Progress report

Joined-Up Data Uganda: improving district-level data for development

A data interoperability project

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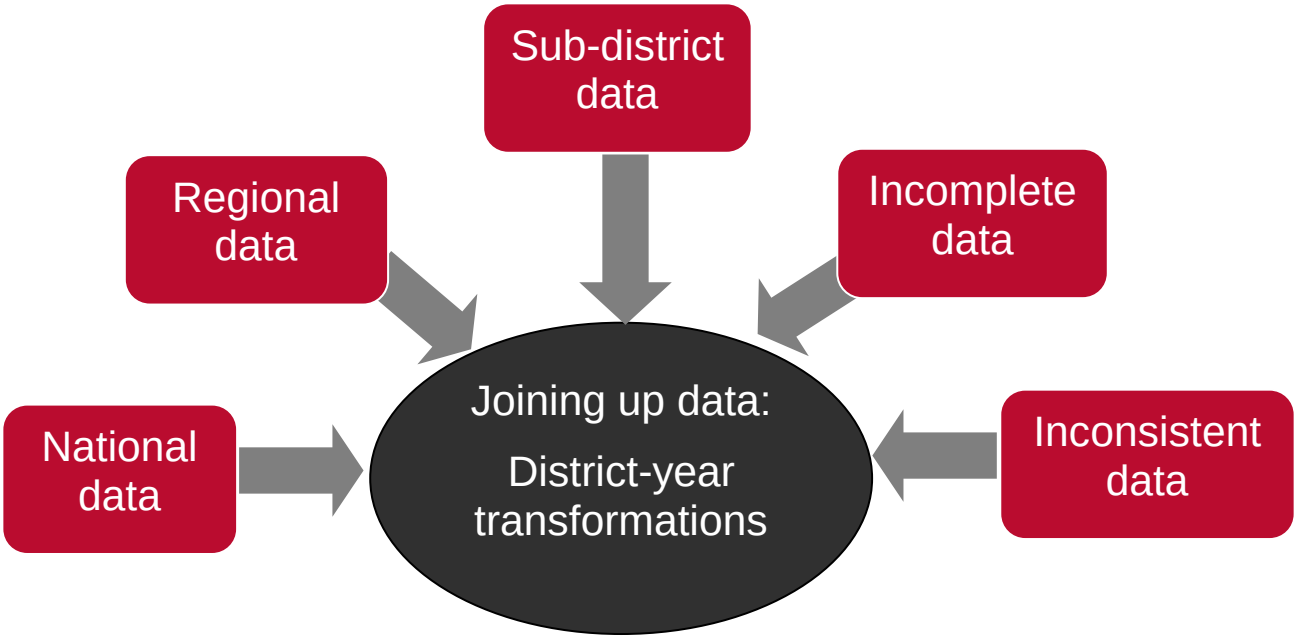

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List of acronyms

BMAU: Budget Monitoring and Accountability Unit

BOT: Budget output tool

CAO: Chief administrative officer

CBO: Community-based organisation

CDO: Community development officer

CFO: Chief finance officer

CSBAG: Civil Society Budget Advocacy Group

CSO: Civil Society Organisation

DEO: District education officer

DHO: District health officer

DI: Development Initiatives

DIS: District inspector of schools

DISO: District internal security officer

DPO: District production officer

DRT: Development Research and Training

EAC: East African Community

EFT: Electronic funds transfer

EMHS: Essential medicines and health supplies

EMIS: Education management information system

FBO: Faith-based organisation

FGD: Focus group discussion

FPAU: Family Planning Association of Uganda

GISO: 'Gombolola' (sub-county) internal security officer

HMIS: Health management information system

HUMCs: Health unit management committees

IATI: International Aid Transparency Initiative

INFOTEP: Information to End Poverty

INGO: International non-governmental organization

IO: Information officer

IPF: Indicative planning figures

KADDAN: Katakwi District Development Actors Network

KASTI: Kampala Slum Transformation Initiative

KTC: Katakwi Town Council

KDLG: Katakwi District Local Government

LC: Local council

LG: Local government

LGMSDP: Local Government Management and Service Delivery Programme

LRA: Lord's Resistance Army

LWF: Lutheran World Federation

MDAs: Ministries, departments and agencies

MFPED: Ministry of Finance, Planning and Economic Development

MoU: Memorandum of understanding

NAADS: National Agricultural Advisory Services

NGO: Non-governmental Organisation

NMS: National Medical Stores

NUSAF: Northern Uganda Social Action Fund

ODDC: Open Data in Developing Countries

Opendev: The Uganda Open Development Programme

PDC: Parish Development Committee

PHC: Primary healthcare

PLE: Primary Leaving Examination

PPA: Programme Partnership Arrangement

PRDP: Peace, Recovery and Development Plan

PS: Permanent secretary

PTA: Parent–Teacher Association

RDC: Resident district commissioner

SFG: School Facilities Grant

SMCs: School management committees

UBOS: Uganda Bureau of Statistics

UCE: Uganda Certificate of Education

UHMG: Uganda Health Marketing Group

UNEB: Uganda National Examinations Board

UNFPA: United Nations Population Fund

VHT: Village health team

WB: World Bank

1. Introduction

Development Research and Training (DRT) and Development Initiatives (DI) are jointly implementing a study on data availability on resource investments in agriculture, education and health in two districts of Uganda, with a view of testing their comparability/interlinkedness with social impact data that exists on the same sectors.

The data interoperability project aims to join-up data that has been collected on agriculture, education and health in the two districts of Kitgum and Katakwi. The two districts, which were part of another DRT/DI project, the Programme Partnership Arrangements (PPA), were selected because they offered a best-case scenario of not being complicated in terms of economic activity and development architecture, and so the data there is easy to map and interact with especially when wound down to sector and sub-county.

1.1 Objective of the study

The objective of the study is to create a pilot model of a 'joined-up data' portal by collating all available data on social spending in three specific sectors, within specific trial localities, to maximum granularity – while building interoperability with social impact data. This innovative 'data partnership' project will provide evidence-based recommendations for international stakeholders who see interoperable data for ending poverty as a global public good. This study was envisioned with a three-stage process in mind:

- **Stage one:** One to three months: Scoping exercise (to learn about the data picture, and identify stakeholders)
- **Stage two:** Three to six months: Collect data, with a view of mapping it and testing for interoperability
- **Stage three:** Six to nine months: Data standards (testing the model with stakeholders and assessing interoperability/usability)
- **Stage four:** Nine to twelve months: Finalise joined-up data portal (connect users and producers, manage feedback)

Review of the project objectives and rationale

The project was premised on the fact that a lot of data exists but that the **right** data still isn't available. There are a large number of data sets but the use to which these are being put remains questionable/limited in its ability to communicate to policy processes.

1.1.1 Key assumptions

- Leaders regularly make decisions on agriculture, education and health; however, these decisions are not based on coherent, timely and joined-up data.
- Different types of data can have more meaning when they are joined for stakeholders.
- There are overlapping sources of data at multiple levels (different international reporting systems).

The overall hypothesis therefore is that if data was joined together in a complementary form this would enable better decision making and resource allocation in the agriculture, education and health sectors.

1.1.2 The Data Revolution debate

This project offers DRT and DI an opportunity to contribute to the post-2015 Data Revolution debate.[1] We believe the global debate has not fully taken into account context issues and the

[1] See our briefing 'A Data Revolution for Poverty Eradication': http://devinit.org/policy-briefings/data-revolution-poverty-eradication/

uniqueness of many developing countries in processes, technology and political economy of data and decision making.

In other words, the gulf between the theory and practice of data revolution is wide. There could be a lot of data but it is not shareable. The ability of national statistical institutions to collect and share data is not fully developed. Some of the hi-tech apps and hackathon-themed inventions do not necessarily solve real-life data and decision-making problems at national and, even more importantly, sub-national levels. The question therefore is how we actualise the global data revolution theory of change, which asserts that providing decision makers with data will translate into better services for citizens. Decision makers must be provided with **better information** to therefore ask **better questions** and find **better solutions**.

How do we provide better information?
Can we provide better information through:

- Better collection, storage and sharing of data
- Better analysis of joined-up data
- Better delivery of analysis.

This is what translates into **useable information.**

The interoperable data project is focusing on the 'twin-track' approach: the global versus practical understanding of the data revolution, acknowledging of local realities and devising of ways to make data revolution speak to these realities. If there must be data standards, there must be uniformity in comparisons. How possible is this when countries are different contextually?

1.1.3 Joining up data

We are drawing on the experience of some of the similar initiatives that are undergoing trials already; International Aid Transparency Initiative's (IATI's) d-portal.org is one example.

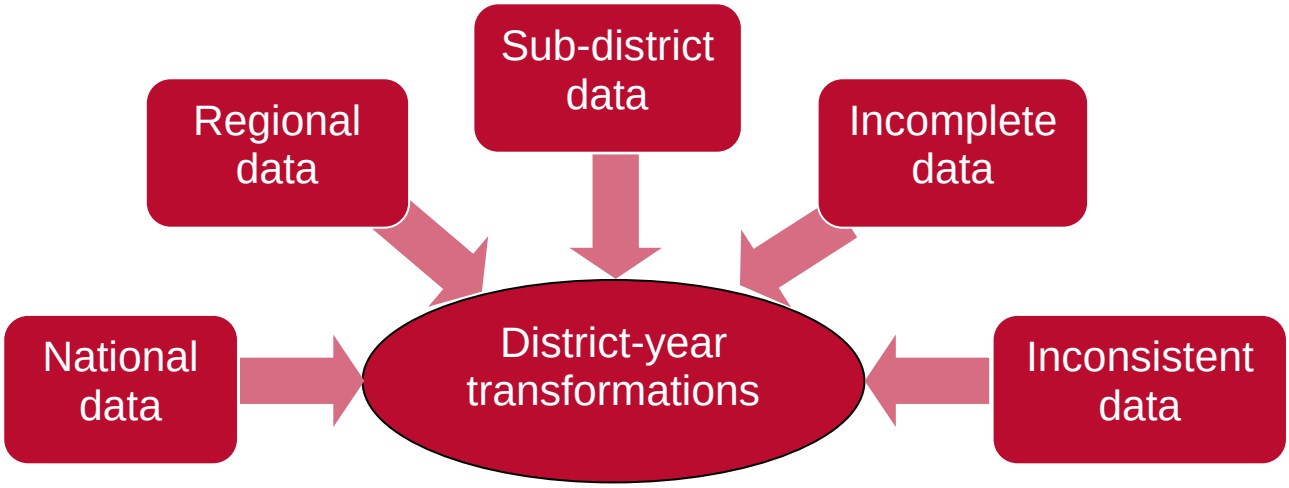
- We will first have to identify what data we need, against what we have. We will then build a system to fill those needs – if there are data gaps, inconsistencies in the different data sources, etc., we shall document them as they will form important findings. These findings will give us an opportunity to decide on whether to explore extrapolation using the available data to determine the value of the missing data.
- Identify the stakeholders.
- Explore what decisions are made in the three sectors and what is the role of data in that decision making?

A feedback loop on the system will help us identify the voices of the users at all levels and take them into account going forward.

2. Progress: Where are we at currently?

Figure 1: Our strategy for linking joined-up local level data to regional and national level data

Joining-up data 2: transformations



To assess the progress and plan for the implementation of the programme, DRT and DI have met three times over the last six months. The first meeting was held at DRT on 14 January 2014 and set course for the study by discussing what methodology was to be used, identifying the right stakeholders at national and sub-national levels, and setting the plans for the work to start figuring out what data was available, and in which format –this was to be done by commissioning a baseline assessment study in the two districts as well as at national level.

The second meeting, held on 7–8 April 2014 at DRT, was intended to take stock of the progress and discuss the results from the baseline study that had been completed.

2.1 DRT baseline assessment and data collection field work

As part of the first phase of the project, we carried out a baseline study of the processes, governance, management and other issues surrounding the availability, accessibility and usability of data. The fieldwork started on 20 March 2014 and ended on 2 April 2014.

2.2 Objectives of the baseline exercise

These include:

- Understanding what data is available on financial resources to/in the two districts on agriculture, education and health
- Identifying what data exists on sectorial outcomes in these sectors ('results datasets')
- Understanding how data is collected, who does the collecting, the mechanism of demand, accessibility, etc
- Understanding who the users are and what their experiences are.
- Understanding who the stakeholders are and how they interact with each other.

2.3 Methodology

- Three teams composed of six DRT researchers visited Katakwi, Kitgum and Kampala (two went to Kitgum, two went to Katakwi and two remained in Kampala to visit ministries, departments and agencies(MDAs), non-government organisations (NGOs) and international

non-government organisations (INGOs), that work in the two districts on the three sectors). The process took five days of data collection and five days of report writing.

- We reviewed an array of documents to inform our process. These included: ministerial policy statements, budget framework papers, district development plans, and MDA and district websites.
- Interviews were the main channels of information collection.

2.4 Research tools

- Question guide: For each responding department a set of questions were used. Data producers and users had a different set of questions (see annex).
- Focus group discussions (FGDs): These were held where a Parish Development Committee (PDC) was concerned.
- Observation: This included photographic documentation, e.g. notice boards.
- Data and document collection: We collected as much data and as many documents as possible (as we had access to).

2.5 General terms, processes and systems, and their meanings

Uganda is a decentralised system of government. It has parliament, district, sub-county, parish and village representatives.

- **District:** The major administrative hub of an area in Uganda's 'decentralised' system of government. Most named after their main commercial and administrative towns. Further subdivided into counties, sub-counties, parishes and villages. Uganda has 112 in total.
- **Sub-county:** The administrative division under the district. There are several in a district.
- **Parish:** Below a sub-county is a parish, and below a parish is a village.
- **Village:** The first level of informal administration.

Most local administration and service delivery is arranged alongside these different levels of structures. Hence there is a health centre at every stage of the decentralised structure: from health centre one at village level (normally a village health team [VHT]), up to health centre five (district hospital). Services keep increasing as one goes up through the system.

The planning process: Government planning is (in theory) 'bottom-up', where decision making on resource investment is done from the local level with the identification of a village's priorities. However, because local governments (LGs) have very little or (in some cases) no locally generated revenue, and largely depend on central government and donors for funding of their priorities, they can only make plans – which they can't actualise (fund) themselves. The government sets what in Ministry of Finance parlance is known as 'indicative planning figures' (IPFs), which is an amount the government expects LG to plan, bearing in mind no LG can plan for anything that costs more money than the IPF. Therefore while planning is bottom-up, funding is a top-bottom procedure.

Figure 2: The LG system and the planning process

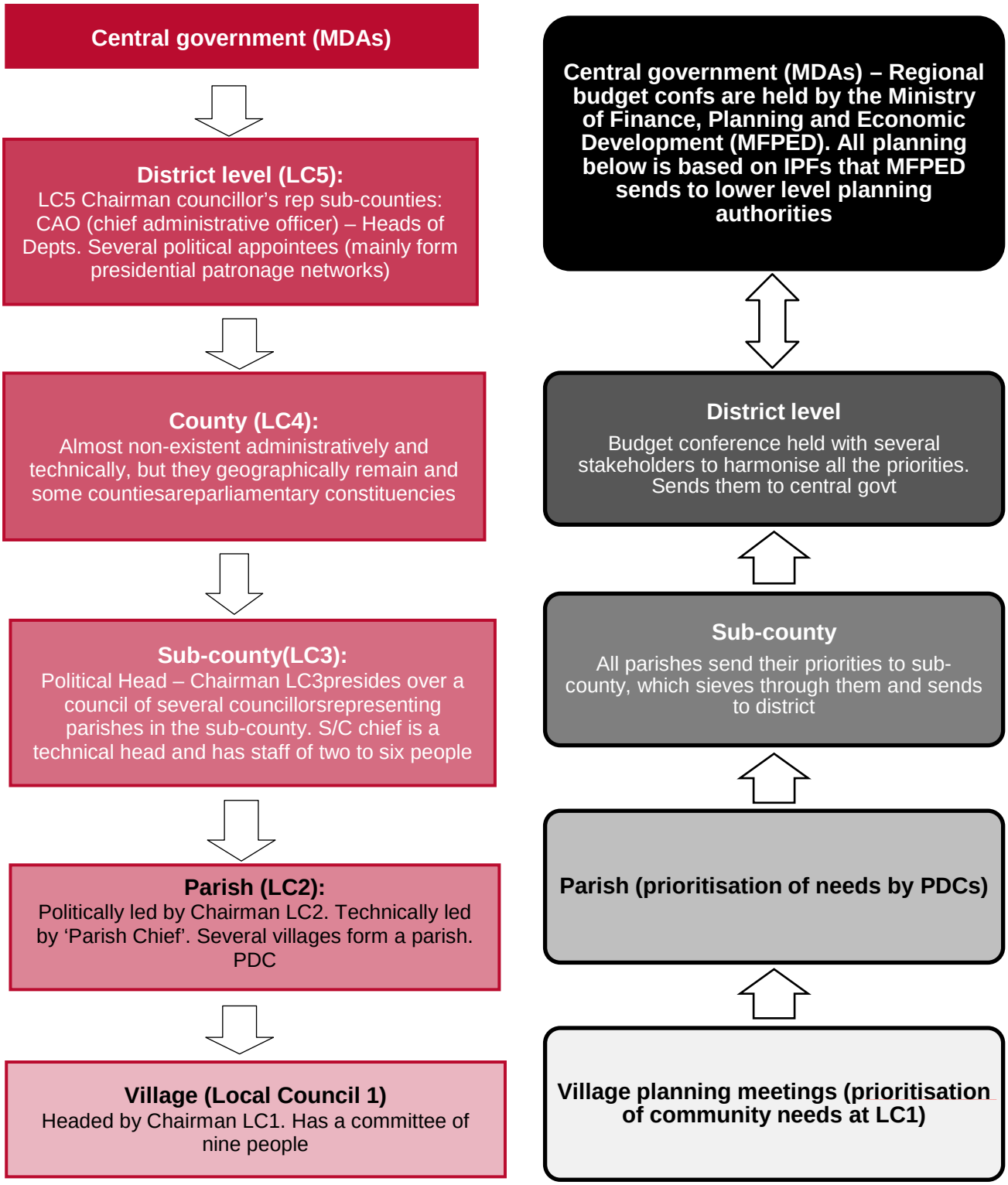
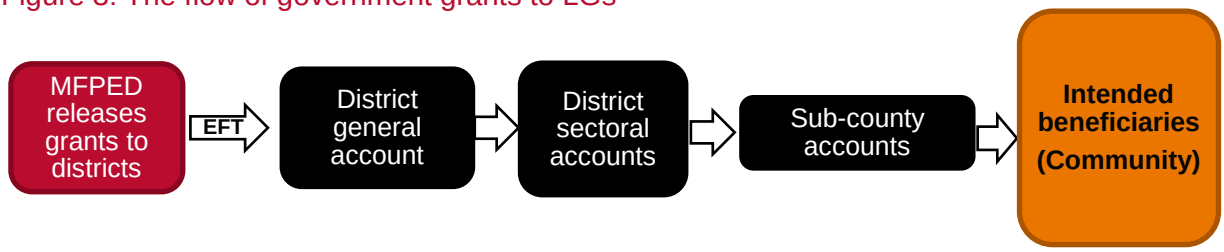


Figure 3: The flow of government grants to LGs[2]



Common types of funding for districts

Local revenue: Always dismal (0–3%), except for Kampala, which has a lot of taxable economic activities.

Central government funding:

- Conditional grant: This Can only be used for purposes agreed upon between central government and local governments.
- Unconditional grant: The district may use it as they wish and only provide accountability to the government.
- Equalisation grant: Used to supplement on the local revenue and bridge the discrepancy that may exist with other districts.

Donors: Budget support or project support – some donors implement their own projects, directly in the community, by passing all levels of government.

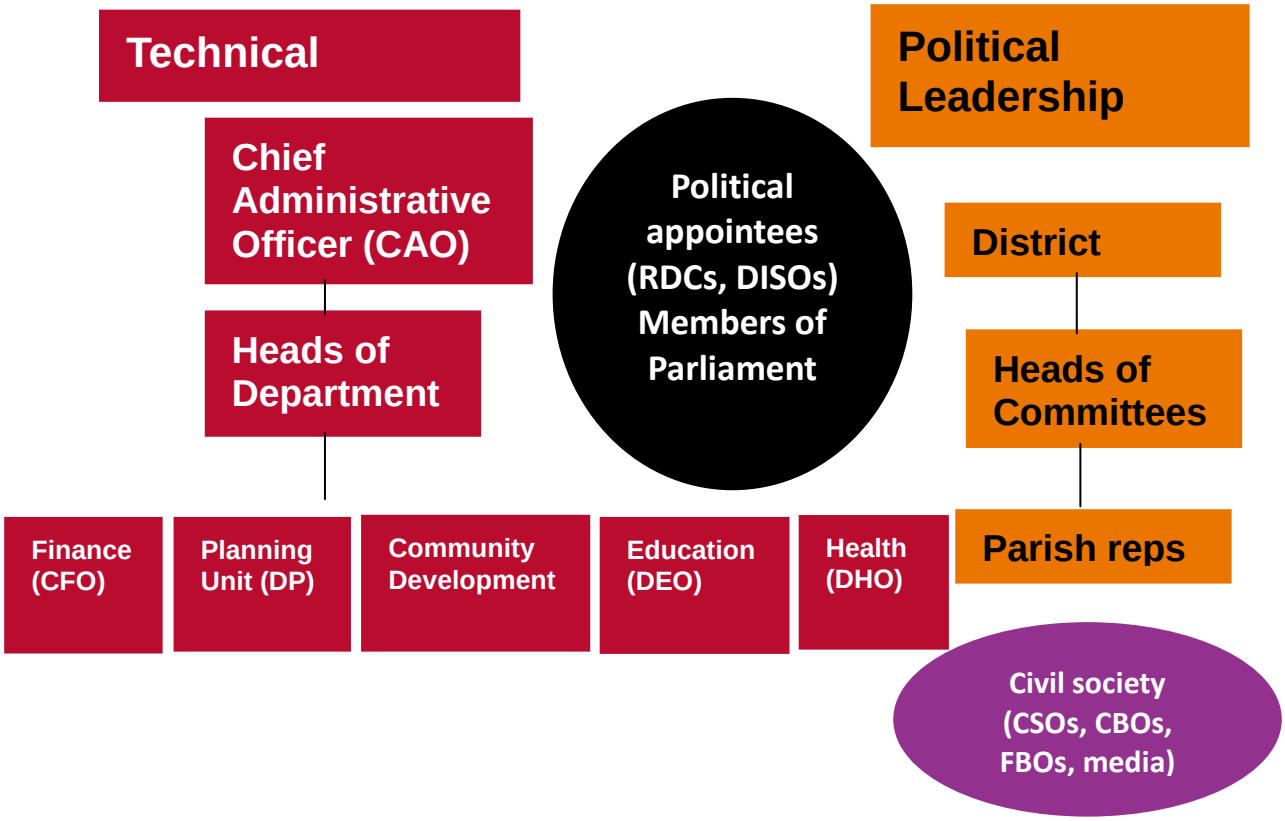
2.5.1 Structure of district administrations and the stakeholder relationships ecosystem

Most districts have similar structures as set by the central government, with technical officials appointed by the central government (though the recruiting process is managed by the district service commission). Some districts with special programmes like the Northern Uganda Social Action Fund (NUSAF) and those by some donors may have extra staff to handle those specific projects. The district has a technical wing and a political one managed by elected officials (Chairperson LC five, and councilors representing sub-counties). The technical wing is headed by the district chief administrative officer who supervises several departmental heads. Then there are other political appointees, especially those appointed by the president under his far-reaching patronage network. Some of these may wield more power in decision making than the professionals. These include resident district commissioners (RDCs), district internal security officers (DISOs), 'Gombolola' (sub-county) internal security officers (GISOs), etc. Then there is the district based civil society that includes NGOs, community-based organisations (CBOS), faith-based organisation (FBOs) and the local media. These are supposed to provide the traditional checks and balances by ensuring accountability and transparency in the district leadership.

It is always important to understand these power relations in the quest to understand decision making, service delivery and the performance of different sectors.

[2] Some MDAs are changing their grants flow systems to stamp out corruption. The Ministry of Education now spends money directly to schools' accounts, Health to health centres' accounts, bypassing districts. This is in turn is impacting relationships between these levels of service delivery in planning, reporting, etc.

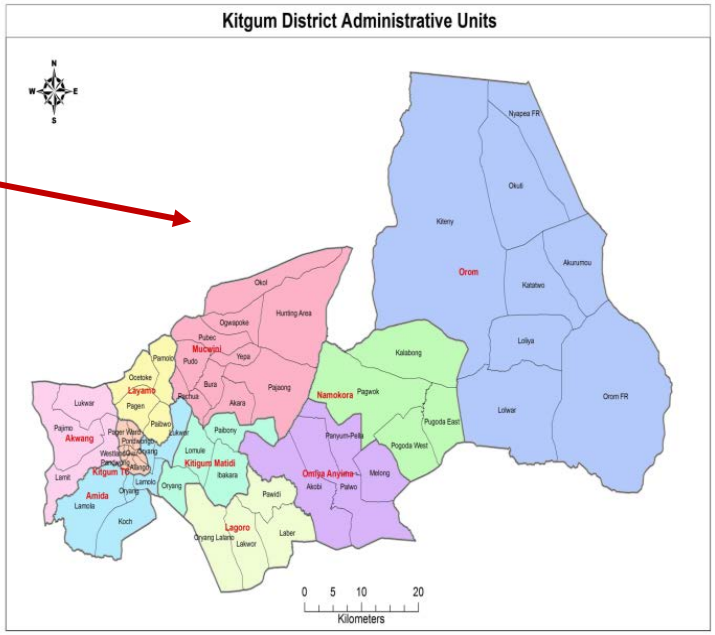
Figure 4: Layout of key stakeholders at the district level

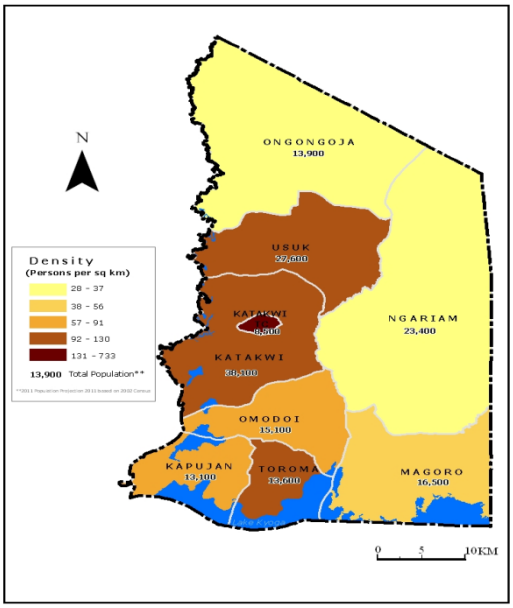


2.6 About Katakwi and Kitgum districts

The two are located in the northern part of the country. Katakwi was split into two, creating Lamwo to the north–west, in 2011. The two were selected for this study because they are not 'complicated' – they have basic local economies, have suffered 20 years of war and have been recipients of massive humanitarian aid over the last 20 years. The two districts are also part of the five districts of the PPA, a five-year project DRT and DI have been implementing (now in the third year).

Figure 5: Map of Uganda showing location of Kitgum and Katakwi districts





KATAKWI

Population: 169,800 (est. 2011).Location: Teso sub-region of north-eastern Uganda.Heavily affected by natural disasters, such as floods, drought and cattle raids

Livelihoods: Subsistence farming (millet, sorghum)

KITGUM

Population: 259,840 (est. 2013). Epicenter of 20 years of the Lord's Resistance Army (LRA) war. Prone to floods and droughts. Bordering South Sudan in northern region

2.7 Findings from the baseline study

Processes of data access

The fact that the two districts were remarkably different in terms of what data was available, the processes of access, attitudes of officials in charge and general data management practices was quite surprising for us. Almost all districts have similar procedures; for example, they both use central government resources (at least according to proportionality) and have a similar number of staff, so one would assume that the experiences would be similar. These two districts have also suffered the impact of the Lord's Resistance Army (LRA) war and are located in a similar region; their local economies and livelihoods also don't differ much.

Our experience in Katakwi, however, was far more positive than in Kitgum. First was the reception by the district leaders. The Katakwi chief administrative officer (CAO) made it his mission to answer all the questions, telephoning his colleagues to cooperate with the team, as well as providing any data our research team requested. Whether this is the structural way/systematic way of doing things in Katakwi would take more than one visit to tell, but clearly the leadership seemed genuinely interested in what we had to say. The data was also more available in various forms. On the other hand, in Kitgum the officials were not as cooperative and most were not available. The experience at the national level, particularly with MDAs, was not any better. Most permanent secretaries (PSs) –who by most regulations are the ones supposed to sanction the release of any data – were out of office and it took a lot of time (on average two weeks) to find them and for them to assent to the interviews in the ministries.

Civil society organisations were more cooperative, but some NGOs with outposts in the districts would not release any data, saying that only the headquarters in Kampala would do such a thing. These NGOs included big charities such as Oxfam, MercyCorps and World Vision that run millions of dollars' worth of projects. Most have 'information policies' in which those very regulations are spelt out.

Table 1: Some of the data on funding that is available from the districts

Financial data	Social impact data
	Education
	Enrolments – primary schools
	Performance in exams – Primary Leaving Examination (PLE)and Uganda Certificate of Education(UCE)
Budgets and annual work plans	Number of staff quarters constructed, schools, etc.
Budget performance reports: approved, released and variance. All disaggregated into financial years and sectors	Health
IPFs	In-patient and outpatient attendances at health units
Financial statements and reports	Number of deliveries in health units
Transfers to lower LGs	Number of health facilities constructed
National Agricultural Advisory Services (NAADs)funded projects	Access to reproductive and family planning services
Primary healthcare (PHC) transfers	Mosquito net distributions
Northern Uganda Social Action Fund (NUSAF) approved and funded projects	Sanitation status (e.g. toilet ownership)
	Drugs and drug-kits3 distributed
	Agriculture
	Number of NAADs groups formed
	Agricultural inputs distributed

2.7.1 How data is collected in the districts

- Most districts use the Ministry of Finance, Planning and Economic Development (MFPED)-provided budget output tool (BOT) – a Microsoft Access template database given to sector heads to document financial expenditures.
- Data is also collected at service points/health units using the health management information system (HMIS) forms issued by the Ministry of Health to collect biostatistics from health centres, which are later entered into a digital version of the form. At schools, teachers use the education management information system (EMIS) form or statistical returns on which they count students, dropout rates, teacher absenteeism, etc.
- Through Supervision, monitoring and evaluation visits to communities in which data are collected by community development officers (CDOs), sector heads, sub-county chiefs, PDCs, etc.
- Community initiatives and platforms in which individuals provide information to authorities, such as school management committees (SMCs),health unit management committees (HUMCs) and beneficiaries of programmes; for example, the National Agricultural Advisory Services (NAADs), and NUSAF, which provide data to their service providers.

"They need it for what? And why should we share the information with them?" – Kitgum district official, when asked whether anyone can freely access data at the district

[3] A packet containing a variety of drugs the Ministry of Health sends to Health centres regularly

2.7.2 Data formats

Most of the data is in hard copy in the form of printed reports, books and papers; some of it is soft copy, predominantly in Microsoft Word and PDF, with a few datasets in Excel and Access.

2.7.3 Data sharing/dissemination

Most sharing of data is done in a more traditional way.

- The notice board remains a key tool in sharing data. Notice boards are displayed in various places in the two districts, such as in district headquarters, schools, health units and clinics. Even at the national level, MDAs still widely use the noticeboard.
- Websites: Kitgum has a website (www.kitgum.go.ug) on which some information on Kitgum can be found. Most MDAs have a website;these are, however, rarely updated and most data there is in PDF format.
- Meetings such as budget conferences, sector coordination meetings, Barazas[4], quarterly meetings, etc. are held.
- Soft copies are disseminated using flash disks, emails via internet, etc.

2.7.4 Data accessibility

The formal process of accessing data involves gaining authorisation from the chief administrator of an MDA for the national level (a PS in this case) and the CAO in the district. These officials are legally termed the 'official custodians' of all information in a ministry or district. The PS or CAO later designates the responsible heads in the institution to offer data to the one demanding it. In most cases, these are sector heads such as the district education officer (DEO), district production officer (DPO) or district health officer(DHO).

But there are easier ways of accessing data including:

- Observation at the notice boards: Districts are by law supposed to display central government releases on notice boards for public access, as well as other information.
- Informal methods: Approaching the custodians of information without any authorisation – this is dependent on the relationship between the information seeker and the custodian of the data.

[4] A community social accountability process in which community members are mobilized and district officials are tasked with explaining to community members what has been done with financial resources sent to that community. Originated in the Office of the Prime Minister (OPM).

Image 1: Data on Primary Leaving Examination results displayed at a notice board in Katakwi district

2.7.5 What is the data used for?

- Respondents at the national and district levels told us that they use data in the planning process to make informed decisions.
- Civil society organisations particularly use the data in advocacy and engagements with local and central governments and among each other.
- Some of the data, especially social impact data, is used in the measurement of project performance and progress.
- Data is collected for accountability and transparency purposes. For most departments, reporting templates come from the ministries directing districts on what data to collect and how to collect it. In some cases, however, districts also determine their own data needs and how to meet them.

2.8 Challenges in data generation, accessibility and dissemination

- Limited financial resources: Most MDAs, and by extension districts, have very small (if any) budget lines for data collection. All districts are supposed to have a district statistician working from the district planning office, under the district planner. The government recruits them to assist MDAs and districts to make sense of data generated in the districts. However, most of them are overworked because they work alone, and some even have trouble getting data from colleagues in the different departments. Districts and MDAs also have information officers (IOs) who are supposed to be spokespeople for them. These two offices, however, are some of the most underfunded offices in the government. Districts have to scrap from their meager locally generated resources to fund the offices, as the central government doesn't take responsibility for them. It is the district's role to hire an IO and, as a result, many do not have that position, despite it existing in most district organograms.
- Human Resources: There are staffing gaps and lack of sufficient expertise at different levels to generate, analyse, and synthesise data. This is a problem from right at the centre of

government to the LGs. Data professionals can be almost not attracted to the government meager salaries when the private sector and NGOs are equally desirous of their service and pay more. Some of the districts improvise and use staff members who are not statisticians to perform the role. In both districts, we found that head teachers, nurses, clinical officers, etc. were in charge of data collection in their respective service points.

- Unreliable data: The methodologies employed in data collection and tools used in analysis and execution are questionable and authorities said some are to be doubted. Some Officials may overstate or understate figures for a host of reasons including anticipation of more funding or reluctance to portray a bad picture of their ministry, department or agency

In summary: Challenges of data collection, storage, analysis and dissemination in Kitgum and Katakwi districts

- Technological challenges – unstable electric power, computers crashing where available, etc.
- Non-machine readable data (most keep it in hardcopies)
- Bureaucracy and long, comprehensive procedures to access data
- Missing data due to changing staff in departments and poor handover processes
- Poor data storage facilities – some institutions lack computers and stores
- Lack of functioning website due to lack of IT specialist and funds for hosting it (Katakwi). Kitgum has a website but a very basic one. The sections for departmental data and publications mainly have administrative data
- Delays in data sharing among departments
- Poor coordination between different stakeholders such as NGOs and the districts

2.9 Suggested improvements

We asked our respondents to give us their opinions on what they think needs to happen to ease data collection, access and use, and their responses shows how important the issue of data is for them.

- There is a need for the government of Uganda to invest in data management initiatives. This includes allocating funds for data generation, development of data banks as well as data sharing. This can include establishment of a district library with all the relevant district information including data sets.
- There is a need to create demand among stakeholders through informing them on the importance of data. Most of our respondents said that there is limited demand for data at the district by all stakeholders including NGOs and communities. The local civil society is majorly interested in financial data and less interested in other sorts of data. The chief finance officer (CFO) of Katakwi district said that community members themselves rarely visit his office to demand for any financial data. However, there were cases where district officials also hang-on to data and are unwilling to give it out. They give a variety of excuses to wear down the data seeker or even outright refuse to give data out, citing the 'Public Servants Standing Orders' they sign on assenting to their jobs.
- Districts should have functioning, regularly updated websites where data can be shared with a variety of users in and outside the districts.
- Donors in the districts should share their information with the districts during the budget conferences and quarterly sector meetings highlighting their plans, budgets, achievements,

challenges and way forward. This will go a long way in minimising duplication of development interventions and making better resource investment decisions.

- There is also a need to train district staff in data issues such as collection, analysis and interpretation. This calls for capacity building of the district staff by the government of Uganda and other actors with resources and expertise.
- Inter-agency and inter-departmental coordination among staff is necessary to ensure timely collection and dissemination of data.
- The government should also equip different institutions with computers, where data can be analysed and stored.

"Often there is no uniformity of the information and this becomes difficult to know what information is reality and what is compromised." Sub-county chief of Kitgum-Matidi sub-county, Kitgum district.

3. Conclusion and way forward

The data interoperability project is on track to achieve the different self-set milestones under the four stages. It is important to note that some of the activities in stage two have been, to a small extent at least, tackled in the first phase. This is because of the cross-cutting nature of the different issues set out under the four phases.

3.1 Next steps: Testing interoperability

DRT and DI are going to use the Ugandan Open Development Programme (Openddev) (www.opendevdata.ug) to start testing out joining up data particularly data at local level. On this, we have identified at least one key issue under each of the sectors to start with. The issues are as follows:

1. Education: Quality of education (the following datasets will be collected)

    - Teacher–pupil ratios
    - Education infrastructure data (pupil–textbook ration, desks, etc.)
    - Capitation grants to schools
    - Examination performance

2. Health: Maternal Mortality

    - Data on distance to nearest health centre
    - Level of staffing (number of midwives, doctors and other support staff)
    - Financing of health facilities (primary healthcare [PHC]grants, ministry of finance releases to districts for health budgets, etc.)

3. Agriculture: Scale of yields and total commercial production[5]

    - Fertiliser usage
    - Average size of land under production per sub-county

3.2 Strategy for trial-testing joining up data

We will broaden consultations to a range of actors in the three sectors to collect and collate more data so that we can tell the most urgent and appropriate story with joined-up datasets. These might include: Uwezo, Uganda National Examination Board, Economic Policy Research Centre (education), United Nations Population Fund (UNFPA), Family Planning Association of Uganda (FPAU), Uganda Health Marketing Group (UHMG), The World Bank (health), as well as Uganda Bureau of Statistics (UBOS), for agricultural surveys.

Taking advantage of our other projects to further the objectives of this study

DRT and DI are involved in several projects on open data and tracking resource flows that blend well with the overall objective of this study. We are joining efforts to work on data that has been collected before under the PPA, the Open Data in Developing Countries (ODDC) study, Development Initiatives' Information to End Poverty programme and the Kampala Slum Transformation Initiative, and are working with our current partners for mutual advancement of the study's goals. Some of the key activities following this phase include:

- Working with the Budget Monitoring Unit of the Ministry of Finance to conduct budget performance monitoring activities in Katakwi and Kitgum districts

- Using UBOS, through our memorandum of understanding (MoU) on the INFOTEP and Opendev projects, to link with other national statistical offices in the East African Community (EAC) region.

[5] Further consultation to be made with district production officers to determine which variable to focus on while consolidating the different datasets.

- Working with UBOS to reach subnational and community levels with data dissemination where the institution otherwise doesn't reach
- Working with the GIS division of UBOS to use its shape files on Kitgum and Katakwi and map the key service points and infrastructure under these sectors in the districts, as well as any other relevant demographic and geographical data (e.g. constituency, sub-county and district maps)
- Compiling an index of all the challenges as identified in the baseline study
- Presenting to district leaderships the key objectives of the study, emerging outcomes and our projected outputs. This will involve using field visits to the districts, and other means to reach out to both national level and sub-national level stakeholders
- Ongoing ranking of stakeholders; identifying new ones along the way.

We are in the process of digitising all the raw data we collected from the districts and the national level, most of which is in hardcopy format. Thereafter, we will upload everything on to the Opendev website, which is for now our main workstation to communicate the processes and emerging outcomes of the study.

By August, we intend to have the first iteration of the joined-up data portal in a demonstrable form.

At least three interns are coming to DRT; one from AidData in the USA with significant experience on working with geocoding, and two other local interns who will help with the digitisation process.

4. Annexes

4.1 List of respondents

Kitgum

Position
District information officer
District agricultural officer
District inspector of schools (DIS)
Sub-county chief – Kitgum Matidi
Agricultural manager – Mercy Corps Uganda
Centre coordinator – Food for the Hungry Uganda
PDC – KItgum Matidi
District health officer
Acting district planner

Katakwi

Position
CAO
Deputy CAO
District planner
Project officer – Katakwi District Development Actors Network (KADDAN)
Program officer – Lutheran World Federation (LWF)
District education officer
Senior probation officer – CD
Production officer
Deputy CFO
NAADS coordinator
Recruitment officer – human resources
Health inspector – Katakwi town council

National level respondents

Position	Organisation
Communications officer	Uganda Debt Network

Programme director	Civil Society Budget Advocacy Group (CSBAG)
Director	Budget Monitoring and Accountability Unit (BMAU), MFPED
Programme manager	Uganda National Health Consumers Organisation
Director of communications	UBOS
Senior statistician	Ministry of Education
Communications	World Bank country office, Uganda
	Anti-corruption coalition of Uganda

4.2 Question guide

Data interoperability Project

A. Districts

CFO/CAO

Financial data

1. What are the sources of funding to your district on:

   - agriculture
   - health
   - education sectors?

(Probe to find out what exactly this source funds within each sector)

2. What data exists on financing of:

   - education (SFG, salaries of teachers, special needs, etc.)
   - health (health units, drugs, etc.)
   - agriculture?

(Could be budget data, spending, etc.) – *Make sure you ask for a copy of each of those data*

In general, you must first get these district documents:

- *district work plan and budget*
- *departmental reports, etc. (to get key data/indicators in each sector)*
- *district's physical and demographic data.*

1. How accessible/inaccessible is the data?
2. From where can it be accessed (what are the procedures? – kindly describe the process)?
3. On what administrative level is the data available (national level, district, sub-county, parish)?
4. In what format isthe data(reports, datasets/excel sheets, pdfs, etc)?
5. What is the level of demand for this data?
6. Who demands it (NGOs, district staff, etc.)?
7. Is there a central place where this data can be found?

In general, you are trying to figure out who provides this data and how? (Actual source; method; reliability; regularity; format)

8. What kind of financial data exists at:
    - sub-county
    - parish?
9. How can it be accessed?
    - What are the mechanisms of financial/budgetary reporting? (What is the hierarchy like? How often?)
    - Is the district spending data accessible? How and where (website, notice boards, etc.)?
    - Who are the major funders of the district?
10. Does the district have a website? If yes, do you publish this data on it?

Impact data

11. How do you measure performance of these sectors?
12. What data do you use?
13. What data is available on the performance of these sectors/status of these sectors (exam performance, status of classrooms, class–teacher ratios, disease outbreaks, deaths, deliveries, etc.)?
14. How is the data generated?
15. Who generates it?
16. Is the data always timely?
17. How is it stored and shared (notice boards, website, reports, books, etc)?
18. In which format is it?
19. Is it accessible?
20. What are the challenges you face on accessing data for use in your work?
21. What are your suggestions to better data generation, sharing and accessibility in the three sectors?

District planner/CAO:

1. Describe the planning process.
2. How is the planning specifically done for the:
    - education sector
    - agriculture sector
    - health sector?
3. What data/information/indicators determine your planning/resource allocation for these sectors? (E.g. how do you determine how much to allocate to each sector, to each sub-county, parish, school, village, etc.? Is this decision at the district, national or sub-county level?)
4. Do you have enough data to inform your planning? How accurate, reliable and regular is the data? Is it uptodate?
5. What other data do you need to enable better planning?
6. How would you want to access this data better (i.e. provide recommendations on how to standardise data in the district)?

7. What other data on these three sectors do you collect and why? How do you collect it? What are the challenges?

Impact data (district planner continued)

1. How do you measure performance of these sectors?
2. What data do you use?
3. What data is available on the performance of these sectors/status of these sectors (exam performance, status of classrooms, class–teacher ratios, disease outbreaks, deaths, deliveries, etc.)?
4. How isthe data generated?
5. Who generates it?
6. Isthe data always timely?
7. How is it stored and shared (notice boards, website, reports, books, etc.)?
8. In which format is it?
9. Is it accessible?
10. What are the challenges you face on accessing data for use in your work?
11. What are your suggestions to better data generation, sharing and accessibility in the three sectors?

District education officer

1. Describe the planning process for the education sector in the district.
2. What data/information/indicators inform the planning for education? (How do you determine how much to invest in the sector?)
3. Is this data available?
4. Is it timely?
5. Who are the major funders of education in the district?
6. What do they fund in education? (ask this for each partner)
7. Who are the major stakeholders of the education sector in the district?
8. What role is played by each?
9. What are the data needs of each of these stakeholders?
10. What data is available to each of the stakeholders?
11. Are their data needs taken care of (e.g. does the PTA have access to school performance data, budgeting, etc.)?
12. Where can they find this data?

Social impact data

1. How do you measure performance of the sector?
2. What data do you use?
3. What data is available on the performance of the sectors/status of the sectors (exam performance, status of classrooms, class–teacher ratios, etc.)?
4. How is the data generated?

5. Is the data alwaystimely?
6. Who generates it?
7. How is it stored and shared (notice boards, website, reports, books, etc.)?
8. In which format is it?
9. Is it accessible?
10. What are the challenges you face on accessing data for use in your sector work?
11. What are your suggestions to stream data generation, sharing and accessibility in the education sector?

Now ask him/her for some of the data he said is available.

District health officer (also interview HMIS officer)

1. Who are the major funders of the health sector in the district?
2. What aspects of the health sector do they fund?
3. How much do they invest/what is the nature of the support?
4. Please describe the nature/process of the partnership?
5. What data exists on health financing in the district (budgets, etc.)?
6. To what level/granularity? (Here you want to know the details of that budget data. Is it descriptive? Up to how much ends up at a health centre one, VHT or health centre two, in vivid details?
7. Is the data accessible? How?
8. What other data on health exists or do you collect in the district (disease outbreaks, deaths, births, staff turnover, etc.)?
9. How is the data collected?
10. How is it stored, shared?
11. To what extent do you use the data in your planning? How?
12. Describe the planning process for the health sector in the district.

Social impact data

1. How do you measure the state of service delivery in the health sector?
2. What data do you use?
3. How available is that data?
4. How do you share the data (reports, briefs, etc.)?
5. With whom do you share the data on sector performance?
6. Do you have enough data to use in your planning?
7. What challenges do you have with data collection, accessibility and sharing?
8. How would you want to better access, use and share your data?

District statistician/district information officer

1. What data exists on the following district sectors:

    - Agriculture

- Health
- Education?

2. How is data collected for:

   - Agriculture
   - Health
   - Education?

3. How is it accessible (describe the process)?
4. How is it stored?

   - In what format is the data (reports, datasets/excel sheets, pdfs, etc.)?

5. What is the level of demand forthis data?

   - Who demands it (NGOs, district staff, etc.)?

6. Is there a central place where this data can be found?
7. What are the challenges of general data collection, accessibility and use on these sectors?
8. What are your recommendations for better data collection, access and use?

Department of production (district production department)

1. What data exists on agriculture in the district?

   - Financial data
   - Production/sector performance data

2. How isthe data collected?
3. Is it accessible?
4. What is it used for?
5. What is the demand for the data like?
6. Who mostly makes requests for the data?
7. What is the procedure of accessing it?
8. What are the challenges you have on data collection?
9. What are the challenges of data management?
10. What challenges do you have on accessing important data on agriculture and production yourself?
11. How can these challenges be addressed?
12. How important is data in your work? (What do you use it for and how?)

Technical planning committee chairperson (or secretary for education, health or agriculture)

District planner/CAO

1. Describe the planning process.
2. How is the planning specifically done for the:

   - education sector
   - agriculture sector
   - health sector?

3. What data/information/indicators determine your planning/resource allocation for these sectors? (E.g. how do you determine how much to allocate to each sector, to each sub-county, parish, school, village, etc.? Is this decision at the district, national or sub-county level?)
4. Do you have enough data to inform your planning? How accurate, reliable and regular is the data? Is it uptodate?
5. What other data do you need to enable better planning?
6. How would you want to access this data better (i.e. provide recommendations on how to standardise data in the district)?

What other data on these three sectors do you collect and why? How do you collect it? What are the challenges?

Social impact

7. How do you measure performance of these sectors?
8. What data do you use?
9. What data is available on the performance of these sectors/status of these sectors (exam performance, status of classrooms, class–teacher ratios, disease outbreaks, deaths, deliveries, etc.)?
10. How is the data generated?
11. Who generates it?
12. Is the data always timely?
13. How is it stored and shared (notice boards, website, reports, books, etc.)?
14. In which format is it?
15. Is it accessible?
16. What are the challenges you face on accessing data for use in your work?
17. What are your suggestions to better data generation, sharing and accessibility in the three sectors?

Data user CSOs

1. What kind of data do you use in your work on:
    - agriculture
    - education
    - health?
2. How important is data in your work (what do you use it for and how)?
3. How do you access data? (Describe the process)
4. How do you share the data?
5. Do you produce any data yourselves on these sectors? How, why and how often?
6. What are the challenges of producing, accessing and using data on these sectors?
7. What recommendations do you give for easier availability of timely, accessible and complete data?

MDAs

1. What type of data exists on:

- agriculture
- health
- education?

2. What is the procedure of accessing it?
3. How is it collected, stored and shared?
4. Why is data important in the ministry's/agency's work?
5. Who are the users of your data?
6. Whatis the demand like for data from users?
7. Who are the stakeholders in data production, analysis and use in:
   - education
   - health
   - agriculture?
8. What are the challenges of production, storage and use of your data?
9. How can those challenges be addressed?

Checklist of data collected, year, format and source

Kitgum: Available financial data

Sector	Data collected	Format	Period/years	Source
Financial data				
Agriculture	Production department releases workplan and budget	Hard copy	2012/13–2013/14	District information officer/district planner
	NAADS Financial releases	Hard copies	2012/13–2013/14	District information officer
Education	Education department releases workplan and budget	Hard copies	2012/13–2013/14	District information officer/district planner
	Capital development under LGMSDP	Hard copies	2012/13–2013/14	District information officer
	School inspection	Hard copies	2012/13–2013/14	District information officer
	School facilitation grants	Hard copies	2012/13–2013/14	District information officer
	Construction of secondary schools	Hard copies	2012/13–2013/14	District information officer
	Local revenue			Still following up
Health	Health department releases work plan and budget	Hard copies	2012/13–2013/14	District information officer/district planner
	District transfer to PHC	Hard copies	2012/13–2013/14	District information officer
	Transfer to NGO hospital	Hard copies	2012/13–2013/14	District information officer

General/admin/other	Wages	Hard copies	2012/13–2013/14	District information officer
	Transfers to sub-counties	Hard copies	2012/13–2013/14	District information officer
	District development plan	Hard copies	2012/13–2013/14	Chief finance officer/district planner
	District budget estimates (revenue and expenditure	Soft copies	2013/14–2014/15	Chief finance officer/district planner
	Indicative planning figure			
	Local revenue	Hard copies	unspecified	Not provided

Kitgum: Available social impact data

Sector	Available data	Data collection methods	Sources of data	Data formats	Dissemination channels
Education	Number of schools Enrolment Completion rates Minutes of the education executive committee	DIS Associate assessors Barazas Telephone calls	DIS District planner	Access and Excel spreadsheet Word documents Graphically presented	Technical planning committees School management committees Parent–Teacher Association (PTA) Notice boards Associate assessors
Health	Disease HIV/AIDs prevalence Data on drugs supplies Postnatal and antenatal care Disease prevalence	VHTs Data accessed from facilities, Health centres one, two, three, and hospitals Barazas	District planner	Graphically presented	Note: All health data is stored in the District Health Information System Health department coordination meetings Notice boards
Agriculture	Yield data Rainfall pattern Input data	Extension staff NAADs coordinator	District planner	Hard copy information Graphically presented	Budget conference Radio Barazas Notice boards

Katakwi: Available financial data

Sector	Data collected	Format	Period/years	Source
Agriculture	NAADS releases	Hard copy	2006/7–2012/13	Katakwi district
	Katakwi district NAADs cash flow	Hard copy	2010/11	Notice board

	KTC NAADs registered farmer groups	Hard copy	2011	Notice board
Education	Katakwi district education work plan/budget	Hard copy	2013/14	Katakwi district education dept
	Indicative planning figures	Hard copy	2012/13	DEO
	List of projects to be implemented	Hard copy	2013/14	Notice board
Health	Summary of drug supplies from NMS to health units	Hard copy	2011/12	Katakwi district LG
	Essential medicines and health supplies (EMHS) vote 116 credit line performance	Hard copy	2012/13	Katakwi district hospital
	Financial statement (budget performance)	Hard copy	2011/12	National medical stores
	Financial statement	Hard copy	Quarter 1&2 – 2013/14	National medical stores
	Financial statement	Hard copy	2012/13	National medical stores
	Katakwi district department – Transfer of PHC non-wage to lower health units	Hard copy	Second & third quarters 2013/14	Notice board
	PHC transfers to NGO health units	Hard copy	1st quarter 2011	Health accounts dept
	PHC transfers to NGO health units	Hard copies	3rdquarter	Health accounts dept
	Transfer of funds to lower units	Hard copy	2012	Health accounts dept
	Transfer of funds to Katakwi hospital	Hard copy	2012	Health accounts dept
General/admin/others	KDLG budget performance report	Hard copy	2012/13	District planner
	KDLG performance report	PDF	2011/12	District planner
	KDLG performance report	PDF	2013/14	District planner
	KDLG statement of financial performance	Hard copy	2009/10	KDLG – CFO
	KDLG performance contract	PDF	2012/13	District Planner
	KDLG performance contract	PDF	2011/12	District planner
	KDLG performance contract	PDF	2013/14	District planner
	KDLG budget performance report	Hard copies	2013	KDLG –CFO

	Katakwi Town Council (KTC) trial balance as at 30th June 2010	Hard copy	2010	KTC –CFO
	KDLG budget performance report	Hard copy	2010–2012	KDLG – CFO
	KDLG performance contract	Hard copy	Annual work plan for 2009/10 and 2010/11	KDLG – district planner
	Budget and annual workplan	Hard copy	2010	KDLG – district planner
	KDLG budget and annual work plan	Hard copy	2009/10	District planner
	Katakwi town council financial statement	Hard copy	2011	KTC
	KDLG financial performance	Hard copy	2007/8–2010/11	District planner
	KTC approved workplan and budget	Hard copy	2013/14	KTC – CFO
	KTC financial statement 2012/2013	Hard copy	2012/13	KTC –CFO
	KDLG budget performance	Hard copy	2012/13	KDLG –CFO
	PRDP activity report	Hard copy	2010/11	CBS
	NUSAF 2, Katakwi district consolidated, approved and funded projects	Hard copy	2011/12–2012/13	NUSAF2 project coordinator
	Medium term revenue performance and projections	Hard copy	2007/8–2011/12	CFO
	LGMSDP – planned expenditures	Hard copy	2013/14	Notice board
	KDLG financial statements	Hard copy	2005	Notice board
	KDLG LGMSDP IPFs	Hard copy	2010/11	Notice board
	KDLG revenue projections and transfers from central government	Hard copy	2010/11	Notice board
	KDLG financial statements	Hard copy	2005	Notice board
	KDLG distribution of local service tax released from the centre to the LGs	Hard copy	unspecified	Notice board
	KTC planned projects	Hard copy	2011/12	Notice board
	KTC financial report	Hard copy	2011/12	Notice board
	KTC IPFs	Hard copy	2011/12	Notice board
	KTC completed projects	Hard copy	2010/11	Notice board

	KTC monthly report	Hard copy	January 2013	Notice board
	KTC completed projects	Hard copy	2009/10	Notice board

Katakwi: Available social impact data

Sector	Data collected	Format	Period/years	Source
Education	Primary school enrollment	Hard copy	2011	DEO
	Primary school enrollment	Hard copy	2013	DEO
	PLE performance Katakwi district	Hard copy	2006–2012	Notice board
	UCE performance Katakwi district	Hard copy	1998–2007	Notice board
	Primary school enrollment – Usuk County	Hard copy	1997–2010	Notice board
	PLE performance expressed in percentages	Hard copy	2008	Notice board
	KDLG PLE analysis	Hard copy	2009	Notice board
	KDLG enrollment	Hard copy	2006	Notice board
Health	Report on health supplies	Hard copies	2011	District health office
	Revised kits for HC2 & HC3	Hard copies	2013/14	National medical stores
	Katakwi town council mosquito nets distribution	Hard copies	2013	KTC
	Birth and death registration	Hard copies	2009	Katakwi district health office
	Sanitation status	Hard copies	2013	KTC
	Hygiene and sanitation survey results	Hard copies	2008	KTC
	Birth and death registration	Hard copies	2008	KTC
	Birth registration	Hard copy	2012	KTC
	KDLG health staffing	Word format	2013	DHO– Bio statistician
	List of Health facilities and catchment areas	Excel	Unspecified	DHO –Bio statistician
	Katakwi district HMIS Reports	Word, Excel & PDF formats	2009–2013	DHO – Bio statistician

Summary of action points and timelines

Key activities	Responsible person	Time/dates
Further consultation with districts **Sign/update MoUs with districts** **Proper mapping and ranking (link with Bill's forms) of the different stakeholders in each sector to the smallest unit possible (school, health centre, etc.)** **Ask decision makers: "what is the most important aspect of each sector that matters to you?" Also ask them:"What key decisions do you make on a regular basis that are affected by availability or lack of data?"** **Explore ways of supporting the districts' websites**	DRT	30 April 2014
Further data collection **Googling all available data (UNICEF; Uwezo–Twaweza, Katakwi and Kitgum; UBOS; UNEP; EPRC; UNFPA Uganda – special project on Katakwi – UNEB; WB – Innocent Mulindwa – service delivery survey indicators)** **Drawing a list of all the datasets we have and those we would like to have** **Drawing a list of all data sources** **Link to IATI data for EAC countries** **Mapping the service delivery points on all the three sectors in the two districts. Contact Bernard Muhwezi of UBOS; GIS division to establish what is available**	Bill to liaise with Steve on making this possible (IATI) Bernard to contact Mr. Muhwezi, share with Bill to hammer out the specifics of what we want form the GIS division	16 May 2014
Further work on data processing **Data scraping (remove off the raw form onto more organized formats(first sort the data by sector and district)** **Modify the Opendev website** **Create project workspace and within it create sectoral sub-workspaces** **Create spaces/subgroups for other ongoing associate projects (KASTI, INFOTEP, PPA)** **First attempts at 'linking data' (interoperablising data) – Tabulate the available data according to district, year, format; create the appropriate matrix, with the right columns to make the process possible** **READY TO PRESENT LINKED DATA TO DISTRICTS BY 30th June 2014**	Davis to inform the developer Bill to discuss with Pin on possible resource availability for Opendev modification Bill to lead the process DRT team to support bill by uploading the original datasets and supplying the correct datasets	30 June 2014
Project reporting and continuous updates and engagement **Progress report (summarise the two days interface meeting notes) – connect to the January meeting resolutions and determine the progress. Make reference to the main project document and the main phases of the study and where these concluded events place us in the four phase study. (Draw a matrix of stages and what has been achieved under each of the stages)**	DRT team DRT team	Immediately – 15 April 2014

Document all challenges encountered so far (interaction with MDAs, INGOs, NGOs, districts and CBOs), timing, legal gymnastics, etc. **Furthering Engagements** **Contact Tim Davies to help secure us a spot at OKfest for the presentation** **Write a snapshot of the process, experiences and challenges and make a five-slide presentation at OKfest** **Establish contact with the sector and donor working groups on these sectors and explore possibilities of cooperation and data sharing** **Reaching out to INGOs and other multilateral development actors on possibilities of sharing national level data**	Bill to contact Tim Bernard to prepare the ppt and share with the team for comments DRT	
Broader political and regional opportunities **Regional (EAC) engagement** **Political economy analysis of data production, access and use in Uganda**	DI/DRT to work their contacts in the region	30 May 2014
Linking the project to the other projects (PPA, INFOTEP, KASTI) and ensuring that the data is being used by communities and decision makers **Creating a feedback mechanism (comments on Opendev, emailing)** **Create an MEL framework**	All	July 30
Create a workgroup of the team for easy communication	Bill leads on this	9 April 2014, morning before Bill leaves
Opportunities **Check with Margret Kakande of the BMAU to determine whether Kitgum and Katakwi are part of the BMAU process** **Explore how we can work with UBOS to get data used at sub-national levels**	DRT	Immediately