

WHO / UNICEF

Joint Monitoring Programme
for Water Supply and Sanitation

Estimates for the use of

**Improved Drinking-Water Sources
and Improved Sanitation Facilities**

Updated March 2010

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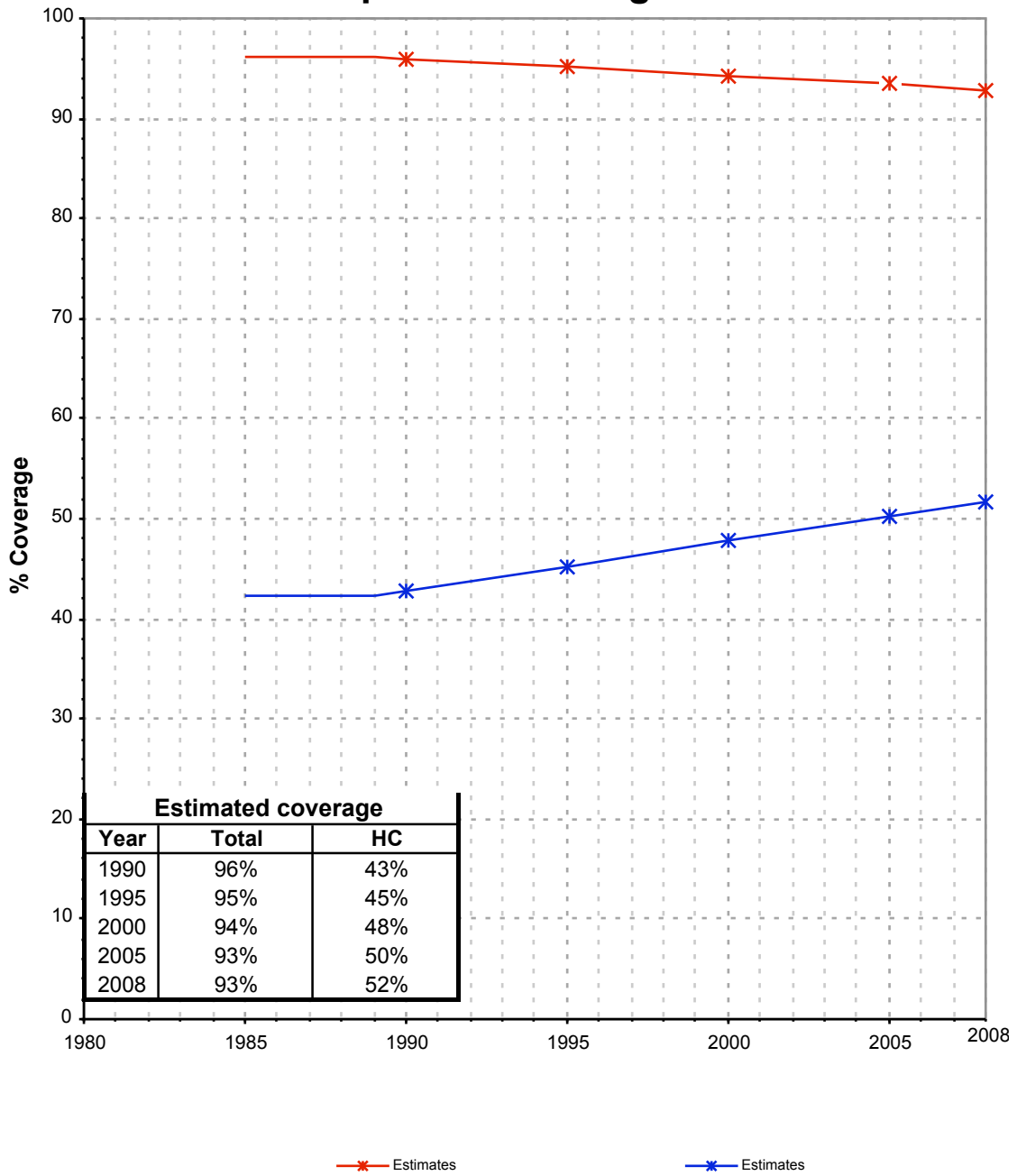
Access to drinking water sources		NFHS91			Nepal			Access to drinking water sources		DHS96			Nepal		
Fertility, Family Planning and Health Survey					Demographic and Health Survey					Nepal Family Health Survey, Ministry of Health, HMG					
Ministry of Health, Family Planning, Maternal and Child Health Division, Kathmandu					1991					1996					
Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total						
Piped Water	Tap water	51.3	16.3		Piped into residence	Tap water	57.4	29.1							
	House connections					House connections	46.4	5.2							
	Piped water into dwelling					Piped water into dwelling									
	Piped water to yard/plot					Piped water to yard/plot									
	Public tap, standpipe				Public Tap	Public tap, standpipe	11.0	23.9							
	Other					Other									
	Ground water	47.9	71.5			Ground water	36.0	60.1							
	Protected ground water	38.6	26.5			Protected ground water	27.3	32.3							
	Unprotected ground water					Unprotected ground water									
	Protected wells or springs	38.6	26.5	0.0		Protected wells or springs	27.3	32.3							
	Private					Private	20.9	11.0							
	Public					Public	6.4	21.3							
	Other					Other									
	Unprotected wells or springs					Unprotected wells or springs									
	Private					Private									
	Public					Public									
	Other					Other									
	All wells	45.0	38.6			All wells	36.0	39.3							
	Private					Private	26.6	12.8							
	Public					Public	9.4	26.5							
	Other					Other									
Handpump	Tubewell, borehole	38.6	26.5		Handpump in Residence	Tubewell, borehole	27.3	32.3							
	Private				Public Handpump	Private	20.9	11.0							
	Public					Public	6.4	21.3							
	Other					Other									
Well	Traditional wells	6.4	12.1		Well in residence	Traditional wells	8.7	7.0							
	Private				Public well	Private	5.7	1.8							
	Public					Public	3.0	5.2							
	Other					Other									
	Protected well					Protected well									
	Private					Private									
	Public					Public									
	Other					Other									
	Unprotected well					Unprotected well									
	Private					Private									
	Public					Public									
	Other					Other									
Spring/Kuwa	All springs	2.9	32.9		Spring water	All springs	0.0	20.8							
	Private					Private									
	Public					Public									
	Other					Other									
	Protected spring					Protected spring									
	Private					Private									
	Public					Public									
	Other					Other									
	Unprotected spring					Unprotected spring									
	Private					Private									
	Public					Public									
	Other					Other									
	Rainwater					Rainwater									
	Covered cistern/tank					Covered cistern/tank									
	Uncovered cistern/tank					Uncovered cistern/tank									
	Bottled water					Bottled water									
	with other improved					with other improved									
	without other improved					without other improved									
	Surface water	0.9	11.8		River/ stream	Surface water	5.1	9.2							
River	River	0.2	9.0			River	3.3	7.6							
	Lake					Lake									
	Dam					Dam									
Pond	Pond	0.1	0.1			Pond									
	Stream					Stream									
	Irrigation channel					Irrigation channel									
Stone tap (Dhara) (is kind of spring)	Other	0.6	2.7		Stone tap (Dhara) (is kind of spring)	Other	1.8	1.6							
	Other improved sources					Other improved sources									
	Other					Other									
	Other					Other									
	Other non-improved	0.0	0.0			Other non-improved	0.6	1.4							
	Cart with small tank/drum					Cart with small tank/drum									
	Tanker truck provided					Tanker truck provided									
Other	Other	0.0	0.0		Other	Other	0.6	1.4							
	Other					Other									
	DK/missing				Missing	DK/missing	0.9	0.3							
	Total	100.1	99.6			Total	100.0	100.1							
Calculations					Calculations										
Estimations	Traditional wells considered improved, based on DHS06	3.2	6.1			Traditional wells considered improved, based on DHS06	4.4	3.5							
	Springs considered improved, based on DHS06	1.8	17.8			Springs considered improved, based on DHS06	0.9	11.2							
	HC based on DHS96	41.5	2.9												
Access to improved drinking water sources :		95%	67%		Access to improved drinking water sources :		90%	76%							
Access to house connections :		41%	3%		Access to house connections :		46%	5%							
	Used for the estimates:	Yes	Yes			Used for the estimates:	Yes	Yes							
	Used for the estimates:	Yes	Yes			Used for the estimates:	Yes	Yes							
Ratios	HC / Tap water					HC / Tap water	81%	18%							
	Public tap / Tap water					Public tap / Tap water	19%	82%							
	Tubewell + protected well / All wells					Tubewell + protected well / All wells									
	Protected wells / Traditional wells					Protected wells / Traditional wells									
	Tubewell / All wells	86%	69%			Tubewell / All wells	76%	82%							
	Protected springs / All springs					Protected springs / All springs									
	Protect. well & spring / well & spring					Protect. well & spring / well & spring									
						Springs among traditional groundwater	17%	76%							
	Number of people covered by the survey					Number of people covered by the survey									
	Number of households covered by the survey					Number of households covered by the survey									
	Total population					Total population									
Comments					Comments										

Access to drinking water sources		JMP99			Nepal			Access to drinking water sources		BCHIMES00			Nepal		
Global Water Supply and Sanitation Assessment 2000.					Between Census Household Information Monitoring and Evaluation System					Central Bureau of Statistics, in collaboration with UNICEF					
Water Supply and Sanitation Sector Questionnaire - 1999. Form 6 sent to WHO.					1999					2000					
Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total						
Population served with household connection.	Tap water	29.9	0.5		Piped water	Tap water	61.9	46.3	48.3						
	House connections					House connections									
	Piped water into dwelling					Piped water into dwelling									
	Piped water to yard/plot					Piped water to yard/plot									
	Public tap, standpipe					Public tap, standpipe									
	Other					Other									
Population without household connection but with reasonable access to a public.	Ground water	36.4	65.6		Ground water	Ground water	37.9	50.1	48.5						
	Protected ground water	36.4	65.6			Protected ground water	30.4	31.8	31.6						
	Unprotected ground water					Unprotected ground water									
	Protected wells or springs					Protected wells or springs	30.4	31.8	31.6						
	Private					Private									
	Public					Public									
	Other					Other									
	Unprotected wells or springs					Unprotected wells or springs									
	Private					Private									
	Public					Public									
	Other					Other									
	All wells					All wells	37.9	50.1	48.5						
	Private					Private									
	Public					Public									
	Other					Other									
	Tubewell, borehole					Tubewell, borehole	30.4	31.8	31.6						
	Private					Private									
	Public					Public									
	Other					Other									
	Traditional wells					Traditional wells	7.5	18.3	16.9						
	Private					Private									
	Public					Public									
	Other					Other									
	Protected well					Protected well									
	Private					Private									
	Public					Public									
	Other					Other									
	Unprotected well					Unprotected well									
	Private					Private									
	Public					Public									
	Other					Other									
	All springs					All springs									
	Private					Private									
	Public					Public									
	Other					Other									
	Protected spring					Protected spring									
	Private					Private									
	Public					Public									
	Other					Other									
	Unprotected spring					Unprotected spring									
	Private					Private									
	Public					Public									
Other				Other											
Rainwater				Rainwater											
Covered cistern/tank				Covered cistern/tank											
Uncovered cistern/tank				Uncovered cistern/tank											
Bottled water				Bottled water											
with other improved				with other improved											
without other improved				without other improved											
Surface water				Surface water											
River				River											
Lake				Lake											
Dam				Dam											
Pond				Pond											
Stream				Stream											
Irrigation channel				Irrigation channel											
Other				Other											
Other improved sources				Other improved sources											
Other				Other											
Other				Other											
Total population unserved	Other non-improved	33.7	33.9		Other non-improved	0.3	3.6	3.2							
	Cart with small tank/drum				Cart with small tank/drum										
	Tanker truck provided				Tanker truck provided										
	Other			Others	Other	0.3	3.6	3.2							
	Other				Other										
	DK/missing				DK/missing										
	Total	100.0	100.0		Total	100.1	100.0	100.0							
Calculations					Calculations										
Estimations					Estimations										
					Protected wells and springs estimated based on WHS03	6.3	15.3								
					HC based on WHS03	49.0	11.2								
Access to improved drinking water sources :		66%	66%		Access to improved drinking water sources :		99%	93%							
Access to house connections :		30%	0%		Access to house connections :		49%	11%							
Used for the estimates :		No	No		Used for the estimates :		Yes	Yes							
Used for the estimates :		No	No		Used for the estimates :		Yes	Yes							
Ratios	HC / Tap water	100%	100%		HC / Tap water										
	Public tap / Tap water				Public tap / Tap water										
	Tubewell + protected well / All wells				Tubewell + protected well / All wells										
	Protected wells / Traditional wells				Protected wells / Traditional wells										
	Tubewell / All wells				Tubewell / All wells	80%	63%								
	Protected springs / All springs				Protected springs / All springs										
Protect. well & spring / well & spring				Protect. well & spring / well & spring	100%	100%									
Number of people covered by the survey:		3292	19418		Number of people covered by the survey:										
Number of households covered by the survey:					Number of households covered by the survey:										
Total population:					Total population:										
Comments					Comments										

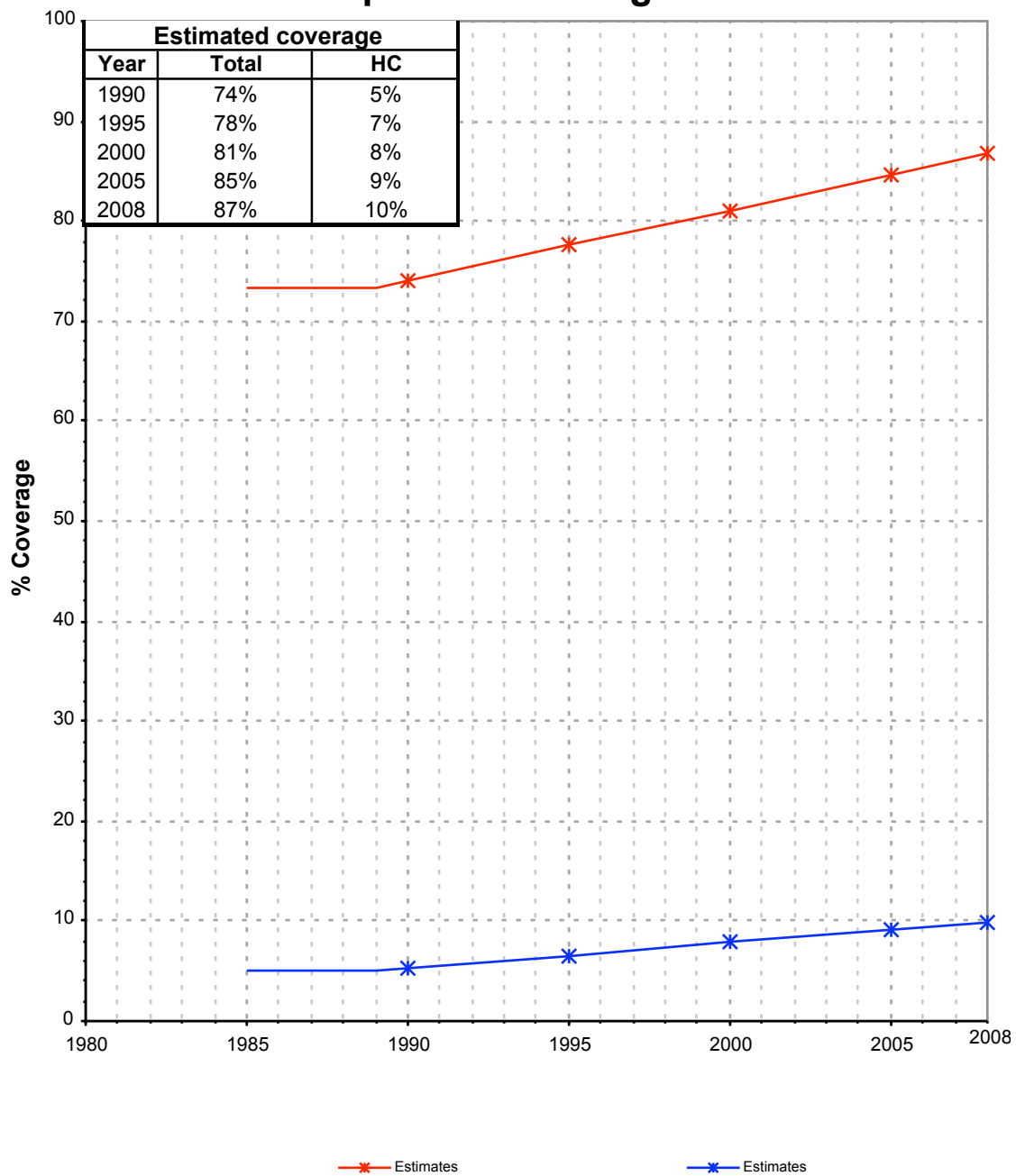
Access to drinking water sources		CEN01			Nepal			Access to drinking water sources		DHS01			Nepal			
Population census					2001			Demographic and Health Survey						2001		
Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total		
Piped	Tap water	66.1	51.1		Piped water	Tap water	55.2	33.0								
	House connections					House connections										
	Piped water into dwelling					Piped water into dwelling										
	Piped water to yard/plot					Piped water to yard/plot										
	Public tap, standpipe					Public tap, standpipe										
	Other					Other										
	Ground water	32.5	46.3			Ground water	41.7	41.9								
	Protected ground water	23.3	29.6			Protected ground water	30.8	38.1								
	Unprotected ground water					Unprotected ground water										
	Protected wells or springs	23.3	29.6	0.0		Protected wells or springs	30.8	38.1	0.0							
	Private					Private										
	Public					Public										
	Other					Other										
	Unprotected wells or springs	0.0	0.0	0.0		Unprotected wells or springs										
	Private					Private										
	Public					Public										
	Other					Other										
	All wells	29.2	39.3			All wells	41.7	41.9								
	Private					Private										
	Public					Public										
	Other					Other										
Tubewell	Tubewell, borehole	23.3	29.6		Tubewell/borehole	Tubewell, borehole	30.8	38.1								
	Private					Private										
	Public					Public										
	Other					Other										
Well	Traditional wells	5.9	9.7		Dug well	Traditional wells	10.9	3.8								
	Private					Private										
	Public					Public										
	Other					Other										
	Protected well					Protected well										
	Private					Private										
	Public					Public										
	Other					Other										
	Unprotected well					Unprotected well										
	Private					Private										
	Public					Public										
	Other					Other										
Spout water	All springs	3.3	7.0			All springs										
	Private					Private										
	Public					Public										
	Other					Other										
	Protected spring					Protected spring										
	Private					Private										
	Public					Public										
	Other					Other										
	Unprotected spring					Unprotected spring										
	Private					Private										
	Public					Public										
	Other					Other										
	Rainwater					Rainwater										
	Covered cistern/tank					Covered cistern/tank										
	Uncovered cistern/tank					Uncovered cistern/tank										
	Bottled water					Bottled water										
	with other improved					with other improved										
	without other improved					without other improved										
	Surface water	0.5	1.7		Surface water	Surface water	3.1	24.9								
Rivers/Stream	River	0.5	1.7			River										
	Lake					Lake										
	Dam					Dam										
	Pond					Pond										
	Stream					Stream										
	Irrigation channel					Irrigation channel										
	Other					Other										
	Other improved sources					Other improved sources										
	Other					Other										
	Other					Other										
	Other non-improved	0.9	0.9			Other non-improved										
	Cart with small tank/drum					Cart with small tank/drum										
	Tanker truck provided					Tanker truck provided										
	Other	0.9	0.9			Other										
	Other					Other										
Others	DK/missing					DK/missing										
	Total	100.0	100.0			Total	100.0	99.8								
Calculations					Calculations	Estimation of spring based on DHS96	0.5	19.0								
Estimations					Estimations	Protected wells and springs estimated based on WHS03	9.6	10.9								
						HC based on WHS03	43.7	8.0								
						Protected wells and springs estimated based on WHS03	7.7	8.0								
						HC based on WHS03	52.4	12.4								
	Access to improved drinking water sources :	97%	89%			Access to improved drinking water sources :	96%	82%								
	Access to house connections :	52%	12%			Access to house connections :	44%	8%								
	Used for the estimates:	Yes	Yes			Used for the estimates:	Yes	Yes								
	Used for the estimates:	Yes	Yes			Used for the estimates:	Yes	Yes								
Ratios	HC / Tap water				Ratios	HC / Tap water										
	Public tap / Tap water					Public tap / Tap water										
	Tubewell + protected well / All wells					Tubewell + protected well / All wells										
	Protected wells / Traditional wells					Protected wells / Traditional wells										
	Tubewell / All wells					Tubewell / All wells	74%	91%								
	Protected springs / All springs					Protected springs / All springs										
	Protect. well & spring / well & spring	100%	100%			Protect. well & spring / well & spring										
	Number of people covered by the census					Number of people covered by the survey										
	Number of households covered by the census					Number of households covered by the survey										
	Total population					Total population										
Comments					Comments											

Nepal			DRINKING WATER							
			URBAN				RURAL			
			House connection		Total		House connection		Total	
Source	Code	Year	Used	Not used	Used	Not used	Used	Not used	Used	Not used
Fertility, Family Planning and Health Survey	NFHS91	1991	41.5		94.9		2.9		66.7	
Demographic and Health Survey	DHS96	1996	46.4		90.0		5.2		76.1	
Global Water Supply and Sanitation Assessment 2000.	JMP99	1999		29.9		66.3		0.5		66.1
Between Census Household Information Monitoring and Evaluation System	BCHIMES00	2000	49.0		98.6		11.2		93.4	
Population census	CEN01	2001	52.4		97.1		12.4		88.7	
Demographic and Health Survey	DHS01	2001	43.7		95.6		8.0		82.0	
World Health Survey	WHS03	2003	54.2		97.8		12.1		92.7	
Living Standards Survey	LSS04	2004	53.3		92.9		6.7		78.8	
Demographic and Health Survey	DHS06	2006	39.9		90.0		9.5		80.3	
Household Budget Survey	HBS08	2008				108.7				101.9
NMIP DWSS	NMIP08	2008	54.4		90.0		5.1		78.6	

Nepal - urban - Use of improved drinking water sources



Nepal - rural - Use of improved drinking water sources



Drinking Water

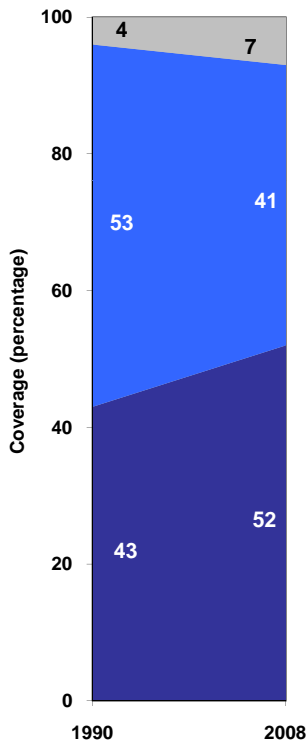
Nepal	Drinking water coverage estimates					
	Urban (%)		Rural (%)		Total (%)	
	1990	2008	1990	2008	1990	2008
Piped into premises	43	52	5	10	8	17
Other improved source	53	41	69	77	68	71
Unimproved source	4	7	26	13	24	12

Source: WHO/UNICEF JMP, 2010

Nepal	Urban		Rural		Total	
	1990	2008	1990	2008	1990	2008
Population (x1000)	1692	4956	17413	23853	19105	28810

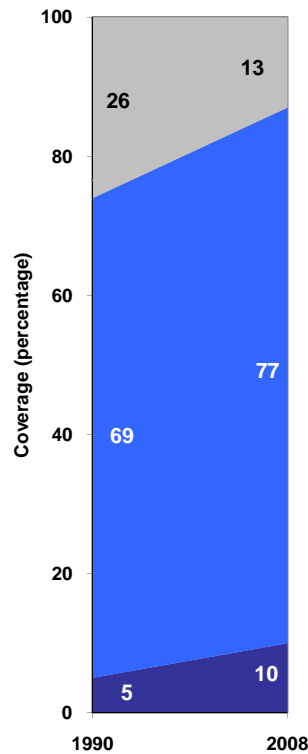
Source: UN / Population Division, 2008

Urban drinking water trends



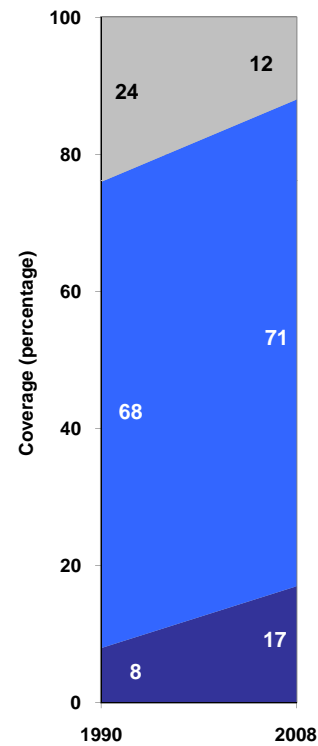
■ Unimproved sources
■ Other improved sources
■ Piped onto premises

Rural drinking water trends



■ Piped onto premises
■ Other improved sources
■ Unimproved sources

Total drinking water trends



■ Unimproved sources
■ Other improved sources
■ Piped onto premises