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Statistical Bulletin

Tanzania: Sanitation

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August 2010

Measuring Service Delivery in Southern Africa Project

Study 3: Developing measures and methods for measuring progress towards service delivery targets

Southern AfricaTrust
Influencing Policies To End Poverty

HSRC
Human Sciences Research Council

Progress towards sanitation goals

Key targets and indicators from the MDG (which are also contained in the RISDP) have been clustered to review progress in the sanitation sector in the four countries included in the study: Tanzania, Botswana, Malawi and South Africa. These include assessments of progress towards improved and basic sanitation.

Goal 7c includes the target of reducing by half the proportion of people without sustainable access to basic sanitation.

Table 1 below, illustrates progress made towards targets related to sanitation drawn from the Millennium Development Goals.

Table 1. Tanzania Sanitation MDGs

Target 7.9 Access to improved sanitation (broad)	
Target 7.9 Access to improved sanitation (higher)	

KEY

0	No Progress in meeting target (0/10)
5	Some progress but will not meet MDG target (5/10)
10	Target will be met in 2015(10/10)

Improved sanitation facilities are defined by the Joint Monitoring Project of WHO/UNCEF to include flush or pour-flush toilets, Ventilated Improved Pit (VIP) latrine, pit latrine with slab, and composting toilet (refer to Appendix 2). Since all these categories do not appear in national statistics, a "broad" definition has been adopted, which includes all toilets appearing in these national statistical categories and a separate "higher level" definition. The latter definition is adopted by a number of countries and includes flush toilets and VIPs.

A method to assess progress towards this goal has been devised in this study. As far as is possible the data is accessed from national statistical sources or alternatively from authoritative international sources. A simple model to assess progress over time has been developed, which provides the quantum of the target, calculates the rate of change, and projects existing trends towards the target. The model provides the year in which the MDG target level of access, etc, will be reached.

Projections from the data available indicates that progress is being made at both defined levels of access. In relation to the "broad" definition the MDG target will be met. In relation to the "higher" level of access, progress is much slower and the target will be met only in the distant future.

The supporting data and reflections on the sector are contained in this review.

Access to sanitation in MDG & RISDP

Selected MDG and Indicators
Goal 7: Ensure environmental sustainability: To halve, by 2015, the proportion of people who do not have access to Basic Sanitation.

Presentation of progress towards improved sanitation is presented with two definitions employed; firstly that of **higher level of access** and secondly that of **basic sanitation**. The distinction is made to ensure comparability between countries in the study and to surmount the problem that the different definitions of improved sanitation are not reflected in the national statistics.

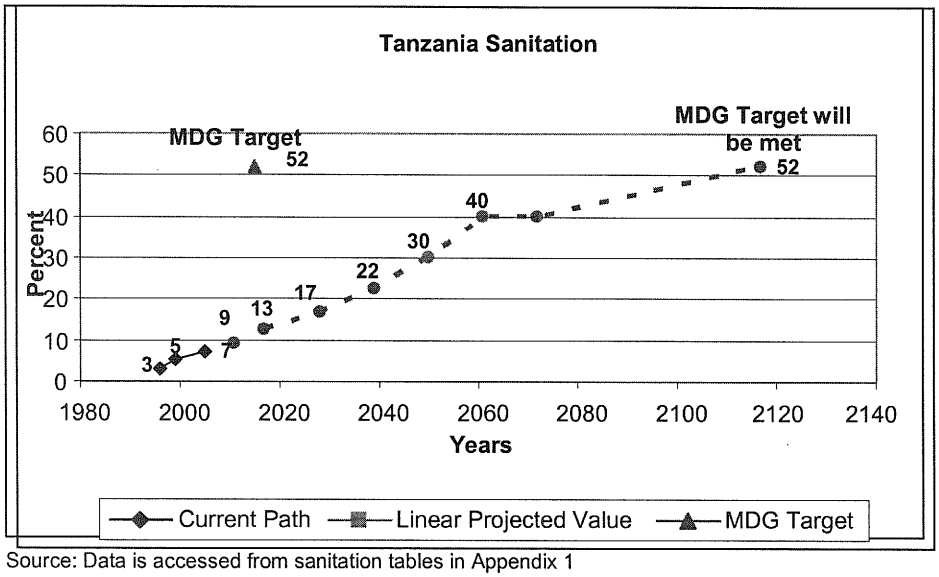
The levels of access providing improved sanitation are defined in Appendix 2. Unfortunately the surveys in all countries do not distinguish between "traditional" or "simple" pit latrines which have a slab and superstructure and pit latrines, which do not. This means that it is not possible to make the distinction in the report. Instead the data is presented at two levels; at the higher level of access, which includes Ventilated Pit Privies and flush toilets; and at the level termed "broad definition", which includes all forms of pit latrine.

The procedure adopted is to present the data firstly on the higher level of access and to follow with that of the broad definition. Two projections are made of progress towards the MDG at each of these levels.

The Zero Draft National Sanitation and Hygiene Policy (2009) adopts[1] the definition of the International Joint Monitoring Programme (JMP) of WHO/UNICEF, which will apply in National Surveys and to the regular monitoring of sanitation services in the country.

[1] The Tanzanian Zero Draft National Sanitation and Hygiene Policy (2009) will be in effect from the date of the approval of the policy by the MOHSW.
maji.go.tz/.../index.php?...Sanitation%20and%20Hygiene%20Working%20Papers...

Figure 1. Sanitation, higher level of access, Tanzania



Source: Data is accessed from sanitation tables in Appendix 1

Figure 1 is compiled from the summary data provided in Table 2 on access at the higher level of sanitation.

Access to improved sanitation at the higher level of access improved from 3 percent in 1996 to 7 percent in 2005.

The model employed to project both the MDG target and the linear rate of growth is presented in Table 2.

Table 2. Higher Level of Access: MDG Projection

		a	B	c	d	e	f	g
Year	Population	Coverage %	Backlog %	1/2 Backlog %	MDG Target	Growth rate p	No. of years	MDG Target Met
1996	1429000	3	97	49	52		121	2117
2005	1769000	7				0.4		

Source: Dataset: Tanzania Demographic and Household Survey 1996
Dataset: Tanzania Demographic and Household Survey 2004

Analysis and comment:

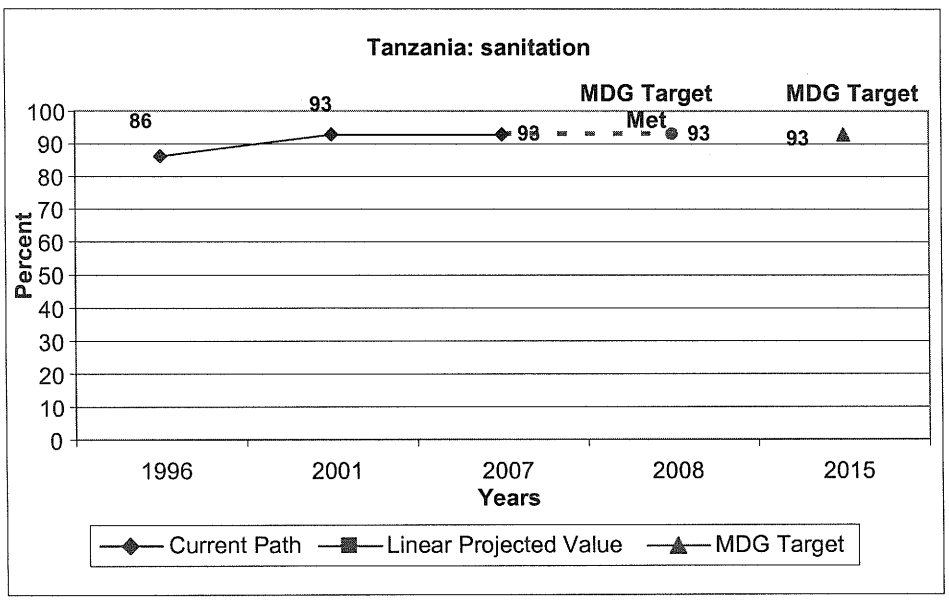
Table 2 shows that the backlog in 1996 is 97 percent (b). The MDG target requires that the backlog be halved, which is 49 percent (d). The MDG target (after this value is added to the baseline figure) is 52 percent (e), which should be met in 2015. The growth rate

from 1990 to 2004 is 0.4 percent (e). The number of years to reach this target based on the growth rate is 121 years (g), which will be met in the year 2117.

This indicates that access at the higher level of Ventilated Pit Privies and flush toilets falls considerably short of the MDG target.

The projection shown in Figure 1 indicates that this MDG target will only be met in 2117 and not 2015. This is due to the low growth rate.

Figure 2. Sanitation, broad definition of access



Source: Data is accessed from table 3 to produce figure 2

The model employed to project both the MDG target and the linear rate of growth is presented in Table 3 and Figure 2 is compiled from data provided from this table. Access to basic sanitation (based on the "broad" definition) increased from 86 percent in 1996 to 93 percent in 2007.

On the basis of the model developed in Table 3 below, the target access to improved water source to meet the MDG is 93%. The projection indicates that this MDG target should have been met in 2008, well before the MDG in 2015.

The model employed to project the linear rate of growth is presented in Table 3.

Analysis and comment:

With a higher level of access, efforts are still required to encourage people to adapt to improved systems of sanitation. Most people have preferred pit latrines in their homes due to shortage of water as these do not require much water, as compared to improved systems of toilets. However, with the current increase in access to improved water sources, especially in urban areas, which is due to majority of recent houses being built with improved sanitation facilities. The pace of access is rising and therefore the target might be reached earlier than the projected year.

Currently, in Tanzania, the level of awareness of the need for modern houses to have improved sanitation is very high due to the expansion of media sources such as television, radio, newspaper, etc. In addition, the Zero Draft National Sanitation and Hygiene Policy (2009) has been issued may even further spearhead the improvement of sanitation and hygiene facilities.

Table 3. Broad definition, MDG Projection

		a	B	C	d	e	f	g
Year	Population	Coverage %	Backlog %	1/2 Backlog %	MDG Target	Growth rate	No. of years	MDG Target Met
1996[1]	1429000	86	14	7	93		12	2008
2007[2]	1769000	93				0.6		

Source: [1]Dataset: Tanzania Demographic and Household Survey 1996.
[2]Data compiled from the Household Budget Survey, 1992, 2001 and 2007 is sourced from the Household Budget Survey 2007.Analytical Report (Table 1.6, page 4) - URL:http://www.nbs.go.tz/HBS/HBS2007/3Household%20Construction,%20Facilities%20and%20Ownership%20of%20Consu--f

Table 3 above, shows the backlog in 1996 to be 14 percent (b). The MDG target requires that the backlog be halved, which is 7 percent (c). The MDG target (after this value is added to the baseline figure) is 93 percent (d), which should be met in 2015. The growth rate from 1990 to 2004 is 0.6 percent (e). Based on this growth rate the number of years to reach this target is 12 years (g), which is in 2008.

This indicates that access at the broad definition of sanitation, which includes all forms of pit latrines, is reached in advance of the MDG target of 2015.

The growth rate per annum at the broad definition is at a faster rate than that of the higher level of access (at 0.6 and 0.4 percent respectively).

Analysis and comment:

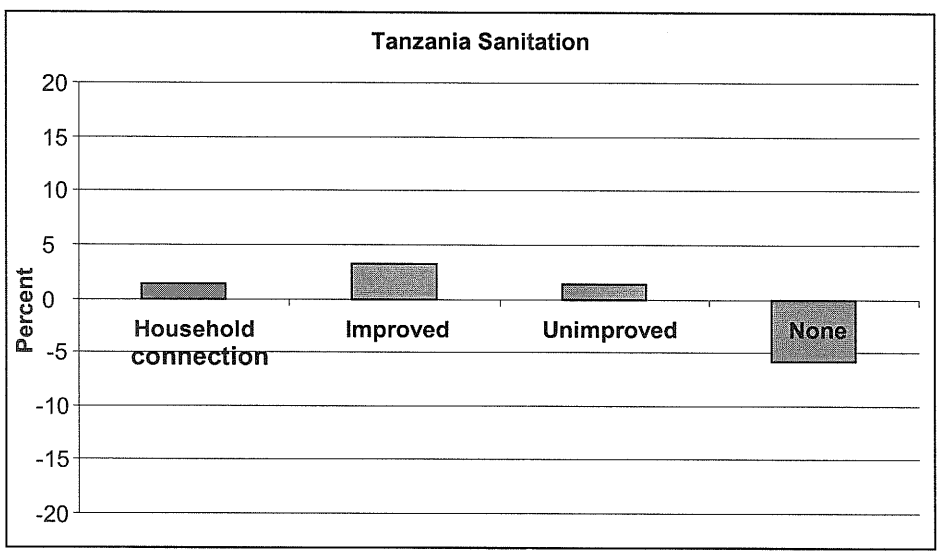
Using the broad definition of basic sanitation (which is not identical to "improved" sanitation), the MDG was met in 2008. Efforts are, however, required to improve

traditional pit latrines and help those who still use open defecation, especially in rural areas. According to the Demographic Health Survey (DHS) 2005 there was 16.7 percent of rural and 2.4 percent of urban population who had no sanitation facility and practiced open defecation. This is also the case geographically, for example in coastal villages where open defecation is preferred. Even though the MDG was met in 2008, the challenge is to upgrade and improve all the categories of sanitation, which fall under the "higher" definition.

Improved Sanitation: changes over time

Changes in access at various levels of sanitation; at household connection, improved, unimproved, and none are presented in this section. Over the period 1996-2007 there has been the most rapid change in the sector "none", which has declined by 6 percent. Other changes include a rise in improved sanitation of 3 percent, and by unimproved sanitation and household connections with a 1 percent change each.

Figure 3. Tanzania Access to Sanitation, 1996-2007



Source: Data is accessed from table 4 to produce figure 3

Table 4. Change in Access at all levels

Source	Year	Household connection	Improved	Unimproved	None
Household Budget Survey	2007	3	5	85	7
Demographic Health Survey	1996	1	2	84	13
% change		1	3	1	-6

Analysis and comment:

From the table above, the rise in improved sanitation has a long way to go for the MDG target to be reached at the higher level of access. Using the broad definition of basic sanitation Tanzania is already on track.

There is a very slow pace in achieving the higher level of access. According to Table 4 above, access to improved sanitation was only 3 percent over the 11 year period, 1996-2007. However, the pace may be gaining momentum in recent years due to the prioritisation of water and sanitation in national budgets. Increased awareness among households may be increasing preference for improved sanitation services, especially in urban areas.

A review of key *constraints* and *drivers* of trends has been undertaken. This finds that the key possible constraints are:

- Less attention given to improving sanitation than water supply;
- Inadequate infrastructure planning especially in urban areas which hinders improved sanitation services;
- Housing development superseding infrastructure developing that of including sanitation services;
- Inadequate extension and maintenance of sanitation facilities;
- General urban and rural poverty making access to improved sanitation facilities more difficult; and
- Inadequate human and financial capacity in the sanitation sector.

The key *drivers* of achieving access to improved sanitation are as follows:

- Fast population growth and high urbanization rates prompting increasing improved sanitation needs;
- Unconfirmed National Sanitation and Hygiene Policy at the present point in time;
- Responsibilities for sanitation and hygiene are fragmented within and between various ministries; and
- No clear coordination of the actors in sanitation services provision.

Unique challenges in delivery in sanitation sector

The sewerage network is limited which does not allow many households to be connected. At present few private houses and institutions are connected to sewerage system and rural areas have no sewerage systems at all. This undermines the pace of providing sanitation services.

Towards equitable access to improved sanitation

In this section of the report access to improved sanitation is computed at the higher level of service in terms of the following:

Numbers in the household;
Number of under five year olds; and Regions.

This analysis will probe whether there have been improvements in access to those most vulnerable to poor quality water.

The analysis will also provide indications of where the greatest backlog by regions is the greatest and serves as a basis for prioritization and monitoring.

Equity: Household size and number of children

Table 5. Access to improved sanitation by household size, higher level of access

Household size	1996	1999	2004
Less than and equal to 6 members	3%	5%	6%
Greater than 6 members	4%	6%	8%

Source: Demographic Health Survey 1996, 1999 and 2004.

Analysis and comment:

The above data sourced from the DHS for the years 1996, 1999 and 2004 indicates households with access to improved sanitation at the higher level of access. Access is increasing within both household sizes and households with greater numbers appear to have more access (even at the low levels represented here). This appears to indicate growing equity. It is possible that the somewhat lower level of access among smaller households suggests small size households are sharing facilities, which is the case especially in urban areas.

Table 6. No access to sanitation by number of children under 5, higher level of access

Children under 5	1996	1999	2004
No children under 5 in household	97%	94%	94%
Only one child under five in household	97%	95%	95%
More than one child under five in household	98%	95%	95%

Source: Demographic Health Survey 1996, 1999 and 2004

Analysis and comment:

Table 6 provides data on households *without* access to improved sanitation at the higher level. Unfortunately the data may not be sensitive enough to represent significant trends. Households with more than one child under five appear to have slightly greater access than those with no children under five.

Table 7.Access to sanitation by region, higher level of access

	Improved sanitation source	Unimproved sanitation source
Kagera	0%	100%
Kigoma	1%	99%
Pwani	1%	99%
Singida	1%	99%
Manyara	2%	98%
Mtwara	2%	98%
Shinyanga	2%	98%
Mbeya	3%	97%
Tabora	3%	97%
Iringa	3%	97%
Zanzibar North	4%	96%
Ruvuma	4%	96%
Mara	5%	95%
Rukwa	5%	95%
Zanziba South	5%	95%
Tanga	6%	94%
Lindi	7%	93%
Dodoma	7%	93%
Arusha	9%	91%
Pemba North	9%	91%
Morogoro	10%	91%
Kilimanjaro	12%	88%
Mwanza	13%	87%
Pemba South	17%	83%
Dar es Salaam	23%	77%
Town West	28%	72%

Source: 2004 Tanzania Demographic Health Survey

Analysis and comment:

Access by regions is defined largely on an urban / rural continuum; only those urban regions such as Dar es Salaam, Pemba and Town West have lower proportions of households without access to the higher level of improved sanitation. All other areas have more than 83 percent of unimproved sanitation source or "none". It is explained that these regions still use traditional pit latrines while in the three urban regions mentioned a significant percent of households use flush toilets and ventilated improved pit latrines. A large proportion of pit latrines are not considered improved as they do not meet the definition of improved sanitation. An additional explanation is that the culture and tradition of the people in the regions dictates the type of sanitation service preferred.

Conclusion

Although progress has been evident in Tanzania reaching the MDG according to the "broad" definition and household sanitation coverage (around 90%) is relatively high, the draft sanitation and hygiene policy document indicates that quality of sanitation is poor. This is reflected in high diarrheal prevalence among under-5 year old which also contributes to the relatively high child mortality rate. The shortfall in provision of sanitation at the "higher" level is recognized as requiring households to "move to" improved sanitation facilities and to improve household hygiene.

Appendix 1:

Sanitation data: tables from various sources

In this section the most comprehensive set of data which is available is presented in the following sequence:

As computed from original datasets for the higher level of access;
In terms of the broad definition of sanitation; and

Table 8. Improved Sanitation (Analysis from selected datasets), higher level of sanitation

			Improved sanitation						
				Urban			Rural		
Source	Year	Population	National Access	Urban Population	HC	Urban Access	Rural Population	HC	Rural Access
Tanzanian Demographic and Health Survey 1996[1]	1996	30,823,204	3.1%	6,429,720	4.2%	8.8	24,393,484	0.5%	1.3%
Tanzanian Demographic and Health Survey 1999[1]	1999	33,275,262	5.3%	7,300,592	10.1%	14.1	25,974,670	0.6%	1.0%
Tanzania Demographic and Health Survey 2004 2005[1]	2005	39,007,359	7.1%	9,439,781	11.3%	22.7	29,567,578	0.8%	3.0%

[1] Dataset: Tanzania Demographic and Household Survey 1996
Dataset: Tanzania Demographic and Household Survey 1999
Dataset: Tanzania Demographic and Household Survey 2004

Table 9. Improved Sanitation (Analysis from selected datasets and official reports, broad definition)

			Improved Sanitation						
				Urban			Rural		
Source	Year	Population	National Access	Urban Population	HC	Urban Access	Rural Population	HC	Rural Access
Tanzania Household Budget Survey 1991/1992[1]	1992	--	93%	--	--	--	--	0.2%	91%
Tanzania Demographic and Health Survey[2]	1996	30,823,204	86%	6,429,720	4%	99%	24,393,484	0.5%	73%
Tanzania Demographic and Health Survey[2]	1999	33,275,262	82%	7,300,592	10%	98%	25,974,670	06.0%	75%
Tanzania Household Budget Survey 2001/2002[1]	2002	31,900,000	93%	6,250,000	11%	98%	25,650,000	2%	92%
Tanzania Demographic and Health Survey[2]	2004	39,007,359	82%	9,439,781	11%	97%	29,567,578	1%	78%
Tanzania Household Budget Survey 2007[1]	2007	39,446,000	93%	11,163,218	7%	98%	28,282,782	1%	90%

Source: [1]Data compiled from the Household Budget Survey, 1992, 2001 and 2007 is sourced from the Household Budget Survey 2007.Analytical Report (Table 1.6, page 4) - URL:http://www.nbs.go.tz/HBS/HBS2007/3Household%20Construction,%20Facilities%20and%20Ownership%20of%20Consu--f
[2]Dataset: Tanzania Demographic and Household Survey 1996.
Dataset: Tanzania Demographic and Household Survey 1999
Dataset: Tanzania Demographic and Household Survey 2004

Table 10. Sanitation (All Available Data)

		Sanitation							
				URBAN			RURAL		
Source	Year	Population	National Access	Urban Population	HC	Urban Access	Rural Population	HC	Rural Access
National Census, Tanzania, 1988[1]	1988	--	--		1.4%	51.0%		0.6%	47.2%
JMP data[2]	1990	26,231,000	47.0%	5,770,820	1.0%	52.0%	20,460,180	0.0%	45.0%
Tanzania Demographic and Health Survey 1991[1]	1992	--	--	--	1.1%	52.1%	--	0.1%	42.2%
Living Standards Measurements Study Survey, Tanzania, 1993[1]	1993	--	--	--	2.8%	54.8%	--	0.3%	46.9%
Tanzanian Demographic and Health Survey 1994[1]	1994	--	--	--	1.0%	51.6%	--	0.1%	44.0%
JMP data[2]	1995	30,930,000	46.0%	8,351,100	2.0%	52.0%	22,578,900	0.0%	44.0%
Tanzania Demographic and Health Survey 1996[1]	1996	--	--	--	1.4%	53.0%	--	0.1%	42.2%
Monitoring Progress toward the Goals of the World Summit for Children through MICS 1996[1]	1996	--	--	--	4.0%	58.2%	--	0.1%	45.8%
Tanzania DHS, 1999[1]	1999	--	--	--	1.1%	51.9%	--	0.1%	42.3%
JMP data[2]	2000	34,763,000	47.0%	11,124,160	3.0%	53.0%	23,638,840	0.0%	44.0%
Tanzania Household Budget Survey 2000/2001[1]	2001	--	--	--	2.3%	47.6%	--	0.1%	45.8%
Census 2002[1]	2002	--	--	--	3.5%	47.9%	--	0.1%	44.1%
Tanzania HIV/Aids Indicator Survey, 2003[1]	2003	--	--	--	3.7%	60.3%	--	0.1%	43.4%
JMP data[2]	2004	37,627,000	47.0%	13,545,720	3.0%	53.0%	24,081,280	0.0%	43.0%
Tanzania Demographic and Health Survey 2004-2005[1]	2005	--	--	--		59.3%	--		42.3%

Source: [1] Tanzania, United Republic of: improved sanitation coverage estimates (1980 - 2006) WHO/UNICEF JMP – 2008
URL: http://documents.wssinfo.org/resources/documents.html?type=country_files
[2] Data assessed from Joint Monitoring Programme for Water Supply and Sanitation, July 2008.
NOTE: -- MISSING DATA

For definitions see below. This data is closest to an "official" set of data on the water and sanitation as it is accessed from national surveys and discussed between the JMP and statistical bodies. This data is reconciled by liaising with national authorities in collaboration with regional bodies.

Source: Rifat Hossain. 2008. Current Developments in JMP, How does the JMP monitor progress towards the MDG drinking-water and sanitation target? Slide 30.
World Health Organization www.unece.org/stats/documents/ece/ces/ge.31/2009/mtg2/zip.9.e.ppt

Table 11. Sanitation, higher level of access (Analysis from selected datasets and official reports),

			Improved sanitation						
				Urban			Rural		
Source	Year	Population	National Access	Urban Population	HC	Urban Access	Rural Population	HC	Rural Access
Tanzanian Demographic and Health Survey 1996[1]	1996	30,823,204	3.1%	6,429,720	4.2%	8.8	24,393,484	0.5%	1.3%
Tanzania Household Budget Survey 1991/1992[2]	1992	--	1.8%	--	--	--	--	0.2%	0.8%
Tanzanian Demographic and Health Survey 1999[1]	1999	33,275,262	5.3%	7,300,592	10.1%	14.1	25,974,670	0.6%	1.0%
Tanzania Household Budget Survey 2001/2002[2]	2002	31,900,000	8.7%	6,250,000	10.8%	13.6%	25,650,000	1.0%	1.6%
Tanzania Demographic and Health Survey 2004 2005[1]	2004	39,007,359	7.1%	9,439,781	11.3%	22.7	29,567,578	0.8%	3.0%
Tanzania Household Budget Survey 2007[2]	2007	39,446,000	7.6%	11,163,218	7.3%	18.7%	28,282,782	1.0%	3.2%

Source: [1]Dataset: Tanzania Demographic and Household Survey 1996.
Dataset: Tanzania Demographic and Household Survey 1999
Dataset: Tanzania Demographic and Household Survey 2004

[2]Data compiled from the Household Budget Survey, 1992, 2001 and 2007 is sourced from the Household Budget Survey 2007.Analytical Report (Table 1.6, page 4)
URL:http://www.nbs.go.tz/HBS/HBS2007/3Household%20Construction,%20Facilities%20and%20Ownership%20of%20Consu--f

NOTE: -- MISSING DATA
The definition in Table 2 is constructed on a definition of "improved sanitation" including flush and Ventilated Improved Privy and excluding simple or traditional pit latrines as the definition of these categories is imprecise and does not distinguish between latrines with slabs and upper structures and those without.

Table 12. Improved Sanitation (Calculated from Official Reports)

			Improved Sanitation						
				Urban			Rural		
Source	Year	Population	National Access	Urban Population	HC	Urban Access	Rural Population	HC	Rural Access
Tanzania Household Budget Survey 1991/1992[1]	1992	--	92.7%	--	--	--	--	0.2%	91.1%
Tanzanian Demographic and Health Survey 1996[2]	1996	30,823,204	86.1%	6,429,720	4.2%	98.5%	24,393,484	0.5%	73.1%
Tanzania Household Budget Survey 2001/2002[1]	2002	31,900,000	92.7%	6,250,000	10.8%	97.7%	25,650,000	2.2%	91.7%
Tanzanian Demographic and Health Survey 1999[2]	1999	33,275,262	82.2%	7,300,592	10.1%	97.7%	25,974,670	06.0%	74.6%
Tanzania Demographic and Health Survey 2004 2005[2]	2005	39,007,359	81.5%	9,439,781	11.3%	96.5%	29,567,578	0.8%	77.6%
Tanzania Household Budget Survey 2007[1]	2007	39,446,000	92.5%	11,163,218	7.3%	97.7%	28,282,782	1.0%	90.4%

Source: [1]Data compiled from the Household Budget Survey, 1992, 2001 and 2007 is sourced from the Household Budget Survey 2007.Analytical Report (Table 1.6, page 4) - URL:http://www.nbs.go.tz/HBS/HBS2007/3Household%20Construction,%20Facilities%20and%20Ownership%20of%20Consu--f

[2]Dataset: Tanzania Demographic and Household Survey 1996
Dataset: Tanzania Demographic and Household Survey 1999
Dataset: Tanzania Demographic and Household Survey 2004

The definition in Table 2 is constructed on a definition of "improved sanitation" including flush and Ventilated Improved Privy and excluding simple or traditional pit latrines as the definition of these categories is imprecise and does not distinguish between latrines with slabs and upper structures and those without.

NOTE: -- MISSING DATA

Appendix 2:

International definition: improved / unimproved sanitation

Improved sanitation facilities are:

Flush/pour flush to:
- Piped sewer system
- Septic tank
- Pit latrine

Ventilated improved pit (VIP) latrine
Pit latrine with slab
Composting toilet

Unimproved sanitation facilities are:

Flush/Pour flush to elsewhere
Pit latrine without slab/open pit bucket
Hanging toilet/hanging latrine
No facilities bush or field

Source: World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). Progress on Drinking Water and Sanitation: Special Focus on Sanitation. UNICEF, New York and WHO, Geneva, 2008. page22

NOTE:
In the World Health Survey (2003), "traditional pit latrines" were included in the definition of improved sanitation. A fairly precise definition is given to this category. A traditional pit latrine is described as a single pit covered by a slab with a drop hole and a superstructure (WHO, 2003:p10). The slab may be made of wood (sometimes covered with mud) or reinforced concrete. The superstructure provides shelter and privacy for the user. Basic improvements include a hygienic self-draining floor made of smooth, durable material and with raised foot rests; a tight-fitting lid that covers the drop hole, to reduce smells and keep insects out of the pit; a floor raised above ground level to prevent flooding; an adequately lined pit, to prevent the pit collapsing (e.g. when the soil is unstable); and an adequate foundation, to prevent damage of the slab and superstructure (WHO 2003:p10).

Since such standards are generally not to be found in toilets classified as "traditional" or "simple" it appears that the JMP has reduced the proportion of toilets assigned to the category "improved sanitation" by a factor of about a third or used some other deflator. The "simple" pit latrine in the classification above is included among "unimproved" sanitation because the definition includes categories which are "poorly defined" according to the World Health Organisation and thus difficult to separate from other categories.

In our analysis simple pit latrine has been excluded from "improved" sanitation firstly because of its imprecise definition and secondly because pit latrines with the precise description provided to "traditional" pity latrines are not identified in the coding of the sanitation data from surveys used for analysis.

In conformity with the international accepted definition of "improved sanitation", in this study traditional pit latrines are not considered as an improved sanitation source but only the Ventilated Improved Privies.

Appendix 3

Original Tables from Survey

Table 13. Type of Toilet Facility, 1996 - 2004

	1996	1999	2004
Flush toilet	1.4	3.7	3.0
Shared flush toilet	.5		
Traditional pit toilet	83.0	76.8	74.4
Ventilated improved pit latrine	1.2	1.6	4.1
No facility, bush, field	13.2	17.8	18.4
OTHER	0.0	0.0	0.0
Total	99.2	100.0	100.0
Missing	.8	.0	.0
	100.0	100.0	100.0

Source: 1996, 1999 and 2004 Tanzania Demographic Health Survey