



#### WHO / UNICEF

### Joint Monitoring Programme for Water Supply and Sanitation

#### Estimates for the use of

## Improved Drinking-Water Sources

Updated March 2010

# Ghana

wssinfo.org

Access to drinking water sou	rces	LSS88		Ghana		Access to drinking water sou	rces	DHS88	Ghana		
Living standards Survey						Demographic and Health Survey					
Original day a mination		Olaasifiastian	Universit	1988 Dumal	Tedal			Olasaidiaadiaa	Linkan	1988 Dural	Tetel
Original denomination	Tap w	Classification vater	Urban 28.6	Rural	Total 10.0	Original denomination	Тар у	Classification vater	Urban 70.8	Rural 12.2	Total
Inside plumbing		House connections Piped water into dwelling	28.6 28.6	1.0 1.0	10.0 10.0	Standpipe in House		House connections Piped water into dwelling	36.3	1.9	
		Piped water to yard/plot	20.0	1.0	10.0			Piped water to yard/plot			
		Public tap, standpipe Other				Standpipe outside house		Public tap, standpipe Other	34.5	10.3	
	Grou	nd water					Grou	nd water	13.7	19.3	
	-	Protected ground water Unprotected ground water						Protected ground water Unprotected ground water	2.0	13.4	
		Protected wells or springs Private						Protected wells or springs Private	2.0	13.4	0.0
		Public						Public			
		Other Unprotected wells or springs						Other Unprotected wells or springs			
		Private						Private			
		Other						Other			
		All wells Private						All wells Private	13.7	19.3	
		Public						Public			
	-	Other Tubewell, borehole				Borehole		Other Tubewell, borehole	2.0	13.4	
		Private Public					1	Private			
		Other						Other			
		Traditional wells Private				Well		Traditional wells Private	11.7	5.9	
	1	Public					1	Public			
	-	Other Protected well					1	Other Protected well			
	1	Private					1	Private			
		Public Other					1	Public Other			
		Unprotected well Private					4	Unprotected well Private			
	1	Public					1	Public			
		Other All springs						Other All springs			
		Private						Private			
	-	Public Other						Public Other			
		Protected spring Private					1	Protected spring Private			
		Public						Public			
		Other Unprotected spring						Other Unprotected spring			
	1	Private					1	Private			
		Public Other						Public Other			
	Rainv	vater Covered cistern/tank				Rainwater	Rain	water Covered cistern/tank	2.1 2.1	0.1 0.1	
		Uncovered cistern/tank						Uncovered cistern/tank	2.1	0.1	
	Bottle	ed water with other improved					Bottle	ed water with other improved			
	0	without other improved				Stream/Lake/River	0	without other improved	10.0	00.0	
	Suria	ce water River				Stream/Lakertiver	Suria	River	13.3	66.9	
		Lake Dam						Lake Dam			
		Pond						Pond			
		Stream Irrigation channel				-		Stream Irrigation channel			
	Otho	Other rimproved sources					Otho	Other r improved sources			
	Other	Other					Oule	Other			
	Other	Other non-improved	71.4	99.0	90.0		Othe	Other r non-improved	0.0	1.6	
Motor uondor e - 41-	-	Cart with small tank/drum						Cart with small tank/drum			
Water vendor or truck Natural sources		Tanker truck provided Other	10.5 15.6	0.0 70.0	4.0 52.0	Other	1	Tanker truck provided Other	0.0	1.6	
Other sources	DK/m	Other issing	45.4	29.0	34.0		DK/m	Other hissing			<u> </u>
	Total		100.0	100.0	100.0		Total	······'y	100.0	100.0	
							L				
Calculations						Calculations					
							-		-		┣──
							Protect	ted Wells ( estimated using MICS95)	9.1	2.7	
							<u> </u>				
Estimations						Estimations					
Access to in	nprove	ed drinking water sources :	<mark>29%</mark> 29%	<mark>1%</mark> 1%	10%	Access to in	nprov	ed drinking water sources :	<mark>84%</mark> 36%	28% 2%	
	ACC	ess to house connections : Used for the estimates :	29% No	No	10%		ACC	ess to house connections : Used for the estimates :	36% Yes	Yes	
	HC / Ta	Used for the estimates : up water	No 100%	No 100%			HC / Ta	Used for the estimates : ap water	Yes 51%	Yes 15%	
	Public	tap / Tap water					Public	tap / Tap water	49%	85%	
	Protect	ell + protected well / All wells ed wells / Traditional wells					Protect	ell + protected well / All wells ted wells / Traditional wells			
Ratios		ell / All wells ed springs / All springs				Ratios		ell / All wells ted springs / All springs	14%	70%	
		. well & spring / well & spring						t. well & spring / well & spring			
							<u> </u>				
	Neree	ner of neonle covered by the automotion		1			Nor	her of people covered by the out			
N	umber o	per of people covered by the survey: f households covered by the survey:				N		ber of people covered by the survey: f households covered by the survey:			
Comments		Total population:		<u> </u>	1	Comments		Total population:		l	<u> </u>
						Somments	1				

Demographic and Health Survey Original denomination Piped into residence Public Tap/Neighbour	Tap v	Classification vater House connections Piped water into dwelling Piped water to yard/plot	Urban 75.8 37.2	1993 Rural 12.8 2.0	Total	Multiple Indicator Cluster Survey Original denomination	Tap w	Classification rater House connections	Urban 74.0	1995 Rural 16.0	Tota
Piped into residence	Тар и	vater House connections Piped water into dwelling	75.8	12.8	Total		Tap w	ater	74.0	16.0	
Piped into residence	Тар ч	vater House connections Piped water into dwelling	75.8	12.8			Tap w	ater	74.0	16.0	
	-	Piped water into dwelling	07.2	2.0		Piped			48.0	1.0	38.0 18.0
Public Tap/Neighbour		Piped water to yard/plot						Piped water into dwelling	40.0	1.0	10.0
		Public tap, standpipe	38.6	10.8		Public Tap		Piped water to yard/plot Public tap, standpipe	26.0	15.0	20.0
	Grou	Other nd water	14.2	41.2			Grow	Other nd water	12.0	40.0	29.0
	Grou	Protected ground water	3.7	26.6			Grou	Protected ground water	10.0	33.0	24.0
		Unprotected ground water Protected wells or springs	3.7	26.6	0.0			Unprotected ground water Protected wells or springs	2.0 10.0	7.0 33.0	5.0 24.0
		Private						Private			
		Other						Other			
		Unprotected wells or springs Private						Unprotected wells or springs Private	2.0	7.0	5.0
	1	Public						Public			
		Other All wells	13.7	40.3			-	Other All wells	12.0	40.0	29.0
		Private	2.1 7.9	1.4				Private Public			
		Other		12.3				Other			
Borehole		Tubewell, borehole Private	3.7	26.6		Borehole		Tubewell, borehole Private	3.0	27.0	18.0
		Public						Public			
		Other Traditional wells	10.0	13.7			-	Other Traditional wells	9.0	13.0	11.0
Well in Residence	1	Private	2.1	1.4			1	Private			
Public Well	1	Public Other	7.9	12.3			1	Public Other			L
	ł	Protected well Private				Protected well	-	Protected well Private	7.0	6.0	6.0
	1	Public					1	Public			
	ł	Other Unprotected well				Unprotected well	-	Other Unprotected well	2.0	7.0	5.0
		Private						Private			
		Public Other						Public Other			
Spring		All springs	0.5	0.9				All springs			
		Private Public						Private			
		Other Protected spring						Other Protected spring			
		Private						Private			
		Public Other						Public Other			
		Unprotected spring						Unprotected spring			
		Private					-	Private			
	Baim	Other	0.7	0.9			Boinu	Other	0.0	1.0	1.0
Rainwater	Rainv	Covered cistern/tank	0.7	0.9		Rain water	Rainv	Covered cistern/tank	0.0	1.0	1.0
	Bottle	Uncovered cistern/tank ed water					Bottle	Uncovered cistern/tank			
		with other improved					_	with other improved			
	Surfa	without other improved ace water	5.8	36.6			Surfa	without other improved ce water	1.0	41.0	26.0
River/Stream		River Lake	5.8	36.6				River Lake			
		Dam						Dam			
		Pond Stream				Pond/River		Pond Stream	1.0	41.0	26.0
	1	Irrigation channel						Irrigation channel			
	Other	Other r improved sources					Other	Other improved sources			
		Other Other						Other Other			
	Other	r non-improved	3.2	5.8			Other	non-improved	11.0	2.0	5.0
	4	Cart with small tank/drum Tanker truck provided				Tanker/ vendor	1	Cart with small tank/drum Tanker truck provided	3.0	2.0	2.0
Other	1	Other	3.2	5.8			1	Other			
		Other hissing	0.3	2.8		Other	DK/m		8.0	0.0	3.0
	Total		100.0	100.1			Total		98.0	100.0	99.0
	<u> </u>						-				<u> </u>
Calculations						Calculations					
							F				
	Protect	ted Wells ( estimated using MICS95)	7.8	6.3							
Estimations	Sprin	ngs considered improved based on	0.2	0.1		Estimations	<u> </u>				
		DHS08									
Access to in		ed drinking water sources : ess to house connections :	88% 37%	47% 2%		Access to in	nprove	ed drinking water sources : less to house connections :	<mark>84%</mark> 48%	50% 1%	63%
	AUC	Used for the estimates :	Yes	Yes			AUG	Used for the estimates :	40% Yes	Yes	10%
	HC / Ta	Used for the estimates : ap water	Yes 49%	Yes 16%			HC / Ta	Used for the estimates : p water	Yes 65%	Yes 6%	
	Public	tap / Tap water ell + protected well / All wells	51%	84%			Public t	ap / Tap water ell + protected well / All wells	35% 83%	94% 83%	
	Protect	ted wells / Traditional wells					Protect	ed wells / Traditional wells	78%	46%	
	Protected wells / Traditional wells Tubewell / All wells Protected springs / All springs Protect. well & spring / well & spring		27%	66%		Ratios		ell / All wells ed springs / All springs	25%	68%	
Ratios						1		. well & spring / well & spring	83%	83%	
Ratios	Protect									0070	
Ratios	Protect									00 /0	
Ratios	Protect	t. well & spring / well & spring									
	Protect					N	Numb	ber of people covered by the survey: households covered by the survey: Total population:			

Access to drinking water sou	rces	DHS98		Ghana		Access to drinking water sou		JMP99		Ghana	I
Demographic and Health Survey						Global Water Supply and Sanitation A Water Supply and Sanitation Sector (					
	1			1998		WHO.	Rucotion			1999	
Original denomination	Tap v	Classification vater	Urban 84.0	Rural 15.7	Total	Original denomination	Tap v	Classification vater	Urban 31.3	Rural	Total
Piped into residence		House connections	41.4	3.5		Population served with nousenoid		House connections	31.3	0.0	
		Piped water into dwelling Piped water to yard/plot						Piped water into dwelling Piped water to yard/plot			
Public tap/neighbour's house		Public tap, standpipe	42.6	12.2				Public tap, standpipe			
	Grou	Other nd water	9.6	47.7			Grou	Other nd water	40.3	53.7	
		Protected ground water Unprotected ground water	3.2	29.6		Population without household connection but with reasonable access to a public		Protected ground water Unprotected ground water	40.3	53.7	
		Protected wells or springs	3.2	29.6	0.0			Protected wells or springs			
		Private						Private			
		Other						Other			
		Unprotected wells or springs Private						Unprotected wells or springs Private			
		Public						Public			
		Other All wells	9.2	46.3				Other All wells			
		Private	0.8 5.2	1.9 14.8				Private			
		Other						Other			
Bore hole		Tubewell, borehole Private	3.2	29.6				Tubewell, borehole Private			
		Public						Public			
		Other Traditional wells	6.0	16.7				Other Traditional wells			
Well in residence		Private	0.8	1.9				Private			
Public well	1	Public Other	5.2	14.8	-		1	Public Other			
	1	Protected well					1	Protected well			
	1	Private					1	Private			
		Other						Other			
		Unprotected well Private						Unprotected well Private			
		Public Other						Public Other			
Spring		All springs	0.4	1.4				All springs			
		Private						Private			
		Other						Other			
		Protected spring Private						Protected spring Private			
		Public						Public			
		Other Unprotected spring						Other Unprotected spring			
		Private						Private			
		Public Other						Public Other			
Rainwater	Rainv	water Covered cistern/tank	0.5	0.9 0.9			Rainv	vater Covered cistern/tank			
Rainwater		Uncovered cistern/tank	0.5	0.9				Uncovered cistern/tank			
	Bottle	ed water with other improved					Bottle	ed water with other improved			
		without other improved						without other improved			
River/stream	Surfa	River	4.4 3.4	32.4 25.5			Surfa	ce water River			
		Lake						Lake			
Dam Pond/lake		Dam Pond	0.9	4.4 2.5				Dam Pond			
		Stream						Stream			
		Irrigation channel Other						Irrigation channel Other			
	Othe	r improved sources					Othe	other			
	1	Other					1	Other			
	Othe	r non-improved Cart with small tank/drum	1.5	3.3	<u> </u>	Total population unserved	Othe	non-improved Cart with small tank/drum	28.4	46.3	
Tanker/truck	1	Tanker truck provided	1.2	0.5			1	Tanker truck provided			
Dugout	1	Other Other	0.3	2.8			1	Other Other			
		issing						issing			
	Total		100.0	100.0	1		Total		100.0	100.0	
<b>.</b>	L					<b>.</b>	<u> </u>			L	
Calculations						Calculations					
	Pr	otected Wells ( estimated using CWIQ97)	3.7	10.3							
Estimations	Sprin	gs considered improved based on DHS08	0.1	0.1		Estimations					
		511000									
Access to in	nprov	ed drinking water sources : ess to house connections :	92% 41%	57% 4%		Access to in	nprov	ed drinking water sources : ess to house connections :	72% 31%	54% 0%	
	,	Used for the estimates :	Yes	Yes				Used for the estimates :	No	No	
	HC / Ta	Used for the estimates : ap water	Yes 49%	Yes 22%			HC / Ta	Used for the estimates : up water	No 100%	No	
	Public	tap / Tap water ell + protected well / All wells	51%	78%			Public	lap / Tap water ell + protected well / All wells			
	Protect	ted wells / Traditional wells					Protect	ed wells / Traditional wells			
Ratios		ell / All wells ted springs / All springs	35%	64%		Ratios		ell / All wells ed springs / All springs			
		t. well & spring / well & spring						well & spring / well & spring			
	<u> </u>										
	L						<u> </u>				
N	Num umber o	ber of people covered by the survey: f households covered by the survey:				N		per of people covered by the survey: f households covered by the survey:	6700	8361	
	-	Total population:			1			Total population:			
Comments						Comments	1. I.I.I.I.I.I.I.I.I.I.I.I.I.I.I.I.I.I.I				

Access to drinking water so Demographic and Health Survey	urces	DHS03		Ghana		Access to drinking water sou World Health Survey	rces	WHS03	Ghana		
				2003						2003	
Original denomination		Classification	Urban	Rural	Total	Original denomination		Classification	Urban	Rural	Tota
•	Tap v	vater	72.5	10.8			Тар м	vater	71.6	24.0	
Piped into dwelling	_	House connections Piped water into dwelling	33.4 11.5	1.9 0.7		Piped water through house connection or	ard	House connections Piped water into dwelling	34.6	5.7	
Piped into compound/plot		Piped water to yard/plot	21.9	1.2				Piped water to yard/plot			
Public tap Sachet water	_	Public tap, standpipe Other	39.1	8.9		Public standpipe		Public tap, standpipe Other	37.0	18.3	
	Grou	nd water	18.9	57.8			Grou	nd water	20.5	52.5	
	_	Protected ground water Unprotected ground water	10.2 8.4	42.8 14.1				Protected ground water Unprotected ground water	15.6 4.9	41.8 10.7	
		Protected wells or springs	10.2	42.8		Protected dug well or protected spring		Protected wells or springs	6.3	9.3	0.0
		Private	2.4	1.7				Private			
	-	Public Other	7.8	41.1				Public Other			
		Unprotected wells or springs	8.4	14.1		Unprotected dug well or spring		Unprotected wells or springs	4.9	10.7	
	_	Private	2.5 5.9	1.3 12.8				Private			
		Other						Other			
	_	All wells Private	18.6 4.9	56.9 3.0	0.0			All wells Private	9.3	32.5	
		Public	13.7	53.9				Public			
	_	Other Tub work have been				Protected tube well or bore hole		Other Tubewell, borehole	9.3	32.5	
	-	Tubewell, borehole Private				Protected tube well or bore hole		Tubewell, borehole Private	9.3	32.5	
		Public						Public			
	_	Other Traditional wells	18.6	56.9	0.0			Other Traditional wells			
		Private	4.9	3.0				Private			
	-	Public Other	13.7	53.9				Public Other			
		Protected well	10.2	42.8	0.0			Protected well			
Protected well in dwelling/yard	4	Private	2.4	1.7				Private			
Protected public well	-	Public Other	7.8	41.1				Public Other			
		Unprotected well	8.4	14.1	0.0			Unprotected well			
Open well in dwelling/yard Open public well	_	Private	2.5 5.9	1.3 12.8				Private Public			
		Other						Other			
Spring	_	All springs Private	0.3	0.9				All springs Private			
		Public						Public			
		Other						Other			
	-	Protected spring Private						Protected spring Private			
		Public						Public			
	_	Other Unprotected spring						Other Unprotected spring			
		Private						Private			
	_	Public Other						Public Other			
	Rainv		0.5	0.2			Rainv		1.2	1.1	
Rainwater	_	Covered cistern/tank	0.5	0.2		Rainwater (into tank or cistern )		Covered cistern/tank	1.2	1.1	
Sachet water	Bottl	Uncovered cistern/tank ed water	3.0	0.3			Bottle	Uncovered cistern/tank			
	_	with other improved						with other improved			
	Surfa	without other improved ce water	2.6	30.4		Water taken directly from pond-water or st	Surfa	without other improved ce water	2.3	20.7	
River, stream		River	2.0	24.3				River			
Dam	_	Lake Dam	0.1	3.7				Lake Dam			
Pond, lake		Pond	0.5	2.4				Pond			
	_	Stream Irrigation channel						Stream Irrigation channel			
		Other						Other			
	Othe	other					Other	improved sources Other			
		Other						Other			
	Othe	non-improved	2.7	0.4			Other	non-improved	4.4	1.8	
Fanker truck	-	Cart with small tank/drum Tanker truck provided	2.3	0.4		Tanker-truck, vendor		Cart with small tank/drum Tanker truck provided	4.4	1.8	
Other		Other	0.4	0.0				Other			
Aissing	DK/m	Other	0.0	0.1			DK/m	Other issing			
-	Total		100.2	100.0			Total	<b>o</b>	100.0	100.1	
	Rat	io private standpipe/all standpipe	35.9%	11.9%							
Calculations						Calculations					
								otected wells, based on DHS03	6.2	9.2	
	A	turator considered inc. 11						tected springs based on DHS03	0.1	0.1	
	Sache	t water considered improved based on DHS08	2.6	0.2							
Estimations	Sprin	gs considered improved based on	0.1	0.1		Estimations					
		DHS08									
Access to	improv	ed drinking water sources :	86%	54%		Access to in	prove	ed drinking water sources :	88%	67%	
	Acc	ess to house connections : Used for the estimates :	33% Yes	2% Yes			Acc	Used for the estimates :	35% Yes	6% Yes	
		Used for the estimates :	Yes	Yes				Used for the estimates :	Yes	Yes	
		ip water tan / Tan water	46%	18% 82%				p water	48%	24% 76%	
	Tubew	tap / Tap water ell + protected well / All wells	54%	82%			Tubewe	ap / Tap water ell + protected well / All wells	52%	76%	
	Protect	ed wells / Traditional wells ell / All wells	55%	75%			Protect	ed wells / Traditional wells ell / All wells	100%	100%	
Ratios		ell / All wells ed springs / All springs				Ratios	Protect	ed springs / All springs	100%		
	Protect	. well & spring / well & spring	55%	75%				. well & spring / well & spring	56%	47%	
	Protect. well & spring / well & spring Springs/Groundwater		2%	2%							
	Num	per of people covered by the survey:						per of people covered by the survey:			
	Num	per of people covered by the survey: f households covered by the survey: Total population:				N		per of people covered by the survey: f households covered by the survey: Total population:			

Access to drinking water sour		CWIQ03		Ghana		Access to drinking water sources Multiple Indicator Cluster Survey		MICS06	Ghana		
wondro midicator Question/18/18				2003	_	inclupio matoritor orașter ourvey	_			2006	
Original denomination		Classification	Urban	Rural	Total	Original denomination		Classification	Urban	Rural	Tota
	Tap v	vater	72.5	14.4			Tap v	vater	65.7	18.5	
Piped into dwelling or compound		House connections Piped water into dwelling	36.0	2.3		Piped into dwelling		House connections Piped water into dwelling	26.9 10.1	2.7 0.7	
		Piped water to yard/plot				Piped into yard or plot		Piped water to yard/plot	16.8	2.0	
Public outdoor tap	-	Public tap, standpipe Other	36.5	12.1		Public tap/standpipe		Public tap, standpipe	38.8	15.8	
	Grou	nd water	17.1	53.7			Grou	nd water	16.9	56.8	
		Protected ground water	15.0 2.1	48.6 5.1				Protected ground water	13.1 3.5	48.8 7.3	
		Unprotected ground water Protected wells or springs	15.0	5.1 48.6	0.0			Unprotected ground water Protected wells or springs	3.5 13.1	48.8	0.0
		Private						Private			
		Public Other						Public Other			
		Unprotected wells or springs	2.1	5.1	0.0			Unprotected wells or springs	3.5	7.3	0.0
		Private						Private Public			
		Other						Other			
		All wells Private	17.1	53.7				All wells Private	16.6	56.1	
		Public						Public			
		Other				Borehole		Other			
Borehole		Tubewell, borehole Private	7.5	42.1		Borenole		Tubewell, borehole Private	6.5	44.1	
		Public						Public			
		Other Traditional wells	9.6	11.6				Other Traditional wells	10.1	12.0	
		Private	9.0	11.0				Private	10.1	12.0	
	]	Public						Public			
Protected well	1	Other Protected well	7.5	6.5		Protected well		Other Protected well	6.6	4.7	
		Private	1.0	0				Private	0.0	4.1	
	4	Public						Public			
Jnprotected well		Other Unprotected well	2.1	5.1		Unprotected well		Other Unprotected well	3.5	7.3	
· · · · · · · · · · · · · · · · · · ·	1	Private	E.1	0.1				Private	0.0		
	4	Public						Public			-
		Other All springs				Spring		Other All springs	0.3	0.7	
		Private						Private			
		Public Other						Public Other			
		Protected spring						Protected spring			
	1	Private						Private			
		Public Other						Public Other			
		Unprotected spring						Unprotected spring			
	1	Private						Private			
		Public Other						Public Other			
	Rainv	water	1.0	2.5			Rainv	vater	0.2	0.7	
Rain water		Covered cistern/tank Uncovered cistern/tank	1.0	2.5		Rainwater collection		Covered cistern/tank Uncovered cistern/tank	0.2	0.7	
	Bottl	ed water					Bottle	ed water	0.3	0.0	
		with other improved				Bottled water (+improved)		with other improved	0.3	0.0	
River, lake, pond	Surfa	without other improved ace water	3.4	27.5		Bottled water (+ unimproved)	Surfa	without other improved ce water	0.0 0.7	0.0	
	Carro	River				River/stream	ound	River	0.7	18.9	
		Lake Dam				Dam/lake/pond/canal/irrigation channel		Lake Dam	0.0	3.2	
		Pond				Dannakerponurcanai/ingation channer		Pond	0.0	3.2	
	1	Stream						Stream			
	-	Irrigation channel Other						Irrigation channel Other			
	Othe	r improved sources					Othe	improved sources			
	+ _	Other						Other			
	Othe	Other r non-improved	6.0	1.8			Othe	Other non-improved	16.1	1.8	
		Cart with small tank/drum				Cart with small tank/drum		Cart with small tank/drum	0.1	0.0	
/endor, truck	4	Tanker truck provided Other	6.0	1.8		Tanker-truck Other		Tanker truck provided Other	2.3 2.4	0.2	
Other	ł	Other Other	0.0	0.0		Sachet water		Other Other	2.4 11.3	0.6	
		nissing						issing			
	Total		100.0	99.9		l	Total		99.9	99.9	
	<u> </u>						Rat	o private standpipe/all standpipe	30.2%	11.2%	
Calculations						Calculations					
		-									
							Sarhe	t water considered improved based			
	ļ							on DHS08	10.0	0.8	
Estimations						Estimations	Sprin	gs considered improved based on DHS08	0.1	0.1	
Access to in	nprov	ed drinking water sources :	89%	66%		Access to in		ed drinking water sources :	89%	69%	
	Acc	ess to house connections :	36%	2%				ess to house connections :	27%	3%	
		Used for the estimates : Used for the estimates :	Yes Yes	Yes Yes				Used for the estimates : Used for the estimates :	Yes Yes	Yes Yes	
		ap water	50%	16%				ip water	41%	15%	
		tap / Tap water ell + protected well / All wells	50% 88%	84% 91%				ap / Tap water ell + protected well / All wells	59% 79%	85% 87%	
	Protect	ted wells / Traditional wells	78%	56%			Protect	ed wells / Traditional wells	65%	39%	
	Protected wells / Traditional wells Tubewell / All wells Protected springs / All springs Protect well & spring / well & spring		44%	78%		Ratios		ell / All wells ed springs / All springs	39%	79%	
Ratios			88%	91%				ed springs / All springs . well & spring / well & spring	79%	87%	
Ratios	Protect	t. well & spring / well & spring	0070								
Ratios	Protect		00 /0								
Ratios	Protect		0070								
Ratios	Protec	t. well & spring / well & spring	00%				Numl	per of people covered by the survey:			
	Protec		667/6			N		per of people covered by the survey: f households covered by the survey: Total population:			

Access to drinking water sou CORE WELFARE INDICATORS QUE				Ghana		Access to drinking water sou LIVING STANDARDS SURVEY 4	rces	LSS98	Ghana		
Statistical Service	.5 HUN			1997		Statistical Service				1998	
Original denomination		Classification	Urban	Rural	Total	Original denomination		Classification	Urban	Rural	Total
	Тар и	vater	75.0	12.4	Total	Original denomination	Tap w	ater	65.0	18.9	TOtal
Piped into dwelling		House connections Piped water into dwelling	36.8	2.1		Indoor plumbing/standpipe		House connections Piped water into dwelling	34.0 34.0	3.4 3.4	
		Piped water to yard/plot									
Public Tap		Public tap, standpipe Other	38.2	10.3		Public standpipe Private outside standpipe/tap		Public tap, standpipe Other	14.4 16.6	11.1 4.3	
	Grou	nd water	13.2	45.7			Grou	nd water	9.2	42.7	
		Protected ground water Unprotected ground water	9.7 3.5	37.2 8.5				Protected ground water Unprotected ground water	1.5	28.3	
		Protected wells or springs	9.7	37.2				Protected wells or springs	1.5	28.3	0.0
		Private						Private Public			
		Other						Other			
		Unprotected wells or springs Private	3.5	8.5	0.0			Unprotected wells or springs Private			
		Public						Public			
		Other All wells	13.2	45.7				Other All wells	9.2	42.7	
	1	Private						Private			
		Public Other						Public Other			
Borehole	1	Tubewell, borehole	4.1	30.9		Well with pump		Tubewell, borehole	1.5	28.3	
		Private						Private			
		Other						Other			
		Traditional wells Private	9.2	14.8		Well without pump		Traditional wells Private	7.7	14.4	
	1	Public						Public			
Protected well		Other Protected well	5.6	6.2				Other Protected well			
		Private	0.0					Private			
		Public Other						Public Other	-	-	
Unprotected well		Unprotected well	3.5	8.5				Unprotected well			
		Private						Private Public	-	-	-
		Other						Other			
		All springs						All springs			
		Private						Private			
	1	Other						Other			
		Protected spring Private						Protected spring Private			
	1	Public						Public			
		Other Unprotected spring						Other Unprotected spring			
	1	Private						Private			
		Public Other						Public Other			
	Rainv	water					Rainv	vater	0.2	0.2	
		Covered cistern/tank Uncovered cistern/tank				Rainwater		Covered cistern/tank Uncovered cistern/tank	0.2	0.2	
	Bottle	ed water					Bottle	ed water			
		with other improved without other improved						with other improved without other improved			
River, lake, stream	Surfa	ice water	4.2	39.3		River, lake, spring, pond	Surfa	ce water	6.6	35.1	
		River Lake						River Lake			
		Dam						Dam			
		Pond Stream						Pond Stream			
		Irrigation channel						Irrigation channel			
	Other	Other r improved sources					Other	Other improved sources	12.5	1.1	
	01.10	Other				Neighbouring household	01.101	Other	12.5	1.1	
	Other	Other r non-improved	7.5	2.6			Other	Other non-improved	6.5	2.1	
Vendor,	Sale	Cart with small tank/drum	7.3	1.7		Water vendor	Jue	Cart with small tank/drum	6.3	1.1	
Other		Tanker truck provided Other	0.3	0.8		Water truck/tanker service		Tanker truck provided Other	0.1	0.8	
		Other	U.J	u.d		Other		Other		0.2	
	DK/m Total	issing	100.0	100.0			DK/m Total	issing	100.0	100.0	
	·Jai		100.0	100.0				o private standpipe/all standpipe	0.0%	0.0%	1
0.1 1 1	L-					<b>0</b>		,	5.570	5.570	L
Calculations						Calculations					
											L
							Pro	otected Wells ( estimated using CWIQ97)	4.8	6.1	
								Gringer)			
Estimations						Estimations					
Access to in	l nprove	ed drinking water sources :	85%	50%		Access to in	prove	d drinking water sources :	84%	55%	
		ess to house connections :	37%	2%				ess to house connections :	34%	3%	
		Used for the estimates : Used for the estimates :	Yes Yes	Yes Yes				Used for the estimates : Used for the estimates :	Yes Yes	Yes Yes	
		ap water	49%	17%				p water	52%	18%	
	Tubew	tap / Tap water ell + protected well / All wells	51% 73%	83% 81%			Tubewe	ap / Tap water ell + protected well / All wells	22%	59%	
	Protect	ted wells / Traditional wells ell / All wells	62%	42%			Protect	ed wells / Traditional wells ell / All wells	169/	66%	
Ratios	Protect	ted springs / All springs	31%	68%		Ratios	Protect	ed springs / All springs	16%	66%	
	Protect	t. well & spring / well & spring	73%	81%			Protect	well & spring / well & spring			
F											
											r
N	Numl umber o	ber of people covered by the survey: f households covered by the survey:				Ni		er of people covered by the survey: households covered by the survey:			
N	Numl umber o	ber of people covered by the survey: If households covered by the survey: Total population:				Ni					

Access to drinking water sou		DHS08		Ghana	
				2008	
Original denomination		Classification	Urban	Rural	Tota
	Tap w	vater	67.0	20.1	40.7
Piped into dwelling, yard or plot		Piped water into dwelling	27.0 27.0	2.2 2.2	13.1 13.1
		Piped water to yard/plot			
Public tap/standpipe		Public tap, standpipe Other	40.0	17.9	27.6
	Groui	nd water	15.1	59.4	40.1
		Protected ground water	13.7 1.4	54.6 4.8	36.8
	-	Unprotected ground water Protected wells or springs	13.7	54.6	3.3 36.8
		Private			
		Other			
		Unprotected wells or springs	1.4	4.8	3.3
		Private			
		Other			
		All wells Private	14.8	58.2	39.3
		Public			
ubewell/borehole		Other	-	10.0	
ubewell/borehole		Tubewell, borehole Private	7.4	49.6	31.2
		Public			
		Other Traditional wells	7.4	8.6	8.1
	1	Private			
	-	Public			
rotected dug well	1	Protected well	6.2	4.9	5.5
		Private			
	1	Public			
Inprotected dug well	1	Unprotected well	1.2	3.7	2.6
		Private			
	1	Other			
	-	All springs Private	0.3	1.2	0.8
	1	Public			
rotected spring		Other	0.1	0.1	0.1
rotected spring		Protected spring Private	0.1	0.1	0.1
		Public			
Inprotected spring		Other Unprotected spring	0.2	1.1	0.7
		Private			
		Public			
	Rainv	vater	0.1	0.7	0.5
tainwater collection		Covered cistern/tank Uncovered cistern/tank	0.1	0.7	0.5
	Bottle	ed water	13.6	1.4	6.7
ottled/sachet water (+improved) ottled/sachet water (+ unimproved)		with other improved without other improved	12.0 1.6	1.1 0.3	5.9 0.8
Surface water	Surfa	ce water	2.0	18.2	11.1
		River			
		Lake Dam			
		Pond			
		Stream Irrigation channel			
		Other			
	Other	improved sources			
	1	Other			
	Other	non-improved Cart with small tank/drum	2.0	0.3	1.0
anker-truck, Cart with small tank/drum	1	Tanker truck provided	2.0	0.3	1.0
		Other Other			
		issing			
	Total		99.8	100.1	100.1
Calculations					
	L				
Estimations					
			-		
Access to in		ed drinking water sources :		77%	84%
	Acce	Used for the estimates	27% Yes	2% Yes	13%
		Used for the estimates	Yes	Yes	
		ip water ap / Tap water	40% 60%	11% 89%	
	Tubewe	ell + protected well / All wells	92%	94%	
		ed wells / Traditional wells ell / All wells	84% 50%	57% 85%	
Ratios	Protect	ed springs / All springs	33%	8%	
	Bottled	. well & spring / well & spring & Sachet water improved/All	91% 88%	92% 79%	
		& sachet water	00%	19%	_
	bottled				
N	Numb	per of people covered by the survey f households covered by the survey			

					D	RINKIN	G WATI	ER				
Ghana				UR	BAN			RURAL				
Onana		House connection		Total			use ection	Total				
Source	Code	Year	Used	Not used	Used	Not used	Used	Not used	Used	Not used		
Living standards Survey	LSS88	1988		28.6		28.6		1.0		1.0		
Demographic and Health Survey	DHS88	1988	36.3		84.1		1.9		28.4			
Demographic and Health Survey	DHS93	1993	37.2		88.1		2.0		46.7			
Multiple Indicator Cluster Survey	MICS95	1995	48.0		84.0		1.0		50.0			
Demographic and Health Survey	DHS98	1998	41.4		91.5		3.5		56.6			
Global Water Supply and Sanitation Assessment 2000.	JMP99	1999		31.3		71.6		0.0		53.7		
Demographic and Health Survey	DHS03	2003	33.4		85.9		1.9		54.1			
World Health Survey	WHS03	2003	34.6		88.4		5.7		66.9			
Core Welfare Inidicator Questionnaire	CWIQ03	2003	36.0		88.5		2.3		65.5			
Multiple Indicator Cluster Survey	MICS06	2006	26.9		89.4		2.7		68.8			
CORE WELFARE INDICATORS QUESTIONNAIRE (CWIQ)	CWIQ97	1997	36.8		84.7		2.1		49.6			
LIVING STANDARDS SURVEY 4	LSS98	1998	34.0		84.0		3.4		54.5			
Demographic and Health Survey	DHS08	2008	27.0		92.8		2.2		76.5			



