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Public Participation in Planning Urban Environmental Health Services

**A concerted action supported by
The European Commission
DG XII / RTD / INCO-DC**

REPORT ON THE PREPARATORY WORKSHOP

**Bamako, Mali
10-13 March 1997**

**International Water and Sanitation Centre
The Hague
April 1997**

205.40-97PU-14218

ABBREVIATIONS

CAHBA	Centre Amidou Hampaté Bâ
CARPOL	Unité de cartographie polyvalente de Bamako
CERSA	Centre for Epidemiological Research in Southern Africa
CREDESA	Centre Régional pour le Développement et la Santé
CREPA	Centre Régional pour l'Eau Potable et l'Assainissement à faible coût
DHA	Division Hygiène et Assainissement (Ministère de la santé publique, Mali)
EHP	Environmnetal Health Project
ENDA - RUP	Enda-Relais pour le développement Urbain Participé
IAGU	Institut Africain de Gestion Urbaine
IRC	International Water and Sanitation Centre
LSHTM	London School of Hygiene and Tropical Medicine
U. Ghana	University of Ghana
URGC - HU	Unité de Recherche et de Génie - Hydraulique Urbaine, INSA Lyon
SEI	Stockholm Environment Institute
WHO	World Health Organisation

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1. INTRODUCTION

1.1 The urban challenge in sub-Saharan Africa

The Sub-Saharan urban population represents 28,2 % of the people in Africa and urban centres are currently growing at an estimated rate of 4 %. Urbanisation has brought an alarming rise in the incidence of urban poverty. The urban poor, typically households in slums or squatter settlements, often have to contend with appalling overcrowding, bad environmental sanitation and contaminated water. The supply of water for domestic purposes and sanitation services has not kept pace with the growth of urban population. Moreover, only a fraction of the solid waste produced in the Sub-Saharan African cities is removed regularly. It is now widely recognised that the sustainability of basic services depends on their dynamic interaction with the community.

1.2 A concerted action

This project aims to strengthen the capacity of local authorities and community based organisations to appraise environmental improvement proposals and monitor environmental health and its determinants.

The scope of this concerted action encompasses:

- 1) Environmental epidemiology
 - estimating health impact
 - linking health and environmental data
 - developing study design and data analysis technique
- 2) Provision of basic services
 - councils' setting policy & planning infrastructure
 - public / private modes of delivering basic services
 - monitoring service delivery
- 3) People's participation
 - strategic management techniques
 - participatory monitoring and evaluation
 - exchanging information among stakeholders

Eleven partners (7 African and 4 European) are involved in this project that is scheduled for completion in September 1998 (see section 3 for contact details).

1.3 The preparatory workshop

1.3.1 Objectives and expected results

Expected results of the preparatory workshop (held March 10 - 13, 1997) were:

- an understanding of each other's experience and current work
- a common vision of the purpose of this concerted action
- a framework for written case studies and the comparative analysis
- a set of roles and responsibilities for partners in the concerted action

Expected deliverables of the preparatory workshop:

- a compilation of the presentations by participants
- a framework for writing case studies
- a framework for writing the comparative analysis
- a joint plan of action for the concerted action project

A CONCERTED ACTION

The INCO-DC Programme seeks to contribute to improved co-ordination and to better research methodology in field of growing interest and for which only a limited number of international links are currently established.

To this end, concerted actions are meant to link EU scientists to their colleagues in DC's with a view to develop new specific methods and strategies for interventions

In the field of health, they are concerned with interventions leading to the improvement of the health status of urban populations. This CA focuses on the public participation process in managing environmental health services.

1.3.2 Methodology

Throughout the workshop (see programme in annex 1) several methods were used:

- **Round table discussions**
A round table approach was used to introduce CA partners and workshop participants; present the workplan for the preparatory workshop; review the project design; develop a framework for urban health profiles and participation case studies.
- **Exercise: Fears and expectations**
Participants wrote (on cards) 2 fears and 2 expectations they felt with regards to the workshop. In a plenary session, all cards were grouped and reviewed. Participants proposed ways to deal with issues that were raised. All points were later referred to in the workshop evaluation.
- **Individual presentation by CA partners**

Name of participants	Organisation	Topic of presentation
Mr. Malick Gaye	ENDA-RUP	Programme d'assainissement de Dioukol et et Rufisque, Sénégal
Dr. Jacob Songsore	U. Ghana	Health and Environment Analysis for decision making (HEADLAMP): field study in Accra, Ghana.
Dr. Simon Lewin	CERSA	Improving decision-making for environmental health in Cape Town: The HEADLAMP field study
Dr. André Soton	CREDESA	Environmental Health Indicators for Decision Making: a case study in Cotonou, Bénin.
Mme. Bassoulet	CREPA	Solid waste collection in Ouagadougou, Burkina Faso.
Mr. Oumar Cissé	IAGU	The Healthy cities approach
Ms. Caroline Hunt	LSHTM	The three cities project: Lucknow, Calcutta and Cape Town
Ms. Marianne Kjellen	SEI	Water supply and Sanitation in Low and Middle Income Cities: Comparing Accra
Mr. Sebatien Avlé	U. Ghana	Health & the environment: in Accra: Data linkage.
Ms. Yollande Nziou	URGC	Observatoires: examples and prospects for the urban environmental health sector
Ms. Fatima Meité	CAHBA	Small enterprises and the construction of soakpits: a experience in Bamako, Mali
Mr. G. Diallo, P. Traoré A. Badra	CAHBA	Water handling and low cost technology to store water in the household.
Mr. Marc Vézina	IRC	Promes 2: a monitoring software application geared to decentralised development processes.

- **Presentations by resource persons**
 - **Mr. Keiffa Coulibaly**, from the Unité de Cartographie polyvalent de Bamako (CARPOL) CARPOL , which is a multi-functional mapping unit for the District of Bamako, underscored the difficulties in sharing information between institutions. Such information systems focus essentially on mapping infrastructure.
 - **Mr. Ousmane Touré**, Chef de la Division Hygiène et Assainissement (Mali) described the national monitoring system for the health sector in Mali. Epidemiological data is aggregated and analysed at higher levels. Environmental health data that is collected by Community Health Committees is not treated or used in the decision making process.
 - **Mme Aminata Traoré**, Consultant
Mme Traoré presented the SARAR resistance to change model. The presentation underscores the need for advocating at the policy making level new approaches to developing the urban environment.

- **Exercise: Key ideas coming together**

Throughout the presentations, participants were asked to write on a series of cards the key points they felt should be considered by the *environmental health profiles* and *participation case studies*. Similar cards were grouped, categorised, then clustered according to whether they related to the technical aspects of developing health indicators or to policy setting. Participants were divided in two groups and each group given a set of cards; The cards put in an order to create the structure of the profiles and case studies. If need be points could be added and deleted. Finally, in a plenary session, CA partners outlined the two parts of an overall framework for the *environmental health profiles* and *participation case studies* was (see results in section 2.2).

- **Field visits**

- **Solid waste collection services**

In Bamako, over 60 micro-entreprises collect household waste from door to door using carts and mules. In general, weekly collections costs an average size household a minimum of 750 FCFA / month (1.50 \$US). It is the Mayor that gives the service provider a written 'permit' to serve a specific part of his Commune.

- **COFEP (Cooperative des femmes pour la protection de l'environnement)**

Pools of stagnant water in the midst of the unpaved streets of residential areas is a nuisance. The source is often discarded bathing water used by large family households and the consequence is strife among neighbours. The COFEP use a revolving fund system to extend credit used to build soakpits. They also provide technical assistance and quality control. The initial investment is about 50 \$US, and it is claimed that the structure can last up to 10 years with little maintenance.

- **The Koulikoro environmental health project**

GTZ are training community workers (all of whom are women) on issues related to environmental health in semi-urban settlements. Their actions focus on preventive measures and their aim to formulate neighborhood action plans to improve basic services. Such community initiatives can receive technical and financial support through contractual arrangements between local governments, external support agencies and private service providers. Though project indicators have been formulated, there is still a need to develop community indicators that will serve as a common language for all parties involved.

1.3.3 Evaluation

To evaluate the workshop, a questionnaire was circulated to CA partners. Responses were deemed positive if, on a scale from 1 (unsatisfied) to 5 (very satisfied), a score of 4 or 5 was indicated¹. In the table below, the numbers of positive ratings are shown as a percentage of the number of responses.

Table 1. Results of the evaluation by CA partners

How did you appreciate:	content	relevance
• the presentations of other partners	90 %	90 %
• the presentations of resource persons	90 %	100 %
• the moderator	100 %	
• work schedule	100 %	
• lodging facilities	100 %	
• food services	100 %	
• the overall organisation	90 %	
Did the group achieve the results of the preparatory workshop?		
• An understanding of each other's experience and current work	100 %	
• A common vision of the purpose of this concerted action	90 %	
• Formulate a framework for written case studies & comparative analysis	100 %	
• Formulate roles & responsibilities for partners in the CA	80 %	

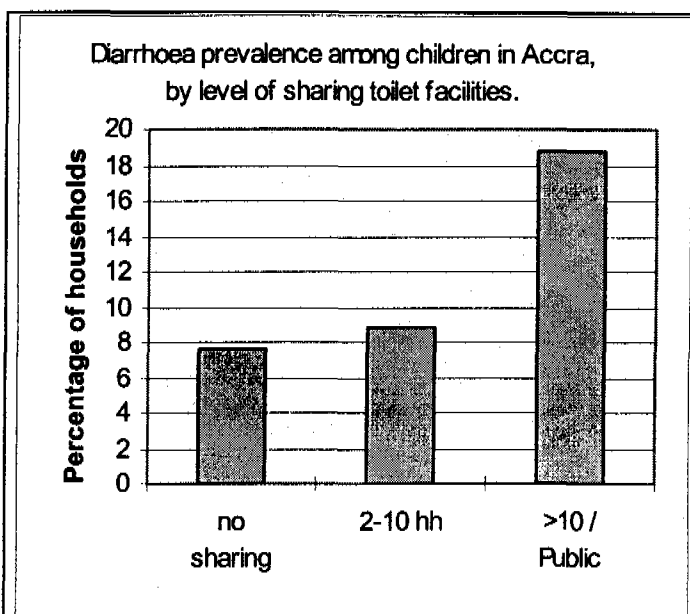
¹ No score lower than 3 was given for any of the above mentioned points.

2. RESULTS OF THE PREPARATORY WORKSHOP

2.1 Issues raised

2.1.1 Environment and health data linkage

- A number of presentations showed the use of routine data to examine health status in cities. There was some discussion regarding the quality of routine data.
- Interesting lessons have been learnt in Accra regarding differences in perspective on environment-health linkage from work using top down academic approaches and that using grassroots approaches such as CIMES. Information derived from grassroots processes appears to reflect the different views of groups in the community such as women, men and youth.
- Although the type of sanitation facilities available is an important indicator, this does not necessarily relate closely to health as other intermediary factors, such as hygiene and maintenance of these facilities, mediate the impact of the facility on health. It is therefore difficult to talk about 'unhygienic sanitary facilities' as this excludes the concept of use.



In Accra, high levels of sharing of toilets facilities were strongly associated with higher rates of diarrhoea prevalence. Still a common policy response to public health problems is to promote more 'hygienic' facilities, such as water closets, which are thought to effectively eliminate some fecal-oral disease transmission routes. However, this applies only if the facility is kept clean, which in practice often means that it is not shared with too many other households. From a policy perspective it may be counter-productive to take measures to phase out certain technologies which are deemed unsanitary, if the alternative to poor private facilities is increasingly shared facilities.

Water Supply and Sanitation in Low and Middle Income Cities: Comparing Accra, Jakarta and São Paulo. Marianne Kjellén, Anna Bratt and Gordon McGranahan. Urban Environment Series Report no. 1. Stockholm Environment Institute. Stockholm, Sweden, 1996.

2.1.2 Inter-urban differentials

- Routine data can be used to show intra-urban differentials or variations in health, but the quality of the data is not always adequate.
- It is important to analyse intra-urban differentials by geographic area as well as by economic zone / area as these do not necessarily coincide. In Cotonou, Benin, the prevalence of malaria and diarrhoeal diseases differ by a factor of 12 between Commune 5 and 6². These intra-urban differences in morbidity are important for decision-makers to focus interventions in terms of cost-benefit.
- Quintiles, for example of wealth, can be used to compare intra-urban differentials between different cities.
- Cross city comparisons can be useful to conceptualise environmental transitions across cities in relation to increasing economic wealth i.e. indoor air pollution is a more important cause of childhood respiratory illness in developing country cities than is outdoor or ambient air pollution, which is more important in developed country cities.
- In Accra, risk factors for diarrhoeal disease were compounded in deprived households indicating the poor environmental conditions experienced by these households.

2.1.3 Indicators

- Criteria for developing EHIs have been compiled by WHO (Nairobi Consultation Report, October 1995).
- How can indicators be validated? Does validation imply use by planners, by the community or both?
- Can locally developed community-based indicators be generalised or replicated for a whole city? The point was made that indicators which are appropriate to some people may not be appropriate to others in other areas.

Cotonou, Benin

Environmental indicators selected in Cotonou	%
Percentage of population with access to sufficient quantity of safe drinking water	18
Percentage of the population with access to hygienic excreta disposal	23.4
Percentage of people served by public garbage removal service	21.5
Prevalence of malaria	11
Prevalence of intestinal helminths among children (ages 2 to 15)	44

ACCRA, GHANA

Summary results of logistic Regression relating Children's Diarrhoea Prevalence with environmental factors (Households with Children Under Six)

Variable	Approximate risk factors
Use pot for storing water	4.34
Open water storage container	2.19
Purchase vendor prepared food	2.58
Many flies in the kitchen	2.05
Don't always wash hands before preparing food	2.03
Share toilet with >5 households	2.66
Experience water supply interruptions	3.06
Outdoor defecation practices in neighbourhood	2.08

Environmental indicators³

A proposed definition

An environmental health indicator is an expression of the link between environment and health and, target at an issue of specific policy or management concern presented in a form which facilitates effective decision-making

Criteria

1. Based on a linkage between environment and health
2. Consistent and comparable over time and space
3. Sensitive to changes in the conditions of interest
4. Selective, so that they help to prioritize key issues in need of action
5. Based on data that are available at an acceptable cost-benefit
6. Based on data of known acceptable quality
7. Easy to collect
8. Acceptable to stake-holders and local authorities
9. Easily understood, transparent and applicable by potential users
10. Available soon after the event or period to which they relate (so that policy decisions are not delayed)

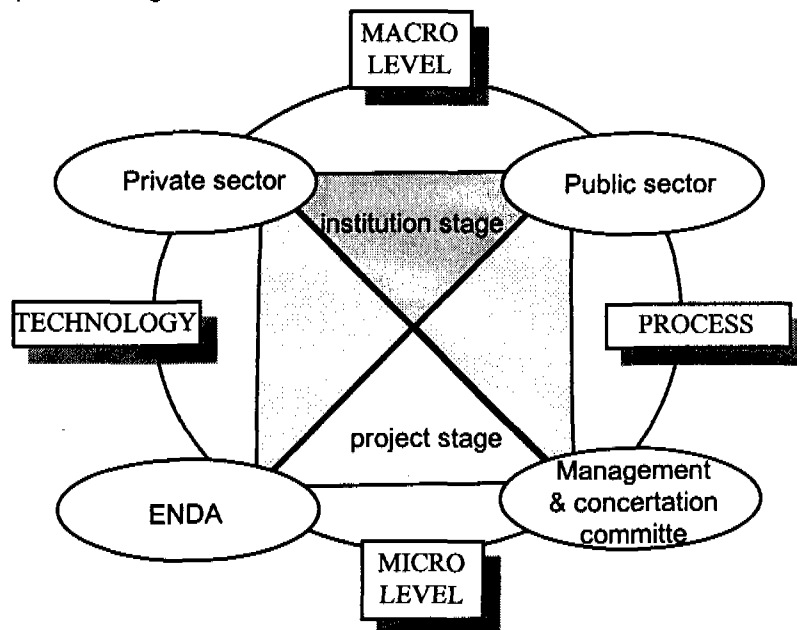
³ Excerpts from a presentation given by Dr. André Soton, CREDESA ... look for original ref WHO?

2.1.4 Policy and institutional planning

- In Cape Town a numbers of barriers to changing the existing environmental health information system were identified. These included uncertainty, fragmentation and confusion about the roles of environmental health officers and the domination of curative over environmental health. There is a need to focus on how information is used and could be used in formulating policies and implementation plans.
- Questions were raised regarding where environmental health fits within the overall health system and how institutional space can be created for environmental health initiatives.
- Scaling-up of local level experiences can be difficult due to institutional barriers at the local level.
- There was discussion on the role of 'observatoires'. We need to look at the needs, capacities and gaps of existing institutions, communities and other networks in environmental health to see if observatoires would be useful and to identify their roles.

Fonds Communautaire pour l'Assainissement de quartiers Urbains Pauvres (FOCAUP)

ENDA-RUP was instrumental in creating a revolving fund which is more than a fund or a credit system - it is an institution for replicating initiatives. In effet, it links local initiatives at the micro-political level and urban policies at a more macro-political level; it stimulates constant dialogue between micro and macro levels. The process works toward creating the institutional space for stake holders to plan, manage and monitor environmental health services .



2.1.5 Barriers to implementing community-based projects

- Different views within communities from leaders (traditional and other) regarding gender roles e.g. it is not appropriate for women to become involved in garbage collection activities.
- Difficulties with management of projects because of low education levels.
- Problems with interfacing with the municipality. Municipalities do not always undertake what they have promised to do e.g. collection of waste from secondary collection points. They are also sceptical of autonomous initiatives which are not directly linked to their own programmes or initiatives. They find it difficult to accept that expertise can reside at the community level, particularly when that expertise does not coincide with their own views. Local authorities may be more interested in demonstrating their own successes than in addressing environmental health problems for low income communities.
- It can be difficult for user-associations to always see / understand the link between environment and health and to envisage the potential savings (such as in drugs) from investing in improved

sanitation (which reduces diarrhoeal disease). Policy-makers also need to be made aware of the financial benefits of environmental interventions in improving health.

- Difficulties in monitoring improvements in local environmental conditions as a result of the improvements and based on the indicators collected. Also, benefits, e.g. of waste collection, may be lost if surrounding neighbourhoods do not participate or do not pay for the service and rather dump garbage.
- leadership conflicts within communities are problematic. People may also create self-serving NGOs which lack a genuine interest in community welfare.
- Community participation has been viewed as a means of empowerment. However, it can also be a mechanism for government to 'offload' its responsibilities to the local level.

2.1.6 Barriers to intersectoral collaboration

- Institutional and legislative arrangements regarding collaboration can be complex
- There is a lack of transparency and local democracy. Decentralisation does not necessarily mean democratisation.
- There is confusion regarding the roles of different actors in collaboration
- There is a need to balance the commanding views of powerful institutions such as the World Bank with other views.

2.1.7 New technologies

- New technologies need to be rigorously evaluated before being widely promoted.
- In the development of new technologies it is important to have information on existing behaviours and their underlying cultural, or other, rationales.
- ENDA-RUP played a facilitatory / intermediary role in the development of a solid waste and waste water disposal system for Rufisque, Senegal. This system used non-standard technologies. Discussions on the financing of the system examined subsidies and sustainability, particularly community contributions to maintenance. The problems of institutionalising and scaling up the development and of the financing of the system were raised. In this example there was a lack of interest from senior officials who viewed the initiative as a community project i.e. a community responsibility.

2.2 Methodological framework

I. ENVIRONMENTAL HEALTH INDICATOR PROFILE FOR THE CITY OF

- 1) Background
 - Introduction
 - City context
 - Objectives
 - Better understanding of the environmental health situation
 - Inform policy intervention
 - Monitoring and evaluation
- 2) Methods utilised to generate information
 - Scale
 - Approach
- 3) Available information (linked to health outcome)
 - Socio economic data
 - Environmental data
 - Health indicators
 - Linking socio economic, environmental and health data
- 4) Use of available indicators
 - Who uses indicators and how
 - for what purpose
 - problems of existing indicators
 - with regard to inappropriate data / application
 - available data not used
- 5) Information Gap
 - At what scale (national; city; community)
 - By approach
 - By type (socio-economic; environment; health)
- 6) Addressing problems
 - Improving existing indicators (recommendations)

II. PLANNING URBAN ENVIRONMENTAL HEALTH SERVICES: CASE-STUDY OF A PUBLIC PARTICIPATION PROCESS

- 1) Background
 - Background to the city
 - Size and geographic location
 - Social, political, economic and social structures
- 2) Relationships between different actors in the city
 - What are the existing decision-making structures and processes in the environmental health sector in the city?
 - How are they linked vertically and horizontally?
 - What contractual agreements exist between different actors in the city?
- 3) Background to the study / intervention
 - Rationale for the study: why was it done?
 - Outline of the research/intervention problem

4) Methods and processes

- What was done and how was it done?

5) Identification and involvement of stake holders

- How were the important actors identified?
- At what stage were the stakeholders/actors involved in the process?
- What are the relationships between the different actors involved?
- What did the actors contribute to the process?
- What were the priorities of the different actors?

6) Outline any conflicts of interest between the different stakeholders.

7) Use of participatory methods

- Describe the main features of the participatory process.
- What participatory methods or strategies were used to involve the actors?
- Outline the positive and negative aspects of the methods used.
- Were the participants in the process representative of the important actors identified?

8) Results

- Findings
 - What were the findings / results of the study / intervention?
 - To what extent do the findings answer the questions of the different actors?
- Feedback of results
 - How were the findings fed back to the actors?
 - What forums were used?
 - At what levels were the results fed back?
 - What methods were used to feedback the results?
 - How were the actors views on the results solicited?
 - How, if at all, were these findings used e.g. in formulating new policies or models?

9) Impact

- What were the major impacts of the study (health policy impacts, political impacts etc.)?
- What quantitative data was required to take forward the process, but was not available in the local setting?
- What processes were used to create the institutional space?
- To what extent was the process used successful in creating an institutional space for implementation?
- What were the negative and positive aspects of this process?
- How were the conflicts between the different actors resolved?
- What other factors may limit the impact of the intervention?
- Has the community been empowered by the process i.e. has capacity at the community level been developed?
- How has this empowerment been demonstrated, both during and after the study?

10) Critique and Lessons

- Critique
 - What resources were contributed by the community? Was this appropriate?
 - How were these contributions decided and validated?
 - How did this initiative link to others in the area (networking) and to local frameworks / policies?
- Lessons
 - Can the intervention be scaled up?
 - What are the barriers to this (geographic, economic, political etc.)?
 - What are the 3 most important lessons learnt from this study / intervention?

2.3 Matters of organisation reviewed

CA partners have proposed a number of measures that concern the project design, its' outreach and next steps.

2.3.1 Project design

During the preparatory workshop, CA partners modified and approved a set of activities and deliverables. Details are provided in the progress report dated 31 March 1997.

2.3.2 Outreach

A number of organisations have made significant headway in the field of health indicators and public participation. A detailed list of contact is being made. Some key organisations are:

- Waste / UWEP - - Urban Waste Expertise Programme
- UN-Habitat - - Urban Indicators Programme and Global Urban Observatory
- WHO / GEENET - - Global Environmental Epidemiology Network
- EHP - - Environmental Health Project

Besides the IRC Newsletter a number of other newsletters could carry articles describing the activities and results of our concerted action, for example:

- The Medical Research Council Newsletter
- Voices from the City (EHP)
- Geenet newsletter (WHO)

2.3.3 Next steps

**The next workshop
is set for 23, 24, 25, 26 Septembre 1997
and will once again be held at the CAHBA in Mali.**

Expected results for workshop no.2 are:

1. Assessment of progress made in producing profiles and case studies;
2. A framework for the comparative analysis;
3. A framework for the guide manual;
4. Assessment of progress made in networking with key players in the sector;
5. Outline of future research design and project proposal (with possible inputs from resource people).

In the meantime, CA partners are asked to provide the CA co-ordinator with information concerning the exchange visits they plan to undertake.

IRC will compile and send out relevant literature for CA partner.

3. CONTACT DETAILS OF CA PARTNERS



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3.1 Workshop participants

Name of participants	Organisation	Country
Ali	CAHBA	Mali
Dr. Sebatien Avlé	U. Ghana	Ghana
Mr. Alou Badra	CAHBA	Mali
Ms. Bassoulet	CREPA	Burkina Faso
Mr. Oumar Cissé	IAGU	Sénégal
Mr. Gaoussou Diallo	CAHBA	Mali
Mr. Malick Gaye	ENDA-RUP	Sénégal
Dr. Caroline Hunt	LSHTM	United Kingdom
Ms. Marianne Kjellen	SEI	Sweden
Dr. Simon Lewin	CERSA	South Africa
Ms. Fatima Meité	CAHBA	Mali
Ms. Yollande Nziou	URGC	France
Dr. Jacob Songsore	U. Ghana	Ghana
Dr. André Soton	CREDESA	Bénin
Mr. Ousmane Touré	Ministry of Health	Mali
Ms. Aminata Traoré	CAHBA	Mali
Mr. Pierre Traoré	CAHBA	Mali
Mr. Marc Vézina	IRC	Netherlands

ANNEX 1

Time / heure	08:30	10:30	11:00	12:30	14:00	15:30	15:45	17:30
-----				<u>lunch</u>				
Jour / date								
09.03.97 <u>Dimanche</u> Sunday	- Arrival of participants in Bamako - - Registry at the Centre Amidou Hampaté Bâ - - Informal welcome by CAHBA and IRC representative -							
10.03.97 <u>Lundi</u> Monday	<ul style="list-style-type: none"> • Welcoming address by Mrs. Aminata Traoré • Introduction of participants • Fears and / expectations of participants 	<u>Round table discussion</u> <ul style="list-style-type: none"> • Workshop objectives • Review of workshop programme & methodology. 			<u>Round table discussion</u> Review of the inception report and amendments to project design		(cont'd)	
11.03.97 <u>Mardi</u> Tuesday	<u>Presentations by CA partners</u>		(cont'd)		(cont'd)		(cont'd)	
12.03.97 <u>Mercredi</u> Wednesday	<u>Exposé</u> <ul style="list-style-type: none"> • A multifunctional mapping system in Bamako • The health monitoring system in Mali • Resistance to change and the need for advocacy 	(cont'd)			<u>Field visit</u> <ul style="list-style-type: none"> • Solid waste collection • Soakpits 	(cont'd)		<u>Evening video presentation</u> <ul style="list-style-type: none"> • The CEMIS methodology • Crowding indicators
13.03.97 <u>Jedi</u> Thursday	<u>Group exercise</u> Define issues to be dealt with in the case studies and comparative analysis.	(cont'd)			<u>Round table discussion</u> <ul style="list-style-type: none"> • Planning the next steps in our concerted action • Defining the terms of reference for IRC 	Wrap up and closing address		