to Kyela in the same way as it would apply to other Councils in Tanzania. There are however a few exceptions that applies specifically to Kyela, from experiential information coming out of consultations with various stakeholders in and Data Zetu initiative activities in the District.

### **Development actors in the subnational data ecosystem**

Apart from the local communities (in mitaa/villages, wards, constituencies and districts), the Data Ecosystem at the subnational level includes many other actors such as central government ministries and executive departments (including regulators) in various sectors, research and academic institutions, civil society organizations, private sector entities, and international organizations and aid/donor agencies that are supporting various programs being implemented at the local level (see **Figure 2**). Though the roles played by the actors are distinct in most cases, they are nonetheless complementary. Moreover, except for community members who are most of the time the source or subjects of data collection and users, institutional actors can be considered to be both consumers and producers of data.

### **How community issues inform ward development priorities**

Discussions with stakeholders in the districts and review of guidelines for planning at the local level indicates that there is a mechanism for citizens' issues to be channeled and incorporated in the ward development plans. The Opportunities and Obstacles to Development (O&OD) participatory process, as it is called is intended to be the key tool for channeling community priorities into ward and district development priorities.<sup>16</sup> The process involves three types of engagements in a typical budget year: community planning, monitoring of implementation of priority activities and interventions agreed by communities, and review and evaluation of yearly outcomes.

The O&OD planning process starts at the community (mtaa/village) level where community members meet, discuss and reviews their challenges and opportunities for addressing them as well as obstacles or limitations that could constrain their ability to reach their aspirations for transformation. The meetings are facilitated by experts who have been trained specifically to help communities understand the O&OD tool and implement it effectively. In community meetings, community members are expected to discuss and reach an agreement about priority interventions and associated activities for their localities for rolling 3 years

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<sup>16</sup> See <http://www.tamisemi.go.tz/storage/app/media/uploaded-files/kiongozi-cha-mapitio-na-uwezeshaji-o-od-swahili.pdf>



**Figure 2: Stakeholders in the subnational data ecosystem**



and agree on annual targets to be tracked in the course of each budget year. The mtaa/village plans are then sent for endorsement to the ward level where they are discussed and endorsed by the Ward Development Committees (WDC). Upon endorsement, these are sent by the Ward Executive Officers (WEO) to the Local Government Authority/Council level. A copy of the endorsed community plan (now integrated in the ward development plan) is supposed to be sent back to the respective mitaa/villages for implementation and tracking.

During the year, community members are also supposed to participate in monitoring and reviewing of progress being made in implementation of agreed priorities in their mitaa/villages, challenges and obstacles being encountered, and ways to overcome them, through quarterly mtaa/villages meetings. To facilitate this process, village councils and ward development committees are required to collect various kinds of statistics (both primary and secondary; administrative and strategic) on their communities which are to be analyzed and presented for

discussion in reports to communities in community meetings. Data collection thus is intended to be a regular undertaking for the wards and mitaa/villages.

Discussions with stakeholders in the district indicate, however, that the way the process works in practice is far from the way it is intended to work, and decisions are not always backed by sufficient evidence and/data from the ground. There are several explanations to this. Firstly, is the low rate of participation of community members in the community meetings when they are called, due to factors such as:

- apathy and lack of interest in participating in community meetings, especially among the youth,
- lack of information and awareness among community members about the process as well as calendar of meetings,
- low proactiveness of ward and mtaa/village leaders in engaging communities and providing feedback on development issues.

Secondly, due to capacity gaps, both skills and equipment. The ability of villages/ mitaa and ward executive officers to collect data, manage and process them, and analyze them to produce actionable information in formats that can be easily understood and used by community members is limited. For example, none of the wards and village/mitaa executives had computers they could use to analyze data. This means that any data crunching work when needed would have to be done manually with the aid of a calculator. The reports would also have to be written and reproduced by hand. This limits both usage of data and possibility of constructive evidence-based dialogue about community challenges among leaders and between them and community members.

Thirdly, due to resource limitations (low revenue effort in the districts), the plans and priorities identified in communities rarely get endorsed as proposed in community meetings, when sent to higher levels. Most of the time, the final list of priorities that gets resourced may include only some of what the communities agreed to. This contributes to the perception that development priorities are generally decided from the central level, rather than driven by community priorities. This situation coupled with low data awareness and resource limitation often also leads to a situation where the metrics (indicators) for which data is collected from various wards for tracking of progress may not be necessarily based on communities' priorities. Instead, the data collected may be limited to information needed by higher authorities and data collection templates sent to the wards from the higher levels for data collection only.

## **Deciding district council development priorities**

The planning process at the district council and lower levels of government is generic and is based on National Planning Guidelines issued from time to time by the Central Government. Councils are required to develop and have in

place a five-year strategic Plans, three-year rolling Medium-Term Expenditure Frameworks, and annual budget plans which are the basis of implementation of priority interventions and realization and utilization of resources. The latest available strategic Plan for Kyela at the time of development of this data roadmap was for 2011/12 to 2015/16.<sup>17</sup> The District was in the process of preparing to develop its strategic plan for the coming 5 years, starting from 2019/2020.

The Strategic Plan Development is essentially an expert facilitated process. However, the information that guides choice of priority objectives, metrics to be tracked and the type of data to be collected is supposed to be informed by the community priorities (from ward development plans). Besides the information from communities, the plans are guided by national policy and sector strategic directions, as well as institutional needs the council deems important to be met in order to enable it to improve its capability to serve communities more effectively.

**Table 2: Some of the top community pain points which the District had plans to address during 2011/12 – 2017/18**

Pain point	District sector department	District strategic objective
Infrastructure: Unconstructed roads, bridges, <b>water</b> and electrical systems.	Water	District roads network expanded from current 176 in 2011/12 to 186 kms by year 2017/18  Rehabilitated village roads & be passable throughout the year increased from 21 kms in 2011/12 to 100 kms by year 2016/17
<b>Shortage of health facilities:</b> Inadequate number/lack of health facilities including Dispensaries and health centers.	Health	Population coverage with Health service increased from 52% in 2011/12 to 80% by year 2017/18
<b>Poor quality of health services:</b> Shortage of medicines and lack of medical equipment in health facilities.		Health facilities with laboratory services increased from 2 in 2011/12 to 23 by 2016/17.
<b>Low sexual and reproductive health (SRH) knowledge:</b> Teenage pregnancy and early marriage challenge	Cross-cutting	HIV/AIDS infection rate reduced from 7.5% during year 2011/12 to 3.0% by the year 2017.  Youths covered with Lifesaving skills trainings for youths in 15 wards increased from 48,108 in 2011 to 82,113 by the year 2017/18.
<b>Lack of market places</b> and indicative prices for the agricultural products	Trade and industry	Modern marketing centers in wards increased from 8 in 2011/12 to 13 by year 2017/18
<b>Patriarchy:</b> Women restricted or not allowed to own land, business, inherit properties and run for leadership positions	Community development	Income generating groups for women and youth increased from 150 during 2011/12 to 200 by 2017.  Villages with participatory Gender planning increased from 75 in 2011/12 to 101 villages by year 2017/18

<sup>17</sup> Kyela District Council Strategic Plan for 2011/12-2015/16: <http://kyeladc.go.tz/storage/app/uploads/public/58d7a5/8c8/58d7a58c81825697108459.pdf>

The Strategic Plan for Kyela District for example has a monitoring schedule, which is the logical framework for tracking progress. The Monitoring Schedule includes strategic objectives (for each functional sector in the council), performance indicators, yearly targets to be achieved for each indicator for the duration of the plan, as well as means of verification of progress being made. The ability of the District Council to deliver on these commitments, and to address the community needs may however still be constrained by resources, capacity gaps, as well as accountability challenges. Additionally, how well the district can find, produce, and use data about these commitments—whether to monitor their progress or plan/prioritize their investments—will also have a significant influence on whether they can deliver on them.”

**The Data Zetu initiative, both through Listening Campaigns and share back engagements, provided an important interface for finding out information on communities, and dialogue between community members and leaders, and facilitated building of a common understanding and appreciation of community challenges in Kyela. This, along with targeted interventions by Data Zetu and dialogue with local leaders during implementation, provided an important entry point for some of the community issues to be incorporated in the ward development plans for the subsequent fiscal year 2018/19. An examination of the priorities set in the 2011/12-2015/16 strategic plan for Kyela further revealed that some of the district goals defined in Key Results Areas and Strategic Objectives for its various sector departments<sup>18</sup> were already aligned with community needs raised during Data Zetu’s Listening Campaigns.** For at least five of the most prioritized pain points, there were already strategic objectives in the district strategic plan ending in 2016 to address them (see **Table 2**). The experiences highlighted by the insights from the Listening Campaigns suggested the problems were yet to be addressed sufficiently, however, which is why community members highlighted them again as important pain points.

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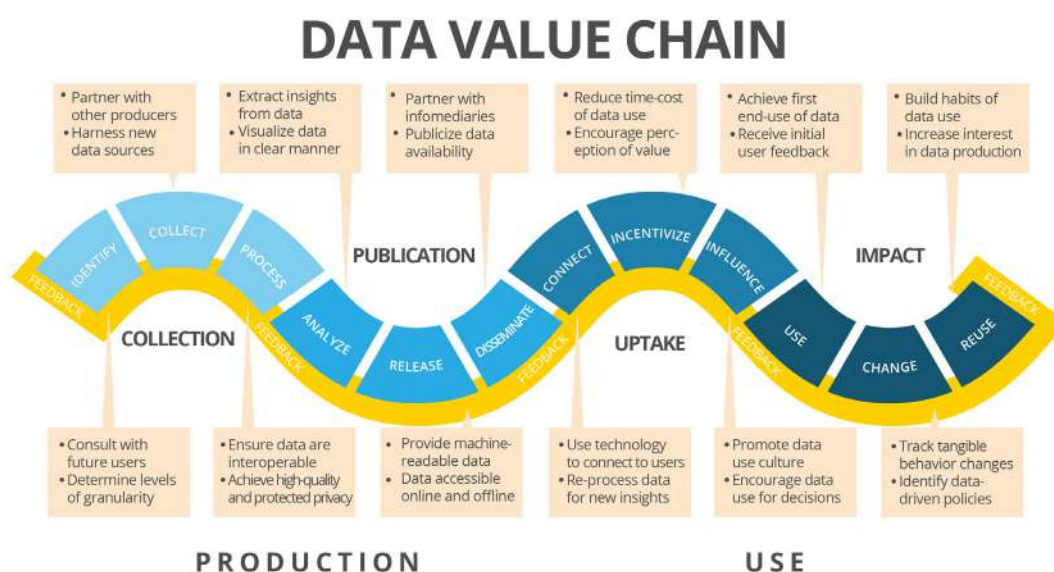
18 Health; Education and culture; Agriculture and livestock; Water supply; Public Works; Community Development; Planning; Human Resource and Administration; Trade and Industry; Cooperatives; Land and Natural Resources



## Gaps in the subnational data value chain

This chapter is diagnostic in that its construct looks at the gaps/challenges in the data value chain – from data production, to data use and impact at the subnational level. It describes how current mechanisms for data production at district level and its lower level units works and how data is managed and flows between different level of actors. It also describes how data, including strategic information from other sources including citizen generated data, is currently used and the role of infomediaries in channeling information to users. The concept of data value chain<sup>19</sup> is borrowed from Data2x scheme for increasing value of gender data reproduced below, which helps in visualizing how processes and actors from production to use and impact of data relate to each other and how data evolves in the process.

Figure 3: Visual representation of the data value chain (source: Data2x)



<sup>19</sup> [https://www.data2x.org/wp-content/uploads/2018/03/Data\\_Value\\_Chain.pdf](https://www.data2x.org/wp-content/uploads/2018/03/Data_Value_Chain.pdf)



No attempts are made to expound on every aspect the data value chain entails in this document. Rather, it is applied only as a framework for examination to make it easy to identify the gaps and opportunities where improvements can be made in the subnational data ecosystem which are then explained in the next chapter in condensed form along three stages (Data Production (collection and management) Data Dissemination and Data use and Impact). As a governance aspect, data management cuts across all the three stages in the data value chain.

In discussing data production in this document, two aspects are covered: collection and management of the data to ensure it meets standards or requirements that would make it suitable for use. It explores how decisions are made about what data to collect, how to collect it, and how it is managed and flows in the organizational chain including systems that are currently used in the process. On data dissemination and sharing, we look at how data becomes available to users, or how users can access them by describing the existing interfaces and gaps therein particularly with respect to government data. On use and impact, the discussion revolves around how different actors (institutions and individuals) makes use of data resources and interactions in using them to inform decisions and keep citizens knowledgeable of issues in their communities. We also explore use of alternative data sources including citizens generated data and how institutions collaborate in data sharing.

## **Data production: Collection and management**

### **Data collection and management at the district level**

The Kyela District Council administration collects data through two main mechanisms (i) Administrative Data Systems (also referred to as routine data), and (ii) Surveys. Administrative data may be collected from service rendering institutions (e.g. health facilities, schools), or from communities through community-based information collection systems (e.g. village registers). In addition to the data the District Council collects on its own and through its lower administrative units, it may also source strategic information from other government departments in the district that may not have a direct reporting responsibility to the district council (e.g. water authorities, the Tanzania Police Force, the Judiciary, Prisons Department etc.) and from civil society organizations in the district (e.g. paralegal aid organizations, faith-based organizations, etc.)

Most of the data collection activities are coordinated by sector departments, based on the information needs they are expected to meet for the sector Management Information Systems (MIS) that have been installed at the district level. Apart from sector departments (such as health, education, water, agriculture, livestock and fisheries, etc.) there is in each district a department of Planning and Economics, which includes a Statistics Unit, that is responsible for collection of other information the district may need from lower levels if not part of the existing MIS arrangements.

The main information management systems currently in use include the following (Table 1 provides more details about some of the prominent MISs).

- Basic Education Information Management System (BEMIS)
- Health Management Information System (HMIS) rolled out to Districts as District Health Management Information System 2 (DHIS2)
- Facility Financial Accounting and Reporting System (FFARS)
- Civil Registration and Vital Statistics System (CRVS)
- Agriculture Routine Data System (ARDS)
- Planning and Reporting System (PLANREP/EPICOR) – (socioeconomic information)
- Local Government Monitoring Database (LGMD)<sup>20</sup> to be replaced by Integrated Monitoring and Evaluation System (iMES)
- Local Government Revenue Collection System (LGRCIS)

In cases where MISs exist, the choice of what information to collect, how frequently it is collected and what metrics (indicators) are covered, is based on sector priorities and monitoring requirements.

Data is collected using standardized forms (templates) prepared by Ministries or Departments that require the information to be collected from the district and its lower levels of administration. In these cases, information collection is much better coordinated even though there may still be challenges in transmission due to limitations in tools, quality due to skills and gaps in processes for auditing collected data, and internet connectivity issues for electronic transmission of data to the appropriate authorities (e.g. for the BEMIS-information from primary and secondary schools, and HMIS information from health facilities). It should be noted that sector focal points who are responsible for collecting data from different sources and enter them into the existing MIS are in most cases not statisticians.

Where MISs are weak, data may not be collected and transmitted as regularly as required and proactively based on an established calendar. Tools for data collection may also not be available to officers and community representatives at the collection points when needed. One example of systems that is affected in this way is the Civil Registration and Vital Statistics collected through Village Registers implemented in communities. Local government officials expressed concerns about low commitment of village leaders in filling and returning the Village Registers, confirming findings from an earlier study by Ifakara Health

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<sup>20</sup> The LGMD was developed in 2013 but has fallen out of use. The iMES is currently under design as part of the PS3 program and is to be launched during 2018/19 and rolled out in 93 Districts in 13 target regions on mainland Tanzania by 2020.

Institute in 2005.<sup>21</sup> Yet another one is non-availability of the registers when they are filled, and village leaders need replacements.

**Table 3: Some of the management information systems (MISs) at the council level**

Sector	MIS	Managing authority	Data source point
Education	Basic Education Information Management System (BEMIS)	Developed by Ministry of Education, and currently managed by President's Office- Regional Administration and Local Governments (with Education Departments at the Region and in LGAs)	Education facilities
Health	Health Management Information System (HMIS)	Ministry of Health and Social Welfare, Community Development, Gender, Children and the Elderly (with Regional and District Medical Officers)	Health facilities
Civil registration	Civil Registration and Vital Statistics System (CRVS)	Ministry of Justice and Legal Affairs through Registration Insolvency Trusteeship Agency (RITA) (with District Administrative Secretariat)	Health facilities and communities (households) through Village Registers
Agriculture, livestock, and fisheries	Agriculture Routine Data System (ARDS)	Ministry of Agriculture, Livestock and Fisheries (with Agriculture and Livestock Officers at the Region and District)	Communities (Households) and Production Points
Planning and reporting	Planning and Reporting System (PLANREP/EPICOR)	Ministry of Finance and Planning (with Economic/Planning Departments in the District)	Council Level
M&E at the local government level	Local Government Monitoring Database (LGMD) to be replaced by Integrated Monitoring and Evaluation System (iMES)	President's Office- Regional Administration and Local Governments (with Economic/Planning Departments at the District)	Communities (mtaa/village Levels)
Revenue collection	Local Government Revenue Collection System (LGRCIS)	President's Office- Regional Administration and Local Governments (with Revenue Collection Departments in all Districts)	Communities (mtaa/village level)

Another painful limitation of these systems over the years has been that they are implemented in parallel (they don't talk to each other) and the data they collect is often not interoperable. This significantly limits the possibility of joining up or enriching information coming from the various systems. For example, identifiers may not always match even when the unit of data collection is the same (example the DHIS2 and FFARS). Currently there are National Efforts being implemented by PORALG to connect them, through the Muungano Gateway a mechanism that allows connectivity and easy matching of information from the various platforms.<sup>22</sup> As of August 2018, there is for example connectivity between the LGRCIS, the EPICOR based PLANREP and the Facility Financial Accounting and Reporting System (FFARS).

<sup>21</sup> [http://ihi.eprints.org/1777/1/Spotlight\\_Issue\\_5\\_-\\_Village\\_Register.pdf](http://ihi.eprints.org/1777/1/Spotlight_Issue_5_-_Village_Register.pdf)

<sup>22</sup> <http://tamisemi.go.tz/storage/app/media/uploaded-files/Jarida%20la%20Mifumo%20Yetu%20-%20Agosti%20-%20Oktoba%202018.pdf>

The contents of the District Strategic Plans and the Ward Development Plans may also inform the types of metrics for which data needs to be collected. Due to limited resources for statistical activities in the districts, however, the data may not always be collected or made publicly available. Instead, most of the time the data that is collected is limited to what is prescribed in the existing MIS administered on institutions, and community-based data collection forms and templates developed by ministries, of which the districts may not have room of adapting in any way to accommodate local data needs.

### **Data collection and management at the ward level**

Besides data collected to respond to requests from higher levels in the systems, mtaa/village and ward leaders are also expected to collect information that is specifically relevant for their communities for the participatory community planning, monitoring and review processes. The O&OD guide specifically emphasizes on the importance of ward and mtaa/village offices collecting, maintaining in their repositories, analyzing and sharing high quality statistics about their communities with community members.

Box 2 describes some of the information and data that ward and mtaa/village offices are expected to collect, maintain/store, analyses and share with communities in meetings including the O&OD planning, monitoring and evaluation process. The O&OD guideline also provides and describes example tools that can be used for collection of data in the communities.

#### **Box 2: Some of the information that ward, and mtaa/village offices are expected to collect, analyses and share with community members**

**Mtaa/village map showing available resources and changes taking place** (boundaries, presence of natural and man-made resources (roads, paths, rivers, forests, valleys/lowlands, hills/mountains. Electricity, water wells and ponds, water points etc.), buildings and their usage (e.g. schools, health facilities, churches, mosques, etc.)

**Environmental information**—example on protected areas and restricted spaces including opportunities, available services, and obstacles.

**Mapping of socioeconomic situation** of households

**Important historical events** (and dates) in the mtaa/village including disasters and other critical events that may require adaptations for the community to cope

**Calendar of seasons** in the area showing potential and actual socioeconomic activities going on at different times of the year

**Mapping and analysis of institutions operating in the community** – include the roles they play and their relationships with the community

**Analysis of socioeconomic activities in the area**

**Mapping of ownership of assets and resources by gender**

**Daily time use analysis at the household level by gender**

**Socioeconomic situations of households**—sources of livelihood and household expenditures

Exploration of the kinds of data available in ward offices suggests that the ward, mtaa/village officers need to be more proactive in collecting, storing, properly

managing and analyzing and disseminating information about their communities to community members. Information tends to be collected reactively when it is requested from high up in the system. Moreover, the Executive Officers do not have a practice of keeping track of and copies of the information they are requested to collect on their areas for the district and higher levels of administration from time to time. The study by Data Zetu on the Flow of Health Data at the Hyperlocal Level the Case of Kyela District furthermore shows that there is a breakdown in the flow of information back to the wards and sub-wards/villages (Figure 4).<sup>23</sup> The extent to which village and ward offices seek information from other ministries, departments and agencies about their areas is quite limited. Due to this, wards have very limited information in their repositories about their communities (wards and mitaa/villages, and hamlets), and comprehensive historical information is even much harder to find.

Several reasons contribute to this situation including low data awareness among community leaders, low data literacy among service delivery staff (WEOs, mitaa/village Executive Officers), and low zeal and lack of/limited support from hamlet representatives (wajumbe). With respect to support of community representatives, one theme that arises out of the discussion with ward executives is that they may not have the necessary skills to do the task of collecting data which they are asked to do; and may not feel obliged to do so since there is no compensation for their work. Other challenges also compound the problem, including:

- Lack of guidelines or manuals on data collection and management at the community level that could help the ward executive officers, mitaa/village executive officers understand how to handle and store information they collect from time to time for future use and how to process it for public sharing.
- Lack of essential skills and training on data collection that could enable collection of good data and compilation of quality statistics (among the Ward Executive Officers, mitaa/village executive officers, and hamlet leaders who are often called to support data collection activities).
- Poor work environment. Most ward offices and mitaa/village offices are poorly equipped in terms of office infrastructure (not always sufficiently secure, some are in uncompleted buildings), furniture and working tools. There is a general lack of secure facilities they can use to safely keep data they collect (e.g. office safe drawers and cupboards). None of the WEOs had computers, and most of the offices they used did not have electricity necessary for their work.
- Lack of stationery for the offices and funding for transport for officers and community leaders (e.g. hamlet leaders) that are given responsibility to

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<sup>23</sup> See Figure 4, derived from Silaa & Van Schalkwyk (2018) Mapping Hyperlocal Health Data Flows: The Case of Kyela District, Tanzania (<http://bit.ly/dzresearch-hyperlocaldataflows>).



collect data;

- Low morale among data collectors, for example among hamlet leaders, since the work they do is not paid, and when asked to collect data they are expected to do it as volunteers.
- Frequent transfer of executive officers coupled with lack of understanding of the due process for handover and poor enforcement of hand over of office by the departing officers to the new officers that are arriving in the locations.

### **Data management and flow in the local government**

Though data is collected from facilities and communities, it is expected to flow from there to the councils and to national Level. The district council is the main center for processing of all data that is collected by sector officers (from institutions/facilities) and from communities (through wards, mtaa/village executive officers and other sector officers).

In most cases, the information is collected on paper forms at the facilities and in the communities. These are then sent to the district where the data is entered into the information management system by the respective sector department officers (where such systems exist) or are forwarded to the requesting Ministries and Departments in prescribed format if not part of existing MISs templates.

Sector MISs vary in their performance with some sectors (such as health and education) having the most advanced Management Information Systems, while others such as agriculture, and civil registration are struggling (See example of data flow arrangement for Health Sector). Still others such as on environment and economic activities in general are weakly organized in terms of mechanisms for collection and management of information to ensure adherence to standards and methodological rigor. This situation often affects both quality and availability of data. As a result, even though the district is implementing data collection efforts, and may have important data resources within the organization, it may still not always have the most comprehensive and reliable historical data on all aspects of development being monitored on its lower administrative units.

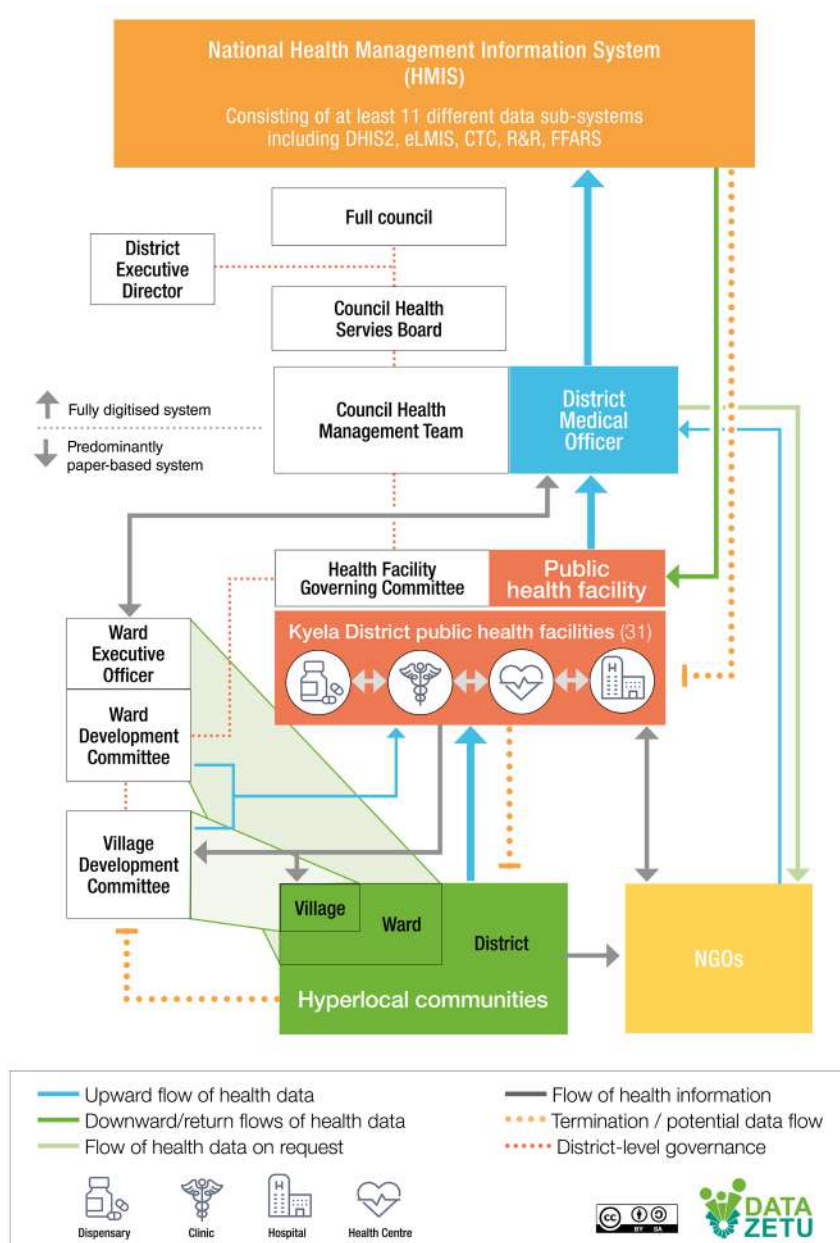
There are some important general challenges around data management which also affects flow and quality, even in situations where information management systems exist. Among these include:

- Poor skills in management of data and statistics and poor supervision of data collection efforts.
  - There is for example limited monitoring and follow up on how village registers filling is done in the villages. Moreover, there is not a due process to ensure they are timely replaced when they are finished.
- Low skills in analyzing data to produce actionable information that can be

used to inform decisions at the subnational level and/or shared with other stakeholders including national level actors

- Slowness in responding to new and emerging requests and demand for data and statistics, including slow adaptation of existing systems and tools for data collections to capture information on demand.
- Low quality of data being produced for example due to it being incomplete when it is submitted from the collection points to the receiving points, or due to forms for data collection being poorly developed to capture the required information.
- Lack of a structured mechanism for ensuring all historical data collected from/on communities, particularly using community-based data collection systems, are locally stored and managed effectively for future use.

**Figure 4: Flows of data – the case of health data in Kyela (source: Data Zetu)**



## Data dissemination arrangements and access points

### The district council

In Tanzania, the Local Government Authorities or Councils are the primary access points for disaggregated data on their lower level administrative units. This arrangement is the same across the country and is therefore true for Kyela as it would be for other Councils. External stakeholders in need of data primarily can access them through formal requests (by sending letter(s)) to the Council Executive Director.

Kyela District Council also has a webpage on Mbeya Region Website (<http://kyeladc.go.tz>) from which open data may be disseminated (<http://kyeladc.go.tz/statistics>). Currently, however, very limited data and statistics are shared on this platform. A lot of data that is already being collected from facilities and communities could be added to this portal. Not publicly sharing them makes somewhat invincible the extent of efforts in data collection, that are going on, and limits understanding of stakeholders of the kinds of metrics and statistics the district computes and uses to track progress.

The Statistics Unit, which is a section in the District Planning Department is the principal custodian or steward of all data and statistics on/about the district. Given its operational mandates, the Planning Department is expected to be able to pool together data and information from various departments at the council level (from the Sector Management Information Systems) into a single district data dashboard that can provide comprehensive analysis ready data about development issues in the district (for internal use), and also enhance ability of the district to respond to external stakeholders' data and information requests. The department is also responsible for preparing and updating data resources/information on the district web page, working closely with the District IT Unit.

Due to lack of essential technological tools, limitations in skills and competencies, as well as absence of institutional data governance manuals, however, Kyela District Council, just as other districts in the country, does not have such a platform (that integrates or joins information from its various sector departments). Because of this, most requests for data to the district have to be re-routed from the statistics Unit to the sector departments for them to attend rather than handled by the statistics unit itself. This can make the process of responding to requests and accessing data protracted (non-optimal use of sector department's staff time, long follow ups for requestors) and tedious (e.g. requestors having to follow up with each department separately when requests cover data from more than one sector).

The District Council officials in Kyela expressed strongly a desire for support that would enable them to have in their office data dashboard with capability of pulling together and hosting analysis ready data and statistics from across its various sector departments (for internal use, and to improve responsiveness to external

requests).

### Accessing data at the community level

At the ward and mtaa level, information that is collected or is available (e.g. information on budgets, or basic socioeconomic profile data on the wards, mitaa/ villages), is supposed to be made available on public noticeboards for the public to read. In practice however, very limited information is made available on these platforms due to patchiness of data that is available and limited skills and lack of tools for managing and processing data for dissemination. Moreover, often times, this information is not up to date and the paper posts on the noticeboards may also be damaged by rains, thus limiting continuous accessibility of the data.

### Other access points

#### GOVERNMENT DATA

Besides the district and community channels, stakeholders may also sometime obtain information from the PO-RALG, sector ministries and departments delivering various services in communities, and/or from the national statistics office and the government open data portal ([www.opendata.go.tz](http://www.opendata.go.tz)). At the moment, for example, some data from the Health Management Information System (HMIS) is accessible through the health facility registry portal<sup>24</sup> and the data from Basic Education Management Information System (BEMIS) through the Basic Education Statistics Booklet (published by PO-RALG) usually available in print (until stocks last).<sup>25</sup> Some from BEMIS and National Examination Council is also available on the government open data portal (<http://opendata.go.tz/sw/organization/ministry-of-education-and-vocational-training>). Where available, data coming out through these mechanisms however tends to be highly aggregated (providing a general picture of the district, but not presenting information or trends on lower levels of administrations (wards and communities below them).

#### DATA FROM OTHER SOURCES

Apart from government departments, there are several other organizations (civil society organizations / community-based organizations) that have portfolios in Kyela. The data from these sources have however not been well tapped to enrich information on the district and to help with planning. In most cases, the information is not readily in public domain and the organisations often do not have an established culture of processing the data they collect for sharing in open platforms for others to use.

Discussions with stakeholders suggested that CSOs/CBOs are usually more

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<sup>24</sup> <http://www.hfrportal.ehealth.go.tz/>

<sup>25</sup> Until the Basic Education Portfolio was assigned in 2015 to the PO-RALG from the Ministry of Education the BEST booklet was published online every year. This however is no longer practiced and the old platform has been shut down is no longer accessible.

inclined to prepare “report to funders” and sometime to meet regulatory reporting requirements to the government, than they are to share data about their work with communities and other actors around them. Part of the reason is that most CSOs are poorly prepared in terms of skills set and knowledge of tools to process their performance data (including anonymization and telling stories from the data etc.) in ways that makes them suitable for public sharing. This situation affects possibilities that could be tapped from use of alternative sources of data, including citizen generated data to enrich decision that are being made in communities.

## **Data use and impact**

### **Data use at wards and mtaa/village level**

The level of usage of data for decision making at the community level is still very low, especially among community leaders. Part of the problem lies in low levels of data awareness. In discussions with ward officials and other stakeholders in Kyela, the low level of awareness and understanding of the importance and value of data was echoed frequently as the primary factor undermining not only the quality of data that is being collected on communities, but also the extent of data and information that can be made available and shared back with the communities.

Due to skills gaps much of the data that is available usually does not get analyzed to provide actionable information for public use (e.g. on how various wards and mitaa/villages are performing/compare against each other on various indicators of development that are prioritized by the district; or presenting performance results across sectors in the communities (ward/village or mtaa level for public consumption each year).

The extent to which ward and mtaa/village executives and community leaders seeks strategic information from other stakeholders or collaborates with them to collect information the wards and villages/mitaa offices needs is also very limited. Moreover, limited amounts of data and information on programs being implemented by CSOs actually flows back to community members. It is for example not evident from discussions with ward executives that they routinely have access to this strategic information, or that they are able to analyze and incorporate lessons from such data in information products for discussion with/ or posted for communities on their noticeboards.

Stakeholders also expressed concern about limited participation of citizens in planning processes (specifically the O&OD planning process at the community level), and engagement in community meetings. Citizens who actively track progress in their communities and engages with their leaders on pressing community challenges are few when compared to the adult population in the various communities. Due to low levels of data literacy, coupled with low levels of availability of data and high transaction cost in accessing it, the depth of dialogue that most community members can hold with their leaders is very limited. Possibility of the few citizens that are data aware to succinctly interrogative issues



and obtain answers is also undermined by incompleteness of information they may have access to.

### **Presence of and roles played by infomediaries**

The media, civil society organizations and research institutions are important institutional infomediaries with possibility of analyzing, sharing and engaging communities with easy to understand information on development issues in their areas. The media, through community radios (example Kyela FM and Mbeya FM) and other forms of communications is perhaps the most visible, also providing platform for other organizations' work to be known or heard. There are also civil society organizations like Legal Services Facility (LSF with national coverage and working with partners in Mbeya) that deliver important interventions for social change in Kyela and in Mbeya as a whole.

In general, however, the extent to which civil society/community-based organizations are involved in systematically analyzing and sharing information with communities on government performance, as well as on performance of various programs being implemented by CSOs themselves in the communities is quite limited.



Citizens and leaders of Kyela District Council at a round table discussion about data use.

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## **Actions to facilitate better availability, accessibility, use and impact of data to deliver community development**

### **Kyela data roadmap intervention areas**

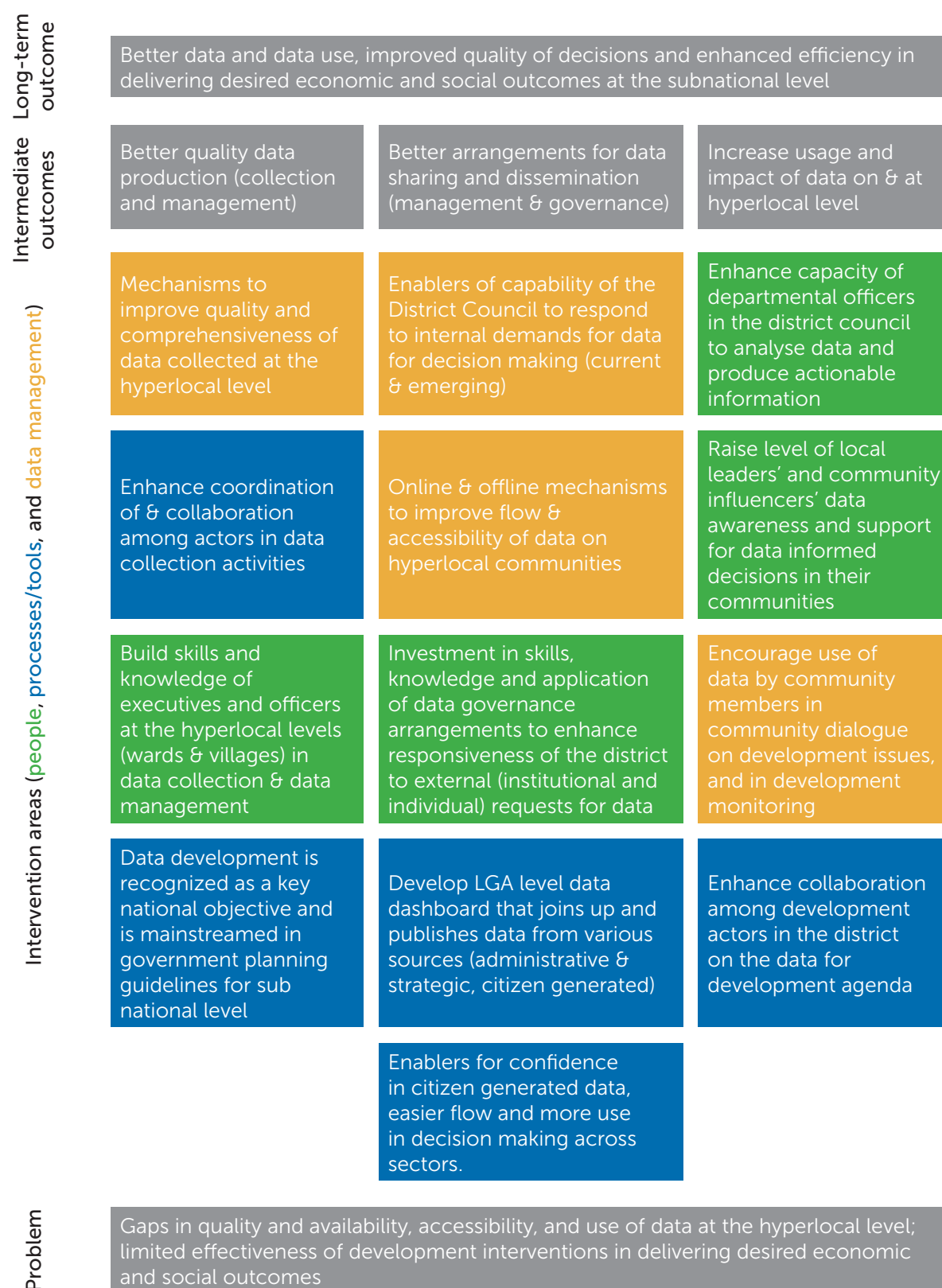
This section presents activities and targets to address the constraints and challenges that currently limit availability of good quality data, accessibility and use by stakeholders including in the hyperlocal communities. The proposed measures (presented in Table 5) cover the entire data value chain from production, to dissemination, use and impact. Three intermediate outcomes (objectives) with 14 intervention areas (targets) have been identified based on diagnostic analysis of the data ecosystem at the subnational level presented in the previous chapter.

The identified intervention areas also encompass three key dimensions within the local government data ecosystem (people—including their skills and competencies, processes and procedures and data management). They also consider roles of external stakeholders (producers of data that are non-government agencies and infomediaries/information translators such as journalists, advocacy groups and other influencers) in facilitating uptake of data. These stakeholders play important roles in raising awareness and building effective understanding of issues in communities (both challenges and triumphs). Data governance is treated as a crosscutting component that applies at all stages in the data value chain.

Figure 5 presents a simplified solution tree demonstrating how various dimensions of interventions (people including their competencies and skill, processes and tools, and data management and governance) are expected to contribute to better development and social outcomes through improving value of data in the

data value chain - availability, accessibility and use of local data.

**Figure 5: A simplified solution tree to improved economic and social outcomes through improved availability, quality, accessibility, and use of local data**



Implementation of the proposed interventions and related activities will require collaboration of multiple actors in the subnational data ecosystem. These include district council leaders and officials, community leaders and influencers, and central government actors. They also include stakeholders from the non-state community such as civil society and data advocacy groups, private sector actors and donor agencies.

### **Implementation period**

The proposed timeframe for implementation of the data roadmap is five years to match with the time frame of the District Council Strategic Plan. It should be noted that, some activities by their nature may need to be sustained over much longer periods of time (example skills building) to cope with staff attrition due to various reasons and to build a sufficiently strong foundation for institutional agility and responsiveness to demands for data and development that are continuously evolving with changes in contexts and societal needs.

In its strategic plan for 2011/12-2015/16, Kyela District Council set a strategic object to improve data management for planning across its various departments and in all villages in the district council by 2017. The challenges highlighted by communities (pain points) and on data issues (diagnosis presented in chapter 5 of this document) demonstrated that further efforts and investments are needed to achieve this aim. Therefore, the process for development of the strategic plan for Kyela for the coming five years starting 2019/2020 which is currently under way, offers an important opportunity for the district administration to incorporate community pain points that are currently not among council priorities, as well as to improve its approaches in addressing those that are already included. It also provides an appropriate entry point to incorporate and implement interventions to deliver on the data agenda, including by forging collaborations with other stakeholders who may support the District Administration in this endeavor.

### **Estimated funding requirements**

To implement the proposed interventions, resources will need to be identified and budgets allocated to the various activities in the different intervention areas that are proposed. The total estimated resource needs for the 5 years period is **TZS 840,782,250** across the three intermediate outcome areas (objectives) and the 14 intervention areas (targets) (Table 4 & Table 5).

### **Actors and Responsibilities**

While the Kyela District Council is the principal custodian of the data roadmap, different parties will have important roles to contribute to its achievement. Most of these roles are already identified in the data roadmap matrix (Table 4) by groups of actors and may continue to be developed throughout the implementation time as specific actors choose activities to support/invest in. Central Level actors

**Table 4: Estimated resource requirements for Kyela data roadmap implementation (TZS)**

Objective	2019/20	2020/21	2021/22	2022/23	2023/24	Total
Improve quality and comprehensiveness of data collected and available at the subnational level	90,608,750	56,825,000	56,825,000	17,640,000	17,640,000	300,652,500
Improve accessibility and flow of data on and at the hyperlocal community level	125,261,000	59,796,000	9,886,000	9,886,000	9,886,000	214,715,000
Increase use and impact of data on and at the hyperlocal community level	55,423,250	67,258,250	43,095,750	43,095,750	40,107,000	248,980,000
<b>Total activity costs</b>	<b>298,623,000</b>	<b>217,663,00</b>	<b>109,806,750</b>	<b>70,621,750</b>	<b>67,633,000</b>	<b>764,347,500</b>
Monitoring, evaluation and learning activities (10% of intervention costs)	7,643,475	7,643,475	15,286,950	15,286,950	30,573,900	76,343,750
<b>Grand total</b>	<b>306,266,475</b>	<b>225,306,475</b>	<b>125,093,700</b>	<b>85,908,700</b>	<b>98,206,900</b>	<b>840,782,250</b>

such as the PO-RALG and the National Bureau of Statistics as well as the Ministry of Finance and other MDAs will have a critical role to play in development of data governance instruments, as well as in recognizing and placing the data development agenda in the list of key national development priorities.

The LGA will specifically need to work with other actors in the ecosystem on setting up of a mechanism to coordinate stakeholders in the data ecosystem at each step of the data value chain. These may include, establishment of a platform where actors hold regular dialogue on data challenges, progress being made in addressing them, and how to unlock constraints where they exist. The non-state community, community-based organizations in particular, data advocacy groups and development partners have an important role in encouraging and facilitating improved use of data in decision making and in investing in other supportive infrastructure for the district to deliver on the data agenda. Within their intervention thematic areas, these actors will also need to identify what they can do in support of the Kyela District Council's efforts through financial resources and technical expertise.

### Monitoring, evaluation and learning

The ability to track progress from implementation of the data roadmap, and to adapt to changing circumstances depends on availability of appropriate data and other resources that facilitates effective monitoring and learning. For this reason, proper development, indexing and archiving of data and information from implementation will be a crucial component of the data roadmap supportive function. A budget, equivalent to 10% of the required resource envelope, is proposed to be set aside to facilitate ME&L activities. Activities in this category will include a baseline assessment to establish values for indicators currently lacking a baseline value, mechanisms for keeping proper track of data and documentation arising from the data roadmap activities. Finally, the resources will support periodic reviews and an end-line assessment after 5 years of implementation.



**Table 5: Proposed Actions and associated resource requirements to address data challenges across the data value chain**

Objective	Target	Activity	Indicator	Lead agencies & collaborators	Start date	End date	Required funding (TZS)
1. Improve quality and comprehensiveness of data collected and available at the subnational level	1.1 100% of existing departments at the council level have quality and comprehensive data by 2022.	1.1.1 To develop and maintain a trackable central repository of data collection tools/templates used by the District Council in collecting data at community level by 2020.	Number of departmental data collection tools integrated in the data collection tools repository.	Lead: Kyela DC & PO-RALG Collaborators: Data Advocacy Groups/ CSOs, NBS, other MDAs & DPs	2019	2020	6,200,000
		1.1.2 To develop and maintain improved data collection tools/templates for all departments in the District Council by 2022.	Number of data collection tools developed or improved.	Lead: District Council & PO-RALG Collaborators: NBS, other MDAs, DPs & CSOs	2019	2022	45,270,000
		1.1.3 To undertake periodic audit/review of existing data assets and administrative data collection forms for their adequacy in meeting demand (internal and external) for disaggregated data.	Number of sector departments' (i) data assets and (ii) data collection tools reviewed.	Lead: District Council & PO-RALG Collaborators: NBS, other MDAs, DPs & CSOs	2019	2022	23,310,000
		1.1.4 To implement essential improvements in data collection tools and synchronize data collection calendars for all sectors by 2022.	Number of sector (i) data collection tools improved, and (ii) data collection calendars synchronized.	Lead: District Council & PO-RALG Collaborators: NBS, other MDAs, DPs & CSOs	2019	2022	22,560,000
	1.2 Data collection and data management procedures, tools and skills of ward and village executives and extension officers strengthened by 2024.	1.2.1 To develop and disseminate manual to guide data collection and data management at the subnational level by June 2021.	Data collection manual developed and disseminated by June 2021.	Lead: District Council & PO-RALG Collaborators: NBS, other MDAs, DPs & CSOs	2019	2021	12,945,000
		1.2.2 To conduct training on data collection tools and data management guidelines for 33 WEO, 198 extension officers, and 93 village executives by June 2021.	Number of trained officers at each level and department per year disaggregated by gender.	Lead: District Council & PO-RALG. Collaborators: NBS, other MDAs, DPs & CSOs.	2019	2021	54,622,500
		1.2.3 To equip hyper local executive offices (33 wards & 93 villages) with necessary tools and equipment for improved data collection and management (computers etc.) by 2024.	20% of wards, and villages supplied with computers or other electronic data capture and management (EDC) tools per year.	Lead: District Council & PO-RALG. Collaborators: NBS, other MDAs, DPs & CSOs & Private Sector.	2019	2024	88,200,000

Objective	Target	Activity	Indicator	Lead agencies & collaborators	Start date	End date	Required funding (TZS)
	1.3 By 2022, enhance coordination of and collaboration among stakeholders and reduce duplication of data collection activities and data collection burden on staff at the hyperlocal level.	1.3.1 To undertake mapping of government stakeholders' data collection activities and types of data collected regularly in communities.	Mapping of stakeholders' data collection activities completed by June 2021.	Lead: District Council & PO-RALG.  Collaborators: NBS, other MDAs, DPs & CSOs.	2019	2021	8,950,000
		1.3.2 To conduct 2 stakeholders dialogue with subnational data ecosystem actors to enhance coordination of data collection efforts and data sharing in the data ecosystem by June 2022.	Number of Dialogue events on coordination of data related efforts conducted.	Lead: District Council & PO-RALG.  Collaborators: NBS, other MDAs, DPs, CSOs & Private Sector.	2019	2022	17,610,000
		1.3.3 To review job description and mandates of LGAs statisticians in relation to other departments and actors at the LGA level.	Improved job description and mandates for LGA statisticians are in place by June 2022.	Lead: PO-RALG & PO-PSGG  Collaborators: NBS, TASTA, District Council.	2019	2021	9,245,000
	1.4 Data development is recognized as a key national objective and is mainstreamed in government planning and budgeting guidelines for sub national level by June 2021.	1.4.1 To conduct dialogue with high level actors on incorporation of "data development" among the key national and subnational objectives.	Data development is included as an objective in government planning and budgeting guidelines.	Lead: NBS, dLab & PO-RALG, MoFP/ Treasury.	2019	2021	11,740,000
				Collaborators: Kyela District Council, Other Councils & MDAs, DPs, Data Advocacy Groups/CSOs, & Private Sector.			
Sub-Total Objective 1							300,652,500
2. Improve accessibility and flow of data on and at the hyperlocal community level	2.1 Procedures for sharing and dissemination of government data at the District Council Level strengthened by June 2021.	2.1.1 To develop data dissemination guidelines/manual for LGA (describing data that is to be disseminated from time to time, governance procedures to be followed, data formats, licensing and calendar for dissemination etc.).	Data dissemination guidelines for LGAs are in place by June 2021.	Lead: PO-RALG	2019	2021	12,670,000
				Collaborators: LGAs, NBS, other MDAs, DPs, CSOs, Private Sector			

Objective	Target	Activity	Indicator	Lead agencies & collaborators	Start date	End date	Required funding (TZS)
	2.2 Knowledge and awareness of government personnel in the District Council of data dissemination guidelines and their responsibilities in hyperlocal communities enhanced by June 2021.	2.2.1 To conduct 2 days training for 36 Staff/data stewards at the District Council on data dissemination guidelines for LGAs by June 2021.	Number of trained staff by department and gender.	Lead: District Council, LGTI, PO-RALG Collaborators: NBS, DPs, CSOs, Private Sector	2020	2021	6,650,000
		2.2.2 To conduct 2 Days training workshop on LGAs data dissemination guidelines for ward and village executive officers by June 2021.	Number of trained staff in ward and villages by gender.	Lead: Kyela DC, LGTI, PO-RALG Collaborators: NBS, DPs, CSOs, Private Sector	2020	2021	26,150,000
		2.2.3 To conduct 2 days training workshops for current hyperlocal leaders (Councilors, and village chairpersons) on LGAs data dissemination guidelines and their responsibilities (job descriptions) by June 2020.	Number of trained councilors and village chairpersons by gender.	Lead: District Council, LGTI Collaborators: NBS, DPs, Data Advocacy Groups/CSOs, Private Sector	2019	2020	29,715,000
		2.2.4 To conduct 2 days training workshops for newly elected hyperlocal leaders (Councilors, and village chairpersons) on LGAs data dissemination guidelines and their responsibilities (job descriptions) by June 2021.	Number of trained councilors by gender.	Lead: District Council, LGTI Collaborators: NBS, DPs, Data Advocacy Groups /CSOs, Private Sector	2020	2021	17,110,000
	2.3 Guidelines for formalization of citizen generated data developed and implemented by 2020.	2.3.1 To develop guideline for formalization of citizen generated data.	Guidelines for formalization of citizen generated data are in place by June 2020.	Lead: NBS, CSOs, PO-RALG. Collaborators: other MDAs, DPs, Data Advocacy Groups/CSOs, Private Sector.	2019	2020	11,850,000
		2.3.2 To conduct 2 days training workshops to 60 CSOs and other non-state actors on guidelines for formalization of citizen generated data by June 2020.	Number of CSOs trained on the guidelines. Number of citizens generated data assets formalized and published.	Lead: CSOs Collaborators: NBS, LGAs, other MDAs, DPs, & Private Sector	2019	2020	24,445,000
	2.4 By June 2020 develop an institutional dashboard that joins up /integrates data from various existing MISs and other data sources (including citizen generated data) to provide the CMT a comprehensive picture of its available data assets at all times.	2.4.1 To develop Kyela District Council Institutional Data Dashboard and train Council staff on its use and maintenance by June 2020.	KDC data dashboard is in place and is regularly updated by 2021.	Lead: District Council & PO-RALG Collaborators: NBS, other MDAs, DPs, Data Advocacy Groups/CSOs & Private Sector.	2019	2020	18,245,000

Objective	Target	Activity	Indicator	Lead agencies & collaborators	Start date	End date	Required funding (TZS)
	2.5 By June 2024, an online data portal for Kyela District Council, to replace the statistics webpage, is developed and is regularly updated with current data.	2.5.1 To develop Kyela District Council online data portal and train council staff on its maintenance.	Kyela District Council on-line data portal is in place by June 2020	Lead: District Council, PO-RALG.  Collaborators: NBS, DPs, Data Advocacy Groups/CSOs & Private Sector	2019	2020	18,450,000
		2.5.2 To regularly update data on the KDC online data portal as per the data dissemination guidelines.	Number of data assets updated on the web portal per year.	Lead: District Council  Collaborators: NBS, PO-RALG, other MDAs, DPs, CSOs & Private Sector.	2019	2024	2,600,000
	2.6 Offline tools for dissemination of council performance data in easy to understand manner developed and disseminated annually.	2.6.1 To produce and disseminate council performance data fact sheet annually.	Council performance fact sheet produced annually	Lead: District Council.			
			Number of copies of council performance fact sheets disseminated per year	Collaborators: NBS, PO-RALG, DPs, Data Advocacy Groups/CSOs, Private Sector	2019	2024	46,830,000
Sub-Total Objective 2							214,715,000
3. Increase use and impact of data on and at the hyperlocal community level	3.1 By 2024 raise level of local leaders and community influencers data awareness and support for data informed decision in communities.	3.1.1 To conduct 2 days training on data for 45 Councilors, 93 village chairpersons, 55 Town Council Hamlets and 353 representatives/wajumbe in village hamlets.	Number of community leaders trained on data awareness skills by location and gender	Lead: Data Advocacy Groups/CSOs, DPs, LGTI.	2019	2024	96,890,000
				Collaborators: NBS, other CSOs, Private Sector			
	3.2 By 2023 enhance capacity of officers in 13 LGAs departments and in 30% of CBOs/CSOs to analyze data and produce actionable information.	3.2.1 To conduct 2 days training to 65 District Council staff on data curation, analysis and production of actionable information e.g. briefs in 5 LGA departments by 2019.	Number of departmental staff in LGA trained by gender.	Lead: District Council, Data Advocacy Groups/CSOs, LGTI.	2019	2020	11,955,000
		3.2.2 To conduct 2 days training to staff members of 30 infomediary organizations (e.g. CSOs/CBOs and media) on data curation, analysis and production of actionable information e.g. briefs, by 2021.	Number of staff trained by sector (CSOs/CBOs, Media etc.).	Lead: Data Advocacy Groups/CSOs, LGTI.  Collaborators: NBS, DPs, CSOs, Private Sector	2020	2021	11,835,000

Objective	Target	Activity	Indicator	Lead agencies & collaborators	Start date	End date	Required funding (TZS)
	3.3 Responsiveness of Kyela District Council to stakeholders' requests for data enhanced by 2024.	3.3.1 To develop a mechanism to keep track of requests for data received by the District Council and District Responses to requestors.	Register of data requests and responses is in place and is being used by June 2020.	Lead: District Council.  Collaborators: National Data Centre, PO-RALG, EGA, DPs, CSOs, Private Sector	2019	2020	24,655,000
		3.3.2 To conduct analyses of data requests once per year to identify "data on high demand" (frequently asked data) and incorporate in data production plan.	High demand data identified and incorporated in data production plan.	Lead: District Council.  Collaborators: Data Advocacy Groups/ CSOs, MDAs, DPs, LGTI Private Sector.	2019	2024	8,060,000
	3.4 Community members participation and use of data in dialogue at statutory hyperlocal community meetings increased by 50% by 2024.	3.4.1 Ward and village Executives to develop and disseminate calendar of statutory community meetings timely to community members each year using innovative technology tools.	50% increase of Community members participating in community meetings by 2024.	Lead: District Council, Community Leaders (at ward and village level).  Collaborators: Data Advocacy Groups/ CSOs, DPs.	2019	2024	21,720,000
		3.4.2 To train 33 ward and 148 village/vitongoji executive officers on mechanism for tracking participation of community members in statutory community meetings.	50% increase of community members participating in community meetings by 2024.	Lead: District Council, Data Advocacy Groups/CSOs  Collaborators: PO-RALG, DPs, LGTI.	2019	2024	30,750,000
		3.4.3 To disseminate more performance data at the hyperlocal community level each year.	Number and types of data accessible at the community level every year.	Lead: District Council, Data Advocacy Groups/CSOs, PO-RALG.  Collaborators: NBS, DPs, Private Sector.	2019	2024	36,200,000
		3.4.4 To conduct analysis of participation of community members in statutory quarterly community meetings once per year.	Report of community participation in community meetings produced and disseminated.	Lead: Data Advocacy Groups/CSOs, District Council  Collaborators: PO-RALG, MDAs, DPs.	2019	2024	6,915,000
	Sub-Total Objective 3						248,980,000
	Sub-Total Objective 1-3						764,347,500
Monitoring, Evaluation & Learning (10% of activity costs)		Gather data & undertake studies to track and document progress and lessons learned from implementation of the data roadmap.	Data and other resources relevant for ME&L are appropriately developed, indexed and archived	Lead: District Council  Collaborators: PO-RALG, DPs, Data Advocacy Groups/CSOs, & Private Sector	2019	2024	76,434,750
Grand Total for Kyela Data Roadmap							840,782,250



# References

- Data Zetu Capacity Pillar Team (2017). Pain Points Prioritization Guide, Kyela District Council. October 2017. [www.bit.y/dzinsights](http://www.bit.y/dzinsights).
- Data Zetu Capacity Pillar Team (2018). Pain Points Prioritization Guide, Mbeya City Council. March 2018. [www.bit.y/dzinsights](http://www.bit.y/dzinsights).
- Data Zetu Capacity Pillar Team (2017). Pain Points Prioritization Guide, Temeke Municipal Council. June 2017. [www.bit.y/dzinsights](http://www.bit.y/dzinsights).
- Ifakara Health Institute (2010): Village Registers: a promising tool for capturing health-related information. Spotlight Issue 5, June 2010. Accessed on 20th September 2018 at: [http://ihi.eprints.org/1777/1/Spotlight\\_Issue\\_5\\_-\\_Village\\_Register.pdf](http://ihi.eprints.org/1777/1/Spotlight_Issue_5_-_Village_Register.pdf)
- Kyela District Council (2011): Strategic Plan 2011/12 – 2015/16. Accessible at: <http://kyeladc.go.tz/storage/app/uploads/public/58d7a5/8c8/58d7a58c81825697108459.pdf>
- National Bureau of Statistics (2018): Guidelines for Preparation of Regional/District Socio-Economic Profiles.
- Open Institute & Global Partnership for Sustainable Development Data (2017): Driving Local Impact of the Global Goals Leveraging the Data Revolution to Identify Local Priorities and Needs for the SDGs: A Tool For the Data4sdgs Toolbox: Accessed on 10th July at: <http://www.data4sdgs.org/sites/default/files/2017-09/Subnational%20Data%20for%20Sustainable%20Development%20-%20Data4SDGs%20Toolbox%20Module.pdf>
- Prime Minister's Office Regional Administration and Local Government (2007), Uandaaji Mpango Shirikishi Jamii Kwa Mfumo wa Fursa na Vikwazo kwa Maendeleo Kiongozi cha Mchakato wa Mapitio na Uwezeshaji. Accessed on 20th September at: <http://tamisemi.go.tz/storage/app/media/uploaded-files/kiongozi-cha-mapitio-na-uwezeshaji-o-od-swahili.pdf>
- Richard A. Voorhees (2007): Institutional Data Readiness Assessment Tool. Accessed on 3rd June 2018 at: [https://www.ccsse.org/center/ssbtdn/docs/Tools/Institutional\\_Data\\_Readiness\\_Assessment\\_Tool.pdf](https://www.ccsse.org/center/ssbtdn/docs/Tools/Institutional_Data_Readiness_Assessment_Tool.pdf)
- Silaa & Van Schalkwyk (2018) Mapping Hyperlocal Health Data Flows: The Case of Kyela District, Tanzania. <http://bit.ly/dzresearch-hyperlocaldataflows>
- United Nations Statistics Division (2017): Cape Town Global Action Plan for Sustainable Development Data. Accessed on June 2nd at: [https://unstats.un.org/sdgs/hlg/Cape\\_Town\\_Global\\_Action\\_Plan\\_for\\_Sustainable\\_Development\\_Data.pdf](https://unstats.un.org/sdgs/hlg/Cape_Town_Global_Action_Plan_for_Sustainable_Development_Data.pdf)
- United Republic of Tanzania, Presidents Office- Regional Administration and Local Governments (PO-RALG) (2018): History of Local Governments in Tanzania. Accessed on October 27th at: <http://tamisemi.go.tz/storage/app/media/uploaded-files/Toleo%20jipya%20Historia%20ya%20Serikali%20za%20Mitaa.pdf>

## **Annex: Categories of stakeholders consulted**

1. Mbeya Regional Office.
2. Officers from the National Bureau of Statistics.
3. Kyela District Council Officials.
4. Ward Executive Officers in Data Zetu Intervention Wards.
5. Ward Leaders in Kyela and in Tandika Ward (Temeke Municipal Council)
6. Data Zetu Program Partners.
7. A sample of Data Zetu identified Custodian Civil Society Organizations/Community based organizations with Activities in Mbeya Region.