

# Land and Housing management

Week Thirteen

Basic Infrastructure provision at community level

**By**

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# Last week

- Land and Urban management
  - Urban management
  - Urban land management
  - Rural urban housing variations

# This week

- Basic infrastructure provision at community level
  - Provision of transport and mobility services
  - Provision of water and sanitation service
  - Provision of energy services

# Understanding housing infrastructure

- Essential facilities and services that support residential living and ensure a safe, healthy and functional environment for habitation – **basic housing infrastructure**
- This infrastructure is vital, it provides the necessary framework for daily living activities

- Basic housing infrastructure includes;
  - Physical components of the house to offer protection, privacy and support
    - This includes the foundation, framing, roofing, walls, windows and doors
  - **Utilities** to support daily living
    - These can include water supply, electricity or other energy sources, sanitation systems
  - Other **services** to ease mobility and ensure proper living standards
    - These include transportation facilities, communication facilities, waste management facilities

# Basic infrastructure provision at community level

- Provision of transport and mobility services
- Provision of water and sanitation services
- Provision of energy services

Description

Actors and  
stakeholders

Situation in  
Uganda

# Provision of transport and mobility services

- Infrastructure provision for housing development starts with plot demarcation and creating access
  - Access creation may include vegetation clearing, leveling and removal of top soil
  - Then construction of roads – to allow access into the plot
- It is after this clearance and access opening that other housing support infrastructure can pick up

- Transport and mobility facilities and service can be diverse and come in various forms
- Facilities can include;
  - Motorized – roads, railways networks, or water navigation routes
  - Non-motorized – walkways/ pedestrian paths and bicycle lanes
- One of the government's mandate is transportation and mobility infrastructure - road network clearing and connection, railway construction and maintenance

- Governments dominate the construction of roads and other transport networks
- In some countries, the state as well provides or partly provides the means of transportation
  - This can be through provision, administration and management of trains, buses or aircrafts, among other means
- In most developing countries however, the means of transportation are dominated by the private sector and individuals

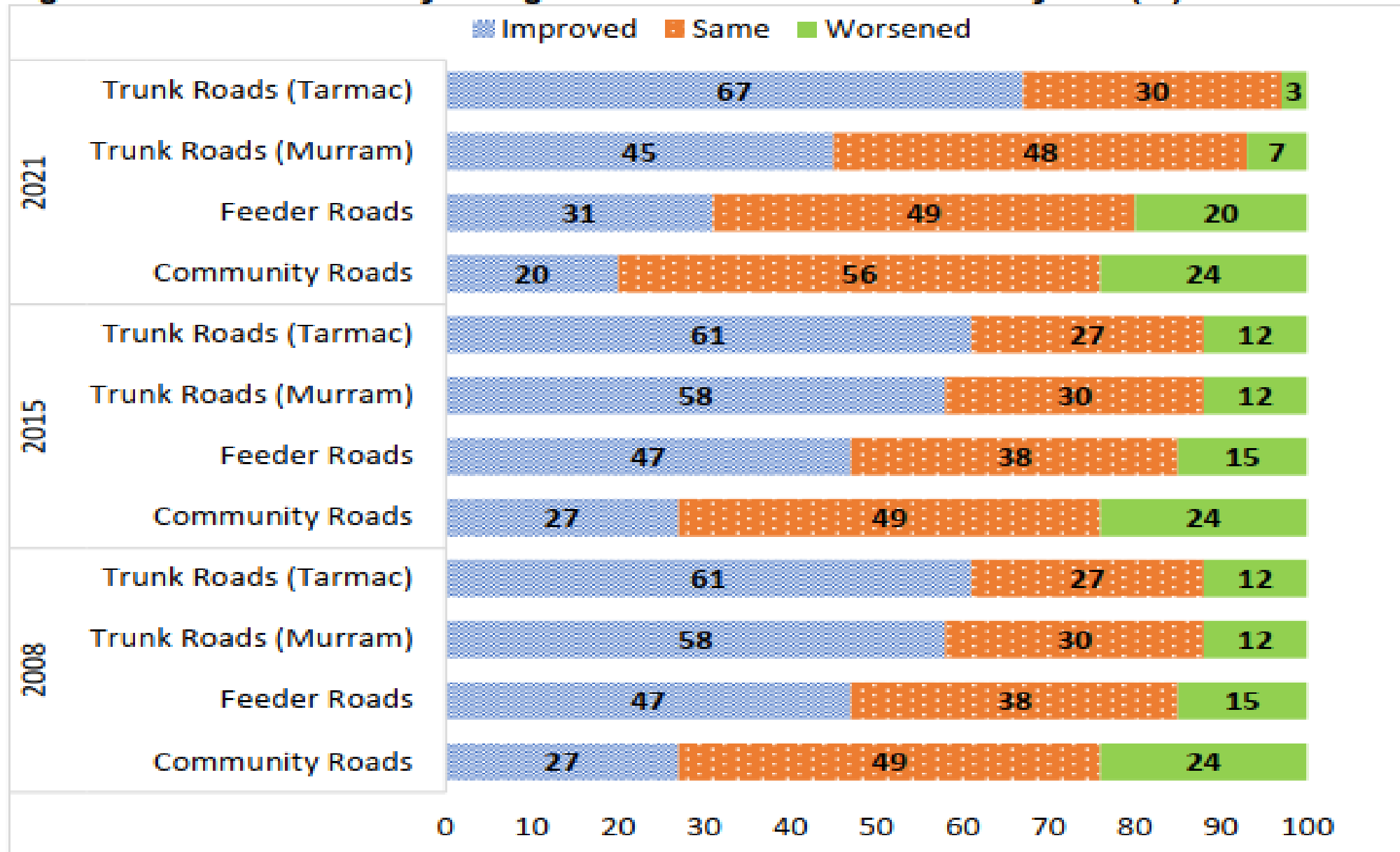
## In Uganda ...

- Transport and mobility is mainly by road, railway, water or air
- The government at different levels takes charge of road network construction, connection and maintenance.
  - The central government concerns itself with connections;
    - Internationally – airfields, railways and water connections
    - Nationally – region to region, district to district connections
  - Road construction and maintenance is rested on the Uganda National Roads Authority (UNRA)

- Local governments are concerned with connections within particular jurisdictions – districts, cities, municipality, town councils, sub-counties, parishes and villages
  - Local governments hence open access roads and streets that connect to the main roads and highways
  - Connection from one house to another is the responsibility of home owners and occupants

- Accessibility to road transport
- From the 2021 National Service Delivery Survey;
  - 57% of households have community roads as the nearest road
  - 9 out of 10 households attested to road usability all year round – this improves mobility and access to service by households
  - Road maintenance – this is important to keep the facilities functional and up to desired standards

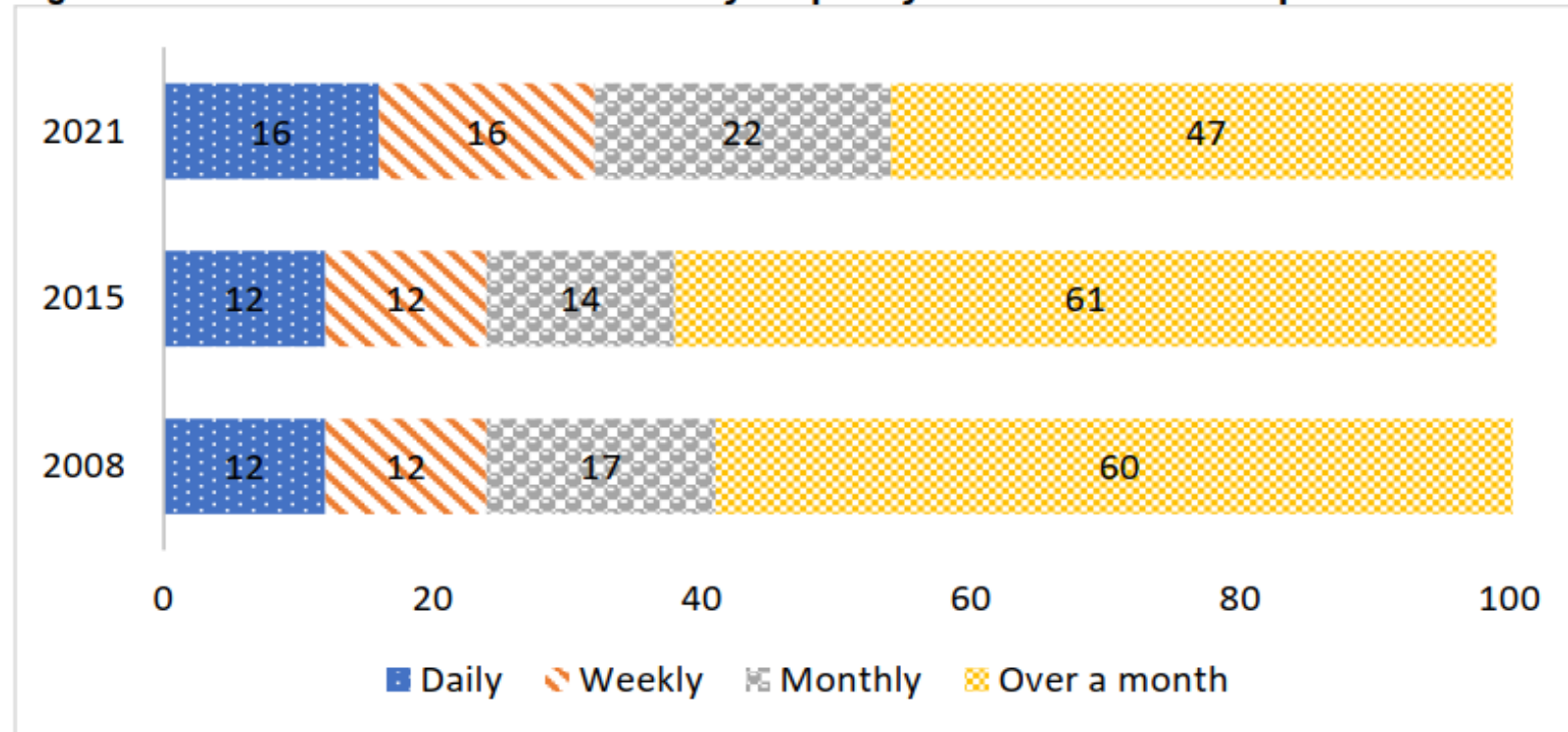
**Figure 9. 2: Households by change in road maintenance in last 2 years (%)**



Source: National Service Delivery Survey report 2022

- Water transport usage at household level is low – 7%, especially used by rural residents
- Water transport is less frequently used by households

**Figure 9. 11: Distribution of Households by frequency of use of water transport**



**Source: National Service Delivery Survey report 2022**

- Main water transport vessels used are Boat and Ferry
- Government takes lead in the provision of Ferry services – 82%
- Private sector (individuals, companies etc. ) takes lead in the provision of boats – 93%
- Water transport usage comes mainly at no cost especially for government provided services – ferry.
- From the UBOS survey, Only 3% paid for ferry services in 2021, while 67% paid for boat services

- Generally, the means of transportation mostly rest on the private sector and individuals especially for road transport.
  - Buses and commuter taxis are owned and management by private companies, individuals or groups of people / investors
  - Private cars play a big role in daily mobility as well

# Provision of water and sanitation services

- Water and sanitation particularly for housing focuses on ensuring reliable access to clean water and effective sanitation systems
- It encompasses
  - Water for domestic use – cooking, drinking, bathing, laundry etc.
  - Sanitation and hygiene – sewerage management, waste water treatment, waste management and personal and household hygiene

- **Provision of water** starts usually after the clearing and access opening
- Water provision starts with connecting the main water grid – one standpipe, then from this, individual households can be connected
- Water generation, connection and supply falls mainly on the public sector – provided by the government
- But households meet the charges for connection as well as daily usage

- Sanitation facilities are part of the housing construction process. These include sewer systems, toilet fittings, sinks and drainage facilities among others
- These can mostly fall on housing developers who can be public, private, civil society or community

## In Uganda ...

- Government set out to increase coverage of safe water facilities both in rural and urban areas
  - Through construction and maintenance of piped water systems, boreholes, rain water harvesting facilities, protected spring wells and gravity flow schemes
- For sanitation, the focus is on a safe water chain – implementing strategies for safe waste water disposal

- **Institutional framework**

- Ministry of water and environment – lead institution
- Ministry of health – for household sanitation
- Local governments – planning and implementation
- Beneficiary communities – demand and maintain facilities
- Ministry of finance, Planning and Economic Development – timely and adequate funding
- Other stakeholders – NGOs, Private sector, and Development partners

- Water and sewerage services are headed by a government institution, the National Water and Sewerage Corporation (NWSC) under the ministry of water and environment
  - It is through this that the public sector dominates the provision of piped water
  - NWSC does the water generation, connections and supply, as well as management and administration of water services

- Other alternative sources of water including boreholes, protected wells or rain water harvesting systems - are common especially in rural areas
- Other actors concentrate mainly on the alternative sources, and do advocacy

# Status of water infrastructure – access to water

**Table 5. 1: Households by Water Source for Drinking during the Dry Season (%)**

Water Source	2008			2015			2021		
	Rural	Urban	National	Rural	Urban	National	Rural	Urban	National
Piped Water in Dwelling	0.2	5.4	1.1	0.8	8.0	2.4	1.1	11.8	4.5
Piped Water in Compound	1.1	14.4	3.5	1.3	18.2	5.1	3.0	25.0	10.0
Piped Water Outside Compound	1.3	16.3	3.9	-	-	-	-	-	-
Public Tap	4.1	26.2	7.9	5.1	24.8	9.5	7.5	19.5	11.3
Borehole/Protected Springs & Gravity Flow Scheme	59.7	31.0	54.6	63.5	37.0	57.6	61.6	28.7	51.2
Rainwater	0.6	0.3	0.6	0.6	0.5	0.5	0.8	1.0	0.9
Bottled water	-	-	-	0.1	1.1	0.3	0.4	3.8	1.5
<b>Total (Safe Sources)</b>	<b>67.0</b>	<b>93.6</b>	<b>71.6</b>	<b>71.4</b>	<b>89.6</b>	<b>75.4</b>	<b>74.4</b>	<b>89.7</b>	<b>79.3</b>
Unprotected Source (well/spring)	19.6	4.2	16.8	-	-	-	16.3	7.4	13.4
Lake/River/Stream/Pond/Dam	13.1	0.8	11.0	25.9	9.3	22.2	6.8	1.7	5.2
Vendor	-	-	-	-	-	-	0.3	0.6	0.4
Tanker Truck	-	-	-	-	-	-	0.2	0.1	0.1
Other	0.5	1.3	0.6	2.7	1.1	2.3	2.1	0.6	1.6
<b>Total (Other Sources)</b>	<b>33.2</b>	<b>6.3</b>	<b>28.4</b>	<b>28.6</b>	<b>10.4</b>	<b>24.5</b>	<b>25.7</b>	<b>10.4</b>	<b>20.7</b>
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: National Service Delivery Survey report 2022

- Sanitation facilities majorly are done by housing developers under the guidance of the National Water and Sewerage Corporation, and physical development plans and guidelines
- Private developers, individuals and other actors take charge – ensure that housing neighborhoods and units are equipped with;
  - Sewerage management facilities including septic tanks, drainage, and waste management
- Sanitation facilities maintenance at household levels falls often on residents / occupants of particular housing

# Provision of energy services

- Provision and management of energy resources at household level to meet the needs of residents
- Energy service enhance the quality of life, guarantee reliable power supply and promote sustainability
- Energy includes hydro-electricity (grid connections), bioenergy, solar energy, gas, wind energy and kerosene lanterns.

## In Uganda

- Sources of energy for lighting – electricity, solar, battery cells, candles among others
  - 45.6% households in urban areas depend on electricity, and only 7.3% in rural areas depend on the same
  - A bigger percentage (21.7% and 20.7%) of rural households depend on Solar lanterns and kerosene lamps respectively for lighting
- Government is committed to improving electricity generation and supply ...

**Table 7. 7: Distribution of Households by Main Source of Energy for Lighting (%)**

Background Characteristics	Source of energy for lighting								
	Electricity (grid and Mini-grid)	Solar-powered lantern or flashlight	Kerosene/paraffin lamp	Battery-powered flashlight or lantern	solar home system	Rechargeable flashlight, mobile, torch or lantern	Candle	Others*	Total
<b>Residence</b>									
Urban	45.6	12.4	9.3	6.5	7	6.4	10	2.7	100
Rural	7.3	20.7	21.7	18.9	12.6	8.7	2.7	7.3	100
<b>Sub-regions</b>									
Kampala	64.1	3.2	4	3.5	2.3	5.6	16.3	1	100
Buganda South	40.9	12.3	18.5	4.7	4.2	6.6	7.9	4.9	100
Buganda North	23.2	16.5	11.7	8.7	7.6	9.1	6.3	16.9	100
Busoga	11.4	32.5	30.4	8.8	6.2	4.4	2.5	3.7	100
Bukedi	6.7	13.1	39.9	16.8	17.4	2.1	3.4	0.7	100
Elgon	9	25.6	44.8	4.6	8.1	3.4	2.9	1.6	100
Teso	3.2	14.5	9.1	43.1	1.6	26.6	0.7	1.1	100

Source: National Service Delivery Survey report 2022

- Sources of energy for cooking – charcoal, wood, agricultural residue, biogas among others
- In urban areas – 56.2% households depend on charcoal, 35.2% depend on wood
- In rural areas – 82.8% households depend on wood for cooking while 15% depend on charcoal

# Next week

- Basic infrastructure provision at community level (continued)
  - Opportunities in infrastructure provision at community level
  - Threats to infrastructure provision at community level
  - Strategies to improve infrastructure provision at community level

# References

- Uganda Bureau Of Statistics (2022). 2021 National Service Delivery Survey report