



Republic of Uganda
Ministry of Water and Environment

— UGANDA —
WATER SUPPLY
ATLAS 2017

PRESENTED BY ASIIMWE LOY
MIS/DWD
JOINT SECTOR REVIEW 28-09-2017

Uganda Water Atlas 2017

Presentation outline



- **What is the Water Supply Atlas?**
- **Background – (Atlas 2001) - (Current Atlas 2017 – Part I)**
- **The Water Supply Database**
- **How to Access the online database and atlas?**
- **Water Supply Database Dashboard**
- **Key Features: National Reports (sector indicators)**
- **Key Features: District Reports (sector indicators)**
- **Maps navigation**

What is the Water Supply Atlas?

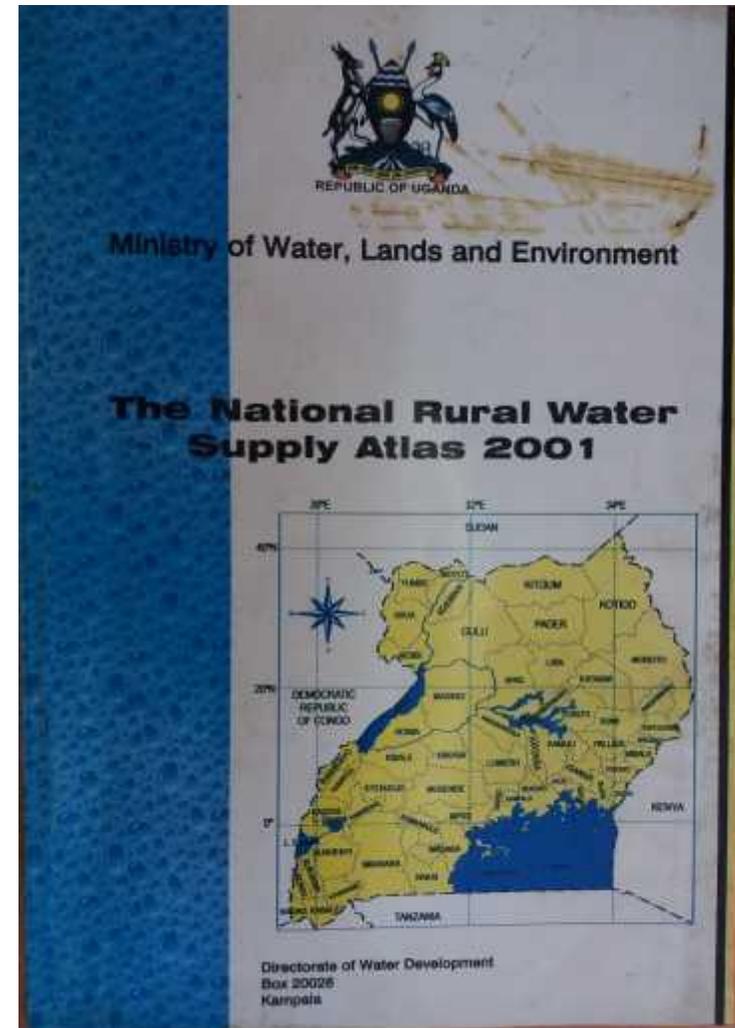


- A tool that provides stakeholders with a general **overview of the water supply situation** in Uganda.
- Information is majorly presented in **pictorial, graphical and tabular formats** and its meant to facilitate better planning, equitable distribution of resources and efficient service delivery.
- Largely about sector indicators i.e. **access, functionality, equity, management and gender**.
- It covers the whole of Uganda, **all safe point Water Sources, all piped schemes**, National Water & Sewerage Corporation service areas & Water for Production facilities.

Background – (Atlas 2001)



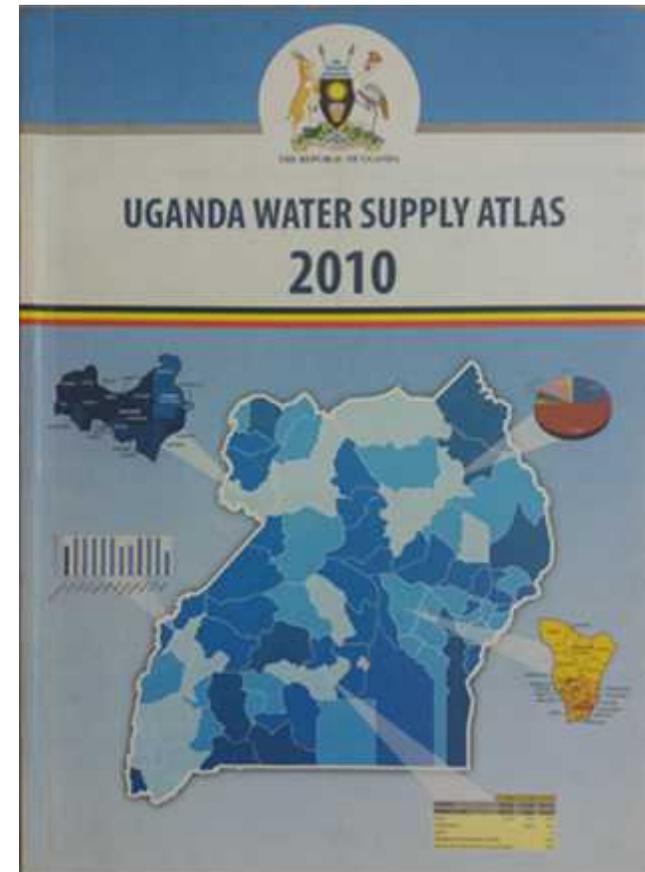
- The **1st** Water Supply Atlas was published in 2001
- It was preceded by a simple Microsoft Excel database for data processing.
- The tool would output information which was used to design the Atlas 2001.
- It contained **58** districts



Background – (Atlas 2010)



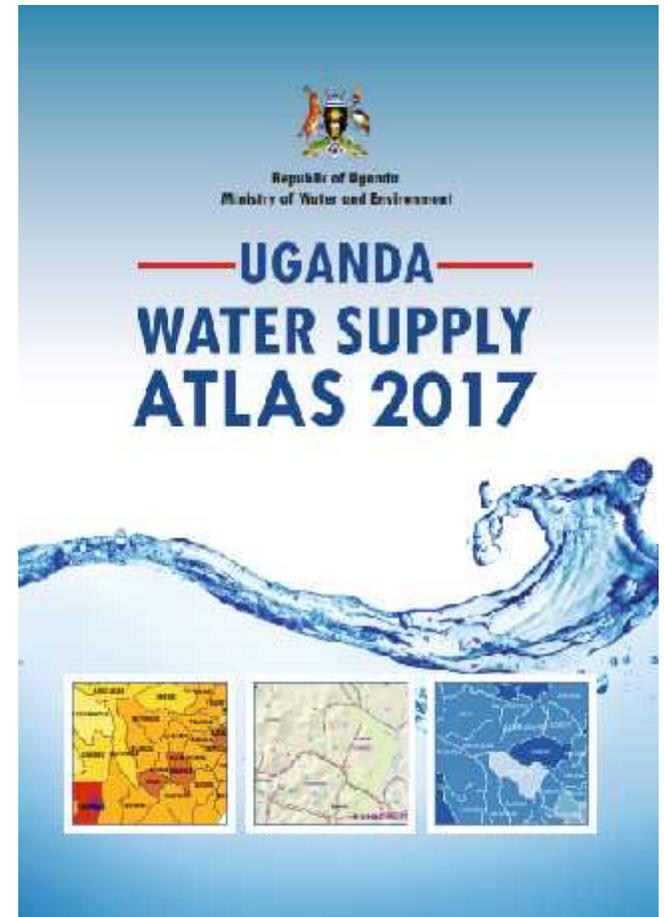
- The **2nd** Water Supply Atlas was published in 2010
- It was preceded by a new web based database which was used for simple data processing.
- The information would be extracted as excel files and used to make maps, tables & graphs.
- It contained **80** districts.



Background – (Current Atlas 2017 – Part I)



- This is the 3rd Water Supply Atlas
- It's a product of the WATSUP II Project.
- ❖ WATSUP II Project stakeholders
 - Districts/NGOs who did the data collection and submissions
 - TSUs who coordinated with the districts
 - MIS/MWE with the support of our Consultants designed data collection forms, and analysed data, designed and produced the water supply Atlas 2017.
 - WfP and NWSC also submitted information used in this Atlas.



Background – (Current 2017 Atlas – Part II)



- This Atlas has been supported by 3 **web based databases**:-

| | |
|---------|--|
| ✓ WSDB | Water Supply Database (major contributor) |
| ✓ UPMiS | Utility Performance Monitoring Information System |
| ✓ WfPDB | Water for Production |

The Water Supply Database



- This is a database that provides information about sector indicators i.e. **access, functionality, equity, management and gender**
- It provides **sub county, district & national** data of :-
 - Efficiently Processed data (in real time)
 - Web based maps (currently extractable as PDFs)
 - Real time reports (extractable for printing)
 - Annual SPR reports since 2011
 - Trend Reports since 2011
 - Charts & Graphical reports (extractable for printing), etc

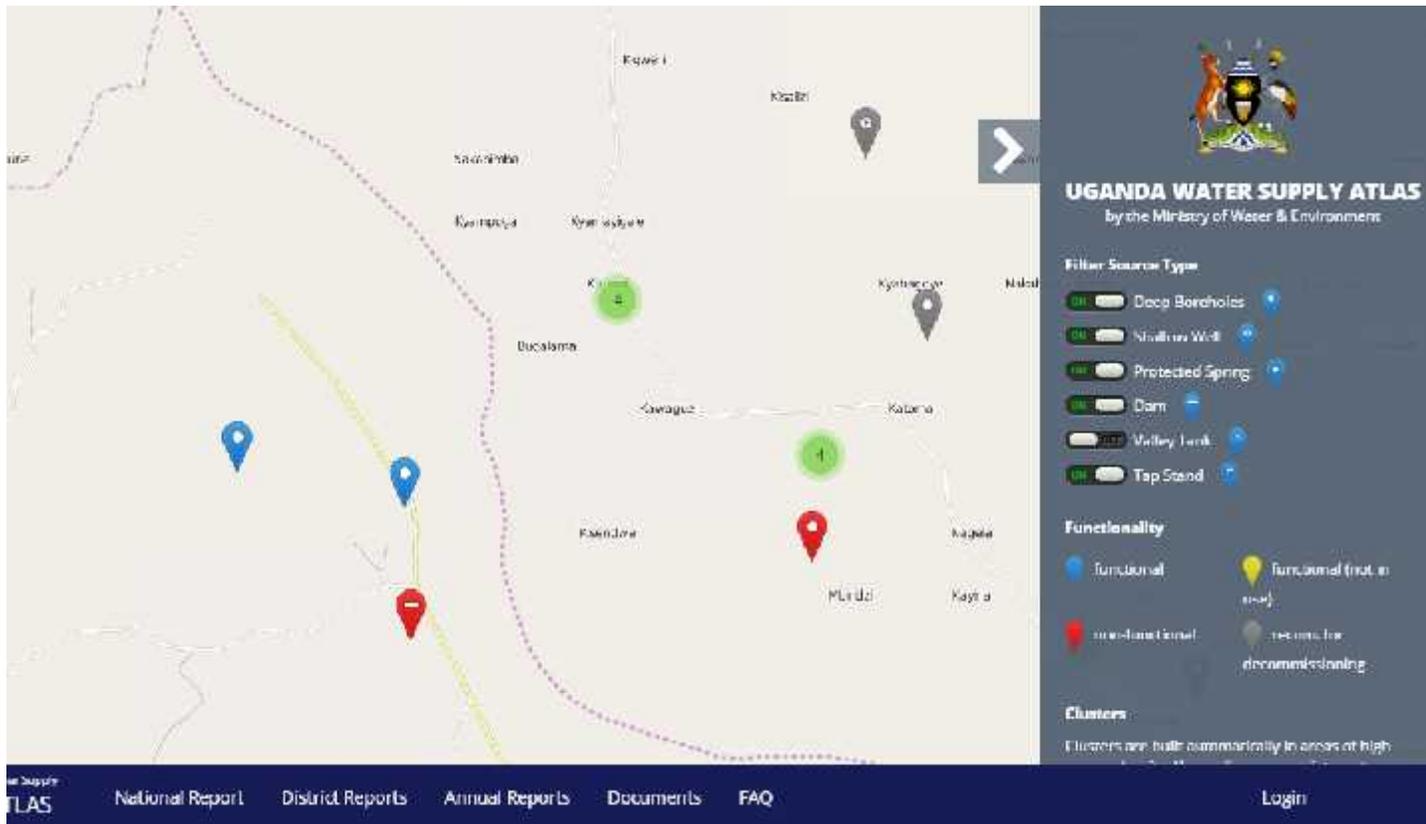
How to Access the online database and atlas



1.



2.



Useful links

- [Climate Change Department\(CCD\)](#)
- [Water and Sanitation Development Facilities\(WSDFs\)](#)
- [Uganda Water & Sanitation NGO Network\(UWASNET\)](#)
- [Appropriate Technology Center \(ATC\)](#)
- [Uganda Water Supply Atlas](#)
- [Nile Basin Initiative\(NBI\)](#)

3.

Go to ministry website, look for **“Useful links”** at the bottom of the home page; then Click **‘Uganda Water Supply Atlas’** and it will open in a new tab. Once open – you will use the menu displayed to navigate to maps and tabular reports that are shown in the **hardcopy Water Supply Atlas**

Water Supply Database Dashboard



Once logged in, you are presented with a dashboard which shows:-

- Several colored information boxes with the real time key indicators at National Level
- A line graph with a trend analysis of the key indicators at National Level
- Pie charts with different categorized information at National Level

Key Features: National Reports

[National Report](#)[District Reports](#)[Annual Reports](#)[Documents](#)[FAQ](#)[Login](#)

Uganda

by September 20, 2017

The access rates in Uganda vary from 33 % in Mubende District to 95 % in Pader District. Uganda has 127,369 domestic water points which serve a total of 25,841,562 people - 20,971,462 in rural areas. An additional 5,567 sources have been non-functional for more than 5 years and are considered abandoned. Uganda has 1,113 piped schemes.

access

69%

rural functionality

85%

equity

121

management

88%

gender

86%

Population Density (people/km²) and Population

MG

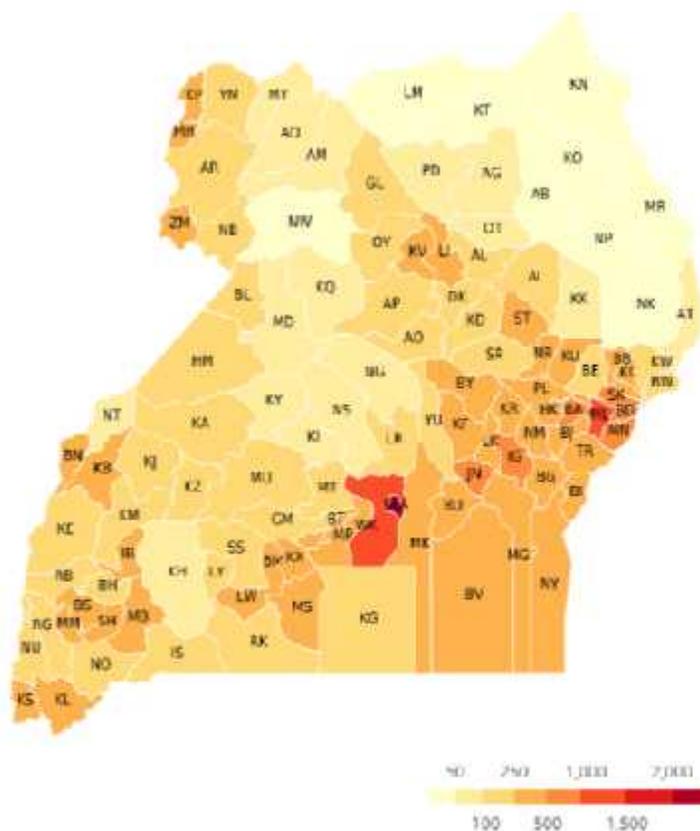
May 2016

See Page 19 in Atlas

National Reports : Population density



Population Density (people/km²) and Population



| | | |
|-----|----------|---------|
| MG | Mayuge | 517,485 |
| MD | Mubera | 502,771 |
| JN | Jinja | 491,861 |
| LR | Luwero | 489,110 |
| KB | Kabarole | 476,756 |
| NO | Ntungamo | 469,523 |
| KJ | Kyenjojo | 465,370 |
| KM | Kamwenge | 419,158 |
| EU | Ebuewa | 417,659 |
| LI | Lira | 442,076 |
| PL | Pollisa | 427,005 |
| OY | Dyam | 417,696 |
| EG | Bugiri | 412,342 |
| NR | Nabbi | 407,736 |
| AP | Apar | 402,789 |
| KG | Kagadi | 390,964 |
| TU | Kayunga | 387,065 |
| MN | Manafwa | 377,756 |
| KK | Kakumiro | 373,244 |
| EV | Buyende | 366,852 |
| KII | Kiruhura | 364,291 |
| BI | Busia | 352,854 |
| MT | Mityana | 344,929 |
| KI | Kahala | 341,797 |
| KZ | Kyegegwa | 335,428 |
| ST | Soroti | 328,956 |
| SR | Serere | 321,159 |
| KR | Katira | 316,287 |

Population figures are projections to the above mentioned date based on UNIGES census 2014 and district growth rates. Population density is calculated on land area only. Boundaries reflect the preliminary states only.

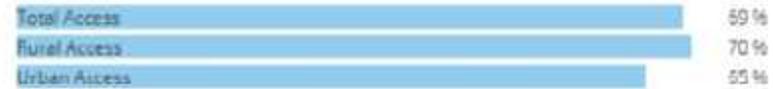
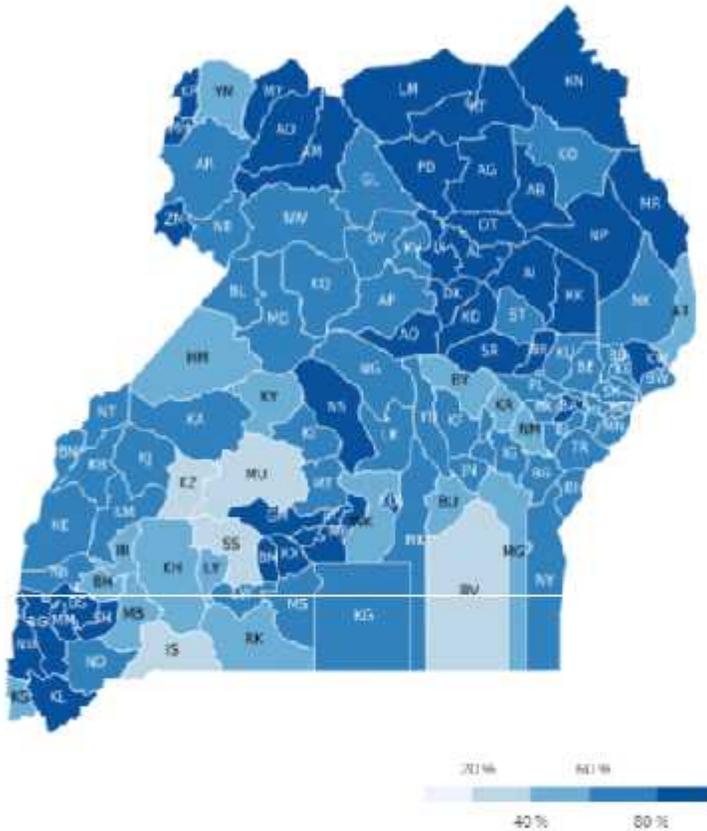
Access to Safe Water

See Page 19 in Atlas

National Reports - Access



Access to Safe Water



| | | |
|-----|---------------|-----|
| PD | Ponder | 95% |
| BT | Butambela | 95% |
| KT | Katima Mulilo | 95% |
| LM | Lamwani | 95% |
| AG | Agano | 95% |
| MY | Moyo | 94% |
| AL | Albany | 94% |
| LI | Lira | 94% |
| AD | Adzvamani | 94% |
| ON | Oronoro | 93% |
| KK | Katima | 93% |
| OT | Opitima | 93% |
| MM | Mitima | 92% |
| KC | Kalungu | 92% |
| MH | Maracha | 92% |
| NU | Narungu | 91% |
| KL | Kobale | 90% |
| AM | Amuru | 88% |
| KLA | Kempela | 88% |
| GM | Gombe | 87% |
| DK | Dokulo | 87% |
| AB | Abim | 87% |

Access to safe water is the ratio of people served by a safe water point and piped water supply to the total population. The calculation is based on an estimated number of people per water point type. Maximum access rate can be 95%.

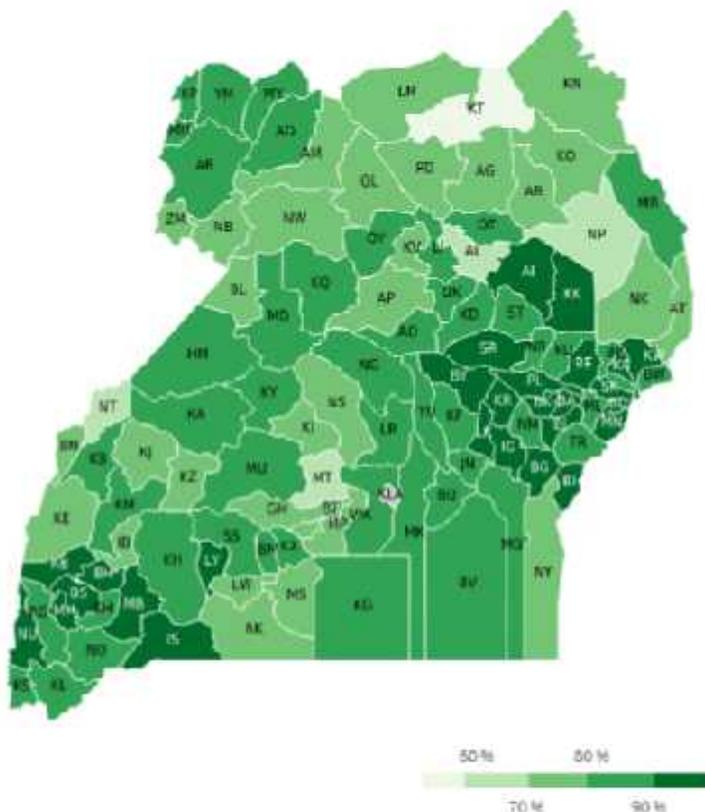
Functionality of Point Water Sources

See Page 20 in Atlas

National Reports : Functionality



Functionality of Point Water Sources



Rural Functionality: 85 %
 Urban Functionality: 85 %

| KLA | Kernelpop | Unknown |
|-----|-----------|---------|
| TK | Tsvika | 87 % |
| IS | Isingiro | 97 % |
| MN | Meretona | 95 % |
| RE | Rubintzi | 95 % |
| DA | Dudaka | 95 % |
| RD | Rubanda | 94 % |
| PL | Fellisa | 94 % |
| MR | Mberana | 94 % |
| SR | Serere | 94 % |
| KR | Kaliro | 94 % |
| AI | Amuria | 94 % |
| BH | Buhweju | 94 % |
| BI | Busia | 94 % |
| IG | Iganga | 94 % |
| BO | Bugri | 93 % |
| NU | Kanungu | 93 % |
| KC | Kapchorwa | 93 % |
| LY | Lyantonde | 93 % |
| KH | Katsekwi | 93 % |
| MM | Mitooma | 92 % |
| SK | Sironka | 92 % |
| BD | Buduta | 91 % |

Functionality is the ratio of functional water sources to all water sources. Sources not operating for five or more years are assumed to be abandoned, and hence are not included in the calculation.

People served per technology



Reasons for non-functionality



See Page 21 in Atlas

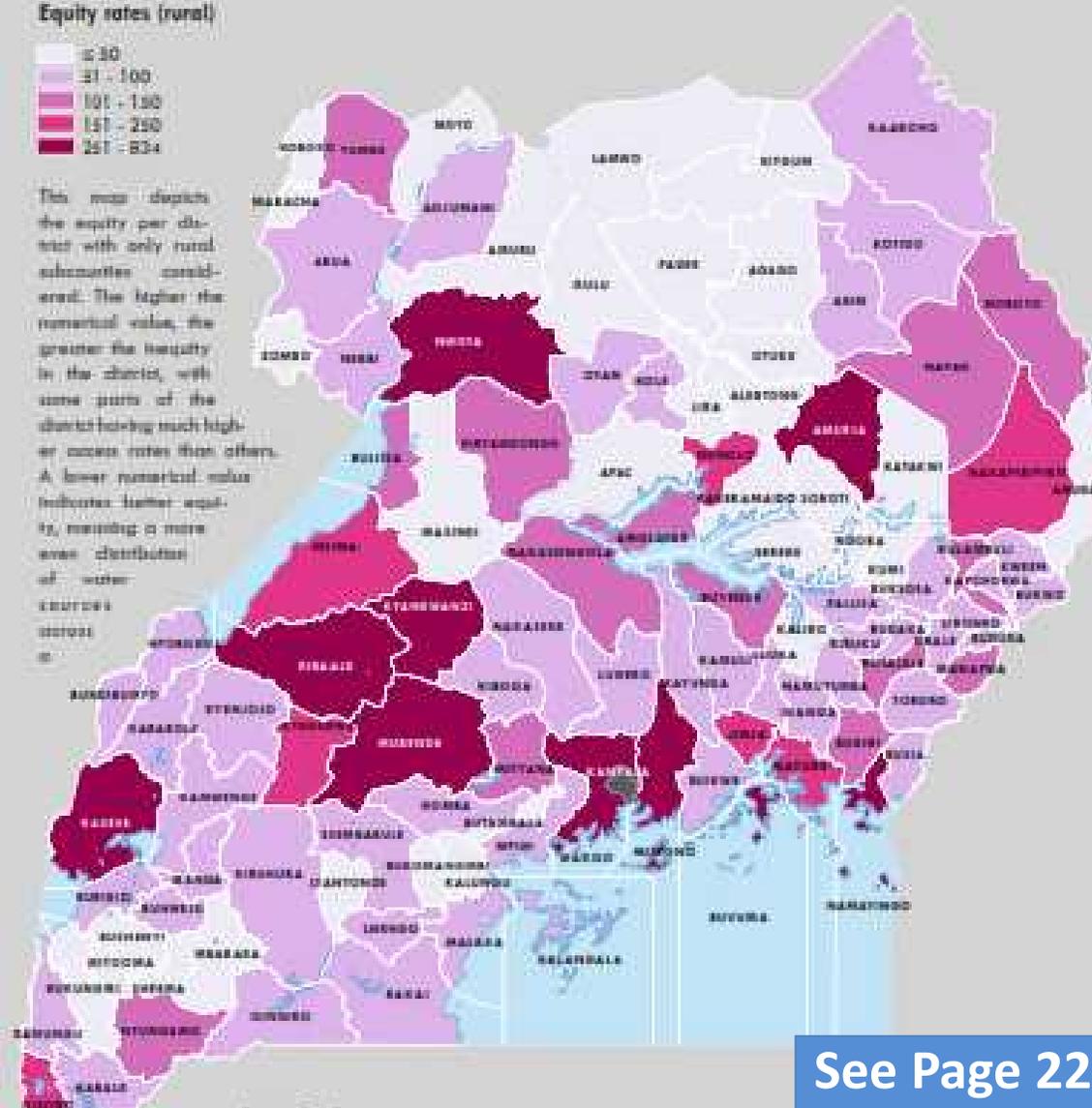
National Reports :Equity



Equity rates (rural)



This map depicts the equity per district with only rural subcounties considered. The higher the numerical value, the greater the inequity in the district, with some parts of the district having much higher access rates than others. A lower numerical value indicates better equity, meaning a more even distribution of water sources.

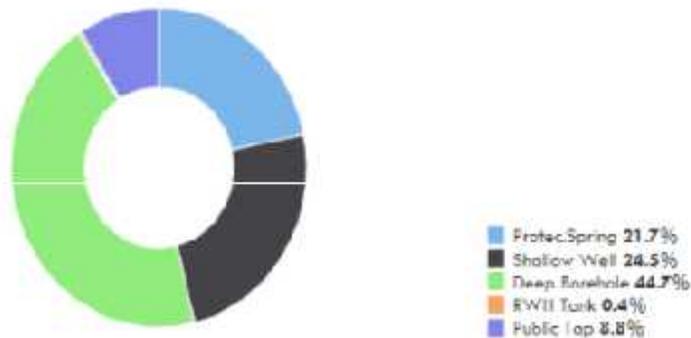


See Page 22 in Atlas

Key Features: National Reports - Charts



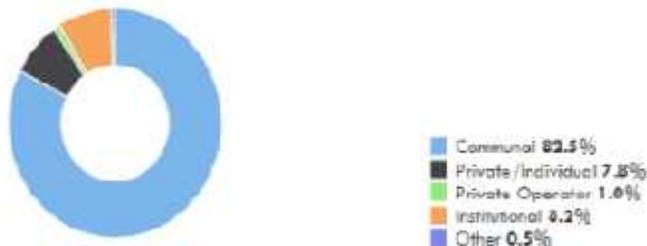
People served per technology



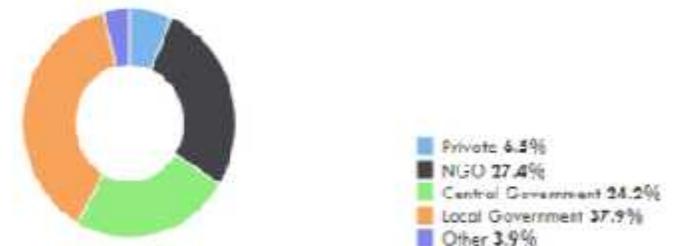
Reasons for non-functionality



Type of Management



Source of Funding



District water supply situation analysis



Districts Water Supply Situation Analysis (as of 7 June 2017)

| District | Population | Population Served | Indicators | | | | | | | | | | Point Water Sources | | | | | | | | | | |
|-----------|------------|-------------------|------------|---------------------|----------------|-------------------|--------------|----------------|------------|---------------|----------------|------------------|---------------------------|---------------------|--------------|-------------------------|----------------|---------------|----------------|----------------------|---------------------------|----------------|-------|
| | | | Access (%) | | | Functionality (%) | | | Empty (mm) | Management | Gender | Protected spring | | | Shallow well | | | Deep borehole | | | Rainwater harvesting tank | | |
| | | | Rural | Urban | Total | Rural | Urban | W/P | | | | Functional | Non-functional | Total | Functional | Non-functional | Total | Functional | Non-functional | Total | Functional | Non-functional | Total |
| | | | | | | | | | | | | | | | | | | | | | | | |
| Abim | 127,986 | 110,055 | 84 | 95 | 86 | 74 | 90 | | 71 | 84 | 92 | 11 | 1 | 12 | 21 | 8 | 29 | 285 | 83 | 369 | 12 | 14 | 26 |
| Adjumani | 240,447 | 224,222 | 93 | 95 | 93 | 89 | 87 | - | 51 | 94 | 99 | 36 | 5 | 41 | 52 | 12 | 74 | 625 | 69 | 695 | 42 | 2 | 44 |
| Agago | 235,771 | 226,832 | 95 | 95 | 95 | 69 | 32 | | 18 | 94 | 91 | 10 | 9 | 19 | 93 | 51 | 144 | 682 | 213 | 895 | 48 | 50 | 98 |
| Alebtonga | 242,378 | 228,414 | 94 | 93 | 94 | 70 | 71 | - | 26 | 84 | 91 | 303 | 62 | 365 | 131 | 109 | 240 | 264 | 91 | 355 | 13 | 24 | 37 |
| Amolatar | 161,439 | 140,260 | 8 | Point Water Sources | | | | | | | | | | Piped Water Systems | | | | | | | | | |
| Amudat | 126,479 | 55,600 | 3 | Protected spring | | | Shallow well | | | Deep borehole | | | Rainwater harvesting tank | | | Systems overseen by DWD | | | | | | | |
| Amuria | 296,387 | 236,307 | 0 | | | | | | | | | | | | | PSP/Kiosk, Tap Stands | | | Yard Tap | Household Connection | Institutional Connection | NWSC Present | |
| Amuru | 205,697 | 178,148 | 8 | Functional | Non-functional | Total | Functional | Non-functional | Total | Functional | Non-functional | Total | Functional | Non-functional | Total | Functional | Non-functional | Total | | | | | |
| Apka | 202,381 | 294,984 | 7 | 11 | 1 | 12 | 21 | 8 | 29 | 285 | 83 | 369 | 12 | 14 | 26 | 2 | 0 | 2 | 517 | 511 | 9 | No | |
| Arua | 647,469 | 653,583 | 7 | 36 | 5 | 41 | 62 | 12 | 74 | 625 | 69 | 695 | 42 | 2 | 44 | 56 | 12 | 68 | 1,347 | 25 | 42 | No | |
| Budaka | 229,061 | 185,235 | 8 | 10 | 9 | 19 | 93 | 51 | 144 | 682 | 213 | 895 | 48 | 50 | 98 | 33 | 35 | 69 | 0 | 0 | 0 | No | |
| Budodo | 238,501 | 157,271 | 6 | 303 | 62 | 365 | 131 | 109 | 240 | 264 | 91 | 355 | 13 | 24 | 37 | 8 | 27 | 35 | 0 | 0 | 0 | No | |
| Bugiri | 424,624 | 276,205 | 6 | 3 | 1 | 4 | 6 | 5 | 11 | 409 | 72 | 481 | 17 | 16 | 33 | 3 | 3 | 6 | 30 | 4 | 1 | No | |
| | | | | 1 | 1 | 2 | 8 | 1 | 9 | 138 | 37 | 175 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | No |
| | | | | 10 | 11 | 21 | 66 | 31 | 97 | 704 | 5 | 709 | 1 | 2 | 3 | 4 | 0 | 4 | 0 | 0 | 0 | 0 | Yes |
| | | | | 125 | 7 | 132 | 55 | 26 | 81 | 377 | 96 | 473 | 14 | 6 | 20 | 4 | 22 | 26 | 0 | 0 | 0 | No | |
| | | | | 21 | 13 | 34 | 144 | 44 | 188 | 655 | 106 | 762 | 94 | 92 | 186 | 18 | 1 | 19 | 292 | 0 | 9 | Yes | |
| | | | | 952 | 83 | 1,045 | 106 | 35 | 141 | 954 | 193 | 1,147 | 117 | 44 | 161 | 75 | 10 | 85 | 3 | 0 | 1 | Yes | |
| | | | | 149 | 4 | 153 | 17 | 5 | 22 | 515 | 24 | 539 | 10 | 9 | 22 | 1 | 7 | 8 | 284 | 19 | 13 | Yes | |
| | | | | 503 | 35 | 538 | 4 | 0 | 4 | 11 | 3 | 14 | 40 | 12 | 52 | 329 | 43 | 372 | 2 | 1 | 1 | No | |
| | | | | 196 | 16 | 212 | 152 | 15 | 167 | 574 | 24 | 598 | 126 | | | | | | | | | | |
| | | | | 939 | 19 | 951 | 97 | 1 | 98 | 9 | 0 | 9 | 34 | | | | | | | | | | |

See Page 33-36 in Atlas

Key Features: National Reports – Contn'd



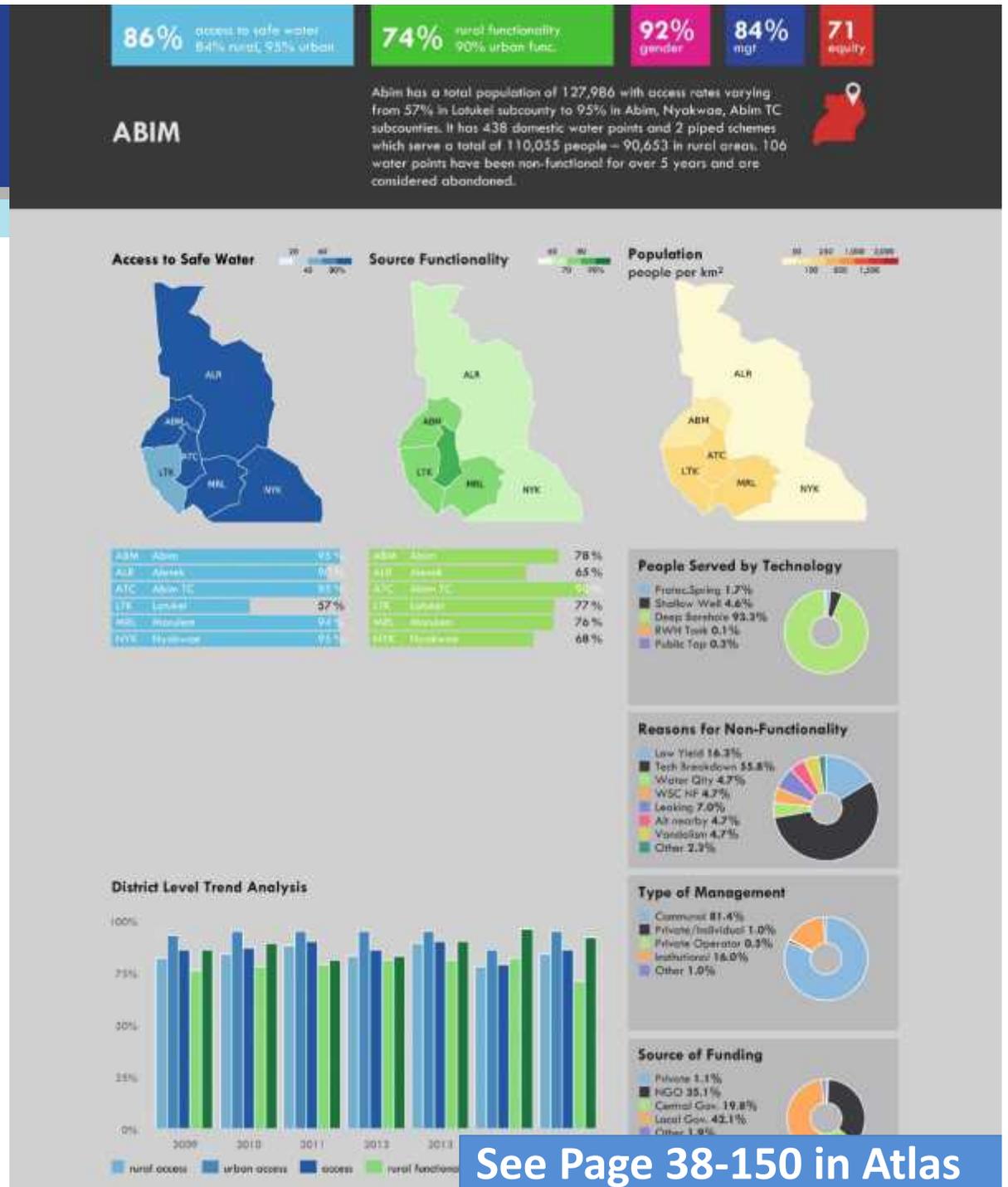
Piped Water Supply Systems

| Type of Scheme/GFS | No. of Schemes | Functionality of System | | | Type of Management | |
|-----------------------------|----------------|-------------------------|----------------|----------------------|--------------------|------------|
| | | Functional | Non-Functional | Partially Functional | Private Operator | WSC |
| Combined Water Based/No GFS | 4 | 2 | 0 | 1 | 1 | 0 |
| Type of Scheme/GFS | No. of Schemes | Functionality of System | | | Type of Management | |
| | | Functional | Non-Functional | Partially Functional | Private Operator | WSC |
| Groundwater based/No GFS | 240 | 156 | 50 | 25 | 42 | 87 |
| Surface Water Based/Unknown | 14 | 14 | 0 | 0 | 0 | 12 |
| Surface Water Based/No GFS | 66 | 40 | 4 | 5 | 6 | 12 |
| Surface Water Based/GFS | 378 | 241 | 19 | 110 | 12 | 157 |
| Unknown/GFS | 55 | 42 | 2 | 10 | 2 | 1 |
| Unknown/No GFS | 317 | 113 | 21 | 10 | 11 | 6 |
| Total | 1,113 | 638 | 102 | 164 | 77 | 303 |

GFS = Gravity Flow Scheme; WB = Water Board; WSC = Water Source Committee

Key Features: District Reports

- You can view the Districts maps by either
- Clicking **‘District Atlas Reports’** at the top menu
 - Click **‘Dashboard’** ‘menu then **‘Atlas (All Districts)’** and select a district

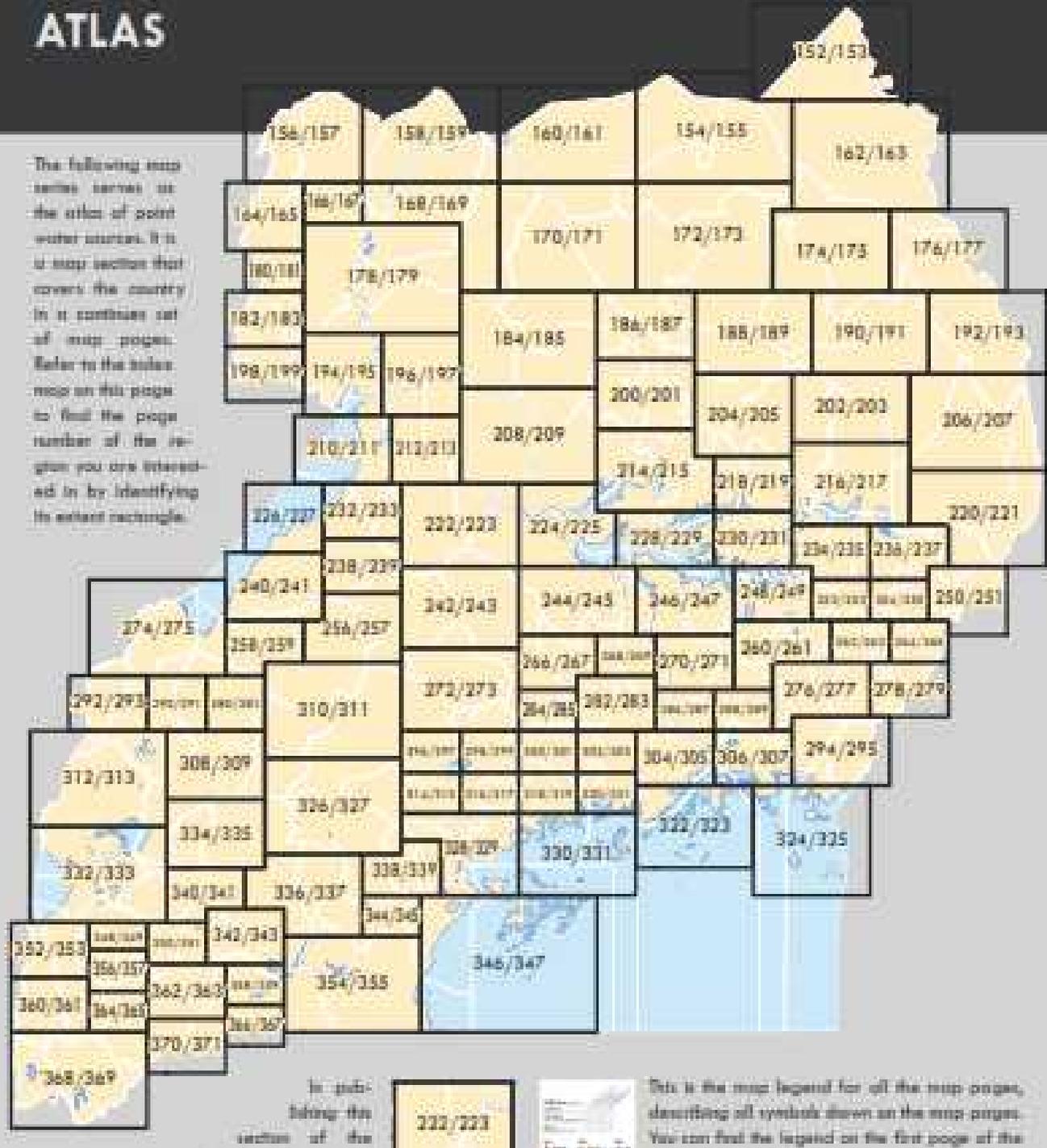


Atlas Page numbering

-Page 151

ATLAS

The following map series serves as the index of point water sources. It is a map section that covers the country. It is a continuous set of map pages. Refer to the index map on this page to find the page number of the region you are interested in by identifying its extent rectangle.



Map legend – Page 152



1:200,000



33°10'E

33°40'

Map Legend

Point Water Sources (as of June 2017)

| | Functional | Functional (not in use) | Non-Functional | Recommended for Decommissioning |
|--------------------------------------|------------|-------------------------|----------------|---------------------------------|
| Deep Borehole | | | | |
| Shallow Well | | | | |
| Protected Spring | | | | |
| Kiosk / Yard Tap / Public Stand Post | | | | |
| Dam | | | | |
| Valley Tank | | | | |
| Rainwater Harvesting Tank | | | | |

Towns

- Capital City
- Municipality
- Town Council
- Town Board
- Village

Roads

- Major road
- Secondary road
- Motorable track
- Trail

Water

- River
- Lake

Gazetted Areas

- Forest Reserve
- Game Reserve
- National Park
- Rangeland

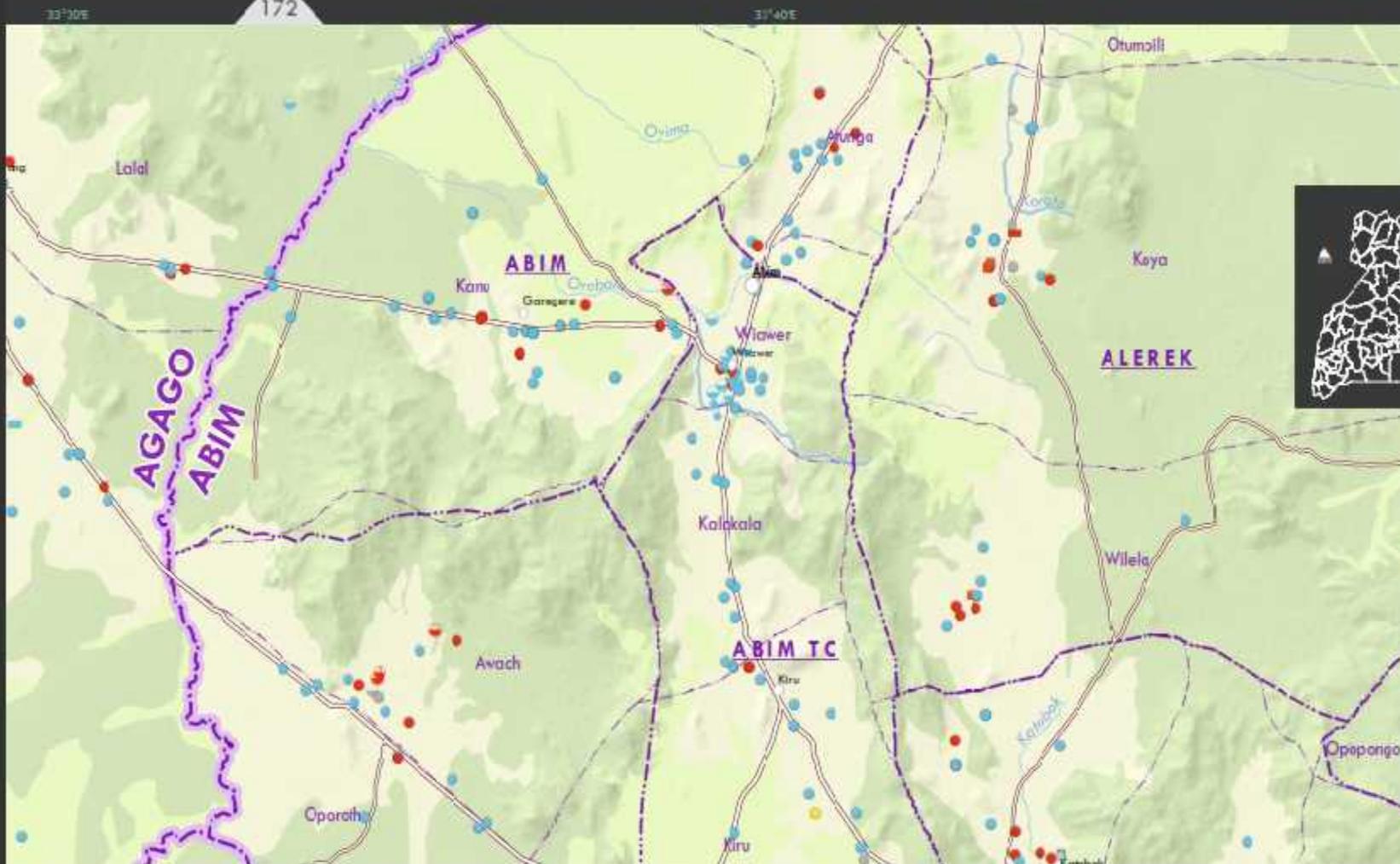
Administrative Boundaries

- Parish (as of 2010)
- Sub-County (as of 2014)
- District (as of 2014)
- National Boundary (neighbouring countries only)

Atlas – Pages 155 - 371



Abim • Agago • Napak • Otuke





Thanks for listening