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ETHIOPIA ENVIRONMENTAL SANITATION SUPPORT PROJECT

**A Decentralised and Integrated Sanitation
Risk Control System in Addis Ababa:
principles, strategies and constraints**

Concept Paper - Revised Draft

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ABSTRACT

The purpose of this Concept Paper, which is based on the results of a study conducted by CERFE on community-based sanitation projects (CBES) in Addis Ababa, is to set out guidelines to implement the transition from a multitude of CBES projects to a working decentralised system capable of promoting, supporting and co-ordinating independent - but not isolated - community-level management of sanitation risks.

After a brief and sketchy analysis of the sanitation situation in Addis Ababa, the main principles – integration, standardisation (preserving diversity), partnership and gender issues, capacity building and sustainability – functions, and institutional structure of the system will be presented and discussed.

We will then examine certain strategic factors and constraints that emerged from the study as they relate to five key questions, namely institutional options, people participation, technological suitability, cost recovery and legal status. Finally, a set of guidelines for implementing the decentralised and integrated sanitation risk control system will be proposed.

Table of Contents

CHAPTER ONE	
Background, objectives and purposes of the paper	7
CHAPTER TWO	
An overview of sanitation in Addis Ababa	13
1. Infrastructure	16
2. Operation and maintenance	18
3. Sanitation actors	20
CHAPTER THREE	
Principles of a decentralised and integrated system of sanitation risk control	25
1. Potential and limitations of CBES projects	27
2. Five principles for building a decentralised and integrated system of control of sanitation risks	30
3. Functions and institutional structure of a decentralised and integrated system of control of sanitation risks	36
CHAPTER FOUR	
Strategic factors and constraints	39
1. Institutional options	41
2. People participation	43
3. Technological suitability	43
4. Cost recovery	44
5. Legal status	44
CHAPTER FIVE	
Specific issues pertaining to the different sanitation sectors	47
1. Excreta disposal	49
2. Stormwater drainage	51
3. Solid waste disposal	54

CHAPTER SIX	
Guidelines	57
1. Institutional options	59
2. People participation	62
3. Technological suitability	64
4. Cost recovery	67
5. Legal status	68
6. Operational recommendations	69
CHAPTER SEVEN	
Final remarks on the decentralised and integrated system of control of sanitation risks	77

CHAPTER ONE

Background, objectives and purposes of the paper

Between May 1996 and March 1997 CERFE conducted a project entitled "Urban Sanitation Case Study" (USCS), the principal objective of which was to contribute to the establishment of a sanitation program in Ethiopia on the basis of analysis and interpretation of local and international experiences in this field.

The project, funded by Italian Government, was conducted in the context of the UNDP-World Bank Water and Sanitation Program (WSP) and in connection with the Ethiopian Environmental Sanitation Support Project (EESSP) and the Region 14 Administration of the Federal Democratic Republic of Ethiopia; its focus was the urban area of Addis Ababa.

CERFE's study project was subdivided into two main tasks:

- inventorying and mapping all community-based sanitation projects in Addis Ababa¹;
- analyzing in-depth a sample of 12 projects.

The results of the project were in certain respects surprising.

¹A project was defined as a system of actions aimed at improving sanitation in a given area (even within the framework of a larger program) which had the following characteristics:

- was focused on at least one of the four sectors of environmental sanitation (excreta disposal, stormwater drainage, sullage disposal and solid waste disposal);
- was explicitly planned (the existence of a planning document, even if abbreviated);
- had one or more individuals responsible for carrying it out;
- had its own budget;
- had a clearly defined beginning and end;
- was completed after 1 January 1994 or was underway as of 31 July 1996 (in other words, existed even if only in part during the period from 1 January 1994 to 31 July 1996; approved projects that had not begun as of 31 July 1996 were not included).

The main actors in CBES were also identified, defined as all those responsible for the implementation of at least one CBES project. A typology of other actors, called "involved actors," was also devised.

We identified fully 118 sanitation projects of this kind, of which 72 were managed by NGOs and 46 run by government agencies. The number of projects was much higher than many experts in the sanitation sector in Addis Ababa expected. And even though it is difficult to assess the real number of beneficiaries for each project, our rough estimate is that 500,000 to 700,000 people are at least potential beneficiaries in the 143 Kebeles² where CBES projects are active, or roughly 60% of the residents of these Kebeles and 29% of the total population of Addis Ababa.

The most interesting finding of the USCS was to document the relevant number of **decentralised sanitation services** operating semi-independently of the regional administration through widespread self-organised entities sponsored by a variety of actors in Region 14.

Indeed, we are witnessing a trend toward decentralised management of sanitation risks and we believe that, despite its limitations, it is one of the few workable solutions to the serious sanitation problems of the capital. (One datum should suffice here: the sewer system in Addis Ababa serves barely 50,000 persons out of a total population 2,113,000 persons -1994 Census). In this light, we should note that the CBES projects can be considered not as an emergency measure, but as a fundamental tool in every long-term development policy in the sanitation field.

CBES projects at present are still isolated initiatives, conceived and realised in the absence of co-ordination among a variety of actors. Hence the transition we speak of entails the formation of a **decentralised and integrated system of sanitation risk control**. That is a system capable of supporting and co-ordinating independent - but not isolated - organizations working at community level to manage sanitary risks. By stressing the strategic role of CBES we do not underestimate the importance of central levels of investment and decision making. The very idea of integration and co-ordination involves the existence of strong and efficient central actors able to perform such tasks.

This concept paper was written by Alfonso Alfonsi, a sociologist, in collaboration with Luciano d'Andrea, a sociologist, and Andrea Declich, an

²Kebeles are the lowest level of the administrative structure of Addis Ababa. On average 6.000-8.000 people are living in them. Kebeles are part of a higher level of the administrative structure, that is to say the Woreda. each Woreda can be formed by 5 to 18 kebeles. In the city of Addis Ababa there are 28 Woredas, 305 urban kebeles and 23 urban kebeles (data from 1994 population census).

economist and takes into account the results of a workshop held in Addis Ababa in October 1997 in which the a First Draft was presented and discussed. The argument is based on the results of the Urban Sanitation Case Study, to which the reader is referred. This paper has a more forward-looking perspective than the Study and its primary purpose is to set out guidelines for the transition to a **decentralised and integrated system of sanitation risk control**. It is addressed to all concerned actors involved in the Sanitation field in Region 14, be them either belonging to Governmental, Non Governmental, International or Private organization. The ambition is to contribute to their efforts to upgrade the living conditions in the City of Addis Ababa.

One last recommendation to the reader. The proposal and the sketch of a decentralised integrated sanitation system are based on a Study that was addressed only to CBES projects and the main purpose of the text is to demonstrate and discuss how such projects can fit in a comprehensive system for managing sanitation actions effectively. In itself, however, the concept of decentralised integrated sanitation risk control system does not pertain only to CBES, but points to an **integration and co-ordination of all levels and actors concerned**. This means that the principles that will be proposed can be applied also to the system in general, including the Government agencies, while the examples and the practical recommendations will deal mainly with the CBES projects or the points of intersection between the central and the local levels. A further study would be required to explore all the implications of a decentralised and integrated approach for the Government agencies at the central level and all the coordinating bodies.

CHAPTER TWO

An overview of sanitation in Addis Ababa

Before discussing the forward-looking strategic elements developed on the basis of the results of the Urban Sanitation Case Study we will pause here to examine the current sanitary situation in Addis Ababa.

Although much of the information reported here was published in the Final Report of the study, we believe this overview is useful for two reasons:

- first, new information has come to light since the publication of the study report (March 1997) concerning institutional changes in the provincial administrative organisations³;
- secondly, it seems advisable to revisit the reasons why investment in CBES projects is urgently needed.

It has to be borne in mind that, given the TORs of the USCS, the information provided in this chapter as well as in the corresponding chapter in the Final Report, was meant solely to provide a meaningful background for the actual study of CBES projects. Such information, thus, does not come from direct research, but from consultation of existing sources and literature and must be recognized as second tier evidence. Similarly, crucial issues such as industrial pollution of waters or management of land fill sites or treatment plans are mentioned only in passing not because they are considered to be less important, but because they are beside the scope of our study.

We would also like to note that the data provided by the different sources are not always easily comparable. An effort in achieving a better definition and a standardization of the items of sanitation statistics would be most profitable in the process to achieve better monitoring and coordination.

³For the purpose of updating the data presented in the final report of the Urban Sanitation Case Study, an assignment in Addis Ababa was arranged by CERFE in the month of July.

1. Infrastructure

Addis Ababa, like most cities in developing countries, is facing very serious health problems due to:

- inadequate drinking water supply;
- inadequate excreta disposal system;
- inadequate drainage system;
- inadequate solid waste management.

These health problems share a common element, namely inadequate access to many areas of the city, especially the most populated Kebeles.

The existing sanitation system in Addis Ababa consists of:

- conventional sewerage and on-site systems for excreta disposal;
- piped and open ditches for storm-water drainage;
- simple dumpsters placed in open spaces for solid waste collection and removal by dump truck.

The **sewerage system** of Addis Ababa, which was commissioned in 1981, serves the central part of the city. It is a small system with a capacity to serve only 50,000 users, and, according with the Master Plan Study of 1993⁴, it is not operating at full capacity. The Master Plan registered the existence of about 1,000 connections to the system. According to one study, this number had increased to 1,500 by 1997. A rough calculation based on the quantity of water treated daily yields an estimate of 30,000 people served by the 1,500 connections. According to the same study, the existing treatment plant located at Kalitie (designed for 50,000 people) can be expanded to serve 100,000 and then 150,000-175,000. Such expansion, however, has not been started yet.

The available **on-site sanitation system** in Addis Ababa is composed of septic tanks and various kinds of dry-pit latrines. Approximately 175,000 people use septic tanks, and 1,459,000 use dry-pit latrines. The remaining inhabitants, estimated at 700,000, live without any kind of sanitation system⁵.

⁴ See "Addis Ababa Master Plan Study for the Development of Waste Water Facilities", 1993.

⁵ *Ibidem*

The data reported in the Master Plan can be compared with those of the 1994 Census, which however are based on housing units rather than individuals. According with the Census, of the 374,742 housing units in Addis Ababa 89,508 had no toilet; 30,113 had private flush toilets; 14,815 had shared flush toilets; 67,895 had private pit latrines; and 168,732 had shared pit latrines. The remaining 3,679 housing units provided no information. However, considering the average number of individuals per housing unit, these data confirm the prevalence of pit latrines over all other forms of toilet facilities and the fact that almost 90,000 housing units are without any facility. They however seem to indicate a meaningful, if yet insufficient increase in the percentage of households provided with latrines.

The existing **drainage system** in Addis Ababa consists of piped drainage and open-ditch drains. The piped system is mainly constructed along the main asphalt roads by the city. The open ditches are constructed by the city and NGOs with national and international affiliations. The ditches are either stone-paved or excavated natural ditches.

The stormwater drainage system is inadequate. Whole sections of the city, central zones included, lack open or piped ditches; moreover, the quality of the existing works is poor because of lack of tie-ins at the trunk level.

In addition, the open ditches are commonly used to drain off wastewater and dispose of solid waste, which clogs them. Also industrial wastes are in some cases dumped in the ditches and ultimately pollute Addis Ababa rivers.

Lastly, we note that while it is very difficult to separate drainage works from road construction and repair, we found roads being built without any drainage works, which is a formula for problems in the future.

Solid waste from living areas is mainly collected by distributing dumpsters about the city. When these containers are full, city dump trucks pick them up and dump the refuse at a land fill on the outskirts of the city, on the road to Jimma. The city also has dumpsters for refuse collection from residential areas, hospitals and business areas. Most areas however do not enjoy such service and it is not uncommon to see refuse piled high at road intersections, obstructing ditches and littering open spaces.

Inadequate water supply and the decay of many residential areas exacerbate the sanitation problems.

2. Operation and maintenance

Operation and maintenance of the infrastructures are generally inadequate.

Dry pit latrines require the following maintenance:

- regular cleaning of the latrines;
- repair of the superstructure;
- emptying the pits.

The first two in the list can be performed locally by the users with some assistance and support.

The third operation - emptying the pits - requires suction tanker trucks and disposal of the sludge at treatment plants. At both levels the provisions appear to be insufficient.

As far as suction trucks are concerned, both the public service and the private do not meet actual demand. The public service, managed by AAWSA charges 49 birr per trip at subsidized and 135 birr at non subsidized price. Often it takes several months to empty a full latrine, with all the attendant sanitation risks. Private services are provided by only three companies with very few suction trucks. Their prices are non subsidized and they charge about 150 birr per trip.

The non subsidized prices are sensibly high and beyond the reach of low-income users (prices charged by private companies are more or less the same as the non subsidized prices of AAWSA, since private companies have to pay 15 birr per trip for discharging the sludge at the treatment plan).

Moreover, many latrines are located in places that are inaccessible to heavy vehicles and thus cannot be serviced by suction trucks.

As far as the treatment plant is concerned, it was not a direct subject of study, but many sources highlight that it is already insufficient at the current conditions and that it has relevant operation problems.

The inadequacy of the provisions for the collection and treatment of sludge from pit latrines, even in the current conditions, must be seriously taken into account whenever we plan to increase infrastructures for on-site sanitation. To sensibly increase the number of latrines constructed without expanding also the collection and treatment facilities would ultimately result into creating the conditions for a major sanitary disaster.

The study also found that users need instruction in the proper use of the **drainage system**, specifically:

- proper use of open ditches;
- cleaning of open ditches and culverts;
- maintenance of all the structures.

As regards the first two items we found widespread illegal dumping of wastewater and solid waste in the ditches and not much community spirit when it came to cleaning the ditches. The Road Maintenance Office of Region 14 is virtually the only agency able to provide drainage, and that only for the main arteries.

As for **solid waste**, the number of dumpsters available in the various quarters of the city (in the best of cases, 2 or 3 per Kebele) and the number of dump trucks are insufficient. According to the Health Bureau of Region 14, the number of dump trucks in 1996 was 37, while 77 were needed. The existing trucks collected about 54% of the 1386 m³ of waste generated each day by the population, estimated at about 2.342.000 in 1996.

The inadequate number of dumpsters and the lack of any system for collecting solid waste from residences means that dumpsters are only used by those who happen to be located in their immediate vicinity.

The scarcity of dump trucks to transport solid waste means that the dumpsters are only emptied once every two or three weeks, with the result that refuse piles up around the dumpsters, further deterring their use. And, lastly, the inaccessibility of certain areas means no refuse collection is possible there. It is to be noted that more or less informal collection and recycling of different kind of waste such as plastic, metal, rubber etc. is currently ongoing in all the City. Such activities, however, are carried out mainly by the most destituted sector of the population and is not considered in any official plan to upgrade the solid waste management.

Lastly, we point out that there are few independent **sullage drainage** systems, thus placing an undue burden on the stormwater drainage network, which was not designed to cope with the extra load.

As noted before, the lack of **access roads** to many Kebeles and the general difficulty or outright impossibility of heavy vehicles to travel through many Kebele roads, further increases the difficulty in providing adequate maintenance services. This underlines once more how interconnected sanitation and road construction are.

3. Sanitation actors

Several actors are involved in running the sanitation system of Addis Ababa - governmental, non governmental and private entities. The USCS concentrated on organisations running community-based environmental sanitation projects. Here we dwell briefly on the characteristics of all the governmental bodies involved in sanitation, including those not dealt with in the study, such as the Addis Ababa Road Authority. In particular, we will take a closer look at EDPO, since its institutional nature, role and approach changed considerably since the conclusion of the study.

3.1. Governmental actors

- **Addis Ababa Water and Sewerage Authority** manages the sewerage system of the city and is also in charge of suction of latrines and of management of the land-fill dump.
- The **Health Bureau** is charged with the collection and treatment of urban solid waste and emptying "public" latrines, that is, latrines located in public places and open to the public.
- The **Project Implementation Office** is charged with the realisation of the second Addis Ababa Urban Development Project; it has also been charged with other responsibilities in the follow-up to the Case Study and should assume in this regard a co-ordinating role.
- The **Addis Ababa Road Authority** is charged with the construction and maintenance of the major roads of Region 14, including the drainage works. It operates partly with its own technical resources and partly contracting out to the private sector through open bidding.

- **The Ethiopian Social and Rehabilitation Development Fund** has been and still is among the major funding agencies for NGOs and Kebeles that implement sanitation projects, even if it funds also other kind of projects, e.g. in the field of education.
- **The Urban Development Support Service** is another funding source for the sanitation sector. It is an office that operates at the national level under the Ministry of Urban Development and Public Works.
- **The Foreign Relations and Development Cooperation Bureau** should also to be mentioned, because it is the office that authorises NGO projects. The criteria used in evaluating projects do not seem to be very clear and technical standards are not clearly set.
- **The Urban Development Works Bureau of Region 14** is also currently involved in authorising NGOs that want to work in the sanitation sector. This bureau tries to control the distribution of NGOs in the Kebeles and applies some standards to evaluate the quality of organisations before granting its authorization.
- **The Environmental Development Project Office** is no longer structured as a project-oriented task force, but as a regular office permanently incorporated in the organisational chart of the Region 14 administration. It is headed by a general manager and has four departments: administration and finance; planning and programming; technical; auditing. Its permanent staff currently numbers 88; its technicians already work at the zonal level and are expanding to the Woreda level. EDPO is assisted by the PIO, especially for needs assessment, and can operate also with funds provided by international donors. The scope of EDPO activities has also changed; it is no longer concerned solely with internal roads and related drainage, but also with communal water taps, communal toilets, and platforms for waste containers. EDPO deals mainly with Woreda and Kebele administrations, but is starting to co-operate with NGOs such as CARE and a more attention to people's participation is envisaged.

All the above mentioned bodies are under the economic sector of the Region 14 administration (see the Organisational Chart, Annex 1). The recent changes show an effort to achieve better control of a complex reality. As we can see even in this brief overview, however, there is still some overlapping of responsibilities and integration is far from optimal. A more thorough institutional analysis may be necessary to achieve optimisation of the solution devised.

3.2. NGOs

The census of CBES projects conducted in 1996 enabled us to single out 23 NGOs operating in the environmental sanitation sector in Addis; we therefore refer the reader to the Final Report of the USCS for a detailed description of their characteristics. Here we recall their names.

- CARE
- CONCERN
- NACID
- Daughters of Charity
- Redd Barna
- Abebech Gobena
- LVIA
- Women Aid Ethiopia
- Kale Heywet
- Ethiopian Aid
- Good Shepherd
- Integrated Holistic Approach/UDP
- Cheshire Foundation
- Meseret Kristos
- Plan International
- Jemal Abdela
- MMM/SSC
- Christian Children Fund(CCF)
- DAY
- Mekane Yesus
- Terre Des Hommes
- Red Cross
- Mulu Wongel

Other NGOs have since started to operate in the field, while some of those listed might not be working by now; this is why a constant update of the map provided with the USCS is strongly recommended. The list

provided is anyway apt to give an indication of the number and diversity of the Non Governmental organization concerned with CBES.

We also note here that some of the NGOs are organised in an **Urban Working Group** within the CRDA that is rather active in presenting its point of view on urban development and in promoting related activities, and should be considered an important interlocutor in the effort to achieve integration in CBES management. It is, however, to be kept in mind that not all the NGOs of the Urban Working Group are involved in sanitation projects in Addis Ababa, and, on the other hand, not all the NGOs involved in urban sanitation mentioned in the USCS Report belong to the Working Group.

3.3. *Private sector*

As was noted in the study, few private entrepreneurs are involved in upgrading of the environmental sanitation system. Private contractors capable of building sanitation infrastructures are generally unaware of participatory approaches and are hence prone to work in ways that are inconsistent with the methods and strategies of the Agencies that contracted them.

There are a few private companies that offer sludge suction services. As we noted before, both the scarce number of trucks employed and the entity of non subsidized prices limit the scope of the service that they offer. Some companies, however appear to show a real concern toward the upgrading of their service and the ability to reach also low income clients. They also stress the difficulties in which they operate, including an alleged lack of support from the City administration.

We advise to devote significant efforts to increase and upgrade the contribution of the private sector in sanitation programs.

This could involve more sensitisation and capacity building for contractors of infrastructure works and to encourage the providers of sludge collection services to expand their activities with proper incentives. More generally, to foster the participation of private companies in all fora discussing CBES seems extremely advisable so that the existing problems may be articulated and dealt with.

CHAPTER THREE

Principles of a decentralised and integrated system of sanitation risk control

1. Potential and limitations of CBES projects

The sanitation situation in Addis Ababa is, therefore, serious and bound to become worse as the population grows.

CBES projects, we saw, play an important role, especially in managing emergencies, which have become the order of the day in the Ethiopian capital.

The question, however, is how to manage sanitation outside the present emergency regime by orienting CBES projects towards cooperating in furnishing services to that part of the population forced to find its own solutions to sanitation problems locally. This cooperative approach will also help resolve the more general problems the city must deal with, provided, of course, that effective central monitoring and coordination is maintained over projects initiated at the local level.

It is in this perspective that the proposal made in the Urban Sanitation Case Study of establishing a **decentralised and integrated system of control of sanitation risks** is to be viewed. The proposal is based on the following premises:

- recognition and support of CBES projects; and
- integration of CBES projects in an organic system that is open to a number of approaches, intervention instruments and institutional and technical solutions.

This hypothesis flows from the same overall analysis of the potentialities and present limitations of the CBES projects taken as a whole, just as it emerged from the Urban Sanitation Case Study.

The chief potentialities of the CBES projects may be summarised as follows:

- first, even in the absence of a general development policy for CBES projects, they already **furnish a significant part of the sanitation services of the capital**; it is reasonable to assume that if adequately supported these projects could be expanded and made more effective;
- second, the CBES projects **attract international financing**; overall, 42 different donors are now involved, of which 29 are foreign (4 international organisations, 8 national cooperation agencies and 17 non-Ethiopian NGOs);

- third, the CBES projects **tend to be rooted in the local reality**; they are often implemented in the context of active participation on the part of the beneficiaries and thus are more sustainable in the medium and long term than other kinds of intervention;
- fourth, the **autonomy** of CBES projects can be viewed as positive in that it promotes adaptation to the specific operative and socio-economic conditions, and reduces the rigidities typical of centralised interventions;
- fifth, we should emphasised that, unlike other interventions, CBES projects **do not require physical infrastructures of particular complexity** (from the point of view, for example, of installation and management), **nor high costs**;
- lastly, **the time needed for implementation is also limited** thanks to the use of proven, easily applied technologies; almost 62% of the projects have been completed within a period of one year.

Yet, without delving into specific problems - which will be examined in Chapters 4 and 5 - we can point out several limitations of CBES projects taken as a whole in dealing with the problems of sanitation in Region 14:

- the first limitation consists of the **unbalanced distribution of the CBES projects as regards intervention sectors**; only 2.5% of the projects deal with sullage disposal and barely 6.8% deal with solid waste disposal; 71.2%, on the other hand, deal with stormwater drainage and 52.6% with human waste disposal. There are few cases in which an agency operates in several sanitation sectors contemporaneously;
- the second limitation is **territorial distribution**; only 143, or 46.9%, of the city's 305 urban Kebeles were targets of at least one sanitation project in the last 3 years; this indicates the extreme fragility of the risk control system in this sector;
- the third limitation is **unsatisfactory technical quality** of some CBES projects; in particular we note recurring problems and the failure to meet construction standards;
- the fourth limitation is that implementing agencies require action by outside people **set up operations or require more complex organisation** than the individual operating agencies are in a position to furnish (this is the case, for example, of suction services for emptying latrines, which the operating agencies cannot furnish);

- the fifth limitation is on the **participation side** - which nevertheless remains a strong point of the CBES projects. **Several difficulties are noted:** there is a tendency to create new groups instead of recognising those already in existence; participation by the population is not encouraged consistently at all stages of the project (no kind of participation is contemplated in about 1 in 3 projects);
- the USCS has also shown that there is some **disparity between the mobilisation of human and financial resources and the relatively low number of beneficiaries** (see Chapter 5 of the USCS Final Report);
- some CBES projects fail in establishing those **likages with local and central government** institutions that are necessary for their long term sustainability.
- finally, the CBES cannot be effective if **proper connections with the central management of sanitation** are not properly created and operated; in the case of latrines, for instance, their increased number requires a parallel development in the provision of suction services and in adequating the capacity of the sludge treatment plant.

These limitations allow us to clarify the reasons why a wide-range strategy oriented toward **converting fragmented CBES projects into a decentralised and integrated system of sanitation risk control** is needed.

On closer examination, we can see that many of the limitations of CBES projects derive precisely from **excessive fragmentation**, which hinders devising common strategies and co-ordinated means of action in the territory by the different actors involved.

We must bear in mind that there are at present at least 23 NGOs and 19 government bodies functioning as operational agencies, each of which is working with its own approaches, methodologies, technologies and resources. Instituting **stable interconnections between these actors thus appears indispensable**, especially in the medium and long term, **in order to multiply the overall impact of the CBES projects** without, however, reproducing the forms of organisational rigidity often found in sanitation services conceived and implemented without the initiative in the local actors.

2. Five principles for building a decentralised and integrated system of control of sanitation risks

The systematic perspective that we have just provided cannot be pursued by a mere pragmatic approach - one, that is, limited to exploiting existing relationships and synergies. To the contrary, it is feasible only through a **public policy** capable of progressively involving the different actors concerned with the implementation of CBES projects.

In this section we shall try first to outline the general principles which should give form to such a policy. In the following chapters we will consider the strategies that can give life to these principles and the obstacles that may interfere with the full development of a decentralised and integrated system of control of sanitation risks.

We can set out at this stage five general principles for such a policy:

- the principle of integration;
- the principle of standardisation while preserving diversity;
- the principle of partnership and of the centrality of the gender issues;
- the principle of capacity building;
- the principle of sustainability.

2.1. *The principle of integration*

The first principle of a policy directed toward building a decentralised and integrated system of control of sanitation risks is that it must achieve effective, flexible and inexpensive forms of integration among the actors engaged in the CBES projects.

The term integration must be understood in at least two senses.

It is a matter first of all of achieving **co-ordination among the different actors** and the actions they implement in order to reduce the imbalance in the territorial coverage of the CBES projects and in the distribution of the projects by sector. The objective, in other words, is at least that of:

- directing the actions of the different actors toward areas not covered where there is an urgent need for sanitation services;

- promoting CBES projects in sectors that are at present sorely neglected, namely, sullage disposal and solid waste disposal;
- fostering co-ordination among CBES projects located in the same areas or in surrounding areas, especially when they act in different, but obviously interrelated, sanitation sectors;
- facilitating and encouraging the action of a plurality of actors in the implementation of CBES, including the private sector.

In another sense the term integration refers to the **building of a common vision** of the problems of sanitation in Addis Ababa. The various actors (implementing agencies, government agencies, donor organisations, local communities, private companies, researchers and professionals) will in fact have trouble in collaborating and in interacting as long as they fail to develop a broader awareness of:

- the large number, fragmentation and variety of CBES projects in existence;
- the strategic importance of CBES projects not only at the level of the Kebeles and Woredas, but also at the regional level;
- the benefits that these same actors can derive from increased interaction among the different CBES projects.

In this area then, it is a question of working towards achieving, so to speak, **cognitive integration** among the actors (indispensable for achieving operational integration), which is based principally on greater circulation of information, but capable in the long run of promoting a shared orientation toward change in the sanitation system in the capital. In this process public campaigns for awareness building and social mobilization as well as sensitization programs in the educational system may be crucial.

Obviously, a process of integration **need not involve homogenisation** of points of view, or, worse, a re-centralisation of procedures. To the contrary, the creation of a system must be thought of as an opportunity - a network of services, one might say - which favours:

- more rapid and effective exchange of information (for example, on know-how and available technological options, on the sanitation situation in the various urban areas, on existing financing opportunities, on legislation, etc.);

- more effective decisional processes (regarding, for example, distribution and the kind of actions to take);
- easier contact between donor organisations and implementing agencies.

2.2. *The principle of standardisation while preserving diversity*

A second essential principle is **the establishment of common standards** for planning, implementing, monitoring and evaluating CBES projects which all implementing agencies can use as reference points.

The benefits that can be derived from this are manifold. For example:

- reduction in technical errors (at least recurring ones);
- improvement in the quality of the operations;
- simpler and more effective monitoring of the various phases of the projects on the part of the implementing agencies;
- reduction in the costs of implementing projects.

However, the establishment of common standards should not be viewed as a burdensome bureaucratic regulatory regime. If that were the case we would endanger **the most powerful weapon the CBES projects possess, namely, their diversity**, which is a condition for their capacity to adapt to different local situations.

The process of standardisation must instead be thought of as a consensus among the actors as to the criteria to follow for the creation of projects that work and as to the control procedures necessary for ensuring satisfactory levels of quality.

In this sense standardisation does not mean fixing rules once and for all, but activating a **process** of deciding what is acceptable and what is not. This is obviously a process that must take place **by reference to technical knowledge already in great part established** on the basis of objective criteria. Still, the establishment of standards, if it is to be effective, must follow a consensual procedure that recognises the independence of the different actors.

2.3. *The principle of partnership and of the centrality of gender issues*

We have seen that CBES projects tend to have a highly participative character. Yet, beneficiaries do not participate in all the projects (in one out of three cases it is not provided for) and the USCS noted difficulties in maintaining a good level of participation in all phases of the projects.

It is in this context that the third principle of a public policy aimed at the building a decentralised and integrated system of control of sanitation risks comes into play, namely, **the principle of partnership**.

In this case too, partnership has at least two meanings, each of which carries with it a baggage of implications for urban sanitation.

The first meaning of partnership is the establishment of **stable institutional cooperation among all the actors working in the sanitation field**. Several CBES projects feature this type of collaboration, although we note that most are due to the initiative of particular actors rather than to institutional and organisational factors generally.

The second meaning of partnership is **a development of the idea and the practice of participation**. While in the context of participation we make a distinction between individuals who carry out activities and those who benefit from them, in the context of partnership this distinction tends to disappear. The beneficiaries become genuine actors participating in the whole decisional process, **assuming their own responsibilities and also assuming part of the costs** (financial and economic) of the project. In this sense participation is not just a right to be respected, but a necessity for devising and implementing projects that are appropriate, effective and sustainable. Partnerships of this kind are already in existence in CBES projects. The USCS showed, however, that there are still numerous obstacles to this kind of partnership.

At this point there inevitably arises the question of the **involvement of women in partnerships, especially at the higher decisional levels**, where they are often conspicuously absent.

This is not a matter of affirming a right of women to participate. We believe the full participation of women in decisional processes is a necessity to establish effective partnership. The USCS, in fact, showed that:

- women already have positions of leadership in a considerable number of CBES projects;

- women are particularly tuned in to sanitation and are very willing to participate in all stages of projects from the identification to the implementation.

We note that women in any case play a primary role in sanitation, as they are the ones who manage basic resources such as food and water and take care of hygiene.

For all these reasons it is difficult to conceive of a partnership that would work with women in marginal decisional positions at any project level - region, Woreda, Kebele and individual CBES project.

2.4. *The principle of capacity building*

The fourth principle concerns the main instruments that allow changing the CBES projects into a decentralised and integrated system of control of sanitation risks.

The main problems CBES projects face are the **incapacity of different actors to utilise available technological solutions and economic resources**. We are faced in a word - to repeat the well-known distinction of the economist Amartya Sen⁶ - chiefly with a problem that touches upon capacities (regarding, for example, identification of problems to be dealt with, planning actions, using technologies, using instruments to monitor and evaluate, establishing effective institutional organisations) and much less upon provisions (for example, access to technologies) or entitlements (there is no sign, for example, of instances of failure to respect the independence of the agencies that promote and implement the CBES projects).

The principle of capacity building is thus based on grasping the notion that what is mainly needed to build a decentralised and integrated system of control of sanitation risks is a substantial investment in human resources and in existing collective actors, improving their capability for action and their strategic orientation.

Thus capacity-building is needed:

⁶ Sen A., *Poverty and Famines: An Essay on Entitlement and Deprivation*, Oxford, Oxford University Press, 1981.

- to increase the awareness of sanitation issues at all levels;
- to increase the capabilities of Kebele administrations and Kebele development committees⁷ to activate and support local participation processes;
- to transfer know-how on monitoring and evaluating projects implemented to the administrative staff of the region;
- to raise the capabilities of the Woredas to effect co-ordination and interface with the municipal administration on the one side and the Kebeles on the other;
- to reinforce the technical capabilities of the national and international non-governmental agencies and to expand their skills in the field of fund raising;
- to promote strength and independence in committees of beneficiaries⁸ through training activities aimed at the acquisition of technical and administrative skills;
- to strengthen the capabilities of the committees of users⁹ for action;
- to increase the capability of the private sector to work effectively in CBES schemes taking into account their peculiarities, including the necessity to employ participatory approaches.

This idea in any case takes on greater importance when one considers that within a integrated system every actor will be called upon to broaden his or her own role, increase his or her own functions, assume new responsibilities, finally, to redefine his or her own mission and identity. All this cannot occur without adequate training; hence a careful analysis of training needs is called for.

⁷ The Kebeles development committee consist of committees operating within the Kebele administrations, sometimes performing as well functions of interconnection between the different committees activated within the CBES projects.

⁸ By the expression “Committees of beneficiaries” reference is made here to committees - often characterized by different names - established in the milieu of the CBES projects that assume responsibility for the implementation and the management of a project, performing a function of mediation with the population.

⁹ By the expression “Committees of users” we refer to committees composed of specific sectors of use (for example, the users of communal latrines). In contrast to the committees of beneficiaries, the committees of users do not take general responsibility relative to the management and implementation of projects.

2.5. *The principle of sustainability*

The fifth and last principle is **sustainability**.

In order to build a decentralised and integrated system of control of sanitation risks it is necessary to go beyond the emergency mindset, to stop thinking of the CBES as a makeshift solution while awaiting more radical structural actions. CBES should be viewed as a model for providing permanent solutions to the sanitation problems that afflict the city of Addis Ababa.

The principle of sustainability tends to get around several priority factors:

- the **economic sustainability** of the projects, which involves the complex question of cost recovery and the participation of the population in the costs of the service;
- the **institutional sustainability** of the projects, that is to say, the possibility that the projects can be managed after the disengagement of the implementing agency, which requires a regional network for monitoring and assisting the local communities in the maintenance and management of the works implemented;
- the **technical sustainability** of the projects in relation to the adequacy of the technologies utilised over the medium and long term;
- the **social and cultural sustainability** of the projects, which concerns primarily the maintenance of a high degree of motivation, a strong sense of ownership and active involvement of local communities even after implementation;
- the **environmental sustainability** of the projects which entails that the projects employ technologies and carry out actions that are compatible with the environment in which they are being implemented.

3. **Functions and institutional structure of a decentralised and integrated system of control of sanitation risks**

What has been said thus far obviously concerns the principles that must guide a policy directed toward building a decentralised and system of control of sanitation risks.

In the following chapters we will examine the issue in greater detail, analysing the principal problems that must be dealt with and identifying some specific guidelines.

First, however, we should consider briefly the functions that a system of this kind could supply and the institutional form that it might take.

Both of these questions can obviously only be dealt with through a process of rapprochement among the actors involved in the CBES projects.

Seven **functions** can be identified readily:

- to identify, deal with and resolve bureaucratic bottlenecks (for example, in granting construction permits, in selecting projects and in resolving disputes);
- to promote direct interaction between projects and actors operating in the same zone, even where the regional level is not involved;
- to establish common quality standards to be tested and progressively adopted in CBES projects;
- to establish criteria for monitoring and evaluating CBES projects at the regional level;
- to promote joint fund-raising activities aimed at new donors;
- to promote training and capacity building both at the municipal level and in decentralised forms (for example, in administrative management, in project management, in evaluating and monitoring, and in the fund-raising), and to support initiatives of this kind promoted by intermediary agencies;
- to set up loci to access information concerning the activities conducted within the CBES project and to foster cross-contacts among Kebeles, among intermediary agencies and among development committees.

With regard, however, to **institutional form**, different possibilities may be envisaged, such as, for example, that of reinforcing the role of the Woredas as focal points of planning and of association among Kebeles, intermediary agencies and base organisations, leaving to the Region the more general tasks of facilitating, so as to give the Woredas a greater role in community mobilisation. Different poles of responsibility may also be thought of, varying in accordance to function (for example, the functions

of development of training activities and capacity building might be entrusted to a co-ordination committee among the implementing agencies; the selection of projects might be handled by a joint committee of government agencies, implementing agencies and ad hoc committees, etc.).

The important fact, however, is that the **whole system be built through participative and consensual procedures**, that are not regressive with respect to the present arrangements and which do tend to allow a certain degree of autonomy to the various implementing agencies. Whatever the selected institutional solution may be, this aspect must in any event be safeguarded in order not to establish a re-centralised (and hence ineffective) system of sanitation risk control.

CHAPTER FOUR

Strategic factors and constraints

The five elements of a public policy for the establishment of a decentralised and integrated system of control of sanitation risks have been set out as general principles, without concern for how they may be put into practice, as a public policy cannot be deduced directly from the principles that underlie it, but must be based on the principles as they apply to the situation at hand.

Thus we will first analyse the issues that cut across all four sanitation sectors — human waste disposal, stormwater drainage, solid waste disposal and sullage disposal — dividing them into five main issues:

- institutional options;
- people participation;
- technological suitability;
- cost recovery;
- legal status.

In Chapter 5 we will examine specific questions concerning the four sanitation sectors; and, lastly, in Chapter 6 we will furnish guidelines for the implementation of a policy aimed at the establishment of a decentralised and integrated system of control of sanitation risks in Addis Ababa.

1. Institutional options

In the course of the Urban Sanitation Case Study different institutional options emerged which had been adopted within the confines of the implementation of the CBES projects.

In general, three principal "models" may be distinguished.

- The first **model** is the one adopted by the **government agencies**, centred on the Kebeles (or on Kebele development committees), which assume a great part of the strategic and operative functions, such as setting priorities, obtaining the required building permits, maintaining relations with other public bodies involved in the works, resolving any

disputes over ownership of land where the works are to be located, and operation and maintenance. This model offers a certain stability, but carries the risk of bureaucratisation and denies the beneficiaries a sense of ownership of the projects.

- The **second model** is the approach of CARE and other NGOs, whereby committees of beneficiaries assume direct responsibility for the conduct of the project, taking on the role of counterparts of the implementing agencies. The beneficiaries' committees thus perform a multiplicity of functions, such as supervision and control, establishing priorities, managing relations between project staff and the population, supervising the work, sponsoring mobilisation of local human and financial resources, mediating disputes, taking responsibility in the field of operation and maintenance, and overseeing the proper use of infrastructures. While in the majority of cases these committees succeed in performing these general functions efficiently, they often find it difficult to maintain the sustainability of the projects after the end of the period of assistance furnished by the intermediary agencies, in good part because of conflicts with the Kebele authorities.
A variant of this model — again, adopted by several NGOs — is to have one or more user committees in place of a committee of beneficiaries. This is not as good a solution, in that such committees do not assume overall responsibility for the implementation of the project, but only for certain functions such as local mobilisation, occasional operation and maintenance, etc.
- The **third model**, adopted for long-term projects by several NGOs (Redd Barna, Integrated Holistic Approach, Concern), is characterised by its institutional complexity, with committees at the Kebele level, subcommittees for different zones of the Kebele, sectoral committees (health sector, housing sector) and neighbourhood groups of small numbers of families. Although effective in many ways, such as promoting participation, mobilising the beneficiaries, capacity building, involvement of traditional organisations and so on, it is not reproducible on a large scale, principally because of the long implementation period it requires.

2. People participation

Although people participation in all phases of CBES projects is key to their success, the objective remains elusive.

Of the 33 projects implemented by government bodies, people participation is provided for in only 3 cases.

As for projects realised by non-governmental organisations, participation is provided for selectively:

- 88.5% of the projects provide for participation in the identification phase;
- 80% in the planning phase;
- 94.2% in the implementation phase;
- 47.1% in the monitoring activities;
- 35.7% in the evaluation phase.

In general, the *ad hoc* committees are the ones which perform the activity of consultation with and mobilisation of the local population, primarily in the identification and consultation phases. The committees seem to function better where they are based on pre-existing local groups.

In the implementation phase, the participation of residents occurs through offers of employment (gratis or for pay) and of services (for example, guarding materials at night). Not infrequently, NGOs use private businesses, but only to handle specific parts of the project and consistently with the general methodology adopted for the project.

However, we note that the degree of participation decreases considerably in the monitoring and evaluation phases.

3. Technological suitability

In general, technological adequacy can only be assessed with reference to the specific sector it is to be applied. The Urban Sanitation Case Study made two points in this regard:

- in many cases errors and a low level of precision can be seen at the planning level, even when the implementation agencies are large and have proven experience, which shows the importance of more effective planning and selection of technologies;
- operation and maintenance activities appear are not a problem in the case of well planned and well installed infrastructures, and they can be provided directly by the community; these activities, however, must be carried out in a consistent and timely manner with an eye towards efficiency and low cost.

4. Cost recovery

One of the weakest points in the CBES projects is cost recovery. We found no case in which it worked satisfactorily, either because the project staff has only an approximate idea of the costs of managing the infrastructures or because of the tendency to delay collecting funds from users until absolutely necessary —CARE projects are an exception. Often the problem of cost recovery is attributable to the failure to initiate satisfactory participative organisations; and in other cases the individuals charged with collection are not sufficiently trained to do it.

The problem in the end is that the implementation agencies themselves show a **lack of awareness of the importance of recovering costs**, which leads to fatalism and ineffectiveness — such as trying to collect payments at the last minute. Ironically, we found that beneficiaries are often willing to pay, yet lose interest because of the lack of an efficient cost recovery system.

5. Legal status

Insecurity of tenure casts a shadow on all CBES projects. Its practical effect is that residents see no point in investing in new infrastructures.

Legal status problems are often connected with the problem of lack of building space in the Kebeles its uncertain status in terms of tenure. They often arise in the implementation stage of projects; specifically when:

- ceding part of the concession where one's own home is located for road improvement and drainage works;
- asserting ownership of sites chosen for infrastructures, especially latrines;
- claiming rights of way for works, such as channels, that jeopardise access to dwellings;
- building potentially septic infrastructures too near habitations.

Two paths are followed in dealing with the conflicts that arise with reference to the use of land:

- the first (adopted with success by the Region 14 Project Implementation Organisation) is to furnishing **compensation** to people forced to cede all or part of their habitation for infrastructure works;
- the second (adopted by various NGOs) is to use **simple negotiation**, based on the fact that those most disturbed by the works, because they are closest, will benefit the most, and by involving influential groups such as Edirs as mediators, or appealing to the Kebele in the most intractable cases.

But the Study found that it was not always possible to reach an agreement and there were instances in which new roads were simply built without drainage ditches.

The Study also found that the **compensation system** had at least two **drawbacks**.

- *First*, to obtain an indemnity required an **ownership certificate**, which in the vast majority of cases had to be requested ex novo from the competent offices of Region 14. The latter took a long time to issue them, causing work delays and forcing project staff to take on the burden of facilitation.
- *Second*, the prospect of compensation provoked **irregular ownership claims** over sites selected for public works.

In the latter case, legal action was inevitable, which in the cases studied always resulted in denial of the ownership claim.

Briefly, three key points should be kept in mind as regards legal status.

- Legal problems affecting the implementation of the projects are both frequent and predictable. Not all implementing organisations, however, are aware of them and take preventive measures. A protocol containing the most frequent cases and the possible solutions would be of assistance and could be easily produced.
- Negotiations under the aegis of influential people can develop community consensus and solve all but the most difficult cases. Local courts usually issue decisions within a reasonable time.
- Even measures such as compensation require careful handling and can be affected by the existing bureaucratic and administration conditions.

CHAPTER FIVE

Specific issues pertaining to the different sanitation sectors

After examining some of the strategic features of CBES projects, we will now take a closer look at three of the four areas into which sanitation breaks down operationally: excreta disposal, stormwater drainage and solid waste disposal (there were too few sullage disposal projects to draw any conclusions).

1. Excreta disposal

From the standpoint of **institutional structure**, we find a variety of solutions, especially as regards operation and maintenance.

Communal latrines, for example, which were by far the most common kind of latrines built, were in virtually all cases handed over for the exclusive use of a certain number of families, which were then responsible for their cleaning and maintenance.

The methods by which they were handed over, moreover, varied considerably and included:

- the simple acceptance of the latrine by the beneficiary families by oral agreement with the intermediary agency;
- the acceptance of the latrine by the beneficiary families by written document (hand-over certificate) that set out rights and duties;
- the formation of a committee of users for managing and guarding (users committees, households committees, etc.);
- the assignment of monitoring and guarding to pre-existing local associations;
- the assignment of monitoring and guarding to the Kebele Administration or its representatives (KDC or Sanitary Guards);
- the assignment of monitoring and control to citizens' committees or apposite organisations set up by the project (health committees, health promoters, etc.).

In the case of communal latrines, we note that users' committees were a reliable approach to these ends, although special care was required in the selection, training and tutoring of members of the committees.

A number of specific issues emerged, however, especially as regards **technological suitability**.

In the case of V.I.P. latrines (the most frequently used), the USCS notes a number of recurring mistakes that could be easily eliminated, to wit:

- Some of the vent pipes were located inside the rooms. Without a breeze, ventilation was not effective.
- The height of the vent pipes above the roof of the superstructure was in most cases less than 500 mm. In such cases air flow was reversed¹⁰.
- In most cases the top of the vent pipe was not wrapped with wire or plastic mesh. This allowed flies and rodents to enter and breed in the pit.
- Some of the superstructures did not have vent space left on the wall for air circulation. The main purpose of the vent is to allow air to enter the stall and then into the pit so that it pushes the gas up through the vent pipe.
- Most of the latrines that had vent space left between the wall and the roof lacked any fly netting. This allowed flies and rodents to enter the stall.
- The vent pipes in all the cases were not painted black. Black paint makes ventilation more efficient.

As stated above, the technical requirements for a correct operation of pit latrine must take into account the necessity to empty it easily when needed, thus location in a place accessible by suction trucks is essential. It has also to be recalled that in Chapter 2 the capacity of the existing suction services and treatment plant to deal with the prospected increase in the sludge production was questioned. This is a case in which the decentrated system we propose should be able to **integrate the increase in local construction of latrines with the expansion, managed at the central level, of the suction and disposal facilities**.

In this framework technologies following the approach of “**dry sanitation**” leading to the design of latrines in which the faeces are separated from orina can be relevant, since they sensibly reduce the amount of waste produced and make it possible to dispose of it on-site, without impinging on the central disposal structures. So far very little has

¹⁰We note that one of the reasons the vent pipes were 200 to 300 mm short of the necessary height was that pipes from which the vents were made were usually sold in 6-meter sections, so that it was cheaper to cut them into two sections of 3 meters, which is insufficient given the height of the superstructure.

been attempted along these lines, but some interesting experiments are currently underway that deserve attention in order to assess their feasibility and sustainability on a larger scale

As regards **cost recovery**, we note that the communal property model was adopted in most cases where excreta disposal infrastructures had been built.

In the majority of cases the users of a latrine formed a committee that had, among its major responsibilities, money collection for the future operation and maintenance of the infrastructure, including the emptying of the pit when full.

Some committees actually collected fees regularly, on a monthly basis.

However, we observed that other committees were not collecting money on a regular basis. This is a risky proposition, as most of the inhabitants are poor and it is difficult for them to contribute lump sums for covering suction costs.

One of the **underlying causes of the collection problem is that contributions were assessed per household**; thus small families complained that they should not pay the same amount as large families. And in most cases users believed that they had to contribute only for emptying the pit and not its maintenance.

Finally, we note that in many instances where funds were collected the fees charged to users were either too low to cover the prospect costs, or unnecessarily high.

2. Stormwater drainage

We find a variety of **institutional solutions** to stormwater drainage projects too, among other things because drainage projects are public property and it is therefore difficult to determine the number of direct beneficiaries.

One common solution was to entrust them, at least in principle, to the Kebele Administration or the Kebele Development Committee. There were many instances, however, as in most of the CARE projects, in which

responsibility was devolved to citizens' groups formed in connection with the project. Lastly, we note the involvement of traditional associations, such as the Edirs, and even the assignment of responsibility to Region 14. The use of sanitary guards to enforce proper behaviour is often attempted, but, as documented in the USCS, apparently with scarce results.

We note far less **participation** than in excreta disposal projects. Unlike government bodies, NGOs tend to devise complex systems to make them operational, but they are not always effective. Making people and local administrations co-responsible is the ideal, but difficult solution to the problem.

We found two main types of **technology** used in drainage systems, namely closed-pipe and open-channel type.

The advantage of **closed-pipe drainage** is that the flow in the pipe is hidden and the area remains clean.

The disadvantages are the high cost of construction and the high risk of blockage. In addition, in places where there are no latrine facilities, people tend to dump human waste in manholes; the area is thus permeated with faecal smell and the storm water drainage pipeline turns into an irregular sewage line.

An **earthen ditch** can be constructed easily and at low cost, but it has the following drawbacks:

- it can be easily eroded by floods;
- grass and other types of weeds tend to grow in and along it, and it thus requires frequent cleaning;
- people tend to discharge liquid waste and dump solid waste in it; the solid waste can block the ditch and rainwater will then overflow; and there is a bad smell when liquid waste mixes with solid waste.

The disadvantage of a **stone-paved channel** is that the flow is visible and the area appears unclean. This is the case especially when the flow consists mainly of waste water. The other is that construction costs are higher than for simple earthen ditches. However, its advantages seem to outweigh its disadvantages.

The advantages of a stone-paved channel are:

- it can be cleaned easily;
- it will not be eroded;
- water flows easily;
- all solid waste can be seen easily and can be removed immediately;
- stone is available in Addis Ababa;
- the maintenance work can be done by semiskilled labour.

Therefore, the choice of stone-paved channels in many cases is an appropriate solution. Of course there are also instances in which closed piped drainage should be preferred.

We would note the following, however:

- some of the channels do not have a sufficient slope to make liquid waste flow;
- some people dump their refuse in the channels and this results in blockage;
- in most of the densely populated areas liquid waste is also discharged into the channel; and in places where latrines are not available, people mix their faeces and urine with liquid waste and discharge it into the channel (this happens also for piped channels).

These problems have an impact on the environment and therefore require special care. They should be approached both by building sense of ownership and responsibility among the beneficiaries and devising and establishing feasible forms of enforcement of simple rules of conduct. Anyway, the major causes for abuse are the unavailability of solid waste disposal services and latrines; therefore, during the initial study of the project their impact must be assessed jointly.

Lastly, there were substantial problems with **cost recovery** because in public infrastructures, like stormwater drainage systems, it is difficult to devise criteria for assigning responsibility.

Normally, responsibility for O&M was assigned to ad hoc community groups or directly to the Kebele Administrations - bodies which in effect were considered owners of the infrastructures. Individual beneficiaries had a role in O&M since in practically every case the structures were run

on the assumption that the population would provide free labour for cleaning and pay the fees needed to carry out the works.

The contribution in work by the population for routine cleaning was a successful solution in many cases; payment of money was a different matter. Most projects did not provide for systematic collection of funds for routine and extraordinary work.

3. Solid waste disposal

There is very little specific information available on solid waste disposal projects because such projects are few and far between.

As for the **institutional setup**, we note that local authorities tended to intervene primarily through sanitation guards, mainly to punish those who dumped waste at unauthorised sites.

But the collection structures are grossly inadequate. It is no surprise then that there are considerable management problems in this sector. We note the following:

- even in areas which are provided with containers there is a great deal of waste in inappropriate areas, including the areas near the containers;
- refuse accumulates because the containers are emptied infrequently;
- the lift-over height of the containers is rather high; we observed that women and children found it hard to put refuse in the containers;
- people often have to travel more than 300 meters to reach the nearest container, which discourages their use;
- furthermore containers can be placed only in areas that can be accessed by lift trucks, unaccessible areas are structurally neglected unless special measures at community level are taken;
- only where collection is organised at the family level are results good; reasons for success include the ability to come to an agreement with the city regarding a schedule for emptying containers and for special collections following community cleaning;
- none of the projects had planned sorted collection of solid waste;

- even though there are many spontaneous recycling activities at the local level, including scavengers at the city dumpsite, we did not observe any project aimed at involving them in planned sorted collection and recycling, nor does it appear that such projects are planned for the future.

Given that the city does not have the resources to service more than a limited number containers per Kebele, if the goal is to provide more frequent and certain collection times there must be greater cooperation between central- and community-level services. Again, the serious constraints met in the very collection of solid waste must not overshadow **the problem of its final disposal**. We have already emphasized the limits in the capacity and operation of the existing land fill site. As it is true for human excreta, the level of local collection has to be properly integrated with the general level of adequate disposal, **treating the solid waste management in an holistic way**, discriminating among different kinds of waste and setting up strategies for differentiated treatment and recycling. Partnership among public agencies, private entrepreneurs, NGOs and local actors seems most advisable. Furthermore, all schemes aiming at reducing the burden laid on the central disposal plants, by treating refuse locally should be encouraged. This might include recognizing, monitoring and empowering the existing traditional ways of sorting and recycling solid waste.

As regards **technology**, we note that placing containers for solid waste collection in open spaces is technically acceptable so long as the area is kept clean and the city empties the containers regularly. The distribution of two containers per Kebele (as made also by some NGOs) is not sufficient. People prefer to dump their refuse in a place closer to them rather than walking a distance. Thus people dump solid waste in drainage channels, which blocks and fills the channels.

CHAPTER SIX

Guidelines

On the basis of what has emerged in the two preceding chapters and keeping in mind the five principles discussed in the third chapter, we may set out guidelines — understood not only as lines of action, but also as analytical paths — to facilitate the transition toward a decentralised sanitation management system.

1. Institutional options

1.1. Community Committees

From an institutional point of view the principal strategic aim is to **strengthen the role of the committees of beneficiaries**, which seem to be the principal mechanism for advancing two factors that otherwise are in danger of being marginalized:

- effective involvement of the population (together with what follows from it, i.e., development of a sense of ownership, greater involvement in cost recovery and so on);
- more adaptability and flexibility of the projects to local situations.

Therefore, it is necessary to introduce several elements that must be borne in mind in establishing an effective institutional organisation.

- The committees of beneficiaries function much better and have a greater chance of lasting when they are built on the basis of (or, better yet, are expressions of) **already existing organisational realities**. Committees that are not socially rooted are at risk of not being given much legitimacy, especially when they have to ask citizens to pay for sanitation services.
- Thus it is essential that the intermediary agencies: a) **have a deep awareness** of the pre-existing organisational situation before creating committees of beneficiaries; b) establish the responsibilities, functions and the membership of the committees through broad consultation, even though this may take time.

- In order for the committees to function satisfactorily a program of **capacity building** must be provided for which involves **not only training activities** on specific technical aspects (accounting, evaluation and monitoring), but also **general training activities** (to raise the degree of motivation of the members of the committee, to encourage establishment of a committee mission, etc.). This may require specific adult education.
- The introduction of **tutoring activities** by intermediary agencies is essential to the stability of the committees. We note that concentrating assistance activities only in the early phases of projects is a formula for failure. Tutoring is actually a decisive factor, especially over the medium and long term, after the intermediary agency has ceased to be directly involved in the project. Tutoring can also be supplied through meetings and minor activities. The important thing is that it be scheduled regularly, even though it need not be frequent (for example, once every 3 or 6 months). It may also be supplied based on demand, as needed, so long as it is part of a plan.
- In order for the committees to function satisfactorily they must create opportunities for **consultation** with the population, either through direct contact (for example, public assemblies) or through the involvement of existing organised entities.
- The committees of beneficiaries tend to function best when they are associated with **committees of users** (which must be monitored and supported through capacity building) and in any event when they work in co-ordination with associations and organisations that are in a position to represent the different interest groups. In general, it has been noted that the higher the number of organisations involved, the more stable the institutional system (provided, obviously, that satisfactory forms of integration, negotiation and management of eventual conflicts among the different entities are in place).
- In the perspective of the establishment of a single system of sanitation management, we suggest promoting contacts between committees in different areas for the purpose of activating techniques of "**identity building**" through a process, so to speak, of social mirroring.

1.2. Relationships between the beneficiaries committees and administrative authorities

One of the most sensitive issues, from the institutional point of view, is **the relationship between committees of beneficiaries and local authorities** (in particular with the Kebeles). We note that such relationships tend to deteriorate rapidly once they are no longer mediated through an intermediary agencies (when the latter are non-governmental).

We suggest the following preventative measures.

- At the time the committee of beneficiaries is established, and at any rate before the intermediary agency ceases its support activity, **institute collaboration agreements between the committee, the intermediary agency and the Kebele**. These should set out the respective responsibilities and kinds of relationship that must exist among the various entities (thereby solving controversies as they arise), and methods to resolve any conflicts. It should be in the nature of a general agreement sufficiently flexible to be adapted to various exigencies, and that can, at a minimum, increase awareness of the involved parties as to the risks involved when there are conflicts between Kebeles and committees.
- However, the most effective means for preventing conflicts remains that of **fostering collaborative relations between the members of the committees and Kebele officials**; it should be a concern of the intermediary agency to create opportunities for this to occur.
- Finally, there should be collaborative mechanisms between **committees of beneficiaries and the concerned sectors of the Regional administration** in order to foster integration between the services offered by them respectively in CBES project. For example, solid waste management requires integration of the activities of the municipal solid waste service, involving transport of containers to the dumps, with the services supplied by the population, which include responsibility for transport from houses to the containers.

We note that the role of Kebele administrations changes according to the sector of intervention. Their role is obviously more important where public property is involved, such as a storm water drainage systems and waste containers.

1.3. Relationships between local authorities and intermediary agencies

A third problem area to be addressed is the relationship between local authorities and intermediary agencies. These relationships could benefit from the creation of a decentralised and integrated system of control of sanitation risks that provides the institutional locus where they can be regulated and managed. While waiting for this to occur, we suggest the establishment of a **framework agreement between the intermediary agencies and Kebeles** regarding the division of responsibilities, especially where monitoring activities decision-making are involved.

1.4. Utilisation of health promoters

Health promoters have been used with success in several CBES projects. We suggest using local, trained persons to act as facilitators (health promoters), helping families, committees of users and communities to deal with and manage all the problems related to sanitation. They can also foster relationships between committees of beneficiaries, intermediary agencies and the population, and can act as facilitators for committees of beneficiaries.

Our experience shows that the cost of health promoters is low and the benefits high. What is necessary is a plan that provides for these facilitators even after the intermediary agency is phased out.

2. People participation

Participation is essential to development. It fosters a sense of ownership and responsibility and increases the efficiency and effectiveness of projects. However, participatory efforts have their down side, to wit:

- they raise expectations unreasonably regarding the results that the CBES project can realistically provide;
- they are not implemented with adequate mechanisms that make it possible to direct the participation toward concrete and visible goals over which the population can exercise effective control;

- they are aimed only at obtaining a work force free of charge or at a low price, without pursuing the goals of sensitisation and involvement in the management of sanitation at the local level;
- they are not constant over time;
- they are conducted without reference to groups already organised within the community;
- they are conducted without recognising differentiated social conditions within the population (for example, poorer families, those who enjoy a fixed income, groups of youths, etc.);
- they do not provide for significant involvement of women.

In sum, participation must be carried out not according to "spontaneous" methods, but following a **consistent program** (one might say through an action-research) which provides for various phases, including:

- **appraisal of the local social situation**, not just by the intermediary agency but also by the committee of beneficiaries;
- **identification of specific goals**, which would make it possible to establish when and whether participation ought to be advocated (a significant part of the activities provided by the projects does not in fact require specific mobilisation of the beneficiaries, who might instead be an obstacle);
- establishment of activities designed to **create an enabling environment** (for example, through dissemination efforts and civic information);
- selection of the most appropriate **action mechanisms** (meetings, assemblies of a decisional character, neighbourhood meetings, etc.) which must however be from time to time tested and evaluated, and which must be targeted with respect to the different phases of the project so that the level of participation may remain constant (something not presently done);
- establishment of the **specific methods for selection and involvement** of every already organised group active locally.

As we might imagine, the implementation of all these suggestions could be greatly facilitated by a citizens' network capable of comparing

the various participatory experiences carried out in the context of the CBES projects in Addis Ababa.

The **involvement of private enterprises**, which normally have little familiarity with participatory methods, should be cultivated. Since their involvement in projects may cause friction with the local population, we suggest some ad hoc measures to facilitate their acceptance in projects, including:

- addition of clauses in the contract concerning work methods that the enterprises must adhere to;
- involvement of the enterprises in meetings of a decisional character in which direct relations between the enterprises and the local population and their representatives are defined;
- briefing (even of short duration) the staff of the enterprises on the organisation of the project;
- identification of specific (even though elementary) monitoring mechanisms in order to be informed promptly of any friction involving the enterprise.

3. Technological suitability

We have seen that technological suitability is a weak point in many CBES projects. The cause is not only poor technical training, but other factors as well, such as the tendency to cut costs, undue care in performing the work, lack of sufficient technical assistance and the lack of effective monitoring.

Most of the technological inadequacy can be solved by adopting appropriate measures, such as:

- specific training activities directed toward those who must implement works, install technologies and take care of their maintenance;
- technical monitoring activities that provide testing and experimentation before widespread utilisation of technical solutions on a small scale where their reliability has not been proven;
- continuous control of private enterprises involved in the project, regulated by particular contract clauses;

- study of and experimentation with different organisational solutions for providing the work of operation and maintenance;
- allocation of supplementary funds and the setting up of a special account to be used for operations of a technical character, especially in cases of emergency;
- involvement and training of local artisans (who, incidentally, have shown the capacity to manage practically all the technological assets installed by CBES projects).

A different approach must be taken with respect to **choice** of the most appropriate technologies to be utilised, a choice that must take into account not only the technical aspects but also the organisational and social ones related to the use of different technologies.

It is especially in this area that a system of decentralised control of social risks is appropriate, as it can do the following:

- publicise among the CBES projects technological solutions that have already been shown to be reliable and effective;
- publicise information concerning new available technologies;
- obtain technical assistance (furnished by national bodies or by international cooperation organisations) for the solution of particularly complex technical problems;
- establish accepted procedures and standards as to the selection, installation, use and maintenance of the works and the technologies utilised.

With regard to this last point we note that there are some technical standards that are largely ignored (see Chapter 5).

Concerning the installation of **VIP latrines** (which is currently the technology more in use), we note that the following standards exist:

- the vent pipes are to be located outside the room;
- the height of the vent pipes above the roof of the superstructure must be more than 500 mm;
- the top of the vent pipe is to be wrapped with wire or plastic mesh;

- the superstructures are to be equipped with vent space left on the wall for air circulation;
- latrines with vent space left between the wall and the roof are to be equipped with fly netting;
- vent pipes are to be painted black;
- drainage works must be conducted in tandem with the construction of access roads to allow emptying of pits.

We underline again the necessity of giving due consideration to the problem of the **overall capacity of the system to properly collect and treat the sludge produced.**

Furhtermore, while enforcing the respect of the standards for “seasoned” technologies such as V.I.P.s, space should be allowed to **experiment innovative solutions** such as “dry sanitation” infrastructures that were mentioned in the previous chapter.

As far as storm **water drainage systems** are concerned, the following technical standards exist:

- channels must have a sufficient slope;
- channels are to be cleaned frequently in order to prevent people from dumping their refuse in the channels;
- effective ways for discharging liquid waste are to be provided in order to prevent people from using storm water drainage channels;
- earthen ditches are not advisable because they easily fill up; more suitable are stone-paved open channels;
- water supply lines are not to be laid in some of the drainage channels in order to prevent liquid waste from flowing directly over the pipes and, in the event of leakage, risk contaminating the water supply in the pipes;
- the open ditch solution requires providing every house that has an access door on the channel side with a footbridge or small culvert;
- check misalignment in closed pipes and the regularity of the width of open channels;
- check the width of open channels; often they are too small to cope with rainwater volume during the rains.

Technical standards for **solid waste collection** include the following:

- solid waste collection containers are to be emptied as frequently as possible and, at any rate, regularly;
- at least four containers per Kebele should be provided;
- there should be technical integration between municipal solid waste services and the services provided in the framework of the CBES projects;
- Compatibility with the conditions and the capacity of the land fill sites should be assessed properly;
- sorted collection and recycling technics should be incorporated in all planning both at the local and at the central level, including consideration of traditional procedures

4. Cost recovery

Cost recovery is perhaps the biggest problem in projects, due to lack of awareness of the strategic importance of recovery to the sustainability of CBES projects.

In general, **cost recovery must change from an "act" or set of acts taking place over time** (the collection of money from the community) into a **continuous program** that has its own procedures, mechanisms and strategy.

A program of this kind ought to:

- establish which individuals have been authorised to collect money from the community;
- establish a schedule of due dates that makes it possible to distribute over time the support obligations of the beneficiaries, thus avoiding emergency collections, which produce little (because many families do not have ready cash), create social unrest and discontent, and produce inequitable results;
- identify the best methods for asking for contributions from the community; cash contribution for investment costs from the community, even in a low income area, can be collected if addressed in a proper and transparent way and adequate leadership;

- identify and involve the most representative and influential groups in the community for the collection of contributions;
- in the preparatory phase of the project, obtain information concerning the willingness-to-pay of the beneficiaries so as to size the project appropriately;
- calculate the cash flow required over time in order to facilitate the whole enterprise;
- accompany the cost recovery program with sensitisation and informational activity which would make it possible to increase confidence between the population and the intermediary agencies;
- make all the administrative and accounting actions of the project open and public;
- take on new responsibilities and activate a broad fund-raising strategy that involves, among other things, a co-ordinated contact and cooperation effort aimed at current and potential donor agencies;
- map out and introduce a tutoring program of the intermediary agencies (with the possible support of health promoters) specifically regarding cost recovery.

5. Legal status

The legal status of properties where projects and works are located is one of the most difficult and complex problems overall.

As we noted, public agencies presently have recourse to expropriation with compensation, while many NGOs tend to turn to negotiation (not having the right to expropriate). Both systems have limitations that are, in a sense, structural, and which must be dealt with effectively not at the level of the individual project but in the broader context of the "system".

What is needed is a **general agreement with the regional administration as to the procedures** to be adopted relating to legal status, responsibility for safeguarding the works, and expropriation of property and indemnification.

What we accordingly recommend is the **institution of a municipal ad hoc commission** which, in concert with the other actors (intermediary

agencies, Kebeles and Woredas), would study an interim solution aimed at preventing conflicts by establishing general, flexible rules of procedure.

For the present, it is in any event necessary to adopt acceptable forms of compensation and arrange informal methods of resolution of conflicts, having recourse as necessary to individuals, such as the Edirs, who have shown themselves to be particularly effective.

6. Operational recommendations

The concepts presented in the foregoing chapters can be summarised in a general guide or checklist of actions to be taken, even though it is necessary to take into consideration the fact that some important aspects of the Urban Sanitation Case Study have not been analysed. For example, the comments made in the study relating to administrative performance in the Kebeles should be gone into in more detail and extended to a greater number of Kebeles that are more representative of the complexities of the region.

In the pages that follow two general schemes are presented.

The first is a kind of checklist of the principal operations necessary for getting CBES projects under way. The second is a general scheme for adopting a policy of establishment of a decentralised and integrated system of control of sanitation risks.

CBES Project Checklist

1. Preliminary studies

- conduct an evaluation of the sanitation problems existing in the area, paying particular attention to the role of women in sanitation; it is important that this evaluation be conducted with involvement of all the actors, including the beneficiary communities;
- make an on-site analysis of the locally existing organised situation;
- analyse the projects under way, with particular reference to the sectors they cover, so as to encourage intersectorial integration.

2. Dissemination and capacity building

- carry out a publicity campaign among the population on the information collected on sanitation;
- begin a consultation phase with all present actors and with the population for the establishment of priorities through general meetings and special meetings;
- identify and train the health promoters;
- advocate and facilitate the establishment of committees of users of the planned infrastructures.

3. Committee of beneficiaries

- begin a phase of identification of all the actors to be involved in the committee of beneficiaries;
- establish the committee of beneficiaries, identifying its responsibilities, membership, operational mechanisms, internal organisation and costs;
- evaluate instruction and training needs for the committee;
- establish an instruction and training plan for the members of the committee.

4. Technological aspects

- undertake an analysis of the technological potential present in the area;
- establish elements of intersectorial fusion among projects present in the area;
- establish minimum operational and technological standards to be adhered to and to be used in the monitoring and evaluation of the works;
- make a preliminary study of the technological capabilities present on the community level;
- produce a training plan for skilled and unskilled labour from the community;
- establish community work methods and agree on them with the interested parties.

5. Institutional relations

- establish a framework agreement between the Kebele administration, intermediary agency and committee of beneficiaries concerning the division of responsibilities and reporting methods in the implementation phase of the project and subsequent to the withdrawal of the intermediary agency, clarifying also the relationships between the committee of beneficiaries and the Kebele Development Committee;
- establish a framework agreement between the intermediary agency and the Kebele administration concerning the division of responsibilities and joint work methods;
- fix the responsibilities and establish the methods for collaboration between the committee of beneficiaries and committees of users (for example, in the area of operations and maintenance activities);
- (relative to the waste disposal system) enter into a collaborative agreement with the municipality to encourage consolidation of the municipal solid waste service (transport of the containers to the dump) with the service that is to be provided by the CBES project (carriage from houses to containers);

- (relative to the waste disposal system) try methods already applied in various African and Latin American countries involving the utilisation of scavengers for selective collection and reuse of refuse;
- (relative to human waste disposal) enter into an agreement with the municipality or with private entrepreneurs concerning the emptying of the latrines.

6. Cost recovery

- undertake an analysis of the willingness-to-pay of the potential beneficiaries;
- establish a plan for long-term cost recovery which is economically sustainable for the families (it is preferable to utilise a pro capita and progressive system with respect to the economic conditions of the families) and which also includes the cost of operation and maintenance;
- foster the financial involvement of potential beneficiaries even at the early stages of the project;
- periodically undertake a survey of current market prices for materials and sanitation-related technologies (preferably to be carried out by the Regional administrations) in order to provide CBES project staffs with reliable price standards;
- undertake a public information programme specifically on the subject of cost recovery;
- study and eventually arrange to have income-generating activities that can be used to further cost recovery;
- study and adopt a flexible accounting system that makes provision for the different sources of financing;
- set up a training program for the committee of beneficiaries, and, if they exist, for the users committees concerning administrative management and accounting;
- activate a medium- and long-range plan for fund raising by the committee of beneficiaries after it has obtained specific capabilities in this sector;
- activate a plan of communications and information which would make it possible to make timely requests for the contributions of families;
- plan and implement a program of tutoring relative to cost recovery which would keep the intermediary agency involved, even after the phase-out, and which would possibly make use of individuals like the health promoters.

7. Legal status

- devise a strategy for the management of expropriations on the basis of consultation with all the actors and with the committees of users in the context of the existing laws;
- make use of informal methods for handling the conflicts that may arise by utilising the local actors (the Edirs among them, who have shown themselves to be particularly effective in this area);
- devise and activate the necessary compensation mechanisms;
- try to obtain at the municipal level the adoption of temporary norms for the handling of expropriations while awaiting a more comprehensive reform of land tenure.

8. Involvement of private enterprises

- include in the terms of reference contained in contracts with private enterprises clauses relative to people participation;
- give a briefing to the personnel of the selected private enterprises on participatory methods;
- set up specific methods for monitoring in order to control the relations between private enterprises and the population;
- devise proper incentives to increase and upgrade the involvement of the private sector;
- (for solid waste and human excreta management) consider the possibility that some services at community level be provided by small scale cottage enterprises.

9. People participation

- conduct a study concerning the methods of involvement of the population in other CBES projects in Addis Ababa;
- devise a plan which, for every phase of the project, would identify the goals, methods and mechanisms for involving the population at the various levels (committees of users, existing organised groups, families, population as a whole, etc.);
- go over the plan with the individuals concerned and amend it;
- devise a consistent plan of dissemination and capacity building at the community level, using public entities (like the Kebeles) and private entities.

10. Institutional tutoring

- design and implement a plan for tutoring by the intermediary agency for the benefit of the committee of beneficiaries and possible user committees after the phasing out (especially regarding operation and maintenance of infrastructure), making provision for the use of personnel like the health promoters.

11. Monitoring and evaluation

- design a plan for the monitoring of the five areas of the CBES projects (institutional organisation, people participation, technological suitability, cost recovery and legal status);
- identify the criteria for making evaluations and determine who is to make them;
- design a training plan for personnel involved in monitoring and evaluation.

Plan for the initiation of a programme directed toward the establishment of a decentralised and integrated system of control of sanitation risks

In general, two principal phases may be distinguished in the initiation of a program aimed at the creation of a decentralised and integrated system of control of sanitation risks:

- a preliminary or inquiry phase;
- a pilot phase.

1. Preliminary phase

Goals

- to gather information necessary for designing the system;
- to make inquiries concerning the attitudes of the different actors relative to their degree of involvement in the system;
- to promote the development of a common vision regarding the sanitation problems in Addis Ababa;
- to devise a plan of intersectorial fusion, especially for the purpose of dealing with and resolving the problem of the great imbalance in effort in the CBES projects in the sectors of human waste disposal and stormwater drainage systems as compared with the solid waste and sullage disposal systems;
- to design a first optimal plan and reach agreement on it with the various actors;
- to establish the content and the periods of implementation of the pilot phase.

Principal operations

A. In this phase it is first of all necessary to have progressive engagement among the various actors who could be potentially involved (concerned sectors of the Regional Administration, Woredas, Kebeles, Kebele Development Committees, other public bodies, donors, ONGs, CBOs, committees of beneficiaries, private entrepreneurs) through meetings at first formal and restricted and later increasingly broader. These meetings ought to be focused on three principal themes:

- the sanitation situation in Addis Ababa; for this purpose the final report of the Urban Sanitation Case Study could be used as a basis for engagement;
- the possibility of a concerted policy aimed at the establishment of the system; for this purpose a base document could be prepared in which the possibility is described in general terms, showing the benefits of such a policy as well as the existing obstacles;
- the future orientations and expectations of each individual actor involved.

The output of this first activity should consist of the establishment of a Forum of Stakeholders having functions of co-ordination of the program.

- B. In a second period, when the levels of involvement appear sufficiently high, a detailed analysis can be made with the participation of the various actors as to the social, technological, economic and institutional problems to be dealt with. The result might be a dossier on the basis of which a real planning phase could be based.
- C. The Forum at this point would possess all the elements needed to draw up a provisional project to be submitted to all the actors involved for approval.
- D. On the basis of the provisional project, a plan for the pilot phase should be designed.

Duration

The preliminary phase should have a duration of between 6 and 12 months.

2. Pilot phase

Goals

- to obtain information as to the feasibility of and the methods for achieving a decentralised and integrated system of control of sanitation risks;
- to experiment with a series of solutions and of different kinds of know-how (institutional, management, instruction and training);
- to raise the degree of participation and involvement of the different actors;
- to establish a general plan of organisation for a decentralised and integrated system of control of sanitation risks.

Principal operations

- A. The first operation is to put into place the provisional institutional organisations of the system. This will probably be a matter of giving greater institutional solidity to the Forum of Stakeholders, as well as to creating a series of support and service organisations, such as, for example:
- an information and documentation centre on the CBES projects capable of performing a networking function among the different actors (to be effected through bulletins, meetings, seminars, etc.);
 - a committee for drawing up operating standards, as well as for the collection, study and dissemination of best practices;
 - a group with the task of identifying and implementing undertakings of dissemination, training and capacity building;
 - a promotional centre for CBES projects capable of preparing fund-raising plans for the system and for individual projects;
 - a committee for the simplification of administrative procedures.

- B. The second operation is that of activating the organisations chosen for experimentation and for activating a monitoring plan for the entire pilot phase.
- C. At the end of the pilot phase, a phase of evaluation should be undertaken with the direct participation of the different actors for the purpose of identifying strengths and weaknesses.
- D. In this way we can reach the point of drawing up a multi-year program to be submitted to all the actors for approval.

Duration

The pilot phase should have a duration of between 24 and 36 months.

CHAPTER SEVEN

A decentralised and integrated system of control of sanitation risks: final remarks

The brief analysis of strategic elements and constraints offered in the last three chapters offer reasons that can be adduced in support of a policy oriented toward creating a decentralised and integrated system of control of sanitation risks.

What is in question is the **relevance** of the CBES projects to the serious sanitation problems of the Addis Ababa region. The different actors involved in the CBES projects, acting in a fragmentary and isolated manner, without substantive, informal contacts among themselves, are in danger of furnishing partial and ineffective solutions despite the fact that they show a high level of creativity, commitment and competence.

We can in particular indicate four fronts where the overall relevance of the CBES projects may be questioned.

- CBES projects are in danger of being of little relevance to the extent that, not operating in a co-ordinated way and in accordance with a regional perspective, **they risk not getting to the causes of the problems**. It is difficult, for example, to take action in the area of stormwater drainage without reference to solid waste disposal, since many problems of the former sector derive from the absence of solutions to problems in the latter. And we cannot deal in an isolated way with the question of human waste disposal unless sludge-suction is dealt with at the level of the Woreda, if not at the regional level.
- CBES projects are also at risk of not being relevant if they are not included in a wider network of relations, as they certainly encounter **difficulties in remaining viable after the disengagement of the managing agency without such relations**. We have seen, for example, that ad hoc committees are in conflict with local authorities once the intermediary agencies pull out. This could be avoided with tutoring by those agencies after the completion of the project. On the other hand it is unthinkable that the intermediary agencies should remain permanently in the field. Aside from everything else, this would alter their role, as they would be transformed from sponsoring agencies into regular agencies providing services.

- **Technical relevance** is endangered by the lack of a system of interrelationships among the various CBES projects and between projects and beneficiary populations. Such a system would prevent the needless repetition and amplification of mistakes.
- Lastly, we have **economic relevance**. CBES projects have relatively low costs, especially in comparison with other methods of action. Nevertheless, their efficiency is sometimes also low, which may, in the medium and long term, lead donor entities to divert funds from sanitation projects to other more productive projects.

All of this must not, however, make us forget the importance CBES projects have taken on in recent years and the great opportunities they offer. We are dealing with a valuable experience that ought to be taken advantage of, because it can function as a model for other sanitation programs in urban areas with problems akin to those of Addis Ababa.