
34th WEDC International Conference, Addis Ababa, Ethiopia, 2009

**WATER, SANITATION AND HYGIENE:
SUSTAINABLE DEVELOPMENT AND MULTISECTORAL APPROACHES**

**Situational analysis of the sanitation and hygiene
programme implementation in Ethiopia**

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REVIEWED PAPER - LOCAL

Sanitation and Hygiene promotion programs play vital role in reducing diarrheal diseases. Ethiopia has one of the lowest water and sanitation services coverage. A cross sectional survey to assess the existing Sanitation and Hygiene practices in Ethiopia was conducted from June – October 2007. Relevant sector ministries, agencies, initiatives and NGOs were contacted. Books, Journals, workshop proceedings and reports and online materials were used as a source of data. The study revealed that Ethiopia has sound policies and strategies for S&H, while access to service is still low. Sector gaps and duplications are evident, but the recent platforms and modalities are encouraging. Sanitation gets minimal attention in WASH. The allocation of resources is still inadequate and the training and allocation of professionals in Environmental Sanitation doesn't meet national demands. An urgent response to problems in the area of training, organization, resource flows and technology choice is suggested if the country has to meet its Universal Access Plan.

Background

With around 62 million people living without sanitation provision (UNDP 2004); Ethiopia has one of the lowest rates of sanitation in the world. In rural areas most people still practice open defecation, a tradition that has remained widespread through a lack of hygiene awareness and technical knowledge on the part of villagers, and inadequate policy, investment and implementation on the part of the government. Despite favourable policy environment and increased resource flows, the uptake of latrines remains slow and difficult. (WaterAid 2005). The health and development indicators lag behind the rest of the world as indicated in Table 1.

Although less people are living in urban centres, urbanization is rapidly growing indicating the need to work more in urban sanitation. The nation wide access to sanitation is extremely very low (6% as compared to 43% of African average) (ADB 2005).

Ethiopia's Health policy (1991) gives priority to disease prevention through the provision of safe water and sanitation to the public. To accelerate the attainment of better socio economic and health of the population, the Government of Ethiopia and its partners in the private sector and civil society are implementing the Plan of Action for Sustainable Development to End Poverty (PASDEP). The Water and Hygiene sector has gone few steps to support PASDEP. Major initiatives and policy instruments include:

The universal Access Plan of August 2006 which aims to have 100% water and sanitation coverage by the year 2012.

- The National Sanitation and Hygiene strategy of December 2005
- The National Protocol for Hygiene and "on-site" Sanitation of June 2006
- The Memorandum of Understanding signed by the Ministry of Water Resources, Ministry of Health and Ministry of Education in March 2006.

These are designed to set the direction of policy and provide the necessary planning and coordination platform.

Indicator	Ethiopia	African average	Developing countries avge.	Developed countries avge.
Urban population (%)	18.3	39.2	43.1	78
Population growth rate	2.5	2.2	1.7	0.6
Urban population growth rate (%)	5.1	3.8	2.9	0.5
Human development index (rank among 174 countries)	170			
Life expectancy at birth (years)	45.7	50.7	62.0	78.0
Child mortality rate (per 1000)	169.8	133.3	79.8	10.2
Access to safe water (%) in 2002	22	64.4	78	100
Access to sanitation (%)	6.0	42.6	52	100
Access to health services (%) 1991	55	61.7	80	100
Public expenditure on health as per cent of GDP (2001)	1.4	3.3	1.8	6.3
Adult illiteracy rate (2003)	57.3	36.9	26.6	1.2

Source: African Development Bank, 2005

Methods

A cross sectional survey to assess the existing Sanitation and Hygiene practices in Ethiopia was conducted from June – October 2007. This situation analysis document which focuses on the national level is accompanied by a separate situation analysis at regional level in the Southern Nations and Nationalities Peoples Regional State (SNNPRS) together with a review of S&H literature in Ethiopia (by the same author as the present document). Data and information consistency is checked by cross - referencing of the 3 documents. The literature survey document is used as a background to scientific information and research experience both at world wide and national level.

Relevant sector ministries, agencies, initiatives and NGOs were contacted for more practical information and to learn on the trends in the program funding, management and coordination. Systematic selection of main actors was done. A check list was prepared to fit the objectives of the RiPPLE/ ODI commissioned Sanitation and Hygiene case study in SNNPR. The check list for discussion with relevant actors in Sanitation and Hygiene were grouped under thematic areas as policy, technology, financial, organizational and management issues. Books, Journals, workshop proceedings and reports and online materials were used as a source of data. Available data were computed tabulated and analyzed using SPSS version 11.5 Personal Expert judgements and field experiences were used in challenging some of the approaches and in analysing comparison facts and figures.

Findings

The current status of sanitation

Ethiopia has a longer history of health services (about 100 years) as compared to other African countries. Yet the sanitation and hygiene status of the population is found to be lower than many of them (see Figures 1 & 2).

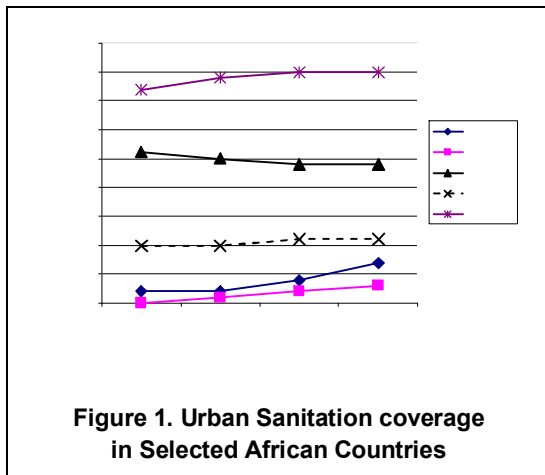


Figure 1. Urban Sanitation coverage in Selected African Countries

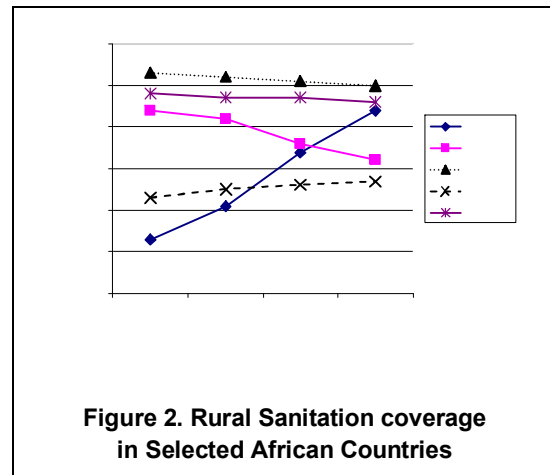


Figure 2. Rural Sanitation coverage in Selected African Countries

Adapted from WHO/ UNICEF (2006), Joint monitoring program for water supply and sanitation.

Sanitation coverage for Ethiopia is lower than the sub Saharan average. According to the Rural water supply and sanitation appraisal report of the World Bank, sanitation coverage for Ethiopia in 2005 was only 6%. The coverage for sub Saharan Africa was 32% in 1990 and 36% in 2002. In Ethiopia, the percentage of households with access to sanitation facilities declined during the 1990's as new construction fell behind population growth and the maintenance of existing facilities was neglected. (Terefe 1999). Sanitation coverage for Ethiopia has shown a decline from 8% in 1995 to 6% in 2005. (MoH 2002/03, ADB 2005) All reviewed documents provide coverage figures of varying levels. More over the coverage figures are confusing because all reports do not have standard definition to Sanitation and hygiene facilities.

Summary table for some of the reports is presented in the following table.

Survey	National	Rural	Urban
Welfare monitoring survey (2004)	28	21	80
CSA 2006	30.6	21.3	80
MoWR 2006	28	17.5	57
ADB 2005	6		
MDG Country assessment 2005	11.5	3.9	49.7
WHO/ UNICEF JMP 2006		7	44

As can be seen from the table, the highest national sanitation coverage is reported by Central Statistical Agency (CSA). One of the discrepancies for figures emanates from lack national standard definition of sanitation and access to toilet facilities.

There is a marked difference between regions in terms of access to sanitation facilities. Regions like Somali, Afar and Harari have the least sanitation coverage (see Table 3).

The National Water Supply and Sanitation program of the Government of Ethiopia has set targets to increase rural water supply coverage to 71% and rural sanitation coverage to 24%. These targets have been brought in line with the MDG targets of reducing by half the proportion of people lacking access to adequate water and sanitation services. The MDG targets aim to increase the rural water supply coverage from 24% in 2004 to 62% and rural sanitation coverage from 8% in 2004 to 54% by 2015. These figures are still lower from the African Development Fund's Rural Water Supply and Sanitation Indicator targets which seek to achieve 80% for both rural water supply and sanitation by 2015. (ADB 2005). But all these confusion is cleared by the binding and official government plan called Universal Access Plan which aims to have 100% water and sanitation coverage 2006-2012 (MoWR 2006).

S. No	Region	Coverage as given by CSA			Coverage as given by MoWR		
		Total	Rural	Urban	Total	Rural	Urban*
	National	30.63%	21.34%	80.18%	28%	17.47%	57.00%
1	Addis Ababa	91.25%	17.79%	92.09%			65.46%
2	Afar	21.16%	3.95%	44.60%		5.00%	31.70%
3	Amhara	12.44%	5.52%	66.76%		2.6%	47.46%
4	Benishangul Gumuz	33.91%	26.35%	82.72%		24.56%	58.8%
5	Dire Dawa	68.11%	7.17%	93.22%		18.00%	66.27%
6	Gambella (interpolated)	28.33%	21.35%	76.63%		3.8%	54.47%
7	Harari	55.98%	6.34%	88.61%		1.64%	62.99%
8	Oromia	24.93%	16.94%	81.84%		3.8%	58.18%
9	SNNP	57.27%	54.59%	85.23%		65.00%	60.59%
10	Somalia	26.04%	1.94%	78.16%		7.00%	55.56%
11	Tigray	18.95%	6.15%	67.55%		11.86%	48.02%

Source: CSA (2004), MoWR – UAP (2006)

Policy context

The Government of Ethiopia (GoE) has recognized improved sanitation and hygiene as an important strategy to poverty eradication. Sector policies converge around overall environmental health goals which emphasize sanitation and hygiene promotion as a key intervention to prevent disease, protect the environment and enhance socio-economic development (MoH 2005).

Ethiopia currently has a number of laws and policy documents supporting the Sanitation and Hygiene program. Key policy drivers include: The National Health Policy (1993), the Ethiopian Water Resources Management Policy (1999), The Environmental Health Policy (still in draft). These policies are reinforced by proclamations. Major proclamations are: The Public Health Proclamation No. 200/2000, Ethiopia Water Resources Management Proclamation (Proclamation No. 4/1995), and Proclamation for the establishment of the Ethiopian Environmental Protection Authority (EPA) 2002. These proclamations provide support for regions, zones and Woredas to develop a regulatory framework which can back-up the different promotional methods.

Policy relevance

Some forums like Multi Stakeholder Forum (MSF) agree that “there is a broad consensus in the sector that the current policies and strategies are highly relevant and reflect best Ethiopian and international practice”. There is also a consensus that the policy within the urban sanitation sector still needs refinement to balance affordability with the environmental, health and aspirational goals of improved sanitation and sewerage. Strategies for specific components of Sanitation and Hygiene such as the adoption of improved latrines, or safe handling and storage of drinking water at household level need to be developed. Regulations and guidelines, although rapidly developing, are still missing in important areas such as provision of spare parts, codes of practice and environmental control (MSF 2006).

Policy compliance

There has been a challenge to interpret some of the policies in Ethiopia due to a number of reasons like strategic errors, Capacity gaps or interpretation of the policy itself by Woreda and local level decision makers. For this reason it is generally agreed that implementation lags behind policy. This is particularly evident in the sanitation sector where it was observed in the SNNPRS and many other regions that Sanitation was undermined in terms of resource allocation.

Institutional and organizational framework

Institutional arrangement of the Water and Sanitation sector in Ethiopia has never been stable. The program was run under the ministry of interior since 1908. The directorate of Health under the ministry of Interior was further consolidated after the Italian invasion in 1942 and continued until 1948 during which the responsibility was shifted to Ministry of Health. Since 1995 the ministry of Water Resources included Sanitation in its program and started to administer the fund for Water and Sanitation (Haddis 2007).

As indicated in the background the long history of environmental health service in the country and huge resource flows provided very limited success mainly due to problems associated with poor program planning, organization and management. In response to recognition of this fact, major actors in water and sanitation redesigned their approaches and coordination mechanisms. The most notable ones are the establishment of the Multi stakeholder forum (MSF) and the Memorandum of Understanding (MOU) between the ministries of health, education and water resources. Key structures of the MOU are the National WASH steering committee, Federal WASH technical team, and coordination units, Regional steering committee and team, Woreda steering committee and team (see Figure 3).

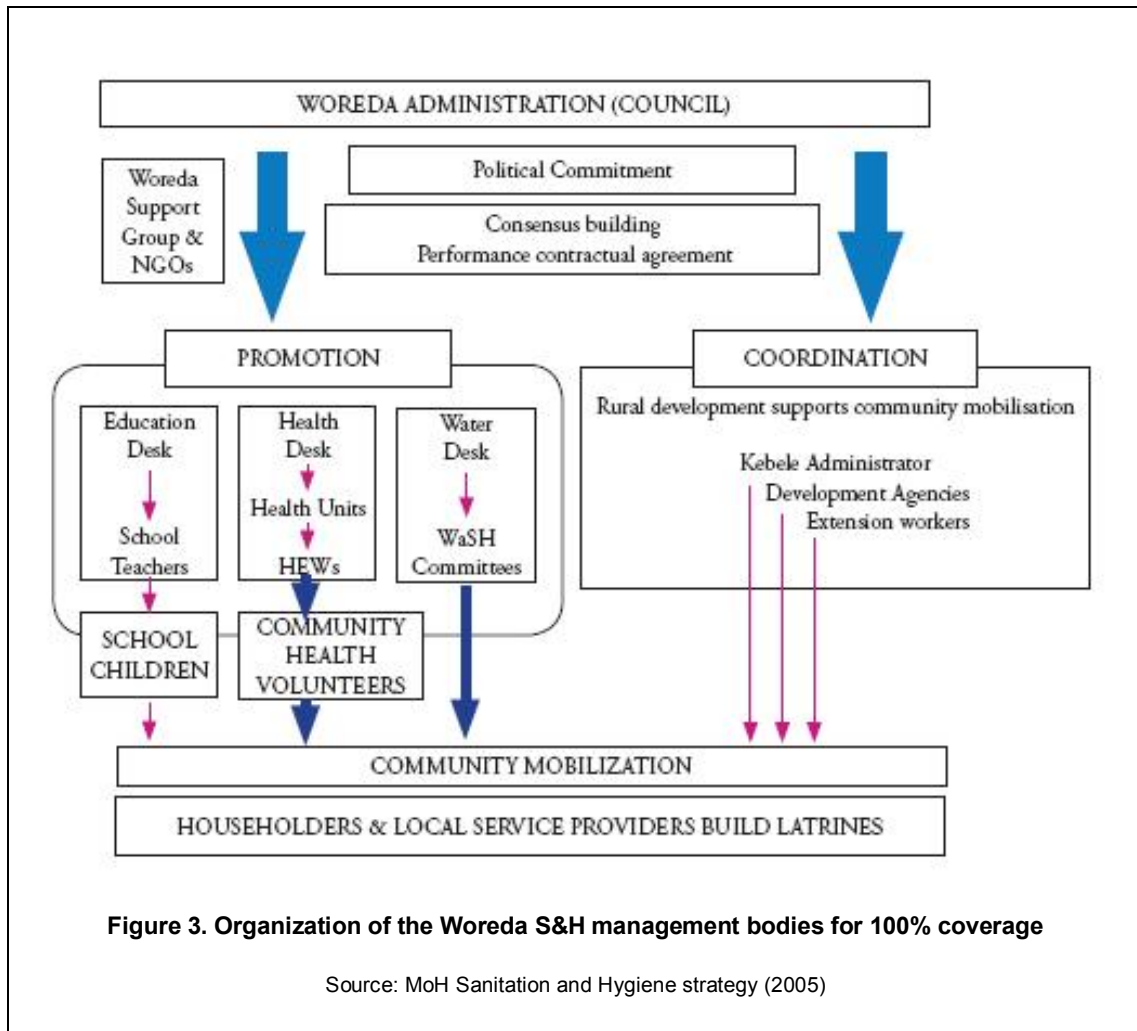


Figure 3. Organization of the Woreda S&H management bodies for 100% coverage

Source: MoH Sanitation and Hygiene strategy (2005)

A major problem observed during field studies is that, though there is clearly set roles and responsibilities of each sector ministry, implementation and interpretation of MoU deteriorates at lower level of arrangement. Practical implementation was also hindered due to variations in institutional mandate. Gaps and duplications of responsibilities are also observed.

Coordination

As indicated in the ADF Rural water supply and sanitation program, MoWR will coordinate all program activities through its program coordinating unit (PCU). (ADB 2005). Accommodated in the PCU will be the MoH for coordination of Sanitation activities and MoFED for managing the finance. The responsible person for program coordination is the head of Rural water supply and sanitation department at the MoWR.

Capacity gaps

The capacity of implementing agencies at all levels is deficient. According to the 2004 MDG needs assessment report (WB 2004) in order to meet MDG targets about 62 629 community water supply, sanitation and hygiene committees (WASHCOMs) need to be established; 36 262 woreda staff, 811 woreda sanitarians, 29 711 village health workers and 3850 regional water bureaus staff need to be trained. Currently there are 1312 environmental health workers/ Sanitarians in the country. (MoH 2004/05). This data was 687 in 1994 and GE Teka reported that 389 environmental health workers were operating through out the country in 1988 (Haddis 2007)

Technology issues

In the past, Environmental health programs in general and sanitation and hygiene programs in particular have been coordinated under the Hygiene department of the Ministry of Health. During these periods technology choices were limited to external assistance initiatives. The most frequently practiced latrine designs were VIP/ VIPL, Blaire latrine, SanPlat and traditional latrines. There was little consideration to the cost and socio - cultural factors to these technologies. For this reason many latrine construction campaigns even with a record of 100% coverage have been observed to slide back to the original situation, but at this time with irreversible effects. It was observed during the study visit to regions that current latrines if available are mainly made up of local materials; meaning there is a shift to the traditional ones.

Traditional latrines have their own problems. Field observations to latrines revealed the following facts:

- Problems associated with durability- The construction materials are of less durable (usually wood, corn stalk and straw). For this reason the termites easily eat the wood and, wind and heavy rain destroys it easily.
- The slab/floor is not reliable – Poor quality logs are laid across the hole and there is a danger of collapse.
- Poor excavation technique – The danger of caving in or collapse can occur whenever the latrine is not excavated in a V shape or whenever there is no casing.
- The floor is not smooth and can't be cleaned whenever spoiled. The materials selected to make the floor is usually soil in the absence of concrete slabs. Soiling and contamination of the floor discourages people to use it. This situation has serious impact when the latrine is communal or institutional.
- Digging the latrine could be difficult due to aquifer characteristics and ground water tables.
- There could be problem of space and unlike VIPL's, it becomes a nuisance when constructed near the home
- The wall couldn't be covered totally and privacy of particularly women may not be maintained forcing them to use open field far away in the back yard
- Arrangement for hand washing facilities including the detergent is usually a problem and the inconvenience discourages hand washing.

It is suggested that the best solution to technology choices is to use the creativity and wisdom of the local people and artisans themselves. For instance, during the hands on sanitation training workshop in Samre, Tigray region, the local people have substituted SanPlats by flat stones which are predominantly available in the region. Not only this, the excavation technique was also inverted V shape (Wider bottom and narrower top) in which stones were made to perfectly fit half way narrowing as the lining progresses. This makes the size of the slabs needed to be smaller in diameter. There are also local detergents known by the community instead of advising them to use soap. Some of the most observed cleaning detergents include; Ash, grass and

soil, Endod, etc. People may also prefer rugs as cover materials for the wall and entrance as this was also observed in SNNPRS.

Financial issues and resource flows

There is no government budget to environmental sanitation

Environmental health programs in Ethiopia with Water Supply, Sanitation and Hygiene as a major component have been conducted for the past many years without clear budget allocation (Haddis 2007). Many active programs in the sector have been highly dependent on external aid and subsidies both in soft and hardware cost. This has significantly hampered the utilization, effectiveness and sustainability of the program. Even after the huge resource flow of the World Bank and other donors through the financial management of the water resources, financial allocation to sanitation remained to be scarce and not channelled to the implementers. Realizing this gap, at present UNICEF is initiating a modified version of resource allocation to sanitation and hygiene. Accordingly, 30% of the fund for WAHS is to be channelled to the Ministry of Health to carry out Sanitation and Hygiene programs.

There is an increased donor commitment for WASH: What proportion for sanitation?

There has been Significant increases in donor commitments and flows into the water supply and sanitation sub-sectors over the last few years. The most significant recent donor commitments to the water supply sector have been the World Bank loan (US\$100 million) and the African Development Bank loan (US\$60 million). UNICEF \$US 10 million per year, UNICEF/ Holland to the value of US\$ 100 million (not yet confirmed), UNDP US\$7.5 mill. In addition, more than 500 local and international NGO,s 50% of which under the coordination of CRDA spend between 50-75 mill. ETB (MSF 2006)

The African Development Bank allocated US 64.3 mill for its WAHS short term program (STP) for the year 2005/06-2007/08. However, a closer look at the STP cost estimation of ADF, only 7% is allocated for sanitation and hygiene education. It is clear that even all this money will not directly go to the beneficiaries as most of it will be used in Salary and office facilities, equipment and, in fact, Workshops.

There is poor utilization of resources and manpower

It was observed in many lower level implementing institutions both in the water and health sectors that budget allocation to sanitation was almost nil and manpower placement and utilization was not efficient. More over, the link between the Woreda health and Water desks appeared to be very loose and consultation and resources exchange modalities are none functional.

Conclusion

Ethiopia has been striving to implement the Sanitation and Hygiene promotion programs for quite a longer time. The ministry of health has tried all its best to address the issue and it has been successful to have an infrastructure down to a grass roots level. Despite the presence of such infrastructure and professional capacity, the desired change could not be achieved in hygiene behaviour and environmental sanitation status of the country. Cited reasons are ill planning, inappropriate technology choice, donor dependency and lack of commitment from the health service management at all levels.

Nowadays, Sanitation and hygiene is becoming primary concern not only by the health sector but also it is intertwined with other government organs, the private sector and civil society. Sanitation is linked to many development programs and policies in the country. Many of the famous and key development programs are designed with sanitation component or it has been understood that sanitation promotion facilitates the attainment of many of the development programs. However, interpretations and practical applications at lower level still need to be improved.

Acknowledgements

I would like to thank ODI for the financial support through RiPPLE – *Research Inspired policy and practice learning in Ethiopia and the Nile Region*. This project was commissioned as part of the S&H case study in SNNPRS. My special thanks also goes to Peter Newborne of ODI and Jo Smet of IRC without whose support and guidance this paper would not have appeared in its present form.

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Key words

Sanitation, Hygiene, Access, Coordination, Utilization, Resource flows.

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