



SITUATIONAL ANALYSIS OF THE STATUS OF DATA AND INFORMATION MANAGEMENT TO SUPPORT THE PEACE, RECOVERY AND DEVELOPMENT PLAN

ACHOLI SUB REGION

DRAFT REPORT

Northern Uganda Data Centre (NUDC)

Office of the Prime Minister

(October 2008)

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LIST OF ACRONYMS

ADRICS	Annual District Road Inventory and Condition Survey
ADIF	Acholi Districts Information System
BDI	Birth and Death Information
BDR	Birth and Death Register
CAO	Chief Administrative Officer
DCAO	Deputy Chief Administrative Officer
DDP	District Development Plan
DEM	District Executive Meeting
DDHS	District Director of Health Services
DTPC	District Technical Planning Committee
DWD	Directorate of Water Development
DWO	District Water Officer
DWSC	District Water and Sanitation Committees
EMIS	Education Management Information System
EPI	Epidemical Information System
GB	Gigabytes
GCD	Gulu Catholic Diocese
GIS	Geographical Information System
GPS	Global Positioning System
HC	Health Centre
HMIS	Health Management Information System
HW	Hardware
MB	Megabytes
KDC	Karamoja Data Centre
LAN	Local Area Network
LC	Local Council
LG	Local Government
MoH	Ministry of Health

MoES	Ministry of Education and Sports
MoNRs	Ministry of Natural Resources
MS	Microsoft
MSNU	Minister of State Northern Uganda
NAADS	National Agricultural Advisory Services
NGO	Non Governmental Organisation
NUDC	Northern Uganda Data Centre
LOGICS	Local Government Information Communication System
OPM	Office of the Prime Minister
PAR	Pupils Attendance Report
PRDP	Peace Recovery Development Plan
QPRS	Quarterly Performance Reporting System
RAMPS	Rehabilitation and Maintenance Planning System
SPSS	Statistical Packages for Social Scientists
UNHCR	United Nations High Commission for Refugees
UNICEF	United Nations Children Fund
UPE	Universal Primary Education
WASH	Water Sanitation And Hygiene
WMIS	Water Management Information System
WWW	World Wide Web

EXECUTIVE SUMMARY

In order to improve the welfare of the people of Northern Uganda, there is need to enhance the Government's service delivery process through improved planning and decision making.

Government is currently implementing the Peace Recovery and Development Plan (PRDP) address the plight of the people of Northern Uganda, Effective implementation of such intervention requires reliable, timely and up to date information. A lot of information will be required and generated during the implementation of the PRDP.

- Little data has been collected in the region because of insecurity,
- Most of the data is out of date and of little use,
- War and cattle rustling have impoverished the region,
- The interventions are not coordinated,
- The infrastructure is least developed,
- There is lack of information management capacity at district and sub county levels
- On-going relief, resettlement, rehabilitation, disarmament and other development interventions.
- There are scattered and disjointed efforts by NGOs, CSOs and international agencies to fill information gaps to meet their organisational data needs.

With Support from the Italian Government through the Italian Cooperation, the Office of the Prime Minister has established the Northern Uganda Data Centre as a unit to address the data and information demands of to guide the implementation of the Peace, Recovery and Development Plan (PRDP).

The overall objective is to contribute to the improvement in the quality of life of the people of Northern Uganda through provision of reliable and timely data for development planning.

Specific objectives are;

- to improve availability, accessibility, usability and share-ability of data and information on Northern Uganda.
- to enhance the institutional capacity of the Office of the Prime Minister and the Districts in the coordination and monitoring of decentralized service delivery in Northern Uganda.
- to develop a system for collecting analyzing and disseminating all information relevant for the development interventions in Northern Uganda.
- to establish a One-stop Information Resource Centre for all stakeholders in the Northern Uganda peace, recovery and development process.

NUDC will handle the Information Management process that will support the planning, monitoring and evaluation functions of the PRDP.

NUDC collaborates with government ministries, departments, agencies, local and international organizations, NGO and CBOs operating in Northern Uganda region in the collection, processing and dissemination of data and information to guide the planning, allocation and decision making processes

NUDC will provide technical support to the 40 districts covered under the PRDP to establish their own information management systems with sound databases to assist in the District Planning Process and guide the implementation of the PRDP

As an entry point to the understanding of the existing situation in the districts, NUDC carried out an on ground assessment of the following aspects of Data and Information Management in the districts of Gulu, Kitgum, Pader and Amuru covering the following aspects;

- Organization structure of the Districts (political and technical)
- Activities of different sectors in the district
- Nature of data and information existing in the district
- Stakeholder information needs
- PRDP specific activities in the districts.
- Methods of Data Collection Processing and Analysis used in the Districts
- Frequency of data/information collection
- Type of Data Collection, Processing and Dissemination equipments used (hardware and software)
- Existing information Management systems in the district
- Problems associated with information generation i.e. data collection storage and analysis
- The lowest information base
- Technical skills within the Districts Planning Unit in terms of data collection and processing
- Level of Institutional collaboration and coordination within the district and the existing capacity gaps.
- General infrastructure such as power supply, reliability and stability
- Level of communication infrastructure development.

Administrative Setup

The Acholi sub region is the second largest sub-region next to Karamoja. The region consists of four districts namely; Gulu, Amuru, Pader and Kitgum.

Gulu district has is comprised of three counties of Aswa, Omoro and Gulu Municipality and thirteen sub-counties including four divisions of the Municipality. Amuru district has two counties of Nwoya and Kilak with eight) sub counties including Amuru Town Council. Pader has two counties of Agago with ten sub counties and Aruu County with nine sub counties. There are two Town Councils namely; Pader Kalongo. Kitgum District has two counties of Lamwo and Chua with 18 Sub counties.

The Districts have both political and the technical wings or civil section (civil servants). The political wings have the section of the Central Government which is headed by the RDC who is a Government Representative.

The Local Government section is organized from the village level (LCI), Parish level (LCII), sub county level (LCIII), and on top is the District Chairperson (LCV) who is the head of the Local Government. T

he Civil Servants are leaded by the Chief Administrative Officer (CAO) who is the Accounting Officer in the District Civil Administration. All these sections help in Mobilization and Planning in the District.

Data collection and analysis for planning and decision making is mainly done by the District Civil Section under the control of the CAO but less by the political wings. The Local Government however serves as the employing Authority for the Civil Servants. There are several committees in the district, but the most relevant to this exercise is the District Planning Technical Committee (DPTC) comprising all heads of departments and headed by the District Planner.

The Administrative Structures for District Local Government

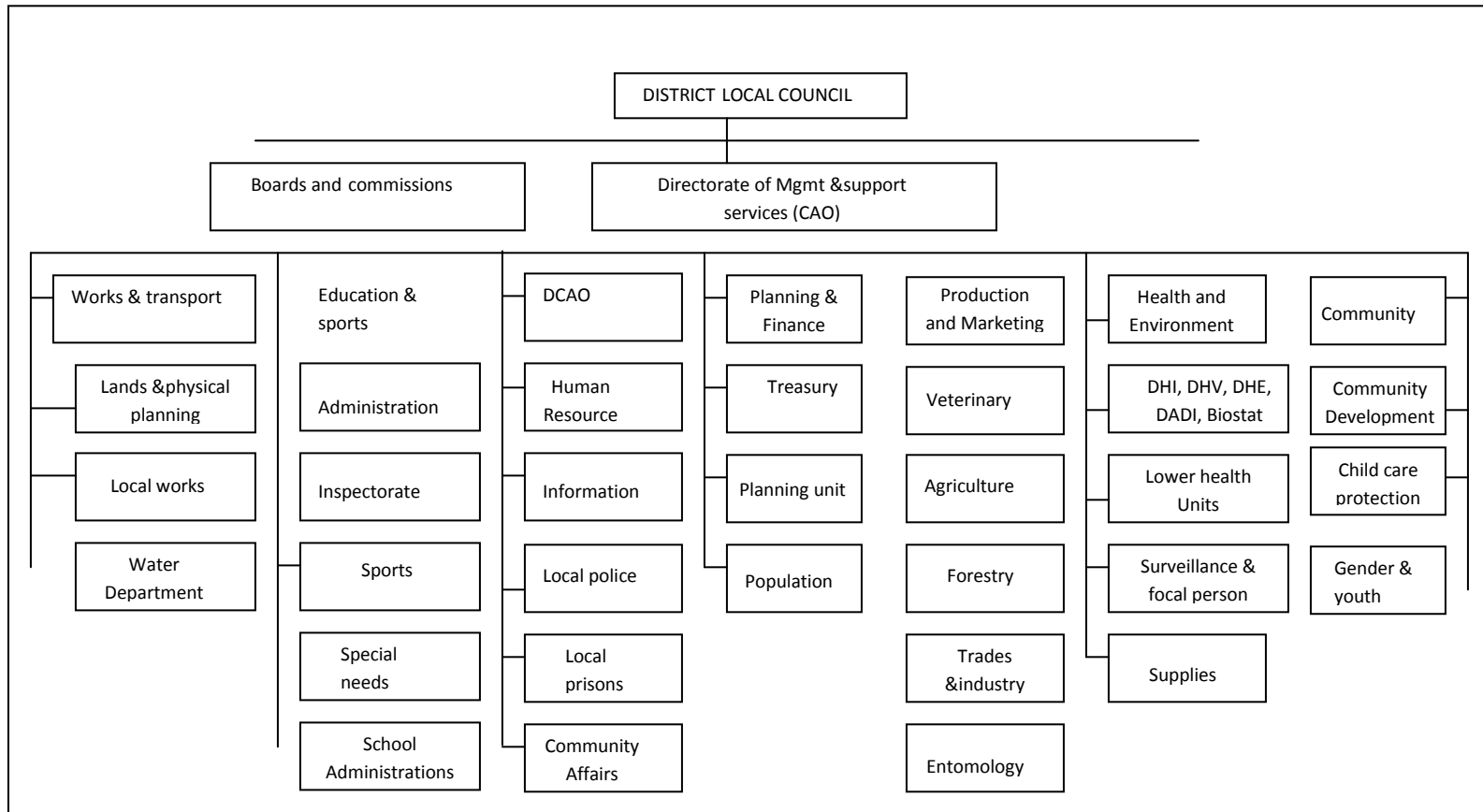


Figure1 District Administrative Structure

Planning in the region has been a very important aspect for resource allocation and development in the Districts. This has been fully aided by Information Collection, Analysis and Dissemination by the Districts.

According to the District Planner (Pader), Northern Uganda Data Center is one of the agencies that can redeem the District at such a critical time when a lot of Information is needed through Data Collection Analysis and Dissemination. According to the Planner, the Data Center's intervention comes at a time when most of the activities in the District are geared towards PRDP where information is the biggest tool. Most NGOs and other agencies want to participate in the PRDP arrangement in the District but need adequate Information about different activities, areas, resources and social, political and economic standings in the district. This was the same view shared by the Planner Amuru District.

Information collection in Acholi has been ongoing but data processing; analysis and dissemination have not been well achieved. Some information is still scattered in district departments and yet highly needed for planning purposes. According to the Deputy CAO (DCAO) Pader, sectoral information should be collected and integrated preferably under the Planning Unit. The Unit should serve as a District Data Center or a Data Warehouse. However the DCAO stressed that there are wide gaps in data collection and management manifested through lack of skills, poor technology employed in Information Management, Equipments, Methodology and lack of sensitization on the purpose of Information. Therefore an Information System that can help in data Collection, Processing, Analysis and Dissemination should be developed for the Districts to serve as a great tool in supporting activities of the Planning Unit.

According to the Planner Gulu and Amuru respectively, there is data available but their data is still mixed up for both two districts. Therefore need a better way to separate the data for each District. The CAO Gulu called for the establishment of the Data Center offices in the North.

Functioning of the an Information System

The Information System in Acholi Districts can help in collecting data or input from the environment (the community or stakeholders), Processing of the collected data which involves converting unintelligent data into meaningful information for decision making by applying relevant operations such as calculations, comparisons and organization/sorting. The output which is the final information produced by an Information System after processing is the most important. This is intelligent enough and can be depended upon by the organization for planning and decisions making. Example of output can be reports, maps and other representations that are meaningful and easy to use. However, there is feedback which comes from the environment and can be used to redefine the input to the system as shown by figure 2.

Figure 2 Architecture of the Districts Local Government Information System

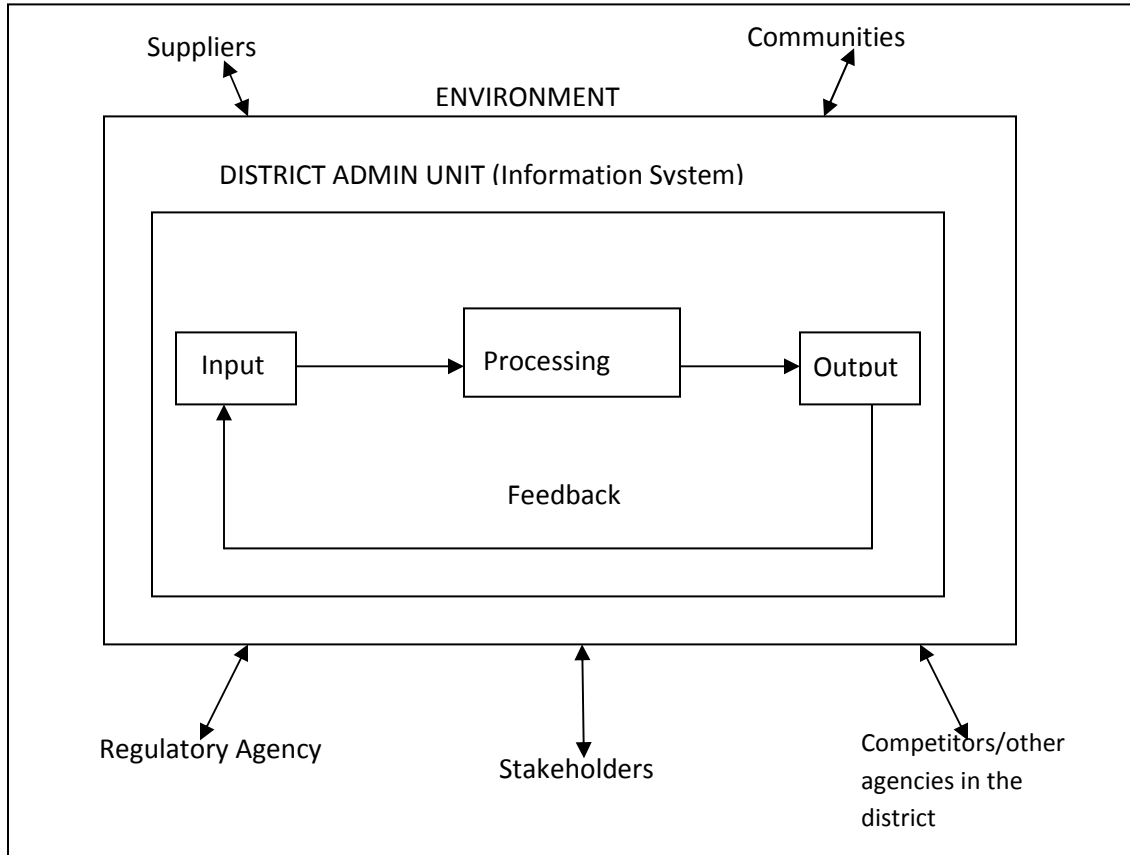


Figure2; Structure of District Information System

Sector Assessment

Sectors whose activities are more inclined to PRDP were assessed on the basis of the situational analysis in regard to issues presented in the tables and the findings tabulated in the sector situation analysis matrix. However, those sectors that have not been analysed have their information captured and analyzed in other sections of the report.

The assessment covered the following sectors;

- District Planning Unit
- Education
- Water
- Health
- Works
- Environment and Natural Resources
- Production/agriculture (veterinary department, fishery and crop production)
- Community (District Community Development Office)

Sectoral Assessment for Kitgum District

SECTOR ANALYSIS	PLANNING UNIT	COMMUNITY BASED	WATER	EDUCATION	WORKS & TRANSPORT	AGRICULTURE
Existing Information System	The unit is dependent on National reports and Institutional data (if available) They are using logics to manage their data	No clear dissemination mechanisms of Information.	There are plans to develop a Water Management Information System (WMIS) The DWD is equipping the department with OPS equipments and is giving training to Community Extension Workers	Plans are underway to develop an Educational Management System (EMIS) by the MoES	No developed System for data collection & processing. Institutional needs determine when & what kind of data to be collected. There are plans to develop a road network Information System.	And under the PMA, an Early Warning System is being thought of as a viable source of data.
Sectoral Coordination	Planning plays central role in the activity of integrated data collection. However, due to lack of proper coordination, data from other departments is not got properly because others tend to hide their information.	This department links the local community to other sectors like health police etc by looking at the general welfare of its people	Plans are underway to Collect GPS location data for schools, and Health centers.	No established collaboration with other District sectors especially in the area of data collection, processing and dissemination.	No established Collaboration in data management with other departments, nor a mechanism for information sharing.	Collaboration exists with UNCEF in collecting rainfall data
Capacity & Existing Skills	The unit is under staffed. It only has four staff who have to	This department has two officers one in charge of children	All the staff members require	The District Education Officer (D.E.O) heads the	The District Engineer and the Secretary for works are well versed	The deputy Agricultural Officer and all his

	<p>carry out the coordination of all departments and NGOs in the district</p> <p>They have a data entry assistant who enters data in the computer however there more need for training in data management</p>	<p>welfare and the one one for adults. All are computer literate, but need training in data Analysis</p>	<p>computer training.</p> <p>The District Water officer heads the Department. He has 3 assistants, and 3 County water officers, as well as surveyors at sub-county levels,</p>	<p>sector. There is 1 secretary in charge of records maintenance,</p> <p>- Well equipped with skills in data entry, but lacking in data Analysis techniques</p>	<p>with basic computing and intermediate data processing skills. A gap exists in advanced data analysis & Use GIS for road mapping and routing. The mechanical assistants lack computer knowledge</p>	<p>Assistants lack knowledge in computing use and need training in intermediate data processing & use of Geographic Information System. The Department has no computer, so the staff lack hands on practice to keep up their skills, even when training is given.</p>
Hardware & Software	<p>They have about four working computers in their data room and each of the officers has a desktop computer to use</p>	<p>-The Department has 2 Computers.</p> <p>- Ms Office 2003 is mostly used</p> <p>-The Department has two pcs,2 printers and one ups (700 VA)</p>	<p>-2 Computers loaded with Ms Office 2003</p> <p>-They are all running windows XP</p> <p>1 Printer</p>	<p>The sector owns 4 computers, a printer and most of printers they have i.e. Epson for cycle styling are all faulty not working</p>	<p>2 PCs, 2laptops loaded with Ms Office2002 packages, 3laserjet printers (1100 series), 1scanner, 1copier which are working.</p>	<p>Agriculture has one computer with one printer one UPS which is very week at times it even fails to start.. This computer serves the entire department. Its running Windows XP and office 2003.They also have aProgramme called ILWIS for Mapping purposes</p>

<p>Available Data</p>	<p>There is no concrete baseline data for any year. The Unit relies on the 1991 Population & Housing census reports.</p> <p>The Little data collected from sub-counties remains unprocessed & hence less useful for planning. There are also the DREPS reports being used.</p>	<ul style="list-style-type: none"> - Data on adult literacy management -Data on Birth and death registration (BDR) - Data on orphans & veneration children (ovc) -Data on disability and youths 	<p>- A survey was being conducted in conjunction with DWD, to generate location data about safe water points, and school sanitary facilities, as well as health units or facilities.</p>	<p>Number of schools by grade and type</p> <ul style="list-style-type: none"> -School Enrolment - No of teachers by grades 	<ul style="list-style-type: none"> - There is some Data on feeder roads, -Data on community access roads -Data on water points - What lacks is the Geographical Database 	<p>There is some digital data from this section and samples were got. Hardcopy form data available includes;</p> <ul style="list-style-type: none"> -Animal statistics by type -Birthrate & Death rates -Rainfall data -Soil PH -Livestock numbers by category -Agro processors -Planting returns per Acreage - Crop yields - Cropping Calendar - Market prices (Monthly collected)
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<p>Methods of Data Collection</p>	<p>Different sectors collect their data at their chosen period and methodology.</p> <p>Since 1999, towards the planning period, the planning unit arranges with Parish chiefs/LC's to collect & submit information on the socio-economic status of their communities.</p>	<ul style="list-style-type: none"> - Data is collected monthly by use of questionnaires. -Monthly reports from CDOs . 	<p>Data is collected at Village level and aggregated to Sub-county level. The major methods of data collection are:</p> <p>Field observations & Interviews.</p>	<ul style="list-style-type: none"> - Data is collected at school level, by individual school heads submitting completed forms sent by the District Education Office. 	<ul style="list-style-type: none"> - No developed methodology for data collection, but usually field surveys, focus group discussions and talk shows and also data is collected at Community & District levels. 	<p>This is done by carrying out surveys, observations and reports at Parish Level. Each of the sections carries out monthly field visits through the County Technical Officers.</p> <p>-The Veterinary section has devised an institutional method of data collection during service delivery e.g. Under Animal Vaccination and branding</p>
<p>Data Entry, Processing, Storage & Retrieval</p>	<p>Due to lack of skilled personnel, data collected may be entered in a rudimentary way in either Ms Word or Excel, but is usually left unprocessed.</p> <p>It is stored in digital</p>	<ul style="list-style-type: none"> - Data is entered in simple word & Excel formats, - Limited analysis is done on the data by the - At Sub-district level, data is stored in 	<p>-Data is will be entered in field forms in a raw form and sent to DWD for processing, and from DWD, generated maps & Reports will be forwarded to the Department.</p>	<ul style="list-style-type: none"> -From the schools, data is manually entered in hardcopy form, and then transferred into the computer at the District in simple word & Excel formats. 	<p>Simple data entry is done using MS Excel format</p>	<p>Data is entered by the Records assistant in paper file folders. So there are a lot of manual files, Which makes data retrieval challenging</p>

	format, but retrieval hard, poor directory structure.	file folders		- Data is stored in raw form		
Updating Frequency	<p>Since there is no clear methodology of data collection, even its updating is not standardized</p> <p>Updating should be done on an annual basis.</p>	- Data is updated monthly	- Data is collected every year	- Data is updated in each school term and annually.	- Since there is no clear methodology for data collection, even its updating frequency is not established.	According the Agricultural officer, this done quarterly department, Crop surveys are done every year. However updating of old files is not consistently done.
Dissemination	<p>The concept of information dissemination is not clearly defined between the different district departments.</p> <p>Instead of information slowing from District to the National level, the district planning has adopted a reverse process.</p>	<p>- There is not yet a developed system for information dissemination.</p> <p>The culture of information use is yet adopted</p>	Not yet formalized the mechanism of data/information dissemination.	- From Schools, data is sent to the District Education Office. These tabulate and make reports which are sent to the Education Planning Division (Ministry of Education and sports) headquarters	- Status Reports is quarterly sent to Ministry of Works headquarters.	<p>The District lacks a clear data dissemination mechanism due to poor communication networks.</p> <p>In the Agricultural sector, annual reports are compiled and disseminated through the traditional packaging to the district administration,</p>

						with copies sent to OPM
General Infrastructure	<p>There is need to increase office space where computers are.</p> <p>Power supply too is a problem. This brings about noise pollution within the working environment.</p>	<p>There is adequate Office space.</p> <ul style="list-style-type: none"> - Unreliable power supply so use of generators which at times its also not [possible due fuel scarcity - Communication system is dependent on use of mobile phones 	<ul style="list-style-type: none"> - Insufficient office space. Shipping containers are used for storage of office equipments. - Power supply is also unreliable like in all other departments 	<p>They have enough office space, and other department sections are in same building</p> <ul style="list-style-type: none"> - Poor power supply therefore it makes it difficult to type the work 	<ul style="list-style-type: none"> - This is one Department that is well equipped with computers but poor power supply is what makes data entry hard. 	<ul style="list-style-type: none"> - There is adequate office space. But like the entire District, the Department has a problem of power supply they use a small generator.

<p>Problems in Information Generation</p>	<p>-Lack of voluntarism as most people concerned need money before they can get data</p> <p>- Lack of coordination with other sectoral departments.</p> <p>-No appreciation for the role of information in planning by end users,</p> <p>-Parallelism between the different sectoral departments in activities of data collection.</p> <p>-No clear methodology for data collection</p> <p>-Inadequate computer skills to enable data processing</p> <p>-Illiteracy of the communities from where data is collected and the extension workers, as well as</p>	<ol style="list-style-type: none"> 1. Lack of competent personnel in maintenance of computers. 2. No framework for information dissemination 3. Poor data interpretation & analytical skills to support proper data processing. 4. Illiteracy – Community Health workers do not understand the forms used for data collection, 5. Lack of proper training in computer use 	<ol style="list-style-type: none"> 1. The Department lacks its own GPS equipments for collecting point data. The ones in use currently are borrowed from DWD, this makes the process of data collection unsustainable 2. Lack of quality control and standardization of the collected data. 3. Lack of enough funds to support the activities of data collection. 4. Illiteracy of the Community extension workers 	<ol style="list-style-type: none"> 1. Lack of coordination with the department and other sectors 2. Lack of computer skills 3. No quality control and standardization 4. Poor communication system with the different sections <p>-Lack of stores</p> <p>-Lack of transport they have only 1 vehicle & 4 motorcycles so inspectors cant reach far since most of them are females</p>	<ol style="list-style-type: none"> 1 .Lack of computer training 2. Lack of GIS knowledge to enable mapping of the Road network 	<ol style="list-style-type: none"> 1. Lack of Transport and adequate funds to conduct surveys and training. 2. The department is understaffed, due to insecurity, people fear risking working in the area. 3 .No computerized data format 4. Apart from computers, the department also lacks other vital equipments necessary for intensive data collection and recording. For instance the Meteorological Stations in counties are all broken down, thus hindering the generation of
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	<p>local chiefs, who are a good source of information</p> <p>- Available computers have a lot of viruses.</p> <p>Capacity for advanced data analysis is required.</p>					<p>accurate data.</p> <p>5. The poor roads in place make continuous data collection impossible.</p>
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Sectoral Assessment for Pader District

SECTOR ANALYSIS	PLANNING UNIT	HEALTH	WATER	EDUCATION	WORKS & TRANSPORT	AGRICULTURE
Existing Information Systems	There are both manual and computerized. The sector has no defined system for data collection processing and management. Logics plus has been introduced but its not in use due to its inefficiency in supporting Information Management. The Unit handles physical reports; memos and other and soft copies of sectoral development plans.	There is no well described Information System for the department. However, manual systems are being used with limited computerization.	Use of manual files and computerized system with excel as a major toll for data entry. GIS has been introduced and the department plans to use it to map water points in the district but there is still lack of skills and required HW & SW	A semicomputerised Education Management Information System has been developed but not yet in use.(EMIS) Manual statistical forms have been designed for all districts by the ministry of Education & Sports.	There are both computerized and manual systems; mapsource /arch view for roads and also ADRICS which is manual. But still even with this a lot of information remains uncollected in the sector.	This department is headed by the District Production Officer. There is no developed computerized Information System for the department. There is a manual Statistical System being used.
Sectoral Coordination	The Unit is pivotal in promoting coordination of departments. This coordination is internal through structures from top to bottom which are LCs. The unit coordinates with other department by sharing development plans.	Collaboration with the planning unit, water department, UNICEF, community and population departments in data collection through shared activities BDR and even data on public sensitization and welfare. There is coordination with development agencies Like GCD	The department is planning for data sharing with the Community and health Departments. The GIS information that is to be collected is intended to be beneficial to deferent sectors in the District.The internet project by UNICEF which is ongoing will connect water to	No or very minimal coordination with other departments in information collection and management. Internally there is some coordination with schools and even with the ministry at the national level in information	No outlined system for coordination with other departments in the district. However, coordination is fairly realized inside the sector. Coordination with outside agencies like	Coordination is not clear with other sectors. There is coordination with the ministry of agriculture and fisheries in conducting Census and through NAADS programs.

		and WHO.	other sectors	collection.	central government and some NGOs like DANIDA	Coordination NAADS service provider.
Capacity and Existing Skills	<p>There is no trained District planner. The district populations' officer is the acting District planner. There is no district statistical officer in the unit. The Unit has one secretary who is only trained in Microsoft office tools (word, excel) who serves as data entrant and manager.</p> <p>No IT expert to manage the information and maintain the systems in the unit, no specialized data entry clerks. Staff not trained in data analysis and processing. Staff needs to be trained in IT and information collection & processing.</p>	<p>The department has a secretary who works as data entrant using word and excel but lack the data analysis skills.</p> <p>There is a district bios tactician in the department. However he also needs more training in data analysis and management.</p> <p>No records officer</p>	<p>The DWO is the head of department. There is a secretary but deferent offices manage their own data.</p> <p>No trained IT expert to manage their data and systems. During the mission, all the computers were infected with viruses.</p> <p>Staff was trained in GIS but still need more skills.</p> <p>Staff are computer literates & can organize data in MS excel & access as a database.</p> <p>Need for training in GIS data collection, use of GIS SW.</p>	<p>The department is headed by the DEO who has a deputy with district Inspector of schools.</p> <p>There is a secretary and a stenography secretary who are very speedy in typing.</p> <p>There is no records officer.</p>	<p>The department has some skills in data collections using GPS and GIS tools but lack skills to process the data.</p> <p>Most of the department members are computer literate.</p> <p>However, more training still lacks in GIS because there is a lot of un processed GPS data. Most GIS data in the department is not yet updated.</p>	<p>The department acquired GIS training from Uganda Management Institute in 2007.</p> <p>The department has a statistician and a secretary.</p> <p>Most of the staff is computer literates thus enter their data using ms office and excel.</p> <p>There is need for more training in IT, data entry processing and management.</p> <p>GIS was introduced but the staffs still</p>

						lack enough skills to process data that is collected by GIS.
Hardware and Software	<p>The department has one Pentium 4 laptop that was donated by UNICEF but no power to charge it. There is an old laser jet printer, no photocopying machine or even a scanner.</p> <p>Logics plus was introduced but it is unfriendly & not well developed to support all the planning requirements.</p> <p>No statistical packages in use and no software updates of any kind.</p> <p>Very old Symantec antivirus v 6.0 with no updates. Office 2000 is still in use. MS office tools are the ones used for data entry.</p>	<p>The department has some computers and one printer.</p> <p>Microsoft office 2003 is being used to enter data</p> <p>However a very old definition on Symantec antivirus 6.0 is being used.</p> <p>There is no photocopying machine and no scanner.</p> <p>No external storage device in use apart from the computers internal hard disks.</p> <p>No enough computers because the DDHS has no computer on his office desk.</p>	<p>Lack of colored printers to print well taken images.</p> <p>Each office has a computer but lack facilities like cartridge and paper.</p> <p>There are laptops given to the top management in the department.</p> <p>Lack of a server system for the department.</p> <p>There is no database for the department apart from MS access.</p>	<p>The department has 4 computers with only one printer at the stenographer's work station.</p> <p>There is no photocopying machine in the department.</p> <p>There is a statistical system used (statistical forms). Also there is use of Logics plus as one of the computerized Information Systems.</p> <p>Microsoft office packages of word excel and access are also used.</p>	<p>The department has got equipments from central governments that were procured by PAF: 4 desktops, and 3 laptops.</p> <p>The district engineer stressed that computers not enough in the department.</p> <p>There is need for one more GPS set.</p> <p>Need for a digital camera for the department.</p> <p>A photocopying</p>	<p>Two computers one in the veterinary office and one for NAADS. There is also one laptop in the office of the District Fisheries Officer donated by NLIPIT. There is GPS equipment but not being used due to lack of enough skills. The sector also has a LaserJet printer.</p> <p>Some offices still lack computers like accounts. These share the one in the</p>

					<p>machine is also lacking.</p> <p>More updated GIS software is needed by the department.</p> <p>Powerful antivirus is also needed and a database for the department</p>	<p>office of district veterinary officer.</p> <p>There is no GIS software in the department.</p> <p>There is only MS offices tools used such as word and excel for data entry.</p> <p>No database developed for the department.</p> <p>No backup HW.</p>
Available Data	<p>The Unit handles District and government data.</p> <p>It has annual sectoral Development plans.</p> <p>The Unit also handles Information for DDP & administrative data in form of repots both in hard and soft copy</p>	<p>The data is available in both soft and hard copies.</p> <p>Periodical data on health infrastructure development, human resource (medical staff), epidemic deseases, health statistics, number and</p>	<p>Some GPS aided data on the location of a few water facilities, however not updated.</p> <p>Data in report form about all water sources in the district.</p> <p>Annual district water source</p>	<p>Data on the number of schools, pupils, location of the schools.</p> <p>Information on the number of teachers, UPE schools, school structures, academic performance in</p>	<p>Some GIS maps on the road network.</p> <p>Information on bridges but was partially captured.</p> <p>Information about buildings.</p> <p>However</p>	<p>There is both digital and hardcopy data.</p> <p>There is data on the number of cattle in the districted collected from the 2008 animal census.</p> <p>There is data</p>

		<p>location of health centers, drug stocks and finances.</p> <p>Information on drug distributions in the district.</p> <p>Information on birth and death rates</p> <p>Data on medical service delivery.</p>	development plans.	<p>schools.</p> <p>Financial information on funds utilization, appraisal and other administrative information like teachers transfers.</p>	<p>information on most community roads, bridge locations is not updated. Information on culverts is not yet captured</p>	<p>about crops, pastorals lands, water points, fish and cattle breeds.</p> <p>Information on animal diseases, birth and death rates, animal markets in the district, crop yields, market prices and crop zones, pests & diseases.</p>
Methods Of Data Collection	<p>The planning unit is responsible for collecting social-economic data for all planning processes in the district.</p> <p>Deferent sectors collect sectoral data. The unit organizes and integrates sectoral collected data into a single report DDP. Methods such as periodical reports from LCs, meetings with DTPC, field studies</p>	<p>Data is collected from health centers at parish (HC II) as the lowest information sources.</p> <p>Data is also got from other departments like community and water.</p> <p>Some information is collected from villages through LCs who send it to</p>	<p>Data is collected by use of reports from drillers.</p> <p>Direct field data collection by water officers with use of GPS</p> <p>Through feedback & reports by the communities or local councils.</p> <p>Physical observation & interviews are used by the field</p>	<p>Data is collected from schools by heartaches and inspectors; it is forwarded to the district for processing and panning.</p> <p>Data is collected through periodical (termly and annual) reports from schools and inspection reports.</p> <p>Use of mobile phones is also</p>	<p>No well outlined methods of data collection.</p> <p>Data is collected during field inspections.</p> <p>Public reports are also used as a tool for data collection.</p> <p>Meetings are</p>	<p>There are many methods used by the department which include use of meetings, reports, focus group discussion e.g. farmers, observation through field inspection.</p>

	e.g. censuses are employed in data collection.	HCII. Field extension staff also collects data plus periodic reports by HCs	extension staff. Reports by pump mechanics	employed in data collection.	also used to acquire information. Reports from LCs on the status of roads.	
Data entry, Processing, Storage & Retrieval	<p>Data entry is done with the use of MS office word, excel and access. These have no logic in entering analytical information thus they are very inefficient tools.</p> <p>Data is not processed due to lack of processing tools so it is kept in raw or semi processed formats.</p> <p>Most data is stored in digital format on computer hard disks with poorly arranged directories which makes retrieval very tiresome as some data gets misplaced/lost.</p>	<p>Data is entered into simple MS word and excel by secretaries.</p> <p>No defined system for data processing.</p> <p>Data is stored in raw format on computer hard disks while the other data is kept in hard copy formats.</p> <p>There is no logic for queries this unprocessed or semi processed data. Word and excel files are retrieved from directories or folders using rudimentary ways.</p>	<p>MS excel, access and word are used to enter data.</p> <p>Data is not processed.</p> <p>GIS data was last processed by the trainers but no new data has been processed since due to lack of skills.</p> <p>Even quantitative data is not well analyzed. For example the DWO doesn't have data on ratios of water facilities to users.</p> <p>Data is stored on office workstation machines & Retrieved through</p>	<p>The department uses secretary and a stenographer as data entrants.</p> <p>Use Microsoft office tools of word and excel to enter data.</p> <p>Plans are underway to fully adopt the use of statistical forms and logics plus for data management.</p> <p>However data is not processed but is stored in the computers and retrieved through tiresome methods of using computer search for files and folders.</p>	<p>The department is headed by the district engineer.</p> <p>It has secretaries who are computer literate.</p> <p>Some data is entered into MS excel & word.</p> <p>Arcview is used to enter GIS data.</p> <p>Some data is not processed but Arcview is used to process GPS</p>	<p>A few of the staff members have computer skills. No trained data entry clerks in the sector.</p> <p>Use of MS word access and excel by field inspectors and secretaries.</p> <p>No data processing. It is stored in hard copy and softcopies on office workstation machines.</p> <p>Retrieval is by use of physical files and folder had searching</p>

			physical files.		collected data. Data is stored in hard and softcopy on the computer hard disk directories & some in physical files. Retrieval is through hard search and find methods through directories and physical files.	through directories.
Updating Frequency	Data updating is periodic. The population data on Birth & death rates monthly while sectoral data is collected and updated annually.	No specific time. It can be monthly, quarterly, bi-annually or annually. Data on equipments in HCs is not updated.	No specific period for updating their data. Data is collected at uncoordinated intervals throughout.	Updates are made monthly, termly, and annually.	Data is updated annually	Data is updated monthly, quarterly like for agricultural census while other data is updated annually.
Dissemination	There is no defined format for information dissemination. The Planning Unit sometimes disseminates information to departments or even	Information dissemination is not well defined. The department preserves the information as confidential according to the	No well defined mode of dissemination. Data is received from local officials & pump engineers field to extensionists to the	No clear method for Information Dissemination. Termly and annual reports are made for the ministry.	Annual reports are organized for the district on works and engineering. Some reports are sent to the Ministry of	Data is shared with the Ministry of agriculture like data on NAADS programs. Information

	lower or upper levels such as the government.	DDHS. Internally, the policy of dissemination is not clear	district. The reverse flow is not well defined.	Reports are prepared by schools & inspectors & forwarded to the district.	Works and Transport.	dissemination framework is not clear. NAADS reports are forwarded to the district by coordinators at the sub county
General Infrastructure	<p>The planners unit needs enough office space for file storage & other activities.</p> <p>There is no enough furniture.</p> <p>No Power source because the unit borrows a generators. Thus need for a generator.</p> <p>The Unit has no transport facilities.</p> <p>The office needs rehabilitation to reduce on the dust that spoils both the physical files & the computers. Need for GPS equipments & a printer.</p>	<p>There is no source of power apart from the noisy and unreliable generator.</p> <p>There is no LAN or internet connecting the department.</p> <p>Personal mobile phones are being used instead of office inter communication telephones.</p> <p>Limited office space. Use of traditional office messengers</p>	<p>The department has Motorcycles and cars used for field activities.</p> <p>There is solar and a generator.</p> <p>There is need for more computers.</p> <p>New and good printers are also needed as GIS is to be adapted.</p> <p>There is MS access database used which can not query highly large volumes of data.</p> <p>Need a database.</p>	<p>There is Use of traditional office messengers</p> <p>No internet connection in the department.</p> <p>Office space is also limited.</p>	<p>There is solar and a generator as power sources.</p> <p>There are 3 pickup double cabins and 10 motorcycles for field inspections and data collection.</p> <p>However lack enough staff.</p> <p>They have a well furnished building shared with the RDC but still lack enough office</p>	<p>There is power problem in the department.</p> <p>There is also inadequate GPS equipments.</p> <p>No internet for communication and also no internal office telephone network.</p> <p>No enough vehicles for field inspections.</p>

					space	
Problems in Information Generation	<p>1. Lack of a proper format for filtering and summarizing data through different levels in the structures to reduce on data/information overload and redundancy.</p> <p>2. Limited understanding by the sector and the public on the role of information and the purpose of the planning unit</p> <p>3. Stubbornness by the society and the local community in providing information (most ask for handouts)</p> <p>4. Poor and uncoordinated data collection methods</p> <p>5. Presence of duplicate data from sectors</p> <p>6. Lack of software for data processing</p>	<p>1. Lack of an IT specialist to administer the computers, ensure security services of HW/SW and Information Management.</p> <p>2. Lack of a well designed system for Information Management.</p> <p>3. Lack of skills in information analysis among the department staff.</p> <p>4. Lack of a better way to filter and summarize the data as if moves through the structures.</p> <p>5. Lack of better tools for information presentation like example GIS tools to map health centers. Staff is not oriented on the use</p>	<p>1. Lack of data entry clerk to enter and organize the data.</p> <p>2. Lack of an easy to query database or information system.</p> <p>3. Remote & inaccessible water points that can not be easily inspected and mapped.</p> <p>4. Lack of IT experts to update the systems.</p> <p>5. Continuous virus attacks to sectoral computers leading to data loss.</p> <p>6. Lack of proper sectoral coordination.</p> <p>7. Presence of unreliable generator and solar system as source of power</p>	<p>1. Lack of a reliable source of power. There is use of a very old generator which takes an hour to be started.</p> <p>2. Lack of enough office space.</p> <p>3. No enough computers in the department. For example the DEO and his deputy have no computers in their offices.</p> <p>4. Information overload due to many data sources and yet the department lacks skills in data analysis and management.</p> <p>5. Lack of enough staff to handle large numbers of clients with deferent</p>	<p>1. Limited GPS equipments</p> <p>2. Poor road network in the district limiting data collection.</p> <p>3. Lack of enough training in data collection and analysis.</p> <p>4. Limited skills in IT for managing information & systems.</p> <p>5. Lack of a reliable method for data collection.</p>	<p>1. Unreliable methods of data collection processing and dissemination.</p> <p>2. Poor communication network infrastructure.</p> <p>3. Inadequate skills in data processing and management.</p> <p>4. Un defined mechanism of information sharing and dissemination.</p> <p>5. Poor collaboration from farmers in providing information</p>

	<p>7. No enough equipments for data backups and storage.</p> <p>8. Lack of well trained district extension works in data collection.</p> <p>9. No baseline methodology for data collection.</p> <p>10. Lack of data sharing facility like LAN, internet & intercom services.</p> <p>11. Lack of an IT expert for data and systems security, updates & maintenance.</p> <p>12. Lack of digital database for the unit & a logical system for querying large amounts of data.</p>	<p>of GIS.</p> <p>6. Some data is in formats that are hard to digitize due to lack of skills and equipments. For example converting pictures is hard due to lack of scanners.</p> <p>7. Lack of equipments for data collection like video cameras and voice recorders.</p> <p>8. Limited coordination through the structures in providing timely information.</p> <p>9. Poor road network in the district.</p>	<p>8. Poor communication services: lack of internet, UNICEF tried to network the department but never finished.</p> <p>9. Lack of information processing at lower levels which causes data overload.</p> <p>10. Radios talk shows. Printed reports, meetings (with DWSCC, WASH and Advocacies) and workshops are used for dissemination which are not reliable & costly.</p>	<p>information needs.</p> <p>6. Lack of computers and skills in schools. Most of the schools bring hardcopy reports that need to be retyped.</p> <p>7. Lack of a computerized data entry tools.</p> <p>8. Information is not processed.</p> <p>9. Poor storage mechanisms that make it hard to retrieve the data.</p> <p>10. Poor road network in the district hindering data collection.</p>		
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Table Sector Situational Analysis Matrix

Sectoral Assessment for Gulu District

Sector analysis	Planning Unit	Health	Water	Education	Works &Transport	Agriculture
Existing Information Systems	<p>There is semi Computerized Information System where Excel and MS word are used for data entry but analysis is done manually. Ms Access databases are used for Birth and Death Reports(Mostly for population department)</p> <p>There is also use of LOGICS</p>	<p>There is manual information system where there is use of physical means & files for data collection processing and storage.</p> <p>Semi computerized systems are also used like Ms office tools.</p> <p>There is electronic data entry</p>	<p>The department uses GIS.</p> <p>There are semi computerised systems for electronic data entry like Ms office tools</p> <p>There is also manual Information System used in Managing Information in the department</p>	<p>Manual systems are in place.</p> <p>There is a manual statistical information system where physical statistical forms are used.</p> <p>There is also Education Management Information System(EMIS)</p> <p>Pupils Attendance Reporter (PAR 1-4)</p>	<p>There is use of GIS.</p> <p>Manual systems involving management of physical files.</p> <p>There is computerized data entry with use of excel and access.</p>	<p>There is majorly manual information management system in use.</p> <p>Semi computerized systems are also used only for data entry.</p>
Sectoral coordination	Receive information	Information about health	There is coordinatio	There is coordination	There is coordination with	Coordination with other stakeholders

	<p>from all the departments in the district.</p> <p>The Unit Produces the District Development Plan that is shared by all departments and other shareholders including central Government and NGOs</p>	<p>and sanitation in schools is shared with the Education and Water department.</p> <p>Reports are also written and presented to Ministry of Education, World Food Program, UNICEF and office of the CAO.</p>	<p>n with Central Government, NGOs, Local Government departments, Subcounties, Communities, Parish Development Committees and Donor Agencies through reports and meetings.</p>	<p>with the heads of other department in the district.</p> <p>Coordination is also existent with the heads of educational institutions in the district.</p> <p>There are also reports shared with the Ministry of Education and UNICEF.</p>	<p>all other departments in the district through the CAO.</p> <p>Reports are shared with donors and Ministry of Water and Environment.</p>	<p>through NADS.</p> <p>Coordination with ministry of Agriculture through Reports.</p>
Capacity and Existing Skills	<p>There is a planner for the district who heads the Unit.</p> <p>There is a trained Populations</p>	<p>There is a Health Information Assistant to handle all Information in the sector.</p>	<p>The department has a water engineer who is the head.</p> <p>There is</p>	<p>The department has a data analyst who is paid by UNICEF.</p> <p>There are two secretaries</p>	<p>The district Engineer heads the department.</p> <p>The department has two secretaries.</p>	<p>The department was introduced to Marketing Information System that was introduced by FoodNet but was abandoned</p>

	<p>officer.</p> <p>The District also has a statistician under the Planning section.</p> <p>There is a secretary who manages the data with basic computer skills.</p>	<p>There is a health data collector who operates at health center II.</p> <p>There is also a District Biostatistician who is responsible for all Health Statistics and has basic GIS knowledge.</p> <p>The department also 4 secretaries trained in basic Microsoft packages.</p>	<p>other technical staff including pump mechanics and borehole drillers.</p> <p>The department has two secretaries who are IT literates.</p> <p>The department acquired GIS skills & performed some mapping of water points but still lack skills for processing the GIS</p>	<p>trained in MS office and excel.</p> <p>The department has not acquired GIS training.</p> <p>The department has acquired training in EMIS & PAR 1-4.</p>	<p>The staff has been trained on the use of RAMS,QPRS and ADRICS.</p> <p>However these systems are not yet reliable.</p> <p>The department also acquired training in GIS in Mbale but it was not adequate for data handling.</p>	<p>prematurely with their equipments. this system was used to assign commodity market prices and could also provide the locations.</p> <p>There are field extension staffs that collect information from the farmers.</p> <p>The department has trained enumerators who operate at subcounty levels</p> <p>There are secretaries in the department.</p> <p>There is external support from Ngetta Zonal Africa Research Development Institute.</p>
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			<p>data.</p> <p>The GIS data is still scanty.</p> <p>There is no IT trained person in data management.</p>			
Hardware & Software	<p>There are four computers in the department (two desktops with two laptops one donated by UNICEF).</p> <p>There are two printers but not colored.</p> <p>No scanners in the department.</p> <p>No data backup facilities in the</p>	<p>There are computers in the department however not enough.</p> <p>The department lacks Data Backup facilities.</p> <p>There four printers with one photocopying machine provided by</p>	<p>There is an old GPS machine got from Ministry of water but its not being used. However the department borrows the GPS from UNCHR.</p> <p>There are</p>	<p>There are desktop computers but some are too old.</p> <p>There is no photocopying Machine, no Scanner and GPS machines.</p> <p>There is EMIS, PAR 1-4 in use.</p> <p>The department also uses MS</p>	<p>There are two desktops but the district Engineer used his personal Laptop.</p> <p>There is no GPS machine but the department borrows from UNHCR.</p> <p>There is one printer but no photocopying machine.</p> <p>The department</p>	<p>There are two desktops with one printer.</p> <p>There is no scanner, no comeras, no GPS, no scanner and no photocopying machine.</p> <p>There is only use of MS word PowerPoint and Excel. There is no GIS software installed.</p>

	<p>department.</p> <p>There is Microsoft office tools installed for the department.</p> <p>The department also uses LOGICS,BDR and SPECTRUM.</p>	<p>UNICEF & UNHCR.</p> <p>No scanners and GPS equipments in the sector.</p> <p>There exist HMIS and EPI which are semi-computerized.</p> <p>There is also use of MS word and excel.</p>	<p>also GPS machines with borehole drilling companies.</p> <p>There department has three computers, two printer and one photocopying machine.</p> <p>There is GIS software (Arc view 3.2).</p> <p>The department uses WATSAN.</p> <p>There is also use of MS office</p>	<p>word and excel.</p>	<p>also lacks a camera.</p> <p>There is use of ArcView 3.2, ArcGIS, RAMS and ADRICS for road management.</p> <p>Ms office packages are also being used.</p>	
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			tools.			
Available Data	<p>There is data for the District Development Plan</p> <p>There is demographic data from the populations' office.</p> <p>There is also data on BDR and AIDs.</p> <p>However the problem is that the data has not been well sorted to separate it from those of Amuru district.</p>	<p>There is HMIS data on the number of Health centre, staffing, drug distribution, Epidemic outbreaks and data on other health equipments.</p>	<p>There Geographical Information on water points.</p> <p>Information on water sources in the district.</p> <p>Information on the status of water facilities.</p> <p>Information on water reserves springs and shallow wells.</p> <p>However all this information</p>	<p>The department keeps information on the number of schools, pupils' enrolments, water sources in schools, latrines, infrastructures, text books, staff and appraisal information.</p> <p>However there is lack of geographical information on the location of schools.</p>	<p>There is some GIS information on printed maps.</p> <p>There is road condition and distribution survey data.</p> <p>Information of status of the roads.</p> <p>Information on the categories of roads (community or government)</p> <p>Number of culverts and bridges and the dates when they were constructed.</p> <p>Financial information for road maintenances.</p> <p>Information on contractors.</p>	<p>There is information on livestock, crops and marketing commodity prices.</p> <p>There is information on crop yields animals and livestock yields.</p> <p>However the information is not well updated.</p> <p>There is lack of GIS information on the location of livestock, markets and plantations.</p>

			has not been updated.		GIS maps are also available about road networks provided by the Engineer just using his lapto.	
Methods of Data Collection	<p>There is use of physical reports from other departments.</p> <p>Use local council one office to collect information from communities.</p> <p>Sharing of reports with NGOs.</p> <p>Data is also got from UBOS</p>	<p>Data is collected through visits and inspections by health Inspectors and Visitors.</p> <p>There are reports from HC I, II, III and Ministry of health.</p> <p>Field observations are also used.</p>	<p>Use of reports from contractors and pump mechanics.</p> <p>Use questionnaires, interviews and group discussions to get information from the communities.</p> <p>There is also use of field visits.</p>	<p>Periodic reports are prepared and presented by heads of schools.</p> <p>Data is also collected through school inspections</p> <p>Head teachers fill EMIS & PAR and submit them to the DEOS office.</p> <p>Workshops and meeting are also used in data collection.</p>	<p>There is use of observation by road inspectors.</p> <p>Reports are also provided by the road constructors.</p> <p>Workshops meeting and seminars are also used in data collection.</p> <p>Reports are got from LCs about the status of roads.</p>	<p>Field visit reports are made by field extension staff.</p> <p>Data is also collected by conducting an agricultural/livestock census.</p> <p>The department also receives reports from NAADS cordinatotors.</p> <p>There are field research reports presented by Ngetta Zonal Africa Research development institute.</p> <p>However not all the data is well captured.</p>

<p>Data Entry, Processing, Storage & Retrieval</p>	<p>Use secretaries who enter data with Microsoft office word and excel.</p> <p>There is no electronic data processing.</p> <p>Information is stored in physical and directories files and retrieved through rudimentary methods.</p>	<p>Data entry is done by secretaries with use of Ms word and excel.</p> <p>HMIS and EPI, are also used for data entry.</p> <p>Data is however semi-processed and stored on computer storage disks on work stations.</p> <p>Retrieval is through search and find by files and folders.</p>	<p>Secretaries & other staff members perform data entry.</p> <p>Excel word and access are used for data entry.</p> <p>WATSAN is also used for data entry and processing.</p> <p>There is very minimal electronic data processing.</p> <p>Data is stored in hard copy or softcopy on local computers.</p>	<p>The department handles qualitative and quantitative data.</p> <p>There is use of EMIS and PAR for data entry.</p> <p>Ms Office tools are also used by the secretaries in data entry.</p> <p>EMIS data is processed by a data analyst from UNICEF.</p> <p>Data is stored both in soft and hard copy.</p> <p>Retrieval is rudimentary.</p>	<p>There are secretaries who enter data using office tools.</p> <p>ArcView, ADRICS, RAMS are also used in data entry and some times processing.</p> <p>Data is stored on computers and hard copy information is stored in office file shelves.</p> <p>Retrieval is through search and find approach.</p>	<p>Secretaries use word and excel for data entry.</p> <p>There is no electronic processing done on the data.</p> <p>Data is stored in semi-processed format on computer workstations.</p> <p>Retrieval is rudimentary.</p>
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			Retrieval is rudimentary though search and find approaches .			
Updating Frequency	Data is updated annually through sectoral development plans. Population information is updated quarterly like information on BDR.	Data is updated monthly, quarterly and annually. However emergency data is collected any time. The department has a 24 hour notifier Information system to track for epidemic outbreaks (EPI).	Updates are done quarterly and annually. In case of new drillings updates are also made on effect.	There is monthly update of data using PAR and this same data is accumulated for termly updates. EMIS data is updated annually.	Updates are done quarterly and annually.	Updates made annually from January to December. Periodic updates are also made through agricultural sensus. However crop census updates has not been done for the last 20 years.
Dissemination	There is no clear flow of information in the district. The district	Dissemination mechanism is not well established. Radios talk-	Dissemination is through departmental meetings,	Dissemination is through cluster meetings with NGOs & District Development	No clear format for information dissemination. Dissemination through annual	Through departmental meetings. Information is also extended through radio talk shows and

	<p>development plan is produced and distributed to all departments.</p> <p>Dissemination is also through District Technical Planning Committee meetings.</p>	<p>shows, reports and workshops are used for information dissemination.</p> <p>Department meets are also conducted.</p>	<p>notice boards, radio talk-shows, reports and workshops.</p> <p>However the information flow is not very clear.</p>	<p>Management Committee.</p> <p>Information is also disseminated through District Departmental Meetings chaired by the CAO every Monday.</p> <p>There also meeting with school heads.</p>	<p>budgets.</p> <p>There annual reports sent to Ministry of works.</p> <p>Information is also shared with heads of other departments through weakly meetings with the CAO.</p>	<p>seminars.</p> <p>Dissemination is furthermore done by extension staff and NAADS.</p> <p>There are training workshops organized by the district and NAADS.</p>
General Infrastructure	<p>There is limited office space.</p> <p>There is use of Hydro Electricity Power but it's not reliable.</p> <p>The planning unit is not connected to Internet.</p> <p>The district has a website but not accessible</p>	<p>There is no internal communication facility but only use of personal mobile phones.</p> <p>There is inadequate office space. However a new office block was under construction.</p> <p>No enough trained field</p>	<p>The department has offices but still no enough space.</p> <p>There are computers but also not adequate.</p> <p>The department also lacks up to date</p>	<p>No adequate office space.</p> <p>A lot of rehabilitation is required on the existing block.</p> <p>Most of the available computers are very old versions.</p> <p>The available software is</p>	<p>There is enough office space but need more furniture.</p> <p>There is a limited number of trained personnel in the department.</p> <p>There is power from the national Grid but it's not reliable. However a standby generator is used which makes a lot</p>	<p>The department block is shared with other sectors thus limited office space.</p> <p>There are no internet facilities.</p> <p>There are old computers in the department.</p> <p>There is no computerised information system.</p> <p>Transport facilities are</p>

	<p>in the planning unit.</p> <p>There still use of traditional office messengers instead of an internal communication facility.</p> <p>The Unit has a standby generator.</p>	<p>extension staff in data collection.</p>	<p>software.</p> <p>There is understaffing in the sector.</p>	<p>outdated.</p>	<p>of noise.</p> <p>The department lacks computer accessories like printers and scanners.</p> <p>There is no GPS for the department.</p> <p>The transport facilities are also not adequate.</p>	<p>not enough i.e. the available motorcycles and cars are inadequate for extension work.</p>
<p>Problems in Information Generation</p>	<p>1. There is mixed up data for both Gulu and Amuru.</p> <p>2. Lack of a trained IT specialist in the department.</p> <p>3. Continuous virus infections to the computers in the Unit.</p> <p>4. There is Power</p>	<p>1. Lack of adequate facilities like computers, printers & other accessories for Information Management.</p> <p>2. Uncoordinated methods of data collection.</p> <p>3. Lack of data security mechanism to reduce on data</p>	<p>1. There limited skills in GIS</p> <p>2. Limited IT skills for data management.</p> <p>3. Lack of data backup facilities.</p> <p>4. Transport is also a</p>	<p>1. Lack of a reliable information system. The department has several computerized and semi-computerized systems.</p> <p>2. Some head teachers do not provide updates and exact information about their</p>	<p>1. Lack back up facilities for data.</p> <p>2. There is no trained IT person for data management.</p> <p>3. Lack of data analysts.</p> <p>4. A lot of conflicting GIS data collected by different development partners exist in the department.</p>	<p>1. Lack of backup facilities.</p> <p>2. There are no trained personnel in data analysis.</p> <p>3. Lack of transport facilities.</p> <p>4. Inadequate computers and accessories.</p>

	<p>instability in the district which affects information management.</p> <p>5. The unit lacks transport facilities for information collection and easy coordination.</p> <p>6. Lack of proper coordination with other Departments in the District as regards to providing adequate information.</p> <p>7. There is fatigue among the community as many agencies keep collecting data from them. Thus limited response.</p> <p>8. Some data is</p>	<p>loss.</p> <p>4. Lack of trained personnel in data management.</p> <p>5. Lack of data processing activities at subcounty levels.</p> <p>6. Lack of adequate transport facilities for data collection.</p>	<p>big problem.</p>	<p>schools.</p> <p>3. Too much information is collected by the department but there are limited skills for analysis.</p> <p>4. Un coordinated data collection activities.</p> <p>5. Head teachers lack IT skills to manage digital information</p>	<p>5. There are inadequate transport facilities.</p> <p>6. There is limited staff for information collection.</p> <p>GIS knowledge is only limited to the Engineer</p>	
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	<p>given as estimates by departments.</p> <p>9. Lack of IT experts for information security.</p> <p>10.Lack of willingness to share data by other development agencies and NGOs which collect data.</p> <p>The department is under funded by the district hence data collection is limited.</p>					
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Sctoral Assessment Amuru District

Sector Analysis	Planning Unit	Health	Education	Works & Transport	Production	Natural Resources	Community Development
Existing Information System	<p>There exists LOGICS (which was introduced in Oct.2007 in Jinja the staff was trained on how to use. BUT this is not being used for because the software was not well installed.</p> <p>The versions of LOGICS are numerous with differing Modules thus difficulties in understanding the application.</p> <p>Manual systems are still in place where physical</p>	<p>This unit uses the guidelines of the National HMIS, there is a functional District HMIS, but no clear data processing and Dissemination is done by the system.</p>	<p>There exists EMIS (forms teachers fill annually and sent to Ministry Office Education; on number of teachers, pupils, students, age, sex, problems faced etc).</p>	<p>There is RAMPS used for road management.</p> <p>GIS is also used for Mapping the roads in the District. ADRICS is the other information system used by the department.</p> <p>There is a Quarterly Performance Reporting System.</p>	<p>The traditional Manual file information system is so much used.</p> <p>There used to be a Marketing Information Systems- for weekly market information that had been introduced by Food Net to locate agricultural produces and their Market prices. However it was not well supported.</p>	<p>Traditional/manual file systems are still in use.</p> <p>Semi-computerized system is also in use like Microsoft office tools.</p> <p>However there department is greatly in need of a computerized information system.</p>	<p>The traditional file system is just with very minimal data.</p>

Sector Analysis	Planning Unit	Health	Education	Works & Transport	Production	Natural Resources	Community Development
	files are in use.				The system was web-based and yet the district was not well connected to internet.		
Sect oral Coordination	Weekly heads of department meetings chaired by CAO. Sharing of the DDP with other departments and development partners in the district.	Weekly sectoral meetings with the CAO. Sharing of reports from HCII and HCIII.	Regular weekly Heads of Department meetings chaired by the CAO and also monthly NGO Partners meetings to share data.	Regular sectoral monthly review meetings. Presentation of work plans to the district technical planning committee.	The sector is comprised of five (5) Technical Heads; District Agriculture Officer (Crop), Veterinary (Livestock), Fishery (Fisheries), Entomology (Entomological), Commercial Officer (Trade and Commerce),	Regular Sectoral monthly meetings to review activities on what has been done, not achieved, problems and possible solution; all in conformity with the District Work Plan.	Monthly sectoral meetings.

Sector Analysis	Planning Unit	Health	Education	Works & Transport	Production	Natural Resources	Community Development
					these hold regular meetings and provide information at Departmental Meetings to the District Technical Committees and the District Top Management Meetings.		
Capacity & existing skills to manage data in the department	The department is so incapacitated due to lack of understaffing; there is only the planner who has to keep going to Gulu for technical assistance as regard to data	There is a Bio-Statistician who is handling data. There is also one secretary with skills in only MS office.	A Data Analyst exists under the funding of UNICEF to manage data in this department. The department also has a secretary who is used for data	Staffs in this department are still new and need training to build capacity in the management of data. The District	There exists qualified staffs at the district but at the Sub-County level there is evident lack of staffs in general extension	The department is incapacitated in terms of capacity. There is Great need for training. Most of the staff is not even	A lot is still admired in the IT related areas. The department lacks computers, only the DCDO uses a personal laptop. Information managed is

Sector Analysis	Planning Unit	Health	Education	Works & Transport	Production	Natural Resources	Community Development
	<p>management.</p> <p>There is no trained Statistician, IT expert, Populations office and secretaries to help in data management.</p>		<p>entry.</p> <p>There is no IT trained personnel in the department.</p> <p>However the data analyst is based in Gulu due to lack of power in Amuru. Information is Quarterly sent to him by the DEO for analyzing.</p>	<p>Engineer has got some GIS knowledge.</p> <p>Staff was trained in the use of RAMPS and ADRICS.</p>	<p>services;</p> <p>Advertisements have been put up to fill the existing vacancies.</p> <p>There are secretaries who are used as data entrants but only knowledgeable in MS office tools.</p>	<p>computer literates.</p> <p>There is a secretary who uses MS office tools for data entry.</p> <p>No enough trained staff to collect field information.</p>	<p>mainly in form of physical files.</p> <p>The department also suffers from under staffing.</p> <p>Massive training is required in IT and information management.</p>
Hardware & Software	<p>The Planning Unit is using borrowed equipments and doesn't have its own. There are no computers, printer, photocopying machine and</p>	<p>There are some computers donated by UNICEF.</p> <p>The department has no printers, scanners and backup</p>	<p>Computer Hardware and Software exist however not adequate.</p> <p>There are no printers and photocopying Machines.</p>	<p>There some are computer Hardware and Software.</p> <p>Ministry of Water and Environment gave us</p>	<p>This sector has minimum computer hardware, software, and the accessories BUT its use is limited to office</p>	<p>A few computer hardware exists but lack the necessary software, and accessories. There exists old outdated GPS</p>	<p>This department lacks computer and the accessories. There is one personal laptop for the CDO. there is great lack of software.</p>

Sector Analysis	Planning Unit	Health	Education	Works & Transport	Production	Natural Resources	Community Development
	<p>data backup equipments. The planner has a laptop which was donated by UNICEF.</p> <p>No software apart from MS office tools.</p>	<p>facilities.</p> <p>There is no antivirus in the department.</p>	<p>The only used software is EMIS,PAR 1-4 and MS office.</p> <p>There is no antivirus in the department.</p>	<p>very old GPS equipment which was however very old and now the department borrows a GPS equipment from some NGOs especially UNHCR.</p> <p>Drilling companies usually come with their GPS equipments each time they are carrying out drilling and they use it for mapping</p>	<p>reports, memos and limited data on sector details (due to the war as data collection was not possible).</p> <p>The equipments are under utilized in the department because a lot off data has not been collected.</p>	<p>equipment which is no longer used.</p> <p>There is no antivirus in the department.</p>	

Sector Analysis	Planning Unit	Health	Education	Works & Transport	Production	Natural Resources	Community Development
				<p>purpose.</p> <p>The existing software are; GIS, ArcView 3.2, ArcGIS, RAMPS;</p> <p>There are no enough printers, and computer accessories, and require Laptops for field data collection</p> <p>There is also need for modern desktop computers in department to help in</p>			

Sector Analysis	Planning Unit	Health	Education	Works & Transport	Production	Natural Resources	Community Development
				office work.			
Available Data	<p>There exists data on Birth and Death Registration (BDR), but still mixed up with that of Gulu thus hard to separate.</p> <p>There is the District Development Plan</p>	<p>As contained in the HMIS.</p> <p>There is data on the number of HCs in the district, drugs stocks and distribution, staffing, Disease control and community sensitization information</p>	<p>Data on the Number of existing educational institutions, infrastructures pupils, students, teachers, classrooms ratios, attendance, latrines, water source, teachers houses, all are captured in the EMIS and PAR</p>	<p>Coordinates for water points,</p> <p>Source data for road tracks but not for the whole district road networks.</p> <p>Some NGOs have the data BUT do not share and others have changed the data.</p>	<p>There is available data on Livestock, and Land use, there is also the use of local early warning system (traditional observation and surveillance).</p> <p>Some Data provided by UBOS (although not updated).</p>	<p>Land coordinates plots, Forest areas, plantations, reserves and acreages, Wet lands.</p>	<p>Just in the process of starting to build data for the district.</p> <p>There exists very scattered bits of data</p>
Methods of Data Collection	Cooperation with the area LCs and Parish Chiefs and volunteers who	Health Center Visits observations and Periodic reports.	Using EMIS and PAR 1-4 Forms for data collection from schools. Use of	Been using GPS tracking for roads and point	Field staffs get data from farmers through surveillance,	Field observations, GPS recordings, and physical	Field visits, observations, reports. But lack staffs from the field.

Sector Analysis	Planning Unit	Health	Education	Works & Transport	Production	Natural Resources	Community Development
	<p>collect and submit information on the socio-economic status of their communities.</p> <p>Use of reports generated by other sectors in the district.</p>		<p>school inspections, Head counting, Periodic reports from schools.</p>	<p>mapping (coordinates) for water points.</p> <p>Field visits and observation are also used.</p> <p>Reports from drillers and architects.</p>	<p>observation and provide quarterly reports;</p> <p>Agricultural Census has not been possible due to the war for the last 20+ years.</p> <p>UBOS is soon to conduct one in the district.</p>	<p>counting.</p>	
Data Entry, Processing, Storage & Retrieval	The unit is seriously incapacitated in terms of personnel to collect, enter process and retrieve data. There is only	Secretaries use MS office tools, HMIS to enter data which is semi-processed, stored on office workstation	Data is entered by heads of schools using EMIS and PAR 1-4. Data analysis is done from Gulu by the data analyst	Some data is entered in RAMPS by the Engineer, some processing is done to it, and some	The department has a secretary who enters data. Some reports are generated on office	Secretaries use Office 2000 Word and Excel to enter data which is stored in semi-processed	It is not yet clear whether there is data entry, processing and retrieval. the department mainly deals with hard copy

Sector Analysis	Planning Unit	Health	Education	Works & Transport	Production	Natural Resources	Community Development
	the planner who does little data entry and processing using MS office and sometimes LOGICS. Data is stored in physical files and is very tiresome to retrieve.	computer using files and folders. Retrieval is through ordinary search through files and folders. No trained data entry clerks. The biostatician also helps in data analysis.	employed by UNICEF. Data is printed out and stored in physical files which the digital Data is stored on computers but retrieved using rudimentary ways.	Reports are generated and stored on office computers. Retrieval is however tiresome. MS Office 2003 is also used. However there is no updated antivirus.	computers. The retrieval however is tiresome. Use of MS Office 2003 is in pace.	format and hard to retrieve using traditional manual file storage.	information.
Updating Frequency	There is a problem of personnel to carry out this exercise. There is annual update of the DDP. However data for Gulu and	There periodic and annual Updates but there is lack of enough personnel, equipment, transport and facilitation which is affecting the	EMIS is done on an annual basis; PAR 1-4 (Pupils Attendance Report) is done on a term basis.	Whenever there is any drilling of a water points; the data of the point is immediately captured using a	Periodically trough Annual and Monthly reports. Quarterly through nation agricultural census	On the Environment, and Forest; this is done annually; while for the Lands office it's done as the situation demands.	Lack staffs to carry out this activity; data frequency is slow and difficult.

Sector Analysis	Planning Unit	Health	Education	Works & Transport	Production	Natural Resources	Community Development
	Amuru is still mixed up.	frequency of data updating.		GPS.			
Dissemination	Through departmental meetings and radio talk shops. DDP is also shared by all sectors.	Through visits, meetings, Reports and radio talk shops.	Share data with Health and Water departments and also other stakeholders through periodic reports. However there is no defined information dissemination channel.	Through departmental meetings on monthly basis regarding the sectors, and when there is presentation of sectoral budgets.	Through the Extension System; from the District level we have the extension staffs down to the Sub-Counties to disseminate information to the farmers. Workshops radio talk shows, announcements are organized by the department.	Meetings with Stakeholders to share data and information.	By organizing meetings and discussions with the stakeholders.
General	There is no	There is lack	Department has	The	Lack of	Lack office	Non existent in

Sector Analysis	Planning Unit	Health	Education	Works & Transport	Production	Natural Resources	Community Development
Infrastructure	<p>office space, has no power source at all.</p> <p>There department also lacks transport facilities.</p> <p>There is understaffing.</p> <p>No internet services.</p>	<p>of adequate transport facilities (have only one vehicle).</p> <p>There is no reliable power source but only use of a generator.</p> <p>There is also understaffing.</p>	<p>no office. It shares offices with the town council. The stastician seats in Gulu and communicate with the DEO on phone. No power source, no enough furniture and no internal communication facilities.</p>	<p>department lacks general infrastructure and logistics; office space, furniture, equipment, personnel and storage facilities are all inadequate.</p>	<p>office of enough space, equipment and communication infrastructure like LANS and internet facilities.</p> <p>No transport vehicles for supervision.,</p>	<p>space, Poor records storage facilities, internet and internal communication facilities. Personal mobile phones are highly in use for office communication.</p>	<p>terms of office accommodation, equipments, transport, staffs training and power source among others.</p>
Problems in Information Generation	<p>1. The Unit is under funded for by the district.</p> <p>2. There is severe understaffing as the department</p>	<p>1. Lack of adequate skills in general information management.</p> <p>2. Presence of unfiltered data from health</p>	<p>1 Use of unreliable information systems.</p> <p>2 Lack of computer training for Head teachers</p>	<p>1. Lack of GIS knowledge among most of the staff.</p> <p>2. Inadequate transport</p>	<p>1 Poor methods of data collection.</p> <p>2. Lack of enough trained field extension</p>	<p>Lack adequate equipment, transport, staffs, computer hardware and software and antivirus in the</p>	<p>Lacks enough staffs, equipment, transport facilities, training, office space, computer hardware and software and</p>

Sector Analysis	Planning Unit	Health	Education	Works & Transport	Production	Natural Resources	Community Development
	<p>has only the planner.</p> <p>3. Reluctance by some departments in providing timely information to the Unit.</p> <p>4. Lack of transport facilities for the Unit.</p> <p>5. Poor road infrastructure in the district.</p> <p>6. The unit lacks adequate computers and accessories.</p> <p>7. Lack of skills in information management.</p>	<p>centre.</p> <p>3. Inadequate transport facilities.</p> <p>4. Poor communication infrastructure.</p> <p>5. Uncoordinated activities in the district which limit data collection.</p> <p>6. Lack of enough computer Hardware and software.</p>	<p>who collect information.</p> <p>3 Poor road infrastructures in the district.</p> <p>4 Lack of communication infrastructures.</p> <p>5. Staborness of some Head Teachers in providing PAR1-4 information.</p> <p>6 Lack of skills in information management.</p> <p>Lack of office space.</p>	<p>facilities.</p> <p>3. Lack of antivirus.</p> <p>Inexistence of IT personnel in the department.</p> <p>4. Lack of data collection equipments like GPS</p>	<p>staff at sub county levels.</p> <p>3. Poor road infrastructure</p> <p>4. Limited transport facilities.</p> <p>5. There is a problem of viruses in the department.</p> <p>6. Lack of an IT trained personnel</p>	<p>department.</p> <p>Lack of internal communication facilities.</p> <p>Lack of internet services.</p>	<p>antivirus.</p> <p>There is also poor road network in the district.</p>

General Observations

- Limited knowledge on the importance of Information Management across different sectors.
- Existence of traditional office messages instead of internal office communication facilities such as intercom.
- Lack of support to IT development by the Districts as shown by the DDPs 2008/09
- The Districts are understaffed, most of the important offices are vacant according to DDPs 2008/09
- Poor facilitation of the Planning Unit in most of the districts to enable it performs data collection processing and management. I.e. it has no enough office space and no vehicle. For example, in Pader the car meant for the planning Unit was taken by the LCV.
- Understaffing of the District Planning Units. The Units do not have experts in Information Systems, no trained data entrants, no district planner but the Population Officer is the acting Planner (Pader), in Amuru, the Planning Unit has only one person. There are no Statistical Officers for example in Pader and Amuru and no trained IT experts.
- There is no harmonized way of data collection, processing and dissemination across sectors.
- Information overload since most data is collected by departments in large volumes its not filtered due to lack of necessary skills and only forwarded in raw form to the Planning Units which are also incapacitated in data processing and management skills.
- Departments lack databases
- Unharmonized data access policies across departments in the districts.
- Poor Communication Network Infrastructure. No internet services in Amuru and Pader and even some departments do not have internal telephone services but just use personal mobile phones. There is internet in Kitgum and Gulu but not well distributed across all sectors in the districts.
- No electronic way for file sharing between offices or workstations. No LANs built for file sharing.
- Lack of reliable sources of power. In Pader some sectors like water and works have solar and a generator which are not reliable while others like Planning Unit and Natural Resources have no source of power at all. In Amuru generators are the only source of power. In Gulu and Kitgum there is power from the national grid but it's not also reliable.
- There are no data backup facilities in place in order to make District data more secure.
- Limited coordination between the different District departments
- Lack of sector specific information generation guidelines in terms of standards and methodologies for the data validation procedures.

- Underutilization of the Planning Units as it regards to Information Management and Dissemination due to lack of sensitization on the importance of the Unit.
- Uncoordinated Planning Unit activities leading to uncoordinated planning process
- Poor data flow through structures of deferent departments in the districts
- No developed Centralized Information Unit (information hub/data centre)
- No developed digital datawarehouse for the Districts which can integrate all sectoral Databases.
- No set periods for information updating. Some times it takes very long to update the existing information/datasets.
- Duplication of activities among departments which makes it difficult to collect data. Some activities are in many sectors but are poorly coordinated /fragmented in information generation thus repetitions in data collected.
- High level of data/information redundancy across deferent departments
- Lack of adequate data collection, processing and analysis skills
- Limited IT training given to the District staff
- Duplication of data collected due to poor and un-harmonized methods of data collection which causes data redundancy.
- Incompatibility in data formats and use of deferent codes for same information by deferent departments for example Education department has got special statistical forms which they use for entering data while other departments deploy the use of access.
- Presence of many conflicting information system which are unreliable. For example LOGICS has many incompatible versions with conflicting modules.
- Lack of adequate, reliable, up-to date computers and computer hardware utilities (in Pader,some computer hardware components like mice and cables are still shared through borrowing from workstation to workstation)
- Software problems (virus infections which cause data losses, lack of up to date applications and their updates)
- Poor road/transport network in the some districts especially Pader,Amuru and Kitgum.
- Insecurity in some area is still prevalent thus movement is limited especially in Kitgum
- High levels of fatigue in the communities as regards to providing information. This has been due to many NGOs which have been in the region for many times collecting data.

Suggested Interventions

- Develop a well organized Information System
- Developing a District Data Warehouses/datasets or Data Centres which should be under the Planning Unit
- Provide more Capacity Building to the staff in the field of IT
- There should be structural adjustments in the District to accommodate IT sector.
- Providing more facilitation to the Planning Unit as regards to staffing, transport, training and general infrastructure.
- Develop/Revitalize the use of District Website which will contribute a lot in information sharing and general communication.
- Development of sectoral digital databases
- Creation of a District data Warehouse which is will integrate all sectoral Databases.
- Adoption of a more flexible or diagonal communication network across departments
- Correcting the blockages in dataflow with in the departmental structures.
- Updating existing skills, datasets, hardware and software as well as data collection and information generation and processing infrastructure.
- Equip the Districts Planning Units with a server systems to handle massive information
- Should create a LAN(s), internet or other flexible networks for easy communication and information sharing.
- Integration and coordination of all district sectoral databases /datasets into the District Planning Process.
- Enhance communication, collaboration and coordination with in the departments
- Harmonization of skills, collaboration, datasets and data collection procedures.
- Improve on the road networks in the District.
- Sensitization on the purpose of the planning unit in the district.
- Enhance cooperation with NGOs and other development agencies in the District in regard to Data Collection Processing and Dissemination. This will encourage information sharing.

However, the above gaps can be sealed through the development of a sustainable Information Base for the Districts. Nonetheless, to develop this information base, there is need to address the following challenges in the Districts.

Training and Capacity Building

The October 2008 mission to Acholi sub region discovered that a number of equipments such as GPS and Computers exist in most of the Districts (both laptops and desktops).However, these

computers have not been put to maximum use; the mostly used applications are Microsoft office tools and mainly Microsoft word, excel and access to a very small scale. Some department are equipped with GPS equipment but have not used them for collecting GIS information. This is due to lack of adequate skills and competence needed for proper utilization of these computers and other equipments in information management. Some new information systems developed for departments have been incompatible with the sectoral requirements thus rendering them inefficient.

Proposed Intervention

This intervention should be step by step through the following stages.

1. Sensitization of the stakeholders on the purpose of information collection processing and dissemination and the purpose of planning in the development of the Districts.
2. Equip all the staff in the deferent sectors with computer skills especially typing and other basic but relevant skills.
3. Carry out training on the use of data collection equipments like GPS, digital cameras among others so that the staff can know how to use them.
4. Conduct training in data entry using software packages like MS access, excel, office, and other statistical packages like SPSS as well as accounting packages. GIS data entry training can also be conducted to enter GPS collected data.
5. Data processing should now be taught to the district staff using the different processing and analytical packages in order to come out with desired output information.
6. Develop sectoral databases which will later be merged into District Data Centers under the District Planning Units.
7. Updating of all Districts websites
8. Creation of Districts Email Address facilities

Institutional Setup

Coordination is a very reliable tool for planning and development of Districts in Acholi Sub region. There is need for empowering the Planning section through sensitizing other department on the purpose of the Units in the Districts. The department should be viewed as a “central hub” for all departments through which coordination and planning can be achieved. Information flow from all sectors in the districts to and from the Districts Planning Units should be constant and the Units should be viewed as data warehouses that integrate data from all sectoral databases as shown in figure3.

The district administration should appoint a well trained full time District Planner but not one who doubles as population’s officer for the case of Pader. The Districts Planning Units should be facilitated with means of transport, trained statisticians and IT experts to enforce data security and Management. A powerful database should be developed for the Planning departments. If the Units are to be used as a central point for information, new and more powerful machines should be purchased for handling large amounts of Information.

The Districts Planning Units should be viewed as the central backup stations for all Information generated in the Districts. This needs to be realized by every district in the region as shown in Figure 3.

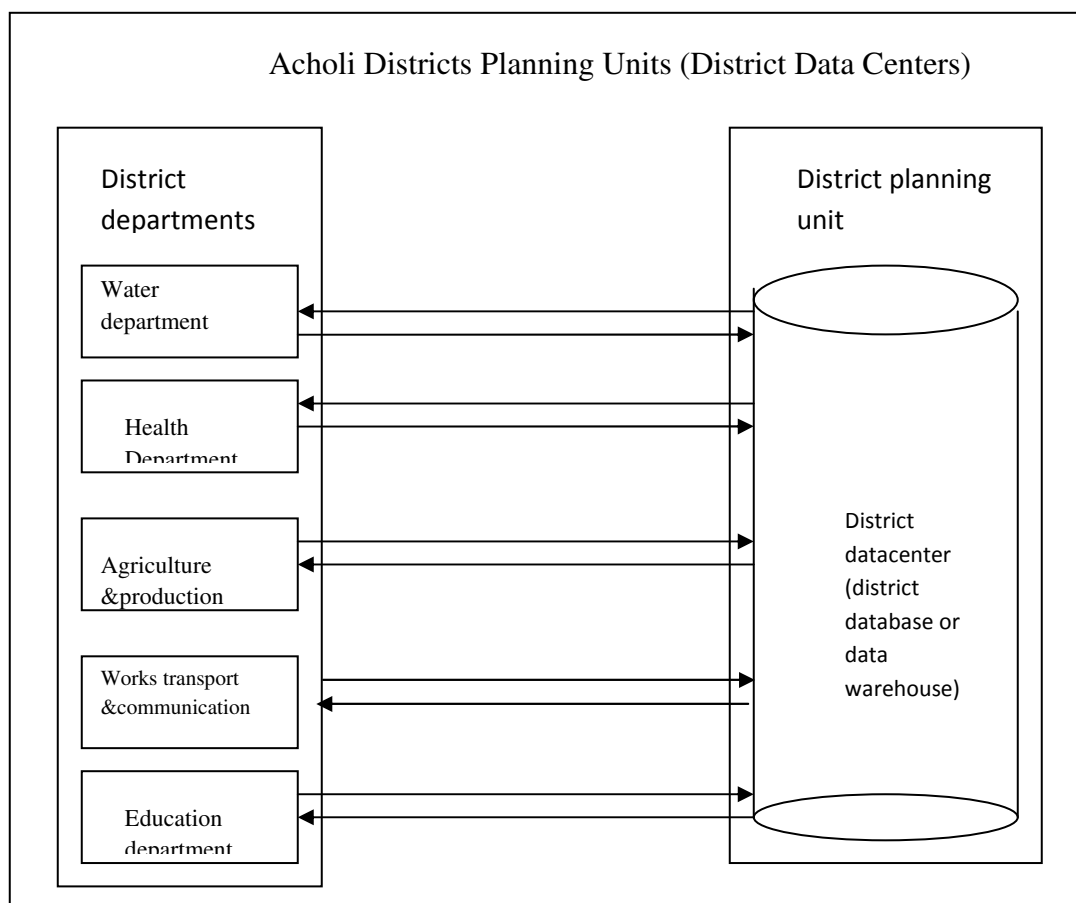


Figure 3 Acholi District Planning Unit (District Level Data Centre)

Minimum Hardware and Software For the Districts Planning Units;

In every district in the subregion, the following should be put in place;

Powerful computer system with at least 120GB of hard disk space and with more than 1000MHZ of the processor speed be purchased to work as a sever for the whole District. An external hard disk of at least 80GB should also be purchased for backing up the data.

A Database or Data warehouse be built for the Units to store data

A well designed Information Management System that can easily query the data and provide Information catalogs also be developed.

Other departments should have computers with at least 64MB of RAM, 20GB of Hard Disk space and minimum of Pentium ii processor. At least 20 GB external Hard Disk for backup, Windows 2000 and XP Operation Systems can also serve well.

For GIS, other remotely sensed data and other Graphical Information, minimum of 20GB hard disk space can be used, 1000MHZ of processor speed a minimum of a Pentium iii processor, 2 hand-held GPS equipment receivers and an A3 colored printer can do well. A minimum GIS software like Arc view 3.2, IDRISI or ILWIS should also be availed. For analysis other GIS extensions like special analyst for image processing and geostatistical analyst can all be used.

For some departments that deal with image data, Digital Cameras should be provided to help them in data collection.

Data Collection

There is need for developing uniform methods for data collection so that the data can easily be organized and processed using specific tools. The Planners (Gulu and Pader) stressed the issue of information overload due to duplication of data. This can be solved by designing crosscutting format for data collection across all departments so that data can easily be harmonized. Departments which have shared activities should have similar mechanisms for data collection and be able to share the data and filter it to reduce on the duplication of data sent to the Planning Unit. Activities of data collection should be well coordinated under these departments eg Water, Health, Education, Population and Community. Some NGOs like UNICEF, UN, DANIDA and Religious organization among others, also collect similar Information to that collected by sectors of the Districts..These should fully coordinate if data collection is to be well managed.

Generation of Baseline Data

The creation of a central dataset/data warehouse should be propelled by all sectors in the district. Data collection should be emphasized at the sectoral level to create small sectoral databases. The sectoral databases can therefore be merged to form one Information Centre for the District preferably under the Planning Unit. Well collected data from all lowest information bases in the Districts such as LCs will first be filtered at the sectoral level integrated with that from all sectors to form a District dataset/data warehouse that will be always updated by the data from sectoral databases that handle operational information. The district dataset/data warehouse will be used for the general planning processes in the district. However there is need to harmonize sectoral data collection and processing mechanisms in each District.

Infrastructure Requirements.

To achieve the objective of developing Districts' Information System for Acholi Districts, the Districts should first empower their Planning Units with enough facilities for Data Collection. The Districts' Planning Units should have at least two cars and some motorcycles to enable them easily collect data and carry out District Planning and Coordination activities.

Power problem should be another issue to be addressed if the Districts' Plans for Information System are to be achieved. The existing power situation in Pader and Amuru where solar and generators are the only sources of power will not provide a convenient atmosphere for the implementation and management of the District Information System.

Some departments like Planning Unit and Natural Resources in Pader do not have any source of power they just borrow the generator once in a while or carry their laptops and mobile phone to other departments where they can find a generator for charging. Many small portable generators litter the District compound generating a lot of noise and pollution thus creating a poor working environment.

For Gulu and Kitgum power stability should also be checked. The districts are connected to the national power grid but power is not reliable most of the time. Therefore solar and standby generators can be used as backup power supply. However, the generators should be silenced to reduce on noise pollution.

Due to the problems above, Districts like Pader and Amuru can each buy one Powerful Generator which supplies all departments and reduce on pollution caused by the many small generators since all departments are located in close range to each other. Some Technology can as well be used to silence the noise from the generator. However according to the CAO Pader, the District is one of those posed to be connected to Hydro Electricity Power. Pader District is likely to be connected to the national grid for Hydro Electricity Power early 2009 according to the plan by Ministry of Energy. This will be a better step forward towards the development of a more reliable power source for District and thus support for the development of an Information System.

To help departments in promoting coordination and collaboration, communication infrastructures should be improved in the Districts. Internet should be introduced and well distributed, internal office telephone services be installed in all departments to allow easy coordination. The internet installation project in Pader that was once started by UNICEF be revamped so that departments in the District can easily be coordinated.

Creating an Information Center for every District should start by improving the general infrastructure for the Planning Unit in every District. More computers, a printer and office furniture should be purchased for the Planning Unit in every district to make it serve as a Data Center, office space also be increased. The Planning Unit blocks for the case of Gulu and Pader need to be rehabilitated, old doors replaced and windows be replaced with new and strong ones to ensure security for office Equipment.

A very powerful computer be purchased for every District to handle large amounts of data and serve as District Database server. Strong antivirus be installed for security. An IT department should be setup in the District under Local Government structure to manage and maintain computer systems and update the Information System.

Strengthening NGO-district Administration Coordination

In order to realize the objective of information collection, coordination with all NGOs and other development Agencies in Acholi Districts should be paramount. NGOs and Agencies such as NUSAF, UN, UNICEF, DANIDA, UNHCR, Christian Relief Service (CRS), World Vision and Churches among others exist in the districts. These also carry out data collection, analysis and dissemination for planning purposes of their activities. The Districts should cooperate with them in data collection since they all need related information and since all work towards PRDP.

NGOs should be well represented at the districts and their data be shared with the District Planning Authority. However, NGOs should be part of the District structure.

Lack of coordination with all agencies in the District might lead to the creation of many deferent Information Systems with scattered bits of data and thus making it hard to develop an integrated Information System for the District. Some coordination has been realized through periodic meetings with the District but some NGOs still hoard their information from the District stakeholders.

Suggested plan of action

To build an information system for Acholi Districts is one of the current areas of interest according to NUDC. All initial attempts and plans have been made including the situational analysis of the place as regards to the realities of Information collection processing and Dissemination.

Cooperation Framework

With the continuing support from the Italian Corporation and the Acholi community, Information System development for Districts in the Acholi sub region may become a reality. Plans are underway by NUDC to establish strong corporations with all the institutions in the Districts through efforts like capacity building as regards to Data Collection, Processing and Dissemination so as to cooperate in building an information system or datacenters for Districts.

The collaboration being forged shall focus on the following aspects

- Resource sharing between departments in the District. These resources may include skills, equipments, software, finances and information itself.
- Harmonization of information collection mechanisms to generate baseline information which is easily integrated.
- Improve the lobbying capacity for the requirements of Information Management through a joint advocacy of all departments.
- Promotion of effective resource utilization since resources may not be enough or even not well distributed across deferent sectors.
- To ensure fairness in resource allocation among departments. These resources can be in terms of training, finances and equipments for Information Collecting Processing and Dissemination.
- The collaboration will ensure that all departments develop at the same pace in the discipline of Information collection and Management.
- Establishment of appropriate standard for dataset/data warehouse sharing with emphasis on the digital dataset.
- Develop a collective mechanism to ensure effective and efficient approaches to data collection, processing, access, dissemination maintenance and integration.

- Help to easily identify gaps in regard to information collection, processing and management across all departments since information sharing will have been emphasized.
- Harmonization of activities like data collection, processing and capacity building to reduce duplications, fragmentation, and inconsistencies in the information generated.
- Collaboration will help to establish proper and reliable channels for information flow across all sectors in the district.
- Participation in workshops seminars and workshops organized by either sector.

Information Dissemination

The mission to Acholi established that the Districts have websites. However in some Districts, the websites are not in use. For example in Amuru and Pader it was not clear to many of the District sectoral stakeholders who seemed to have varying ideas over its existence. The mission studied that some of the staff are aware of the website's existitance but less focus is given to it. To confirm this, none of the stakeholders was able to state the URL for the District website. From this establishment by the mission, NUDUC can therefore attribute this lack of knowledge and interest in the website to lack of internet services in the District two Districts. The internet project in Pader was once started by UNICEF but was never concluded. Up to know the District headquarters are not connected.

Since a website is hosted on the internet therefore it is a key reason why a website for Pader is highly disregarded because users can not access it. This has largely paralyzed Information Dissemination. However plans by UNICEF are still ongoing to ensure that the District is connected to internet. This will highly be boosted by the arrival of HEP which is in pipeline according to the CAO in reference to the Annual Work Plan for rural electrification for 2009 by the Ministry of Energy. NUDC is prepared to provide all the necessary help to Pader and all other Districts like updating their websites among others as the Districts revitalize the use of its world wide web.

For Gulu District, internet is installed in just a few departments thus accessed by a limited number of District Stakeholders. This has however left most of the District staff going for internet services in Cafes around town. This ha also made the use of the district website which is only accessed from the office of the CAO.

Kitgum District has a satellite Dish that is used for relaying Internet. This facility was meant for People with Special Needs however, its access point is in one old building which was deserted due to poor elevation. However, some District stakeholders have tried to improvise by using this facility from the poorly conditioned building with a lot of difficulty. Therefore since internet is the only platform for any website, the district has not been able to make proper use of its URL. To bridge the gap, internet facilities should be put in place for all departments.

The vitalization of Districts website usage will ensure that the website becomes a great tool for Information Dissemination and provides support to the Planning Unit by allowing file uploads and downloads.

More still, as the internet arrives in all the Districts, NUDC will ensure all departments have official email addresses for communication and a district email address will also be created and put to use for easy Information Dissemination.

Field Mission Activities

- NUDC in collaboration with the Italian cooperation and other cooperating institutions will carry out the following activities in the three Acholi Districts.
- Carry out sensitization of the district top authorities on the role of the NUDC in the district and also on the purpose of Information Collection, Processing and Management as it regards to supporting planning and decision making.
- Village level geographical data collection and administrative mapping
- Updating the digital road network information
- Updating water sources, health units, and school geographical databases
- Update digital data on market centers and police stations and out posts, prison facilities, sub county headquarters and landing sites
- Update the data on natural resources and their locations
- Training of District staff in data collection and analysis
- Collection of production data i.e. Agricultural forestry, veterinary etc
- Hardware and software installation at the district.