

WSMP-WD/RCN LEARNING ALLIANCE DISCUSSION

Theme: The Data Puzzle in Ghana's water and Sanitation Sector; causes and the way forward



**PRESENTATION
ON:**

**CWSA DEFINITION AND COMPUTATION
OF ACCESS TO DRINKING WATER AND
SANITATION**

**VENUE: COCONUT GROVE REGENCY HOTEL, ACCRA
DATE: THURSDAY 29TH APRIL 2010**

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Overview



- Definition
- Computation
 - Parameters
- Limitations

Definition

Typically *Access to Water* refers to collecting water from any convenient source for consumption (i.e. potable or non potable eg. streams, ponds, etc)



However CWSA defines *Access to Water* in terms of potable water sources which have the following indicators:

Indicators for Water Coverage



- **Population:** A borehole should serve 300 people per spout of a hand-pump (same for each tap on pipe systems) and 150 people per spout of a hand-pump in the case of Hand dug wells.
- **Availability:** The Water facility must provide all year round safe water to community members
- **Consumption:** Consumers must access at least 20 liters of safe water per capita per day



- **COM**: The water system must be owned and managed by the Community through established structures
- **Distance Cover**: Distance to source of water from users should be at most 500m (i.e. 500m or less)

Computation of Access



Access is measured in terms of the **number of people** who have **reasonable means** of getting clean but computed and reported in **Proportionate** terms (i.e. expressed as a percentage of total population)

The computation depends on two main factors

1. Population (First Establish the year of the coverage computation)
2. Functioning Water facilities

I. Population Parameters



The population related parameters are defined as follows

- ***PP = Projected Population***
- ***GR = Growth Rate***
- ***TY = Target Year (The year which population is to be evaluated)***
- ***BP = Base Population (The initial population that was taken)***
- ***BPY = Base population Year (The year of the Base Population)***
- The Projected Population (PP) for any target year (TY) within a period [PP_{TY}] is determined by the formula:

$$PP_{TY} = [(1 + GR)^{(TY - BPY)} * BP]$$

2. Facility Parameters



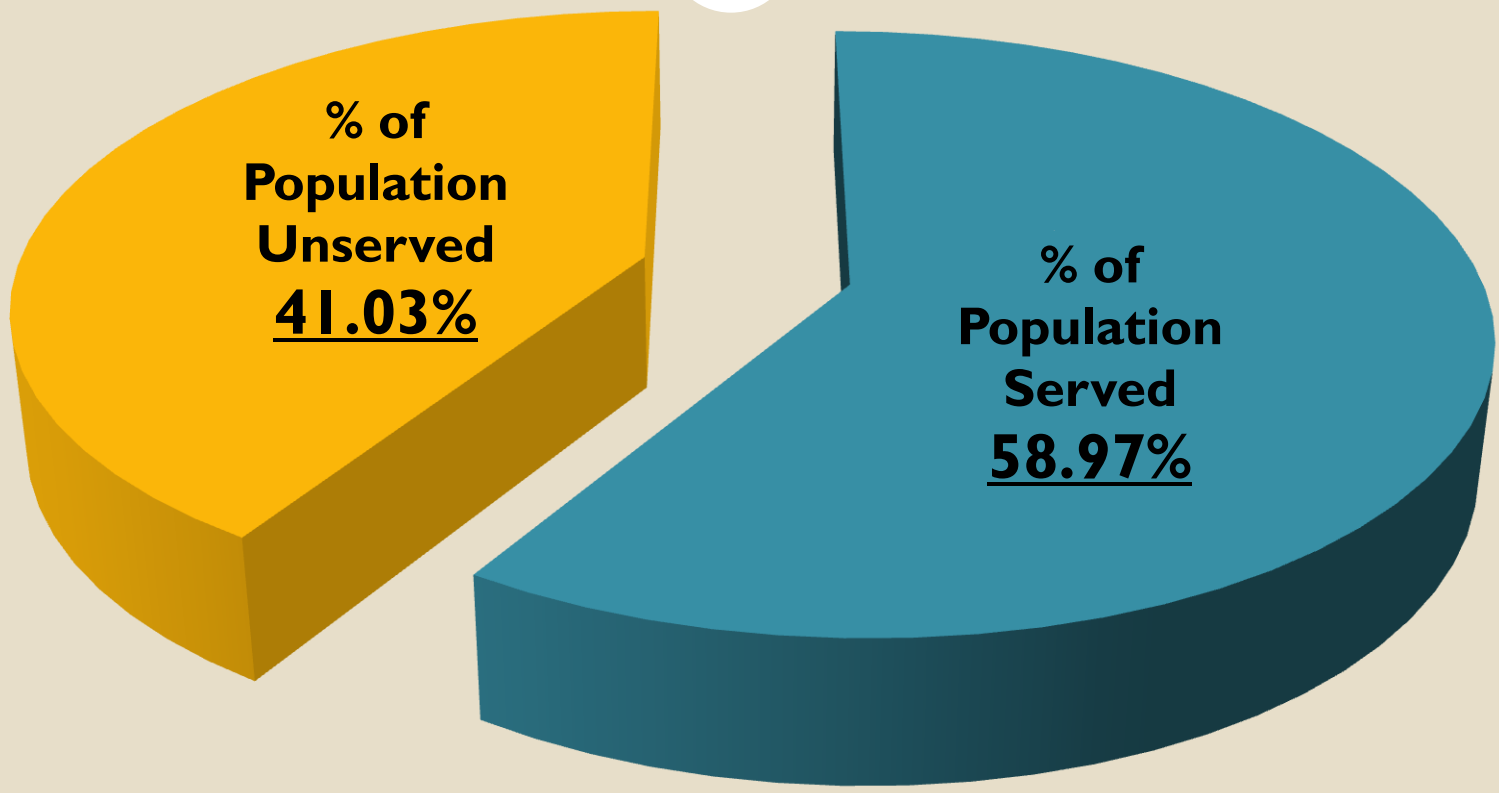
The facility factor and their respective capacities are defined in the table below

Facility	Pop. Carrying Capacity	Installation Capacity
Borehole	300	Pop. Carrying Capacity
Hand-Dug Wells	150	Pop. Carrying Capacity
Small Town Pipe System	Design Capacity	Community size
Small Community Pipe System	Design Capacity	Community size
Limited Mechanisation Schemes	300 per Standpost	Pop. Carrying Capacity
Rain Harvesting System	150	Pop. Carrying Capacity

National Rural Water Coverage for Year 2009

Region	No. Of Communities	Total Population	No. Of Boreholes	No. Of Hand-Dug Wells	Communities with Pipe Systems	Total Population Served	% Coverage
Ashanti	2,558	2,713,186	5,243	857	98	1,957,323	72.14%
Brong Ahafo	2,660	1,974,329	2,253	505	32	1,058,444	53.61%
Central	3,377	1,514,881	1,323	286	24	683,224	45.10%
Eastern	2,709	1,607,361	2,274	1,035	26	941,337	58.56%
Greater Accra	851	670,050	227	72	8	396,677	59.20%
Northern	3,896	2,078,085	3,913	540	30	1,249,074	60.11%
Upper East	1,726	1,168,347	2,122	512	14	691,581	59.19%
Upper West	926	614,897	1,620	0	13	469,425	76.34%
Volta	3,234	1,749,026	2,249	56	122	1,095,464	62.63%
Western	1,739	1,583,148	1,064	422	26	699,817	44.20%
GRAND TOTAL	23,676	15,673,30	22,288	4,285	393	9,242,366	58.97%

2009 Potable Water Coverage in Rural Communities and Small Towns



LIMITATIONS



- Dispersed settlement
(Even though the population may be small one section of the community may not covered)
- Distance – difficult to determine



THANK YOU