Field Note

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Environmental Sanitation in Addis Ababa

Addis Ababa's infrastructure has not kept pace with the city's population growth. Poor sanitation has been identified as a major problem and the government as well as non-governmental organizations are attempting to improve the situation. There has however, been lack of reliable information on sanitation development experiences. Some of the critical questions asked during the study captured in this Field Note included: Who is doing what, how much has been achieved, and why is there no clear strategy?

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Introduction

This *Field Note* highlights findings of a study on Community Based Environmental Sanitation (CBES) projects in 1996. The study was carried out by *Centro de Ricerca Docomentazione Febraio 74* (CERFE), an Italian non-profit making research organization, on behalf of Region 14[1] in Addis Ababa, Ethiopia.

Objectives of the study were to catalogue all recent community based urban sanitation interventions in Addis Ababa, and to map out and prepare an inventory of projects according to their level of implementation. A special team was appointed to produce an analysis of 'good' and 'bad' sanitation management practices based on 12 projects. This was to guide future policy formulation and implementation.

Study Methodology

CERFE mobilized three international consultants and three national experts, with the assistance of Region 14 staff, to undertake the study. A Reference Group nominated by Region 14 provided advice and management support to the study team. 12 Projects were identified for detailed case studies from lists provided by implementing agencies and from field visits to 28 Woredas in Addis Ababa. A Woreda is a mid-level administrative unit composed of 6-10 Kebeles, the lowest-level of government structure.

Using participatory methods, the consultants assessed projects for their effectiveness in terms of impact, sustainability, and replicability. Independent perspectives were sought and documented from staff and beneficiaries. The consultants reviewed project documentation, such as progress reports, project evaluations, monitoring and evaluation reports, etc. They also analyzed factors that led to the success or failure of sanitation interventions. The consultants then prepared recommendations for future actions, based on 'best practices' applied or implicit in the case studies.

With funding assistance from RWSG-ESA, a workshop to review and disseminate the case studies was organized. The workshop was also used to broaden local understanding of strategic sanitation approaches and to share experiences.

Background of the Study

Addis Ababa, like most cities in developing countries, is facing serious sanitation problems. The current sanitation infrastructure can no longer support its growing population that, according to the 1994 census, is estimated to be over two million.

The inadequacies of the current infrastructure include shortage of latrines, insufficient solid waste disposal, poor drainage systems and inadequate drinking water supply. These problems are exacerbated by the use of drainage ditches for the disposal of solid waste, sludge and sullage. Sanitation control and management are hampered by the lack of physical infrastructure and by

Photo: Tore Lium

City authority trucks emptying raw sewage into a river.

[1] Region 14 was later reconstituted as the Addis Ababa City Administration (AACA)

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appropriate administrative procedures that would ensure coordination of sanitation policies.

Overview of the Sanitation Sector

The existing sanitation system in Addis Ababa comprises of limited conventional sewage and on-site systems for excreta disposal, piped and open ditches for storm water drainage, and some dump trucks for waste disposal.

Sewage

The sewage system which was commissioned in 1981 serves only the central part of the city and less than 10 percent of its residents. Moreover, the system does not operate to its full capacity. For example, the Kalitie plant, which according to the 1993 Addis Ababa Master Plan Study for the Development of Waste Facilities, should be capable of serving up to 175,000 people, actually serves less than one third of its capacity.

On-site Sanitation

The available on-site sanitation systems include septic tanks and various types of dry-pit latrines. Of Addis Ababa's total population, about 1,459,000 use dry-pit latrines, 175,000 use septic tanks and some 700,000 people do not have access to any sanitation facilities.

Storm Water Drainage

The city's drainage system consists of piped and open-ditch drainage. The system lacks adequate open or paved ditches and linkages to function fully. As a result, the drainage system is ineffective. In addition, the open ditches are often used to drain solid and liquid waste, thereby stressing the system.

Solid Waste

Dump sites and trucks for solid waste disposal are insufficient for a city the size of Addis Ababa. Solid waste collected from hospitals, residential and business areas is dumped at the landfill sites on the outskirts of the city. It is common to find refuse piled up at road intersections or strewn in open spaces.

There is an acute shortage of waste dumpsters and lack of a system for collecting solid waste from residential areas. This means that it is only those people close to the dumpsters that benefit. In 1996, for instance, there were only 37 trucks and simple dumpsters, less than half the required number for solid waste management in Addis Ababa.

Operation and Maintenance

The environmental sanitation problems are exacerbated by inadequate operation and maintenance of the systems. This is in addition to absence of infrastructure in many places. Addis Ababa's services and utilities are unable to manage the demanding tasks of emptying latrines, cleaning ditches and disposing of solid waste.

Photo: Tore Lium

Children playing on one of the narrow access roads.

Assessment of CBES Projects

Coverage

Given the current situation of environmental sanitation in Addis Ababa, the study analyzed existing environmental sanitation projects in terms of their scope, level of implementation and effectiveness. Only projects active in the preceding two and a half years were examined.

The study found that while only one Woreda had no sanitation project, 30 percent of all projects were concentrated in 5 of the 28 Woredas in Addis Ababa. Most sanitation projects were small to medium sized, serving up to 8,000 people (see table below).

Environmental Sanitation Projects by Number of People Served

Number of People	Number of Projects
<1,000	15
1,000 - 2,000	10
2,001 - 3,000	16
3,001 - 4,000	8
4,001 - 5,000	6
5,001 - 6,000	5
6,001 - 7,000	12
7,001 - 8,000	6
8,001 - 10,000	4
10,001 - 20,000	9
>20,000	25
Not specified	2
Total	118

It is important to note that of the 118 examined projects, 72 were run by NGOs. This exceeded estimates given earlier by city officials that put the total number of CBES projects between 30 and 40.

The study estimated that approximately 29 percent of the total population in Addis Ababa benefits fully or partially from these projects.

Funding

CBES receive funding from a variety of sources, including international development agencies as well as central and federal governments and NGOs. For instance, NGO implement projects of an average cost of 2 million Birr (6.8 Birr = 1 US Dollar).

Photo: Tore Lium

City officials inspecting a newly constructed communal latrine.

The Sanitation Picture

Sanitation projects surveyed included 84 dealing with storm water drainage; 62 tackling excreta disposal; 8 involved in solid waste disposal and only 3 concerned with sullage disposal.

The degree of integration was low with only one project including all sanitation aspects and 9 dealing with 3 aspects. Most projects dealt with just one sanitation aspect. Concentration on a single aspect was often tied to the institutional aims of government agencies or the specialization of particular NGOs.

The level of implementation in most sanitation aspects is relatively low in selected project areas. At the time of the survey, latrine projects were providing new service to only 12.5 percent of the total population in the project area. Most drainage facilities were often planned in connection with road construction projects in order to provide access for, *inter alia,* suction trucks and solid waste collection. However, the majority of these drainage projects were implemented without either excreta or solid waste disposal components. Although the number of solid waste projects is small, there is a higher level of collaboration between NGO and government activity in this sub-sector.

Actors in CBES Projects

Addis Ababa had 23 NGOs and 19 government agencies involved in CBES. The total number of projects run by NGOs was 50 percent higher than those run by government agencies. This is partially explained by the NGOs' tendency to have more than one project in some Kebeles simultaneously. Government agencies generally had single-unit and single-year projects. NGOs had projects in all four sanitation aspects, while government agencies concentrated on the drainage element.

There were three relevant categories of local actors involved in CBES projects. These were:

- **Kebele Administration Officials:** These often undertook needs assessment, mobilized people's participation, supervised the work, facilitated legal procedures, and provided coordination and control.
- **Pre-project Community Organizations:** Due to their credibility within the community, these were particularly useful in carrying out awareness and sensitization campaigns, creating consensus about the project and settling disputes.
- **Ad-hoc Committees:** These had general coordinating functions and responsibility for project implementation and follow-up. They also dealt with communal management of specific infrastructures and were important in disseminating knowledge on proper sanitary practices.

Conclusions

The existing CBES projects, and agencies implementing them, constitute a significant response to the crisis in Addis Ababa's environmental sanitation system and to the lack of physical and institutional integration. However, the sustainability and final impact of these CBES projects cannot be assured.

Current projects are not the final solution, but only a beginning in the search. In particular, there are four significant disparities in the current CBES context:

Photo: Tore Lium

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- Despite the significant mobilization of actors and resources, only few beneficiaries and a small area of the city is covered.
- Implementation agencies are organized according to city territory, while projects are organized along various types of sanitation interventions, and are not well coordinated.
- While notable attention is paid to the issue of people's participation and considerable energy expended in creating new groups, little use is made of those already in existence.
- The study shows that the full potential of CBES is not yet realized due to lack of communication, coordination and clear operation guidelines.

The Way Forward

Based on the findings of the case studies, a number of recommendations were made to improve coverage of sustainable sanitation systems and services in Addis Ababa.

- Set up community based environmental sanitation programs by site rather than by project: Other stakeholders implementing complementary projects in the same areas would be encourage to integrate sanitation services.
- Encourage integration of project management between local authorities and citizens' groups: Existing CBES project committees would be involved and empowered rather than creating new ones.
- Combine demand-responsiveness with multi-context approaches: Specialists, utilities providers and local governments would ensure that communities' priority needs are considered interactively along with their proposals.
- Maximize community involvement and participation in planning, monitoring and evaluation stages: This would enhance capacity building, strengthen stakeholding in completed projects and promote self-reliance.
- Increase the role of women in CBES projects: Women's crucial role in activities related to water supply and sanitation at domestic and community levels would be strengthened.
- Organize publicity campaigns and awareness programs: While providing information on the initiatives already underway, this would highlight the crisis in the sanitation system and its associated health and social dangers.
- Integrate income-generating activities into environmental sanitation projects: This would help in cost recovery and enhance interest in the project.
- Maximize the role of community organizations: This would enhance their position as opinion leaders and mediators, and increase their capacity to spread information about projects and arbitrate disputes over project ownership rights.
- Integrate local government and community sanitation activities: This would coordinate the municipal waste disposal services with local organizations that handle the transfer from local collection points at the community level, linking the primary level of waste disposal with the city level.

Follow-up Actions

The study has been instrumental in drawing attention to the environmental sanitation problems of Addis Ababa, and particularly how the majority low-income groups' needs can be addressed. This was achieved both through the participatory study methodology and two workshops in December 1996 and October 1997, respectively.

Region 14's commitment to CBES enabled the renewed focus and identification of 'good' sanitation practices.

Notably, the second workshop dealt with the essential follow-up issues of:

- utilizing study conclusions to develop strategies, taking into account all partners for a 'best possible' institutional framework for CBES in Addis Ababa; and
- reaching consensus on the Terms of Reference and operational modalities of CBES coordination, as identified during the first workshop based on a draft paper by an actors' Task Force.

Other follow-up activities include:

- enabling Region 14 to consider and act on the workshop recommendations based on the papers presented;
- pointing out effective and improved options for CBES to draw the interest of external support agencies;
- 'marketing' proposal for funding of the CBES as a component of a major water supply and sanitation investment project for Addis Ababa to the European Commission (EC); and
- interesting the World Bank to include CBES in the next IDA credit as a means of providing services for the poor.

The initiatives would constitute essential 'next steps' for piloting, demonstrating and expanding appropriate strategies for demand responsive CBES implementation.

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