

MONITORING WATER AND SANITATION GOALS

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adapted from Tessa Wardlaw presentation
UNICEF



Millennium Development Goals

GOAL 7: Ensure environmental sustainability

Target 10: Between 1990 and 2015, halve the proportion of the population without sustainable access to safe drinking water and basic sanitation

Millennium Development Goals

Indicator 30: Proportion of the population with sustainable access to an improved water source

Indicator 31: Proportion of the population with access to improved sanitation

WHO/UNICEF Joint Monitoring Programme on Water Supply and Sanitation (JMP)

JMP Technical Advisory Group

- *Coordinate/harmonize between agencies;*
- *Provide technical advice on measurement issues*

Task Force on HH Survey Harmonization

JMP Methodology Shift

- 1980 – 1997: Provider/utility data
(eg. MOH, Water Depts)
- ↓
- since 1997: Consumer/household surveys
(eg. MICS, DHS, census)

“What is the main source of drinking water for members of this household?”

- JMP uses “improved” facilities as proxy for safe or hygienic

Proxy for access to safe drinking water

Use of *improved* drinking water sources:

Proportion of population who use any of the following types of water supply for drinking:

- piped water
- public tap
- borehole/pump
- protected well
- protected spring
- rainwater

NOT improved are: unprotected dug well, unprotected spring, pond, river or stream, tanker truck, vendor water, bottled water

Proxy for Basic Sanitation

Use of *improved* sanitation facilities:

Proportion of population that use:

- toilet connected to sewage system
- any other flush toilet
- improved pit latrine
- traditional pit latrine

Does NOT include open pit latrine or bucket, etc

MICS WATER AND SANITATION MODULE

Cluster no. _____ Household no. _____

WATER AND SANITATION MODULE		
<p><i>This module is to be administered once for each household visited. Record only one response for each question. If more than one response is given, record the most usual source or facility.</i></p>		
1. WHAT IS THE MAIN SOURCE OF DRINKING WATER FOR MEMBERS OF YOUR HOUSEHOLD?	Piped into dwelling 01 Piped into yard or plot 02 Public tap 03 Tubewell/borehole with pump 04 Protected dug well 05 Protected spring 06 Rainwater collection 07 Bottled water 08 Unprotected dug well 09 Unprotected spring 10 Pond, river or stream 11 Tanker-truck, vendor 12 Other (specify) 13 No answer or DK 99	
2. HOW LONG DOES IT TAKE TO GO THERE, GET WATER, AND COME BACK?	No. of minutes _____ Water on premises 888 DK 999	

MICS WATER AND SANITATION MODULE (cont.)

Cluster no. _____ Household no. _____

WATER AND SANITATION MODULE		
3. WHAT KIND OF TOILET FACILITY DOES YOUR HOUSEHOLD USE?	Flush to sewage system or septic tank 1 Pour flush latrine (water seal type) 2 Improved pit latrine (e.g., VIP) 3 Traditional pit latrine 4 Open pit 5 Bucket 6 Other (specify) 7 No facilities or bush or field 8	8⇒Q.5
4. IS THIS FACILITY LOCATED WITHIN YOUR DWELLING, OR YARD OR COMPOUND?***	Yes, in dwelling/yard/compound 1 No, outside dwelling/yard/compound 2 DK 9	
5. WHAT HAPPENS WITH THE STOOLS OF YOUNG CHILDREN (0-3 YEARS) WHEN THEY DO NOT USE THE LATRINE OR TOILET FACILITY?	Children always use toilet or latrine 1 Thrown into toilet or latrine 2 Thrown outside the yard 3 Buried in the yard 4 Not disposed of or left on the ground 5 Other (specify) 6 No young children in household 8	

GO TO NEXT MODULE ⇌



MICS Standard table for water

Table 13: Percentage of the population using “improved” drinking water sources, Country, Year

	Main source of drinking water														Total with safe drinking water	Number of persons
	Piped into dwelling	Piped into yard	Public tap	Tube-well/Bore-hole	Protected well	Protected spring	Rain-water	Bottled water	Unprotected well	Unprotected spring	Pond, river, stream	Tanker truck	Other	DK		
Region 1															100.0	
Region 2															100.0	
Region 3															100.0	
Urban															100.0	
Rural															100.0	
Total															100.0	

World Summit for Children Goal ⇒ Number 4



MICS Standard table for sanitation

Table 14: Percentage of the population with access to sanitary means of excreta disposal, Country, Year

	Type of toilet facility used by household										Total with sanitary means of excreta disposal	Number of persons
	Flush to sewage system or septic tank	Pour flush toilet	Improved pit latrine	Traditional pit latrine	Open pit	Bucket	Other	None	Total			
Region 1											100.0	
Region 2											100.0	
Region 3											100.0	
Urban											100.0	
Rural											100.0	
Total											100.0	

World Summit for Children Goal ⇒ Number 5



But how to interpret.....?

- Traditional latrine
- Pit
- Pit latrine
- Latrine sommaire
- Dry latrine
- Simple pit
- Simple pit latrine
- Latrine rudimentaire, etc.

Are they pits? pit latrines? are they improved or not?

Adjustment for poorly defined sanitation categories:

50% of population with access to poorly defined sanitation categories are considered to have access to improved sanitation

- i.e. Traditional latrine, Pit, Pit latrine, Latrine, Dry latrine, Simple pit, Simple pit latrine, etc.

Upcoming changes on sanitation:

Sudan:	from 62% to 34%
Tanzania:	from 90% to 46%
Burundi (urban):	from 79% to 47%

How to deal with this in future surveys?

- **JMP-TAG Task Force on HH Survey Harmonization developed revised response categories**
- Recommendations for inclusion in:
MICS, DHS, LSMS, CWIQ, national censuses, Health and Nutrition Surveys, PAPCHILD, GFHS, etc.

Revised Categories For Improved Sanitation Facilities

- Flush to piped sewer system
- Flush to septic tank
- Flush/pour flush to pit
- Flush/pour flush elsewhere
- Composting toilet
- VIP/pit latrine with slab

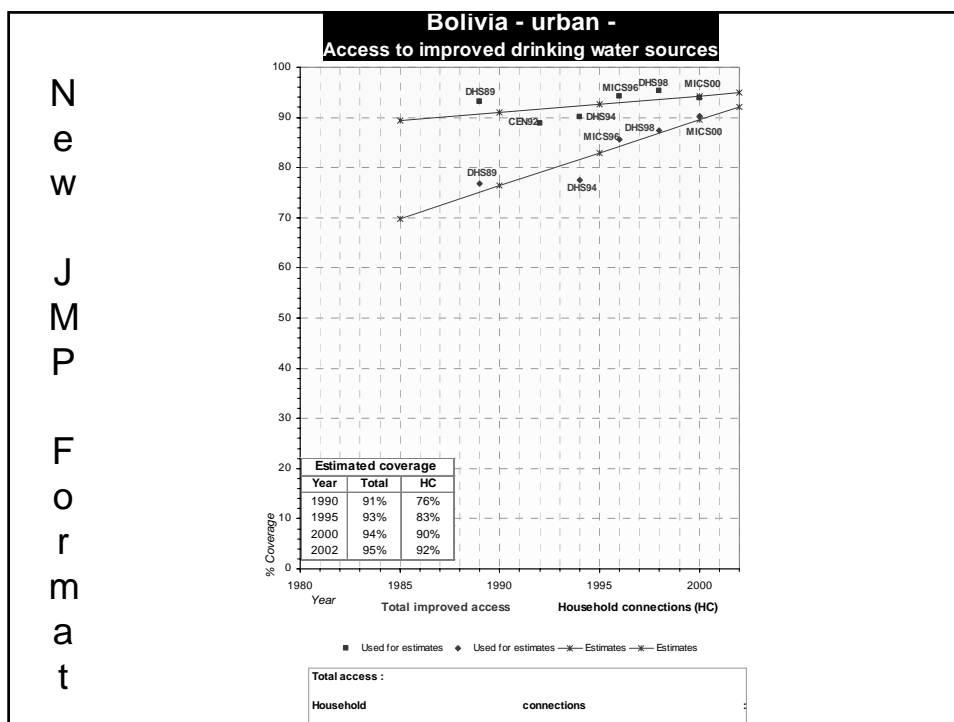
Does NOT include pit latrine without slab, open pit, bucket, hanging toilet, no facilities

Why are JMP figures different from the latest household survey data?

- Adjustments to categories considered not improved – both water and sanitation (e.g. ratio of protected and unprotected springs; 50% rule, etc.)
- Shared sanitation facility not considered improved
- JMP estimates are based on a trend line rather than on individual survey data points

DHS	1991		MICS	1995		PIHS	1991		
	Urban	Rural		Urban	Rural		Urban	Rural	Total
Water			Water			Water			
Pipe into residence	48.1	5.5	Piped Supply in Dwelling	46	17	Private tap	56.7	12.8	26.0
Piped onto property	20.3	4.4	Hand pump in Dwelling	38	52	Private well	32.5	64.5	54.9
Public tap	11.2	5.4	Water brought inside the house by water vendor, water tanker etc.		1	Public well	5.2	2.0	3.0
Well with Handpump	15.5	55.1	Public pipeline outside the house	3	3	Canal or river	2.6	10.1	7.8
Well without hand pump	2.2	13.5	Handpump outside the house	2	5	Delivery	0.0	3.2	2.2
River, canal, karez	0.9	12.5	Tube well or motorized borehole outside house	7	6	Other	1.2	0.2	0.5
Tanker, vendor	0.3	0.5	Protected dug well or spring or pond	3	6				
Rainwater	..	0.9	Unprotected dug well or spring or pond		4				
Other	1.3	1.7	River, canal, stream		4				
Missing	0.3	0.4	Rainwater collected in a pond		2				
			Stagnant water pond		0				
			Other	1		Total	98.2	92.8	94.4
Total	100	100	Total	100	100	% Well with hand pump (DHS 1991)	88%	80%	
% Protected Dug Well /Spring (MICS 1995)	75%	60%				% Protected wells (MCS 1995)	75%	60%	
Total Well without pump	2.2	13.5				Total Wells	37.7	66.5	
Estimate for protected wells using MICS 1995 data	1.65	8.1				Estimate for protected wells using MICS 1995 & DHS 91 data	36.5	61.3	
Total access to improved drinking water source (Excl. Well without handpump)	95.1	70.4				Total access to improved drinking water source (Excl. wells)	56.7	12.8	
Total access to improved drinking water source (Incl. Well without handpump)	97.3	83.9				Total access to improved drinking water source (Incl. all wells)	94.4	79.3	
Access to improved drinking water source (Incl. % well)	97%	79%	Access to improved drinking water source	99%	89%	Access to improved drinking water source (Incl. % wells)	93%	74%	

Source: WHO/UNICEF, 2000



JMP Website

JMP country figures, files and graphs and info are available from:

- www.wssinfo.org (JMP website)
- www.childinfo.org

Monitoring Beyond Coverage

- Water quality testing – WHO/UNICEF developing methods with pilot testing in 7 countries
- Sampling urban slum dwellers – DHS, MICS and UNHABITAT
- Hygiene indicators – JMP Task Force (eg. handwashing knowledge and practice)
- Treatment and storage of water in household – JMP Task Force

JMP Trends and Coverage Estimates

- Issued global monitoring reports in 1995, 2000
- **Latest updates for 1990 and 2002 to be published end August this year**
- Next set of estimates out in 2005 to launch the next water decade

What Can JMP Do For You?

- Provide materials on JMP methodology, harmonized survey questions, indicators and JMP figures
- Provide updated country files to share with partners and stakeholders
- Run regional workshops on sectoral monitoring

What Can You Do For JMP?

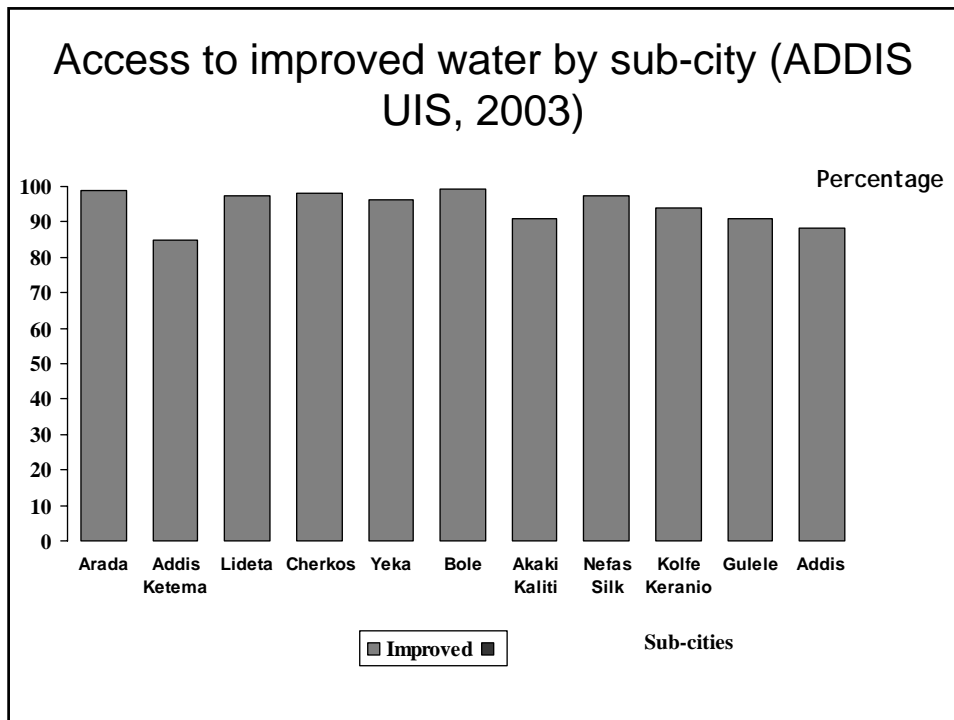
- Use JMP estimates in national and regional reports (eg. monitoring progress towards MDGs)
- Promote harmonized water and sanitation module in program surveys and evaluations
- Promote module with national statistics offices for inclusion in national censuses and other surveys

JMP data base

- Results from > 350 HH surveys & census over period 1988 – 2002
(131 DHS, 88 MICS, 49 census, 90 other)
- Bulk of surveys for LDCs, SSA, larger developing countries
- 20-25 new survey results per year (CRING)
- 75 surveys in peak years (MICS, WHS?)

Other issues of water accessibility

- Accessibility
- Affordability
- Sufficiency
- Non-discrimination



Water accessibility

requires definition for other elements:

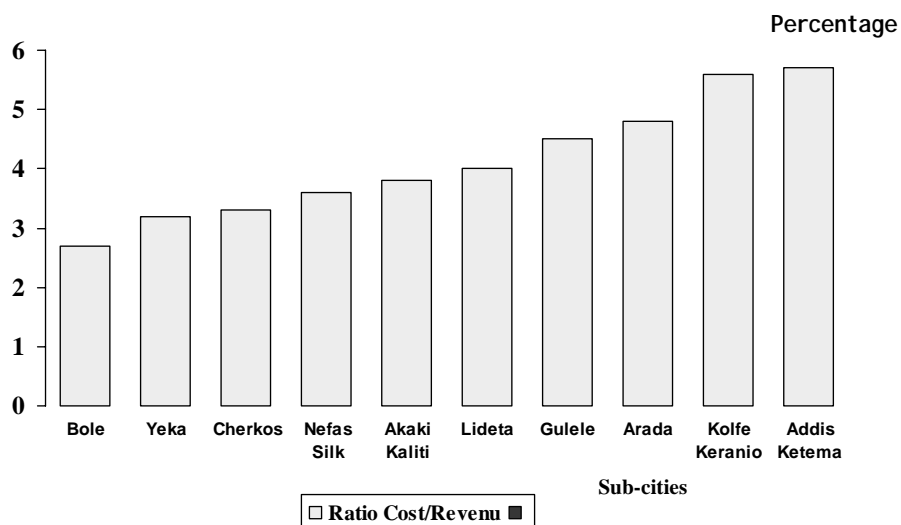
Without excessive efforts and time: obtaining water for the households should not take an undue proportion of the household's time (less than one hour a day for the minimum sufficient quantity of at least 20 liters per person per day).

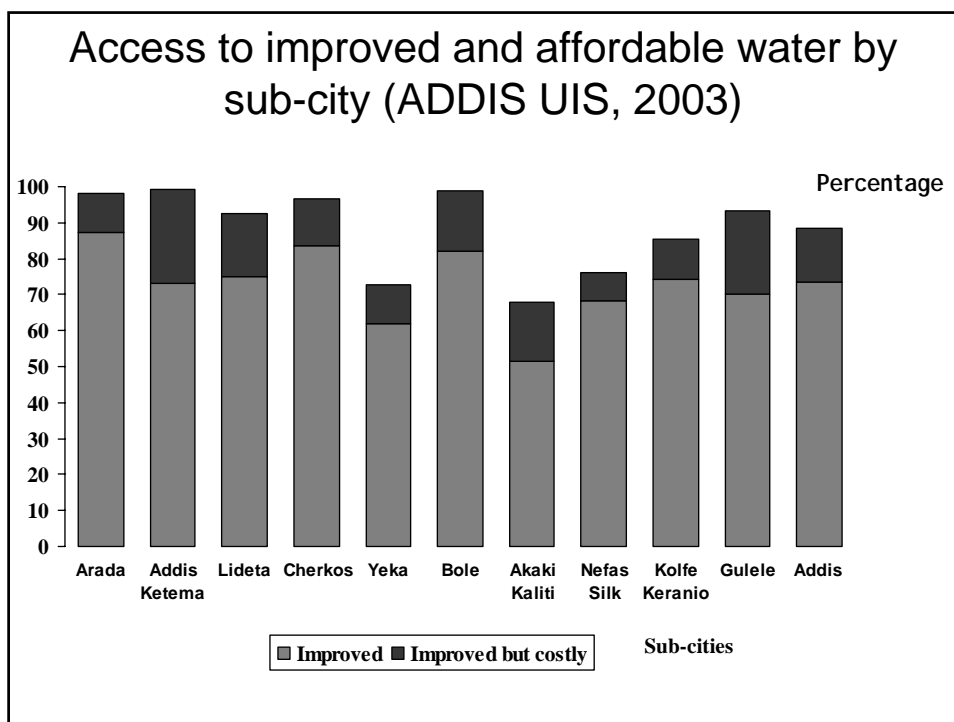
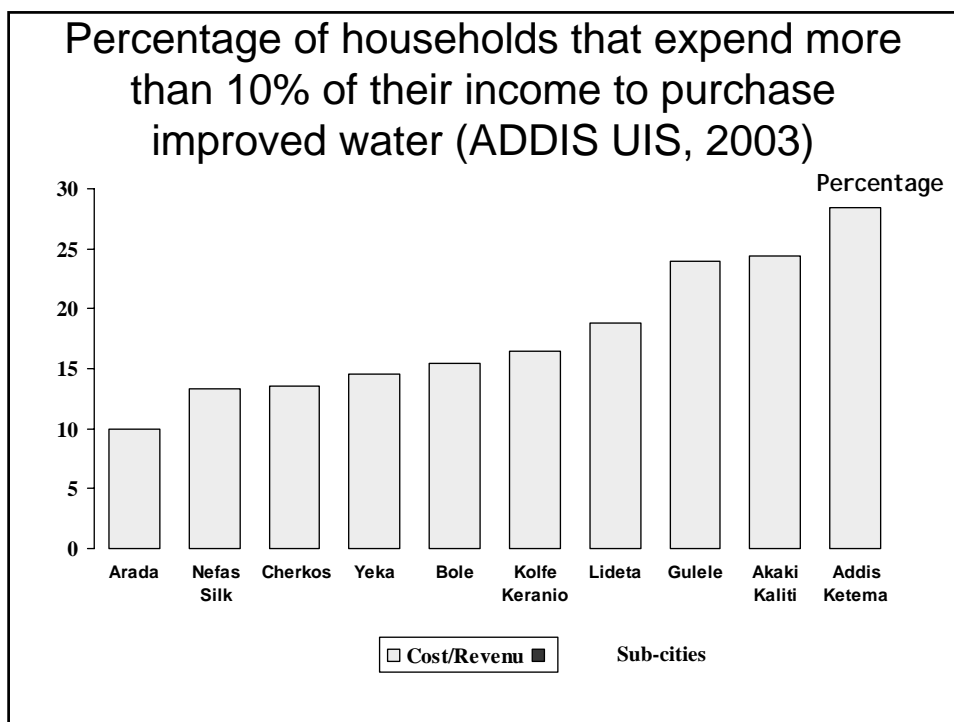
Water affordability

requires definition for other elements:

Affordable: water should not take an undue proportion of the household income, i.e. less than 10%

Ratio median cost/median revenue
Addis Ababa, UIS 2003





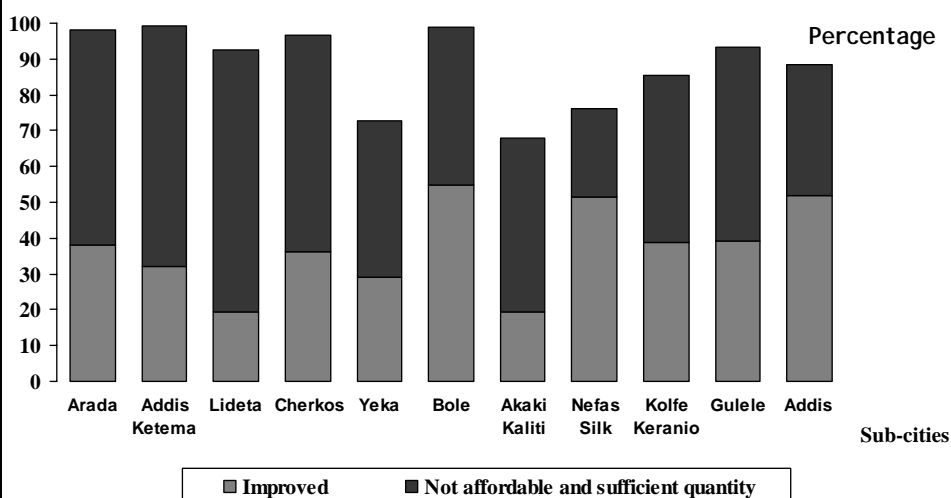
Operational Definitions

Water Sufficiency

requires definition for other elements:

Sufficient quantity: water should be available at a quantity of at least 20 litres per person per day

Water quality, accessibility, affordability and availability water by sub-city (ADDIS UIS, 2003)



Other water indicators: water disruption

The water supply for each person must be sufficient and continuous for personal and domestic uses.

Water disruption by sub-city
ADDIS Ababa, UIS 2003

