East Africa Practitioners' Workshop on Pro-Poor Urban Sanitation and Hygiene

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WORKSHOP PROCEEDINGS

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Abbreviations

CBO	-	Community Based Organisation
CLTS	-	Community Led Total Sanitation
EA	-	East Africa
GIZ	-	German International Cooperation
IRC	-	International Water and Sanitation Centre
MDGs	-	Millennium Development Goals
NETWAS	-	Network for Water and Sanitation
NGO	-	Non Governmental Organisation
OSR	-	Organic Solutions Rwanda
O&M		Operation and Maintenance
PHAST	-	Participatory Hygiene and Sanitation for Transformation
S&H	-	Sanitation and Hygiene
UNICEF	-	United Nations Children's Fund
WASH	-	Water, Sanitation and Hygiene
WSSCC	-	Water Supply and Sanitation Collaborative Council

Contents

1. Introduction

1.1 Background

In March 2011, IRC International Water and Sanitation Centre in collaboration with the Rwandan Ministry of Health convened over 60 practitioners and researchers from East Africa in a workshop that discussed the progress and challenges faced by the sector in the promotion of effective pro-poor urban sanitation and hygiene (S&H). During this regional event supported by the German International Cooperation (GIZ), the United Nations Children's Fund (UNICEF), WaterAid and the Water Supply and Sanitation Collaborative Council (WSSCC), a total of 21 papers and photo essays on the topic of urban sanitation and hygiene were presented and discussed.

The rationale for undertaking this practitioners' workshop on pro-poor urban S&H included three overlapping reasons:

1. It is increasingly recognised that S&H are priority areas for achieving sustainable development
2. Unplanned settlements face major challenges, hence the increasing recognition of the need to address S&H for the urban poor
3. Institutional complexity of urban S&H is great yet capacity is lacking

It is increasingly recognised that S&H are priority areas for achieving sustainable development.
At the Second African Conference on Sanitation & Hygiene (AfricaSan+5) in 2008, firm resolutions were made to place S&H at the top of the development agenda in Africa. This reflects the global recognition of the importance of S&H as shown, for example, in the declaration by the United Nations of 2008 as the International Year of Sanitation. At the African Union Summit in Sharm-el-Sheikh (2008) Heads of States committed to raise the profile of sanitation and address the gaps expressed in the eThekwini ministerial declaration. The subsequent East Africa Conferences on Sanitation (2008 and 2010), where country progress on eThekwini declaration was reported, revealed the multiple problems countries face to achieve the MDG on sanitation.

Unplanned settlements are becoming increasingly congested and are developing without basic S&H services and infrastructure, including adequate water, sanitation and roads.
While the focus has often been on sanitation in rural areas, where coverage is lowest, urgent measures are needed to tackle hygiene and sanitation in urban slums and secondary towns which are experiencing unprecedented growth[1]. The poor living in these areas usually remain outside the reach of municipal services and are the most affected. Official statistics are often misleading and do not

[1] AfDB, 2008. *Annual Meeting, Round Tables and Seminar*. Maputo, Mozambique 13 May 2008.

WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP), 2008. *Progress on Drinking Water and Sanitation: Special Focus on Sanitation.* UNICEF: New York and WHO: Geneva, 2008.

UN-HABITAT, 2006. *Meeting Development Goals in Small Urban Centres. Water and Sanitation in the World's Cities 2006.* London, UK, Earthscan.

reveal the true extent of the problem[2]. According to UN-Habitat, unplanned settlements host between 40% and 60% of the total urban population in the East Africa. The towns in the Victoria Lake basin have the highest annual urbanisation growth rates in the region. The health risks posed by the lack of sanitation increase exponentially as densities increase and as people share inadequate and unsafe sanitation facilities and do not practise basic hygiene practices.

The institutional requirements for service delivery in urban areas are complex and context driven.
While municipalities will generally be at the centre of such arrangements, they often lack *the institutional capacity and financing* to meet the needs of the population for sanitation and other services (AfDB 2008 Annual Meeting). Municipalities and utilities often do not have the resources even to manage and maintain existing infrastructure adequately, leave alone to expand provision. Community-based management is poor, also due to low cohesion and permanency in slum population. In many cases critical elements of the sanitation chain[3] are not provided for at all; for instance, emptying and treatment services, and proper disposal or use of human faeces are lacking[4]. As a result wastes are often discharged directly into neighbouring environments, open drains or other water bodies, leading to increasing squalor, disease risks and environmental degradation.

Why did this practitioners' workshop take place?
While progress has been made in increasing the profile of S&H and influencing policy and strategy levels, it was thought to be the right time to share experiences in S&H service delivery to the urban poor. In some cities, initiatives are successfully being taken to address the challenges referred to above at scale. Some programmes and projects claim to have good successful practices without indicating the real factors and drivers for success. These experiences hence need to be documented, critically analysed and shared within and between regions in sub-Saharan Africa so that equivalent actions at scale can be considered elsewhere for the specific context and possibly taken up. This can help counter-act the duplication of errors and wasted resources, and is needed for informing changes in policy and approach towards effective S&H provision that achieves the intended benefits.

The EA practitioner's workshop on pro-poor urban sanitation and hygiene was a step towards enhancing information and lesson learning and sharing, encouraging sector professionals, particularly practitioners, researchers, policy makers, people from government agencies, donors and media, to reflect critically on factors for improved impact, and to document these lessons and practices. This regional event was also an opportunity to synthesise lessons and experiences for broader dissemination through a composite publication of similar workshops and seminars that were held in Africa, South Asia and Latin America, and for political discussion and follow-up on regional/national actions at the Third Africa Conference on Hygiene and Sanitation (AfricaSan 3) to be held on 19th-21st of July 2011 in Kigali.

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[2] Alabaster G. (2008) 'The challenges of meeting the water and sanitation MDGs in the smaller urban centres in the Lake Victoria Region', paper written for the IRC symposium 'Sanitation for the Urban Poor: Partnerships and Governance', 19 – 21 November 2008, Delft, the Netherlands.

[3] A concept linking components as sanitation facility, safe transport of waste, its effective treatment and final disposal

[4] See for cases the IRC Symposium on Governance and partnerships for sanitation of urban poor (2008): www.irc.nl/symposium2008

1.2 Objectives and outputs

The East Africa practitioners' workshop on pro-poor urban S&H provided a space for enhancing information and learning and sharing of experiences and lessons, encouraging practitioners to reflect critically on factors for improved performance and effect, and to document these lessons and practices.

The objectives of this regional workshop were as follows:

- To facilitate the sharing and learning of good East African practices on S&H for the urban poor
- To encourage practitioners and planners to identify and document good practices and experiences on S&H for the urban poor
- To create opportunities to learn on good practices in S&H for the urban poor from other continents (through facilitators)
- To analyse and synthesise both positive and negative lessons learnt and propose key policy and strategy messages for politicians, policy-makers and planners, and solutions for practitioners.

This practitioners' workshop built on the methodological experience from the highly successful practitioners' seminar on rural S&H organised in 2007[5]. The methodology used stressed a high level of interaction and debate among participants. The production and presentation of papers and photo essays to sessions in the workshop was important, but the extra added value came from this facilitated interaction, analysis and debate. The methods used throughout the workshop included:

- Focusing on facilitated discussion of photo essays and case studies invited and submitted, joint analysis of success factors and hindrances and identification of key lessons, promising strategies and approaches for improving sanitation for the urban poor
- Creating a conducive and catalytic learning and sharing environment for planners and practitioners specifically dealing with S&H for the urban poor, their primary schools and community institutions
- Contributing to sharing the current knowledge in the East African region

Outputs of this workshop include this proceedings report and a booklet containing policy recommendations. A number of key follow-up activities that have emerged from this workshop can be found in section 2.10.

1.3 Participants

A total of 62 participants attended the workshop. Most participants came from East Africa: 43.6% from Rwanda, 21.0% from Uganda, 11.3% from Kenya, 6.5% from Tanzania, 4.8% from Burundi. The remainder came from Southern Sudan (3.2%), Mozambique (3.2%), from Ethiopia(1.6%) the Netherlands (3.2%) and the United Kingdom (1.6%).

[5] IRC International Water and Sanitation Centre, with assistance from NETWAS Int. (Kenya), NETWAS Uganda, IWSD (Zimbabwe), UNICEF ESARO and the WSSCC (see Moshi 2007 http://www.irc.nl/page/44052).

The organisations represented at the workshop also varied greatly in scope. 22.6% of participants came from governmental agencies (ministries and their decentralised bodies, regulatory bodies), 8.1% represented municipalities, 12.9% worked for international NGOs and 11.3% for international organisations (such as the World Bank, UNICEF), 9.7% represented bilateral donors and 9.7% CBOs. The rest represented research institutes and resource centres, and the private sector (both 12.9%).

The workshop schedule and list of all participants can be found in Appendix 1 and 4.

1.4 Organisation

Facilitation and documentation of the workshop were led by IRC International Water and Sanitation Centre, WaterAid (Kenya and Uganda offices) and NETWAS Uganda. Other organising partners (GIZ and UNICEF) as well as the Ministry of Health also assisted in the workshop facilitation, while Organic Solutions Rwanda (OSR) Ltd. provided support to the partners and MoH during the months of preparation for this event. TLC Media was contracted for all logistical aspects in Rwanda.

Participants and facilitators contributed through plenary, group discussions and the world café dialogues. Substantial financial support came from UNICEF (ESARO), GIZ Unganda, WaterAid Uganda, WSSCC and the IRC.

2. Workshop proceedings

2.1 Opening and Welcome

René van Lieshout, the IRC coordinator for East Africa welcomed all participants. He thanked the Rwandan Ministry of Health (MoH) for hosting this regional event as well as all the partners for their cooperation and making this event happen.
René van Lieshout stressed that at the heart of this workshop is learning, which is a key strategy to improving sanitation and hygiene. A brief presentation of IRC's experience in promoting learning at regional, national and international levels was made and opportunities for disseminating key lessons from this workshop (in particular the Africasan 3 Conference that will be held in July 2011 in Kigali) mentioned. As background for the workshop, a number of facts were presented:

- 1 billion people live in urban areas and most of these do not have access to adequate sanitation facilities
- Water and sanitation coverage has failed to cope with the urban population growth in Africa.
- Improved sanitation and hygiene are one of the most effective means to improved health but they are most times given low priority
- The services to informal settlements usually have low priority among service providers due to the conception that these areas are difficult to serve.
- Sanitation is still an orphan in the water sector since it's not the activity of one governmental agency.

The Honourable Minister of Health of the Republic of Rwanda, Dr. Richard Sezibera, then officially opened the workshop. He first thanked and welcomed the workshop organisers and attendants and hoped that they find Kigali's sanitation to their standard. He then described the challenges linked to urban sanitation and hygiene for the poor. He noted that infectious diseases rise when people live in congested areas; poor urban sanitation causes a health challenge. In Rwanda diarrheal diseases are among the highest killer of children and it is estimated that 88% of that burden is attributable to unsafe water supply, sanitation and hygiene. The Hon. Minister stressed that the challenge of pro poor sanitation requires using good approaches that are adapted to local conditions. A number of sanitation and hygiene strategies and initiatives implemented in Rwanda were mentioned: hygiene and sanitation campaigns; the launch of the Community-Based Environmental Health Promotion Programme; the Hygiene and Sanitation Presidential Initiative (HSPI); the formation of Community Hygiene Clubs in all villages to facilitate maximum involvement of all households in the country. He remarked that sanitation and hygiene programmes cannot only be led by the MoH and NGOs, but that all communities need be involved. He therefore urged workshop participants to put communities and ways to empower them to harness proposed approaches at the centre of their discussions. The Hon. Minister also highlighted that in his view poverty should not be equated to filth, that it is possible to be extremely poor but at the same time extremely clean; diseases that affect the poor are also a result of a mind set.

The key note address made by the Hon. Minister of Health is enclosed in Appendix 2.

2.2 Background paper: Pro-poor sanitation and hygiene in East Africa – turning challenges to opportunities

A background paper was presented and discussed during the workshop, providing a basis for further in-depth studies on policy, advocacy, and research on pro-poor sanitation and hygiene in urban East Africa. The information presented in this paper is a synthesis of literature. Refer to the following weblink for the background paper and all presented cases: http://www.irc.nl/page/62632.

The background paper cites that in East Africa, poverty remains one of the greatest challenges facing the people and their governments. From a water and sanitation perspective, commendable achievements for better health, water and sanitation have been realized. The public health situation in East Africa's urban poor is however greatly compromised because of inadequate sanitation and hygiene. The institutional framework for addressing urban sanitation and hygiene does not work for the poor. Sanitary conditions are particularly poor in East Africa's slums, where a majority of residents resort to open spaces and pit latrines that are over-used and inadequately maintained. Conventional public finance in sanitation generally focuses on subsidies for household and public toilets and grants for urban sewerage and solid waste systems. Despite these challenges numerous opportunities can be discerned. These opportunities include advocacy, research, service delivery, and even programming interventions for civil society, the private sector, and the state(s). With an increasingly supportive political environment, all actors including the urban poor ought to pro-actively support participatory interventions. The other opportunities relate to pro-poor financing through loans or revolving funds managed through micro-finance institutions. Civil society could engage sanitation and hygiene for the urban poor and explore partnerships to support civil society participation in these crucial policy processes. While the discussion in this paper is not exhaustive or even fully representative of the current and complex sanitation and hygiene situation in urban East Africa, it shows glaring gaps for intervention.

2.3 Framework of analysis

The constructive analysis of cases by practitioners was supported by the use of a neutral analytical framework, which guided the deliberations during the workshop. This framework helped participants to analyse what triggers urban sanitation and hygiene improvements, looking at the various individuals and groups involved, the possible approaches used, the channels and messages, and how the trigger leading to change/improvement in sanitation and hygiene is pulled.
The framework was presented and extensively discussed in groups; it can be found in Appendix 3.

2.4 Case Studies and Discussions

A total of 22 case studies were prepared by practitioners, in the form of either a paper or a photo essay. 21 were presented during the workshop; the papers were written following this broad outline:

1. Background of the initiative
2. Description of the initiative (step by step activities)
3. Major drivers of the process and success (triggers/drivers for change)
4. Resources used (material, finance, labour, skills, etc.)
5. Main achievements/successes (coverage, increased use, improved technology, etc.)

6. Lessons learnt

Papers and photo essays were grouped according to main topics, in four groups, and presented in parallel sessions. The topics of the four groups of papers / photo essays were:

1. urban sanitation especially in urban slum areas;
2. technology; capacity development;
3. sanitation marketing and demand for sanitation; financial aspects;
4. sanitation and hygiene in schools; community household and hygiene mobilisation

Below are summaries of all the papers and photo essays prepared for the workshop.

2.4.1 Improving access to sanitation in Kampala slums – the case of KIEMP (Uganda), Ineke Adriaens

The Kampala Integrated Environmental Planning and Management Project (KIEMP) is a 5-year bilateral multi-sector aid project for basic social services, funded by the Government of Belgium, the Government of Uganda and Kampala City Council (KCC). KIEMP is being jointly implemented since August 2006 by KCC and the Belgian development agency, BTC, in three parishes of Kampala. The general objective of KIEMP is to improve the quality of life of poor communities in the suburbs of Kampala. The specific objective is to enhance environmental planning and management in the poor suburbs of Kampala.

The construction of public toilets was one of several activities aiming at improved environmental conditions; this has been complemented by on the one hand social mobilisation (carried out by contracted local CBOs/NGOs) and on the other hand a behavioural change component. 35 public toilets were constructed after a participatory siting process. Vault toilets were adopted, as they have lower operation and maintenance costs and were found to be more appropriate for slums. Every public toilet facility has several gender-segregated stances (cubicles), including 4 toilet stances and 2 bathrooms, as well as a urinal; and a small communal tap. A caretaker approved by the community has been appointed to each toilet. The caretaker collects user fees which are used for the operation and maintenance of the toilet. Management structures have also been set up, both at parish and zonal level. They are meant to monitor the work of the caretaker to ensure proper operation and maintenance of the toilet.
Behavioural change focuses on changing perceptions, attitudes and practices with regard to the use, maintenance and management of local infrastructures, and on promoting individual, domestic and community hygiene practices for improved public health.

2.4.2 Effectiveness of eco-toilets management in public places – case of Kigali City (Rwanda), Eugene Dusingizumuremyi, Paulin Ruzibiza and Theoneste Nkurunziza

As Kigali city is growing fast, sanitation becomes a challenge and finding a public toilet facility often is a challenge. The Rwanda Environment Care (REC) Association was initiated by some graduates from Kigali Institute of Science and Technology (KIST), with the main objective to bring a sustainable and innovative solution to water and sanitation issues. REC came with new ideas and innovations in water, sanitation and hygiene, including the introduction of ecological toilets in the year 2006. The

new technology allows the recycling of human excreta into fertilizers. These eco-toilets provide a source of fertilizers for agriculture and gardens in Kigali and around.

The initiative started as a pilot project and has been implemented in collaboration with Kigali City council. It proved to be a solution in public places and car parking. Currently, REC is managing 4 public toilets in Kigali, employing full time caretakers for this purpose. The money from users is used by REC for daily operation and maintenance of facilities. With the profits made from the existing facilities, REC is planning to extend its activities to other locations visited by many people (markets, car parks, etc). Some public and private institutions, such as the Rwanda Revenue Authority, the Ministry of Immigration and Emigration, and the Rwanda Tea Society, already asked REC to build these eco toilets on their premises and in some instances to manage the new sanitation facilities.

2.4.3 Safer, faster, cheaper (East Africa and other countries), Gunder Edstrom

The main aim of this paper is to spread the idea of using urinals in pro-poor urban settings, schools, camps and other congested areas to reduce the queuing time, reduce the need for latrines, to shorten the building time, reduce the cost for construction and reduce environmental pollution. The main target of the initiative is women and children in particular and the whole family in general. This is a concept also possible at household level. The other target groups are government organisations and NGOs who participate in training for trainers and then continue further to introduce urinals.

Based on his experience in various countries and projects, the author drew a number of lessons:

- The basic concept of male and female urinals can be used in many areas, also at household level;
- The concept is proper for all types of communal toilets;
- The use of urine, when applied under the top soil, is suitable especially for countries with low rain fall;
- In projects where human friendly technology and where well-managed interventions are introduced with monitoring, the results have been durable and sustainable.

2.4.4 Key factors to improve area-wide urban sanitation – case study of Gitega (Burundi), Norbert Geyer, Marco Forster, Andreas Ludwig, Valentin Nahimana and Astère Ndayisaba

Gitega is the second largest town in Burundi. Following on a study carried out in 2007-2009, a demand-oriented sanitation project has been launched in 2010 with the support of the German government. The project was initiated by Burundi's municipal technical services (SETEMU) as a pilot project for area-wide sanitation improvements in secondary towns. Funded at a level of about 1 million Euros, the program is being implemented by the Municipality of Gitega, specifically the city's new sanitation services with support of a consultant (Fichtner Water & Transportation) and GIZ.

The strategic criteria of the pilot project to trigger and sustain Gitega's area wide urban hygienic and sanitary improvements encompass:

- A demand oriented approach to sanitation;
- An innovative pilot institutional arrangement, allocating the functions of regulation and supervision to a "national" entity (SETEMU) and the operational tasks to the local authorities;

- A sustainable financial concept that remains after the end of the project intervention based on affordable public services and technical solutions for households;
- The integration of all local stakeholders within their natural roles, i.e. what they do best or bring together the most appropriate and qualified for each task;
- The promotion of local technical innovations for affordable sanitary improvements;
- Management development of the responsible municipal sanitation service.

2.4.5 Financing sanitation in Dar es Salaam – current challenges and the way forward (adapted from a paper by Sophie Trémolet and Diane Binder) (Tanzania), Faith Gugu

This paper focused on a study which covers the 3 municipalities that fall under the Dar Es Salaam City Council: Temeke, Ilala, Kinondoni. It contains a detailed analysis of Temeke municipality, where WaterAid has been active since 1997 and where additional data could be gathered. The case study focuses on the provision of sanitation services, as per the definition used in Tanzania, which includes, "the provision of appropriate facilities and services for the collection and disposal of human excreta and wastewaters" (Water Supply and Sanitation Act, 2009). The case study examines the effectiveness of public finance for sanitation services at household level only. This included facilities that were shared by a small number of families (e.g. neighbours) but excludes community facilities (i.e. shared by a large number of transient population in public spaces, such as markets or bus terminals) and school facilities. The study focuses on two key questions described in this paper, namely: In terms of comprehensiveness: are public funds allocated so that all segments of the sanitation value chain function effectively? And in terms of equity: are public funds targeted to reach the poor?

2.4.6 The potential role of local monitoring in changing sanitation behaviour – a case study in Nhlamankulo Urban District, Maputo (Mozambique), Peter Hawkins and Odete MuxímpuaIn

Maputo is Mozambique's largest urban centre and capital of the country. At least 33% of the population, live mostly in peri-urban areas, and rely on inadequate and, in many cases, shared, sanitation facilities – in some cases serving more than 30 families. The Urban District of Nhlamankulo contains some of the city's most densely-populated (>200 persons/ha) unplanned areas, including the neighbourhoods where the specific case study was carried out (Chamanculo D, Aeroporto B and Unidade 7). In this pilot case study activity, WSP introduced a monitoring process in the three neighbourhoods, involving local community leaders, the lowest tier of the municipal administration, with the aim of collecting information to improve sanitation planning. However, instead of merely informing future interventions by the authorities, the training and monitoring carried out resulted in community leaders and householders becoming spontaneously involved in improving their own conditions. Within less than six months, the results were encouraging: in a sample of those having poor sanitation facilities at the beginning of the monitoring activity, 79% had built a new latrine, upgraded an existing one, or significantly improved the cleanliness of the latrine, halving the overall proportion of unsafe latrines from 29% to 14%. This outcome clearly suggests a potential role for community-based monitoring in changing sanitation behaviour and improving sanitation services in peri-urban areas. Description of the Initiative

2.4.7 Rwanda state and drivers of change of Kigali's sanitation – a demand perspective (Rwanda), Alexandra Hohne

This paper provides a view of the current state of the sanitary system in urban Kigali and focuses on the practices and perceptions on the demand side. The study is based on 30 qualitative interviews in households and a school staff discussion. Information was also supplemented with 34 citywide interviews, for example from the Ministry of Infrastructure, Kigali City Council, local governments, local health centers, Plan International, and UNICEF amongst others. Currently, many households are not very concerned about their sanitation, although particularly high population density areas are under pressure with the lack of proper sanitation facilities. Cleanliness and health are important to the inhabitants, but the sanitation situation is alarming in some areas. This paper examines the social and technical drivers of change in Kigali's sanitation.

2.4.8 Effect of integrated social marketing on sanitation promotion in urban slum communities – case of three parishes in Kawempe division, Kampala (Uganda), Innocent Kamara Tumwebaze

This paper presents experiences of work in nine zones from three parishes of Bwaise II (Bukarazi, Nakamiro and Tebuyoleka zones), Kyebando (Elisa, Kisalosalo and Kyebando central zones) and Mulago III (Lower Nsooba, Kifumbira I and Upper Nsooba zones) that form part of the 19 parishes that make up Kawempe division in Kampala. These parishes have large informal settlements (slums). The result of the paper reflects that community champions are necessary for the success of projects in urban slums. Sustainable sanitation and water Renewal Systems (SSWARS) continually work with resource persons in the communities for the success of the project. These includes: community leaders, elders, local council chair persons, and people with disabilities, village health team members and volunteers within the respective zones. These played a great role in community mobilization. Kawempe division authorities such as the division health inspector were greatly involved and invited in some sensitizations. In addition, the village health teams (VHT) that were already established in the community by Ministry of Health and SSWARS community volunteers have also been given training in use of participatory hygiene and sanitation transformation (PHAST) tools to equip them with knowledge since they are the ones mainly involved in health and sanitation programs in communities.

2.4.8 Civil society involvement in provision of sanitation services –case study of Kingugi, Dar es Salaam (Tanzania), Mathias .J. Mulagwanda

Sustainability of community water supply and sanitation largely depends on the extent the user community is committed to plan, implement and manage the facility. It is within this context that WaterAid and PEVODE jointly implemented a community-based and managed project that aimed at improving water and sanitation services to low income communities in Kingugi, a sub ward of about 7000 inhabitants of Mbagala ward, Temeke Municipality, Dar es Salaam Region, Tanzania. The project was needs driven and the request for sanitation came from the community itself.

The sanitation initiatives were linked to other community needs such as clean water, education, good environment, while income generation activities such as farming, small scale trading and other entrepreneurship, savings and credit schemes, etc. were promoted. Community capacity building, (community leadership training, fund management and other technical skills) was carried out by

Water Aid and the Municipality through training workshops and onsite demonstration. The communities were also assisted to establish legal and organisational frameworks for the proposed projects (including Sanitation User Associations). There was a strong gender mainstreaming component that addressed women social and economic needs as much as possible. Major drivers of success include the communities' willingness to pay for sanitation services and ownership of the pit latrines by the beneficiaries, the extent of the training component, the simple technologies used and the registration of the Sanitation User Association that complies with the by-laws of the municipality.

2.4.9 Children as effective change agents – the case of school health clubs in the promotion of sanitation and hygiene (Uganda), Sarah Muzaki

Through its School WASH initiative, WaterAid in Uganda (WAU) launched a project called "A Life Saving Lesson for School Children in Uganda" in partnership with SIMAVI. The project has been implemented in Buwama and Amuria Town Councils by Busoga trust and Wera Development Agency (WEDA). This project together with the initiative by WAU's other partner – Community Integrated Development Initiative (CIDI) in Kampala slums, provides insights into how children can be effective agents for positive change in urban sanitation and hygiene. The components of the projects included: construction/provision of sanitation and hygiene facilities (10,000-15,000 litre Ferro Cement Tanks, VIP latrines with provisions for girls' washrooms, hand washing facilities, dust bins, cleaning equipment); formation of School Health Clubs (SHCs) (Include 4 teachers), awareness creation for school pupils on acceptable sanitation and hygiene behaviors; community sensitization meetings: trainings for School Management Committee and Parents and Teachers Association members in the relationship between education and WASH, promotion of Information, Education and Communication (IEC); leadership training and community awareness campaigns. Key techniques used were talking compounds, music, dance and drama shows, learning visits, debate sessions, pictures/posters, home visits, radio talk shows, community campaigns, plus school competitions.

The projects were implemented in 7 schools in Amuria, 10 schools in Buwama and 5 schools for the Lubaga School WASH Project (LUSSAP) Phase III in Kampala. The WaterAid – SIMAVI project benefited at least 15,249, with over 60% of these as direct beneficiaries (School children). The Lubaga School WASH project on the other hand targeted 3,439 school children and a number of others as community members and school teachers. By the end of the project the planned targets were achieved. Many school children and teachers were able to enhance their knowledge and skills in sanitation and hygiene. All the people in the schools were able to access safe water and adequate sanitation and hygiene through the use of the facilities provided in the schools.

2.4.10 Harnessing the power of Public-Private Partnership (PPP) and sanitation marketing in promoting urban poor sanitation – lessons from GTZ/JICA/CIDI pilot project in Nateete parish informal settlements, Kampala District (Uganda), Dennis Nabembezi

With about 2.6 billion people without access to improved sanitation facilities in the world and approximately 4 billion cases of diarrhoea each year causing 2.2 million deaths mostly among children under the age of five on the African continent. Diarrhoea is now the biggest killer of children under five, deaths that are preventable through access to sanitation, hygiene education and clean water. Despite the noticeable benefits of improved sanitation, free and subsidized sanitation facilities are often times abandoned or otherwise abused within a short time of being set up as users share no

sense of ownership and expect that new free facilities will be provided. The photo presentation focused on how GTZ through RUWASS entered a Public-private partnership (PPP) with CIDI, JICA, Equity Bank and Poly Fibre to produce and distribute sanitation facilities designed for the specific needs of the urban poor population of Nateete informal settlements using the principles of sanitation marketing to promote ownership and stimulate demand for sanitation. The results from this partnership showed that there was a 30% increase in sanitation coverage and a 45% increase in critical hand washing. Also recorded was that 70% of respondents reported reduction in water and sanitation related diseases after the pilot project. This collaboration reflects that public private partnership coupled with sanitation marketing principles can stimulate urban poor's demand for sustainable sanitation facilities with minimal or without subsides.

2.4.10 Costs of sanitation for the urban poor – Dar es Salaam perspective (Tanzania), Mussa Natty

Dar es Salaam is Tanzania's largest and most important industrial and commercial centre with an estimated population of about 4 million in 2010 which is approximately ten percent of the country's total population. In terms of challenges, the city has a large infrastructure backlog causing shortfalls in service delivery and does not have the capacity to effectively cope with its rapid growth. This paper provides a number of key recommendations which include: the establishment of a special fund for sewerage infrastructure development in which the privileged who are enjoying the use sewerage system built by public funds should also contribute by raising the tariff they currently pay; the suggestion that the sanitation department within the City should be independent, and not merge with water supply department; and finally that government, development partners and the public at large should put more emphasis and inject more -funding into urban sanitation for the poor to reduce the hardship the poor currently endure.

2.4.11 Community sanitation struggles – case of UCLTS in Mathare No. 10 (Kenya), Joel Nkako and Rose Nyawira

Mathare 10, is a community located in Nairobi about five kilometers from the Nairobi Central Business District. It has a population of about 15,000 people. Mathare 10 is located within the larger area known as Mathare Valley which is the second largest slum in Kenya. Mathare valley is about four decades old with the oldest settlers being the Mau Mau fighters. Urban Community Led Total Sanitation (UCLTS) is the approach that is being used in Mathare which facilitates the community to understand the resources available within them. People are able to know the dangers of poor sanitation and hygiene and develop solutions to address these problems. This presentation describes the UCLTS approach and how it works in Mathare. It also describes an innoviate approach to maintaining clean toilets through the Community Cleaning Services (CCS) which is a social enterprise that works with young entrepreneurs (and their teams) in low income areas and informal settlements in Nairobi and helps them establish (through training and mentoring) cleaning businesses that provide sanitation services in their communities.

2.4.12 Leveraging impact at scale through innovative financing for slum sanitation – PPPs, microcredit schemes and local entrepreneurship concept for slum sanitation in Uganda (Uganda), Fred Nuwagaba

The German Technical Cooperation (now GIZ) and the Ministry of Water and Environment in partnership with Kampala City Council (KCC) and two local NGOs developed a home-led sanitation investment financing concept aimed at improving toilet coverage in slums while the owner investment in public pay-and-use toilets and school toilets was allowed for demonstration, information, education and communication purposes to ensure a multiplier effect. Key to the concept was ensuring sustainability through stimulating demand, maximising responsibility and ownership by stakeholders and utilising subsidies as a facilitative kick-start for scaling-up.

GIZ and the local Ministry entered into a public-private partnership with Crestanks and Poly Fibre, two local private companies producing modular plastic toilets, to offer a range sanitation and hygiene products within the income means and meeting needs of the urban poor in two selected slums in Kampala City. At the community level, sanitation marketing campaign (focusing on landlords and women entrepreneurs and also targeting schools, religious and cultural institutions) were coupled with hygienic awareness creation, bye-law enforcement and appropriate financing that included micro credit schemes. Another financing method used was the easy product acquisition arrangements through instalment purchasing (including payments through mobile phone banking/deposits). In both the micro credit and instalment purchase financing mechanisms, partners forged alliances with NGOs, financial institutions, public authorities and the beneficiary community so as to complement their different interests. The project also trained masons from the local community.

The local sanitation entrepreneurs acquired toilets and could fully recovered their investment from revenues; they continued to expand their business on their own by serving a variety of hygiene needs like showers and laundry. Within the two years of the project, 75 complete toilet blocks were constructed, 45 toilet blocks rehabilitated. Scaling-up of the concept is on track with lessons drawn from the pilot incorporated in the new 10-year Improved Sanitation and Hygiene (ISH) Strategy by the Ministry of Water and Environment for the small towns in Uganda.

2.4.13 Promotion of hygiene and sanitation in Northern Uganda by Water and Sanitation Development Facility North (Uganda), Alex Ojuka Jalameso

Water and Sanitation Development Facility-North is providing water supply and sanitation facilities in the northern districts of Uganda. The programme covers three sub regions of West Nile, Acholi and Lango with 23 districts. The Water and Sanitation Development Facility North (WSDF-N) is a government of Uganda programme of Ministry of Water and Environment. WSDF-N. is under Urban Water and Sewerage Services Department (UWSSD) of Directorate of Water Development (DWD).

In terms of lessons learned in the five towns which are the subject of this paper, there are many pressing priorities. There is little attention paid to hygiene and sanitation activities which therefore entails constant sensitization to the community members. In terms of other key lessons, enforcement of the ordinances and by-laws by the trained enforcement officers and other responsible officers is needed in helping to improve hygiene and sanitation in northern Uganda.

Another lesson is the provision of piped water and sanitation facilities which must move together. There is a need to have subsidies for especially poor communities whom need sanitation facilities. Another lesson is that WSDF-N Facility needs a standard and a strategy for sanitation facility provision among the community members. Finally, construction of Ecosan toilets is increasing with 15 Ecosan privately constructed in the towns. However; the community members who want to construct Ecosan toilets are challenged to access Ecopans. Ecopans are not readily available to the public and they are expensive, and therefore not affordable to many people. One final lesson is therefore that there is need to procure Ecopans in large numbers and to train masons to implement them.

2.4.14 Supporting secondary urban centres in the Lake Victoria region to contribute to Millennium Development Goals' achievement – the experience of using systematic action research for capacity development in sanitation in Kyotera Town Council (East Africa), Chemisto Satya Ali

The Governments of Kenya, Tanzania and Uganda, in association with UN-HABITAT, launched in 2004 the Lake Victoria Water and Sanitation (LVWATSAN) Programme, an initiative geared towards addressing the water and sanitation needs of poor people living within 11 towns around the Lake Victoria region. This initiative has been designed to achieve Millennium Development Goal targets for water and sanitation in small growth centres and has a clear pro-poor focus. Within this context, the Netherlands Development Organisation, SNV, in a partnership consortium that includes UNESCO-IHE (Institute for Water Education), the Federation of Canadian Municipalities (FCM), the Gender and Water Alliance (GWA) and NETWAS International as the local/regional capacity builder, developed and implemented the Training and Capacity Building Programme for the LVWATSAN Programme. The capacity development activities were formulated in response to specific circumstances, actors and issues in each town.

Initial enquiries in Kyotera Town Council were made to identify issues, actors, and their mutual relations. Subsequently a capacity development programme was developed, comprising 27 courses in 5 thematic areas: water, sanitation and environment, pro-poor governance, gender and vulnerable groups, and local economic development. The main contents in the course focused on the vulnerable and poor women and men, towns institutions and organisations, service coverage and quality, public engagement and access, and public investment and processes. The main approach used capacity development has been training targeting 2,990 people in the towns. The target groups included members of the multi-stakeholder forum, local and district local governments, water and sanitation providers, local entrepreneurs, non-governmental organisations, community based organisations, male and female citizens, users, and vulnerable groups. This was supplemented by ongoing inquiry and evidence gathering as well as coaching programmes, exposure visits, peer-to-peer support and mentoring. In addition capacity development emphasized knowledge development and sharing.

2.4.15 Eco-sanitation Eco-sanitation – the recycling sanitation and agricultural system – the case of Ethiopian and some Eastern African countries (Ethiopia and other countries, Almaz Terrefe

A group of activists and academicians from different disciplines in Sweden, Ethiopia and Kenya founded the NGO called Society for Urban Development in East Africa (SUDEA). Through this organisation the first concept for Economical, Ecological Sanitation (ECOSAN) was spelled out.

Ethiopia was the first country chosen to do a pilot project of ECOSAN in 1996, with an integrated approach of all biodegradable substances from the household including human excreta. The system was designed and spelled out to recycle all biodegradable substances from the household including human excreta in a safe and clean manner.
The main objective of the ECOSAN project was to show the do-ability of using specifically human excreta as fertilizer and producing food, fodder, flower and/or forest (4F). Through the introduction of urban agriculture or home gardening, the project initiators learnt how to empower women with natural resource management from the household. This has shown to be a very good income generating method for poor peri-urban households. As any integrated approach, awareness creation and monitoring with respect have been crucial.

2.4.16 Small doable actions targeting hygiene improvement in vulnerable households (poor urban and rural households (Kenya), Elizabeth Wamera

HIP is a USAID funded programme in Kenya that was initiated in December 2009 under the Academy for Education & Development (AED) regional office of Eastern and Central Africa. This is a programme that came up due to an expressed need in hygiene practices improvement targeting vulnerable households that include but are not limited to the HIV infected and affected households which are predominantly poor in the urban and rural settings in Kenya. At the initiation of the HIP program in Kenya, there existed no programme that was specifically targeting the officers in the Ministry of Public Health and Sanitation who are trained in Public Health. The government approach has been traditionally to pass information to the communities and to expect them to carry out hygiene activities as stipulated by law. However, the HIP programme introduces a new approach to the promotion of hygiene - Small Doable Actions. This approach assesses the hygiene levels of the communities and encourages them to improve on hygiene through negotiations on small actions within the household that have been tried, tested and accepted in a given community.

The biggest challenge to the HIP programme was the acceptance of the programme within the country as it is a “software” only program as compared to many traditionally implemented programs that focus on hardware with software considered “just an add-on”. Another challenge that the programme faced was the acceptance of the Small Doable Approach – negotiation by the public health officers who are trained and oriented to enforcing law. A number of examples of small doable actions include: using leaky tins for hand washing stations, improvised commodes for weak but mobile patients, re-usable pieces of old clean fabrics for menstrual management; and using pots with spigots for safe storage and retrieval of water. In terms of lessons learnt, this approach is the start of attitude change related to hygiene practices. It is meant to facilitate behaviour change leading towards a reprioritization of hygiene and improved practices in the household level. The way forward for this approach is integrating it into existing work and using the existing framework and personnel to ensure its sustainability.

2.4.17 De-mystifying geospatial technology –a case study on capacity-building in GIS & GPS in Kibera (Kenya), Matthew Waterkeyn

This photo essay discusses capacity-building for geographic information systems (GIS) and global positioning systems (GPS) for technical and managerial level staff from Nairobi City Water and Sewerage Company (NCWSC), Water Sanitation for the Urban Poor (WSUP), and the Umande Trust.

GIS allows practitioners to collect key information and represent it as a map while GPS is a very quick, and relatively accurate way to collect coordinates and to navigate in the field. Traditional maps produced by WSUP, Umande & NCWSC were found to have no scale, legend and few labels of existing and proposed features; they did not illustrate the mapped WASH schemes clearly. A capacity building for GIS & GPS was hence proposed to help the project WASH staff to create and update new maps that clearly illustrate any planned/new WASH project.

A mapping capacity building workshop was carried out in one intensive week. It included an overview of GIS & GPS applications and limitations; class demonstrations and tutorials in ArcGIS specifically on a current WASH project; as well as learning how to collect and verify GPS data collected on a site visit to Kibera. Trained staff learned how to navigate and collect data using a GPS; understand the limitations of the technology and the risks involved in 'blindly' using secondary sources of geospatial data. They made clear project maps with all the features a reader needs to independently orientate himself and identify key features. For example, one map created by the team from the Umande Trust represented health data geospatially, allowing them to track health indicators in their project area.

2.4.18 Pit emptying service using gulper technology (Tanzania), Salama Kitenge

WaterAid has been implementing since April 2008 the Irish Aid Funded Sanitation Project in the areas of Temeke and Ilala. This initiative aims at providing poor households access to simple and low cost sanitation facilities and technologies (both latrines and emptying services). The first year was dedicated to testing technologies, the second one to scaling up sanitation and hygiene, while during the third year focus is on lobbying, monitoring and evaluation.

A research carried out in 2007 highlighted the risks associated to usual pit emptying services in Temeke (land slide, latrine collapsing, infections, in some instances deaths, etc.) and the need for a viable hygienic pit emptying technology in urban unplanned settlement in Dar es Salam. The gulper technology was identified as an appropriate affordable solution, well appreciated also by users, as shown by the following testimony:
"There was absolutely no presence of the sludge that had been all over some few minutes ago. There was no smell at all. This was such a beautiful experience that I decided to popularize the service to my friends for free. I could tell them to accept the service and if it does not work, I would be responsible for any costs incurred. From that time on, I will always use the Gulper and I advise you too to try it because it is value for your money".

2.4.21 Cell based hygiene in Kigali (Rwanda), Vestine Mukeshimana

This presentation focused on the development of cell-based sanitation and hygiene in Kigali. In terms of the support in the area of sanitation and hygiene, there has been: a) a political commitment toward cleanliness; b) employment of designated Government staff who are in charge of hygiene up to Sector Level; c) private investment in the sector such as waste collection; and d) regulation and community sensitization. This cell-based hygiene approach has come to harmonize the image of Kigali through the involvement of households and community ownership including local leaders' participation. The results of the programme have been improved hygiene in public places, roads cleanliness and also greening around the city. Among the 23 urban cells evaluated, five cells scored above 70%, nine others scored above 50%, and only 8 cells were below 50%.

2.5 Field visit

Visits to two sites were organised during the workshop in order to link the discussions held in group work and plenary to practical observations.
Intwari primary school, a model school was the first place visited. This community school was established in 1957, and is located in the Kigali city suburb of Rwezamenyo Sector. The school has 2473 pupils who study in two shifts (morning and afternoon). The Director of the school, Mrs. Uzamukunda Zamida, welcomed the participants and explained how the water, sanitation and hygiene conditions have improved in such a densely populated community school. In 2011, the school was chosen as a pilot for improving the appalling hygiene and sanitation conditions that existed. To date a new VIP latrine block with urinals for boys has been upgraded. The school has garbage bins in different locations; dust and mud in the school have been reduced by paving the ground. A hand washing facility operated by a foot pedal was quite popular among workshop participants. The school is also harvesting rain water which is used for washing the premises, including the sanitary facilities.

The second place visited was the "Cocen", a community cooperative society working in the city suburb of Nyakabanda Sector, which is collecting garbage from the community for recycling. At the site, the workshop participants were explained how garbage sorting is done there. Plastic materials are sorted, washed clean and exported to Uganda, as the cooperative has no equipment to process the plastic into more valuable products like cups, basins or jerry cans. Organic wastes are turned partly into organic manure, mainly used in the flower gardens of the city, while partly in briquettes which can be used for cooking and are sold mainly to institutions (prisons, schools and hospitals) and to a lesser extent to households.

2.6 Group Analysis

Participants were divided into four groups and requested to analyse papers and photo essays that were presented by using the following framework of analysis:

- What are key factors for success?
- What are key factors for improvement, challenging factors? (learning from challenges)
- What is the major specific approach or combination of approaches to pull trigger?
- What are the key drivers for change? (which institutions, actions, transformation)
- What is/are main motive(s) or drive(s) that ignites individual/HH/community to change behaviour? (social, cultural, economic, psychological, enforcing, etc.)

Table 1: Group responses to the key analytical questions on household and school sanitation.

QUESTIONS	KEY GROUP RESPONSES
Key factors for success?	<u>Group on urban sanitation especially in urban slum areas</u> • Good management and financial systems • Proper technical design • Community involvement and ownership

QUESTIONS	KEY GROUP RESPONSES

	• Working with local CBOs
	• Stakeholder coordination
	• Response to existing demand
	• Approaches tailored to various groups
	
	<u>Group on technology and capacity development</u>
	• Ownership/acceptance of the technology/innovation by the users
	• Cost effectiveness (e.g. use of local materials)
	• Proper education/training of users and operators
	• Employment creation- private sector
	• Demand (market) for waste products (ecosan system)
	• Scalability of the model
	
	<u>Group on sanitation marketing, demand and financial aspects</u>
	• **Stakeholders:**
	  • Private sector
	  • Existing local structures and initiatives
	  • Organised groups – religious, CSOs, unions, etc.
	  • COMMUNITY MEMBERS
	• **Technology:**
	  • Choice by users
	  • Cost and perceived value → Willingness to Pay
	• **Methodology:**
	  • Combine different approaches for different groups
	  • Use of children as a communication channel
	  • Marketing based on formative research
	  • Open a dialogue on the taboo subject of sanitation
	  • Enforcement
	• **Financing:**
	  • Subsidy vs. Self-supply:
	  → *micro-finance*
	  → *savings*
	  → *family*
	
	  Top-down vs. Bottom-up
	
	<u>Group on schools, community household and hygiene mobilisation</u>
	• Political commitment and good will
	• Stakeholder involvement
	• Targeting mindset change
	• Use of the carrot –stick approach
	• Community commitment, participation& ownership
	• Capacity building, Legal frameworks and policies in place

QUESTIONS	KEY GROUP RESPONSES
	• Contextualizing and targeting influence • Embracing dialogue

Key factors needing improvement?	<u>Group on urban sanitation especially in urban slum areas</u>
	• Land tenure system
	• Geographic physical area (e.g. high water table area)
	• Scaling up with quality
	• Limitation of political will
	• Monitoring
	• Contribution through ownership
	• Sustainability and opportunities for scaling up
	• Measuring impact
	• Private Public Partnerships (PPP)
	• Modalities for implementation
	• Lack of harmonisation
	• Issues of maintenance of toilets
	• Community mobilization
	• Focus on software before implementing hardware
	
	<u>Group on technology and capacity development</u>
	• Partnerships for bringing to scale
	• Cultural barriers for acceptance by users
	• Technological design/innovation
	• Waste management (ecosan system)
	• Pro poor finance mechanisms
	
	<u>Group on sanitation marketing, demand and financial aspects</u>
	• **Role of Government:**
	  • Joined-up thinking on pollution:
	  - cost of sanitation vs. cost of water supply
	  - cost of WW treatment vs. value of environment
	  • Generate political will – associations, pressure groups
	  • Go for scaled-up solutions, not 1,000 pilot projects
	  • Better formulation and enforcement of standards
	  • Link sanitation with other related issues
	  • Increase funding by Gov't and development partners
	  • Align funding with the problems – avoid subsidising sewerage for the rich whilst leaving the poor to fend for themselves
	• **Priorities and Alternatives:**
	  • Prioritisation of sanitation by families
	  • Costs and payment mechanisms appropriate for users
	• **Data:**
	  • Regular monitoring of sanitation coverage and status

QUESTIONS	KEY GROUP RESPONSES
	• Harmonisation of indicators <u>Group on schools, community household and hygiene mobilisation</u> • Time Vs labour; • Political recognition by government vs political rights of individuals/ political manipulation • Minimum standards for sanitation and health • Time planning vs reality on ground • Use of app. Technologies • Complex land tenure systems • Difficulties with M& E systems • School intervention • Integrated planning • Market based approach • Poverty • Openness for new technologies • Government interventions • Integrating approaches to training curriculums • Competing priorities • Building synergies with all stakeholders

Major specific approaches or combination of approaches to 'pull the trigger'?	<u>Group on urban sanitation especially in urban slum areas</u>
	• Private public approach
	• Participatory approaches
	• Result-based approaches
	• Area-wide intervention
	• CLTS (Better in association with sanitation marketing)
	• Right-based approach
	• Targeted subsidy
	
	<u>Group on technology and capacity development</u>
	The cases included the following (mix of) approaches
	• Health focused approach
	• Small scale entrepreneurial approach
	• Ecosan system approach
	• Participatory approach
	• Environmental approach
	
	<u>Group on sanitation marketing, demand and financial aspects</u>
	• **Approaches:**
	  • Participatory
	  • Combine top-down and bottom-up
	  • Context-specific
	  • Mix enforcement and promotion according to targets

QUESTIONS	KEY GROUP RESPONSES

	• Use appropriate communication channels
	• **Enabling Environment:**
	  • Clear enforcement of (improved) sanitation regulations
	  • Set universal access as the target
	  • Create space for PPPs
	
	<u>Group on schools, community household and hygiene mobilisation</u>
	• Enforcement
	• Performance contract
	• CLTS; Combined with PHAST
	• CLTS and community strategy (training of PHO)
	• Market based approach; PPP
	• CLTS and feasible solutions
	• Child to child
	• San Mark
	• Joint monitoring
	• Capacity building through partnerships

Key drivers for change?	<u>Group on urban sanitation especially in urban slum areas</u>
	• Identifying change agents
	• Contextualise work
	• Appropriate technology
	• Political will
	• Rewarding system
	• Innovations
	• Coordination of stakeholders
	
	<u>Group on technology and capacity development</u>
	• Vision/leadreship by initiator
	• Environmental conditions (water scarcity, unhealthy conditions)
	• Introduction of innovative technologies
	• Quality of service
	• Demand for improved service
	• Employment opportunity/economic Incentives (e.g. Kigali – ecotoilets)
	
	<u>Group on sanitation marketing, demand and financial aspects</u>
	• **Government:**
	  • Active involvement and enforcement
	  • Regulate and coordinate projects – SWAp
	  • Advocacy and lobbying
	• **Partners:**
	  • Media (promote competition between communities)
	  • Cultural institutions

QUESTIONS	KEY GROUP RESPONSES
	• Religious institutions <u>Group on schools, community household and hygiene mobilisation</u> • Awareness creation • Power mapping • Use of local artists • Competition and learning journeys as well as knowledge sharing • Champions and exemplary leadership • Community digital mapping (sms and video) • Social pressure • Community based structure • Government support • Community mobilization thru religious leaders

Ignitions for individuals/ households/ communities to change behaviour?	<u>Group on urban sanitation especially in urban slum areas</u>
	• Fear of diseases, fines, etc
	• Income-generation opportunities
	• Disgust
	• Shame
	• Social norms & beliefs
	• Enforcement of policy & by-laws
	
	<u>Group on technology and capacity development</u>
	• Media (radio, seminar,tv, posters)
	• Subsidies/incentives/loans
	• Law enforcement
	• School hygiene club, community hygiene club
	• Self esteem/pride
	• Role model (peer education)
	
	<u>Group on sanitation marketing, demand and financial aspects</u>
	• **Demand Side:**
	  • Relate S&H to cultural norms, values and aspirations
	  • Demonstrate costs and benefits
	  • Effectively enforce sanitary regulations
	  • Consider community sanitation status
	• **Supply Side:**
	  • Develop and make available viable options
	  • Ensure supply is in place when demand is created
	  • Disseminate sanitation concepts for users to implement
	  • Donors
	
	<u>Group on schools, community household and hygiene mobilisation</u>
	• Shame

QUESTIONS	KEY GROUP RESPONSES
	• Social pressure • Bye-laws • Individual labour and economic gain • Community level based solutions

2.7 Identification of key issues

Based on the analysis of cases, participants identified 15 cross cutting issues that affect sanitation and hygiene for the urban poor. The 15 key issues initially identified were prioritised by participants through a voting system, and 6 were further analysed. Though these 6 priority issues are to be tackled first, the 9 remaining ones should also be kept in mind for later action.

Table 2: Key issues in pro poor urban sanitation and hygiene as identified by workshop participants

6 priority issues for action	Other issues identified by participants
• Subsidies and incentives - 21 votes • Political will - 20 votes • Stakeholders engagement – interest groups and targets - 19 votes • Appropriate technology - 18 votes • Sustainability – O&M Approaches - 15 votes • Pro poor finance mechanisms - 15 votes	• Partnerships - 13 votes • Monitoring and evaluation –indicators, impacts / outcomes and outputs - 13 votes • Scale up with quality - 12 votes • Harmonization and coordination - 8 votes • Role of government - 11 votes • Standardization of technological options - 4 votes • Gender mainstreaming - 12 votes • Sludge management - 12 votes • Working with media - 4 votes

The 6 key issues identified in the plenary were put up for “world café” deliberations. 6 attendants volunteered to be the café owners, each handling one key issue. Each café owner prepared his/her approach to handling the group visits to their café.

2.8 World Café Strategies / Key recommendations

The key strategies in each area were

Key issue 1: On pro-poor sanitation financing arrangements and mechanisms

Financing sanitation and hygiene for the urban poor is affected by a wide range of issues that goes beyond costing sanitation technology. Often, the sector is confronted by low prioritisation, competing demands, poor planning, political interference, poor policy implementation, poor governance and/or accountability of available resources. Absolute poverty in some urban slum areas and the absence of property and land tenure rights further hinder investments from the landlords in sanitation facilities.

Subsidies were identified as key to pro-poor financing. In addition to this, the workshop's participants also identified sanitation marketing, combined with micro financing and Public-Private Partnership (PPP) as potential pro-poor financing arrangements to increase the urban poor's access to private sector products and services for sanitation and hygiene.

Pro-poor financing arrangements are often most effective when combined with advocacy and capacity building initiatives that help develop civil society organisations (CSOs) and communities into active participants in planning, monitoring and decision making on sanitation and hygiene services.

At the level of governance, creating a separate budget line for sanitation and hygiene and improving inter-sectoral coordination between ministries involved in sanitation and hygiene (Ministries of Urban Planning, Water and Environment, Local Government, Health and Education) create the necessary structure that supports sustainable access to and delivery of sanitation and hygiene services.

Key issue 2: On subsidy and incentives

If done correctly, promotion of household investment in sanitation can be a cost-effective public health intervention in terms of estimated health benefits. Debate on the type of subsidy and incentive arrangement for sanitation and hygiene services is often centred on a zero subsidy arrangement (as is the case with the community-led total sanitation approach), to ones that provides subsidy to groups classified as "very poor".

However the workshop participants also noted that the better-off are already subsidised via sewerage systems and felt that it is about time to subsidise the poor, providing cost reduction and financial support especially to the very poor who for example, are without land or live in water logged areas. It was thus proposed to prioritise financial support according to the willingness and ability to pay - with more financial support allocated to those who are unable to pay. This support may take the form of subsidies (cost reduction), incentive provision (reward / recognition for good performance), charity (unconditional giving) or a grant. Increasing the water tariffs paid by higher-income individuals and families also creates a more equitable arrangement that is capable of financing pro-poor sanitation.

Subsidies will need to be well designed and specifically targeted at the very poor. An emphasis should also be placed on raising awareness on existing and/or new subsidy arrangements at all levels. Awareness raising is most effective when supported by various media channels and formats that explain the conditions of urban sanitation and hygiene, as well as the developmental benefits that accompany increased financing for urban sanitation and hygiene for the poor.

Key issue 3: On appropriate technology

There should be a focus on identifying appropriate, cost effective, productive, environmentally friendly, human friendly technologies and design options, as well as on empowering communities to

make an informed choice and on having in place effective sustainability mechanisms for the different technologies.

The appropriate technologies should be piloted through, for example, demonstration centres and thereafter scaling up specific technologies may be explored. It should be noted that appropriate technology is by definition, a sustainable one, but it does not necessarily have to be of the lowest cost. Cost benefit effectiveness should not only concentrate on the initial costs. If the sanitation system is productive (for example with eco-sanitation by-products), the cost benefit should be calculated in the long term.

While the sustainability of sanitation and hygiene services are influenced by financial, social, institutional, and environmental factors, the choice of technology is central to achieving sustainable sanitation systems. Some aspects that were considered as crucial by participants included:

- Technological choice must be user-friendly to ensure that people have the capacity to assume the responsibility for operations and maintenance (O&M). Some options include eco-sanitation and urine separation or diversion technologies.
- Training and activities on capacity building must be implemented to enable households and/or communities to carry out work related to for example construction and O&M.
- Spare parts and equipment should be available and/or easily accessible.
- Technological choice should be affordable for people who will bear the costs for O&M.
- Technological choice should be environmentally friendly to prevent groundwater pollution, especially in areas prone to flooding and/or with a high water table.
- The technology provided should be culturally acceptable to the users.

Key issue 4: On stakeholders' engagement

The active participation and involvement of all stakeholders -- from the grassroots up to the higher levels -- in improving sanitation and hygiene for the urban poor is core. Genuine community involvement from the planning stage to monitoring and evaluation is a must to ensure that interventions are transparent and based on equity and good governance principles. This also entails the involvement of women at all levels of the process.

Having all stakeholders involved requires that room is allocated to CSOs and citizens at the policy making level, so that they can advocate for prioritization of sanitation and hygiene and increase budget allocation to the sector. This cannot be achieved without genuine political will.

Key issue 5: On political will

In many East African countries, sanitation and hygiene issues are not housed in a specific ministry. There is a need for inter-sectoral cooperation between the responsible ministries (Urban Planning, Water and Environment, Local Government, Health and Education) to place sanitation and hygiene higher on the agenda and to maximise their effectiveness to meet public health and environmental goals. It is a major drawback that sanitation has not received the same level of investment as water supply. The difference in investment between water supply and sanitation is partially responsible for

the gap between water and sanitation coverage. Political commitment for sanitation should be key in shaping government policy and investment priorities, and in implementing the programmes required to meet the national and international Millennium Development Goals (MDGs) targets.

All stakeholders, including politicians, need to be informed and held accountable for the challenges in urban sanitation and hygiene. In jointly agreeing on a way forward, stakeholders should acknowledge the complex nature of urban slum areas. The participants cited that an important strategy in support of enlarging political will is by engaging in different forms of advocacy and awareness creation activities at various levels (local government, national and international) to ensure that pro-poor sanitation and hygiene conditions are understood as important arenas for development work and funding.

Where political will is weak or absent, strategic advocacy efforts are necessary to ensure that the issue of sanitation and hygiene is placed high on the political agenda, through for example:

- raising the profile of sanitation and hygiene by linking them to other MDGs
- creating pressure groups at all levels, including the United Nations
- holding national and regional forums plus learning sessions for advocacy / lobbying with parliament

Politicians should also be held accountable on their actions to promote sanitation and hygiene for the urban poor. This can be done, for example, by:

- Setting clear targets for the political leaders
- Organising constructive competitions between leaders, and providing awards based on their commitment and involvement in improving sanitation and hygiene

Key issue 6: On sustainability and operation and maintenance (O&M) approaches

Community ownership is key to sustainability. It is therefore beneficial to develop and employ an inclusive and participatory approach to planning for increased ownership. Activities that support the operations and maintenance of hygiene and sanitation facilities need to be developed to facilitate collective ownership and responsibility for facility maintenance. The promotion of community-based initiatives such as the creation of community and/or school sanitation and hygiene (or health) clubs, village cleaning days (this may be a more top down approach which can work in some places but may also be arranged by the CBOs or even residents themselves), community-based monitoring and evaluation, local (market-based) cleaning businesses are just among the many examples of activities that may be undertaken. A market-based approach for O&M should also be promoted. This should be based on sound financial models to ensure sustainability, and promote local private sector manufacturing and distribution that foster income generation for both manufacturers and owners of sanitation facilities.

2.9 Next Steps

Workshop participants devised a number of steps and follow up activities to promote sanitation and hygiene for the urban poor:

Group formations:

- Start by setting up a discussion webpage on this topic, e.g. on Facebook regarding WASH related issues in the region
- Take part of the Google Earth Outreach[6] programme to spread the message about good practices in sanitation and hygiene for the urban poor.
- Start up a small group to focus specifically on gender considerations in sanitation and start documenting some cases / papers.

Platforms to focus on in the near future:

- Use Africasan 3 country planning / review meetings to come up with sanitation paper / cases to be fronted during the conference.
- Take the opportunity of the upcoming 13th SuSanA meeting that will be held in Kigali on 17th 18th of July 2011.
- Take opportunity of the Energy Water and Sanitation (EWSA) meeting, that will be held in Kigali just before Africasan 3 to table issues from this workshop

It was agreed that a googlegroup be set up to keep the momentum and continue detailed discussions on how to move forwards on the above actions and recommendations. IRC will take the lead in moderating this googlegroup, with assistance from 4 volunteer participants (namely Dennis-Nabembezi, Matthew Waterkeyn, Vincent Njuguna and Turi Omollo)

2.10 Closing of the workshop by the Permanent Secretary

The Permanent Secretary (PS) of the Ministry of Health closed the workshop. On behalf of the entire Ministry of Health he thanked the workshop participants and organisers, as well as the management of LAICO Hotel for providing a convenient and comfortable venue. He appreciated the recommendations and strategies developed that will help enhancing and pursuing the good work attendants are already doing in their respective countries.
He hoped participants enjoyed their 3 days stay in Rwanda which is now very peaceful and recommended that they visit other interesting places in the city.

[6] Google Earth Outreach gives non-profits and public benefit organizations the knowledge and resources they need to visualize their cause and tell their story in Google Earth & Maps to the hundreds of millions of people who use them; see http://earth.google.com/outreach/index.html

Appendix 1 – Workshop Program

Day/date/time	Programme component
Tuesday March 29th	**DAY 1**
08:30-09:30	Registration
09:30-10:30	Opening ceremony: - Remarks by René van Lieshout, IRC Regional Co-ordinator East Africa - Official opening by the Honourable Minister of Health
10:30-11:00	Group picture; Tea/coffee
11:00-11:30	Objectives, outputs, structure of the programme, inventory of cases, logistics
11:30-12:00	Background paper
12:00-12:30	Framework of analysis
12:30-13:30	Lunch
13:30-13:45	Groups formation (based on interest)
13:45-15:30	Parallel sessions: Case studies on urban sanitation especially in slum areas (Group 1) & Case studies on capacity development and technology (Group 2)
15:30-16:00	Tea/coffee
16:00-18:00	Parallel group analysis work (Group 1 & 2)
18:00-21:00	Cocktail and Rwandan traditional dances
Wednesday March 30th	**DAY 2**
8:30-8:45	Groups formation (based on interest)
08:45-10:30	Parallel sessions: Case studies on sanitation marketing and demand for sanitation (Group 3) & Case studies on schools and communities mobilisation and hygiene (Group 4)
10:30-11:00	Tea/coffee
11:00-13:00	Parallel group analysis work (Group 3 & 4)
13:00-13:30	Lunch
13:30-16:00	Field visit
16:00-18:00	Visit of the Gisozi Memorial Site

Day/date/time	Programme component
Thursday March 31st	**DAY 3**
08:30-08:45	Start up of the day, short recap' and expected outcomes of the day and methodology
08:45-09:15	Presentation of parallel group analysis work (Group 1)
09:15-09:45	Presentation of parallel group analysis work (Group 2)
9:45-10:15	Presentation of parallel group analysis work (Group 3)
10:15-10:45	Presentation of parallel group analysis work (Group 4)
10:45-11:15	Tea/Coffee; video
11:15-12:00	Prioritisation of key (macro) issues and components
12:00-12:30	Introduction to World Café; identification of 5 issue "owners" for the World Café
12:30-14:00	Lunch / issue "owners" prepare for World Café
14:00-15:00	World Café
15:00-15:30	Tea/coffee; video
15:30-16:15	Presentation of World Café outcomes
16:15-16:45	Follow-up; possible network group on urban sanitation and hygiene: interest and feasibility, suggestions, to be followed up by facilitators
16:45-17:00	Evaluation
17:00	Closing and farewell

Appendix 2 – Key note from the Hon. Minister of Health for the official opening of the EA Practitioners Workshop on Pro-poor Urban Sanitation and Hygiene

The IRC Coordinator, (René van Lieshout),

The Head of Environmental Health (Mr. Katabarwa Joseph),

Delegates from East Africa and beyond;

Participants from Rwanda;

Ladies and Gentlemen,

Welcome to Kigali.

It is widely known by now that half of the humanity lives in urban areas and the proportion is growing. While urban living offers many opportunities, the list of potential urban hazards and associated health risk is long; these include: substandard housing and crowded living condition, poor water supply and subsequent inadequate sanitation, and air pollution. Infectious diseases thrive when people are crowded together under poor sanitary conditions. Chronic non communicable and communicable diseases are on the rise with the globalization of unhealthy life styles. Poor hygiene and sanitation continues to pose a major threat to human health. Diarrheal diseases are responsible for the deaths of 1.8 million people every year. In Rwanda Diarrheal diseases are among the highest killer of our children. It is estimated that 88% of that burden is attributable to unsafe water supply, sanitation and hygiene and is mostly concentrated in developing countries.

A significant amount of none communicable and communicable diseases could be prevented especially in developing countries through better access to safe water supply, adequate sanitation facilities and better hygiene practices. The Water Supply and Sanitation and World Health Organization have reported that 60% of people living in developing countries estimated to be 2.4 billion have no access to hygienic means of personal sanitation.

According to UN-Habitat, unplanned settlements host between 40% and 60% of the total urban population in the East Africa. The health risks posed by the lack of sanitation increase exponentially as densities increase and as people share inadequate and unsafe sanitation facilities and low practice of basic hygienic practices. Urban sanitation averages often mask wide gaps between people of different socioeconomic status. This difference exists not only between the richest and the poorest city dwellers or between health outcomes among the rich and the poor but also along the continuum of entire urban population and health determinants, such as solid and liquid waste management and access to piped water.

Globally, sanitary and hygienic facilities in urban households are much higher than that in rural areas. In Africa however, substantial inequities exist between the rich and the poor urban residents. Also,

the challenge of waste management has been a growing concern for the governments and communities. As the population increases, there has been an increase also in the amount of waste generated at household level that requires requisite collection and disposal services. Feasible solution to the substandard status of personal hygiene, domestic and environmental sanitation is also a national and regional concern. The situation has been compounded by the rapid urbanization. The central government cannot act alone to tackle these challenges. Thus, the decentralized administration and empowered communities are expected to save the situation. In Rwanda, different strategies have been put in place to rapidly address the existing hygiene and sanitation challenges such as hygiene and sanitation campaigns, community hygiene and sanitation works (Umuganda), launching of the Community-Based Environmental Health Promotion Programme and Hygiene and Sanitation Presidential Initiative (HSPI). Community Hygiene Clubs will be formed in all Villages/Imidugudu to facilitate maximum involvement of all households in the country.

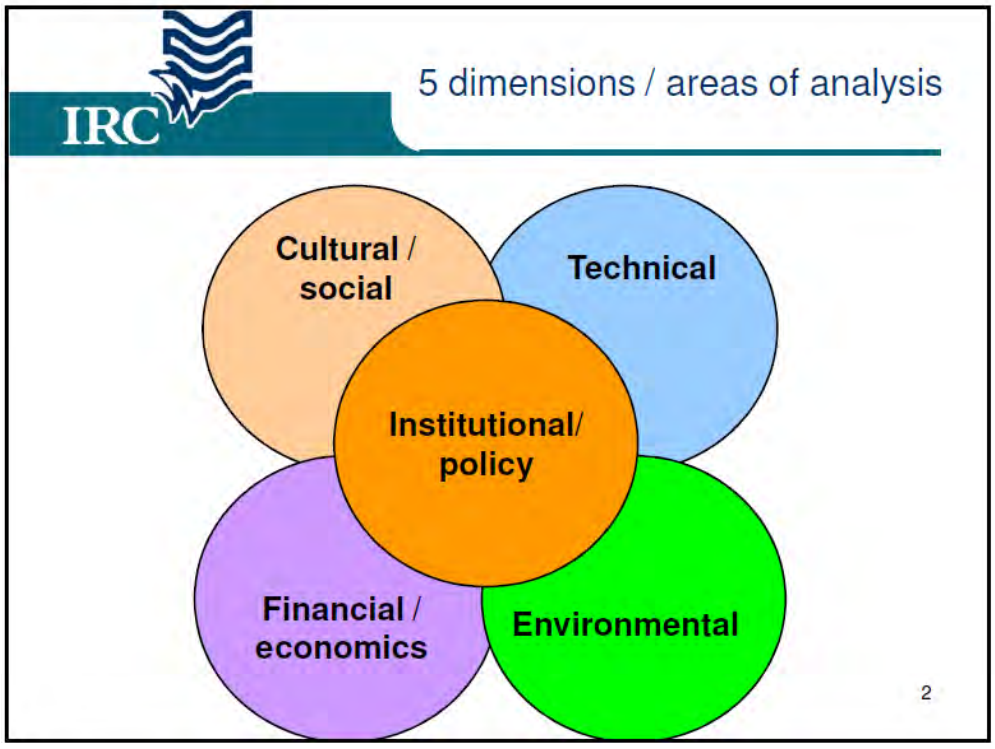
At the Second African Conference on Sanitation & Hygiene (AfricaSan+5) in 2008, firm resolutions were made to place hygiene and sanitation at the top of the development agenda in Africa. This reflects the global recognition of the importance of Hygiene and sanitation as shown, for example, in the declaration by the United Nations of 2008 as the International Year of Sanitation and the Global Handwashing Day which is being commemorated each year on 15th October.

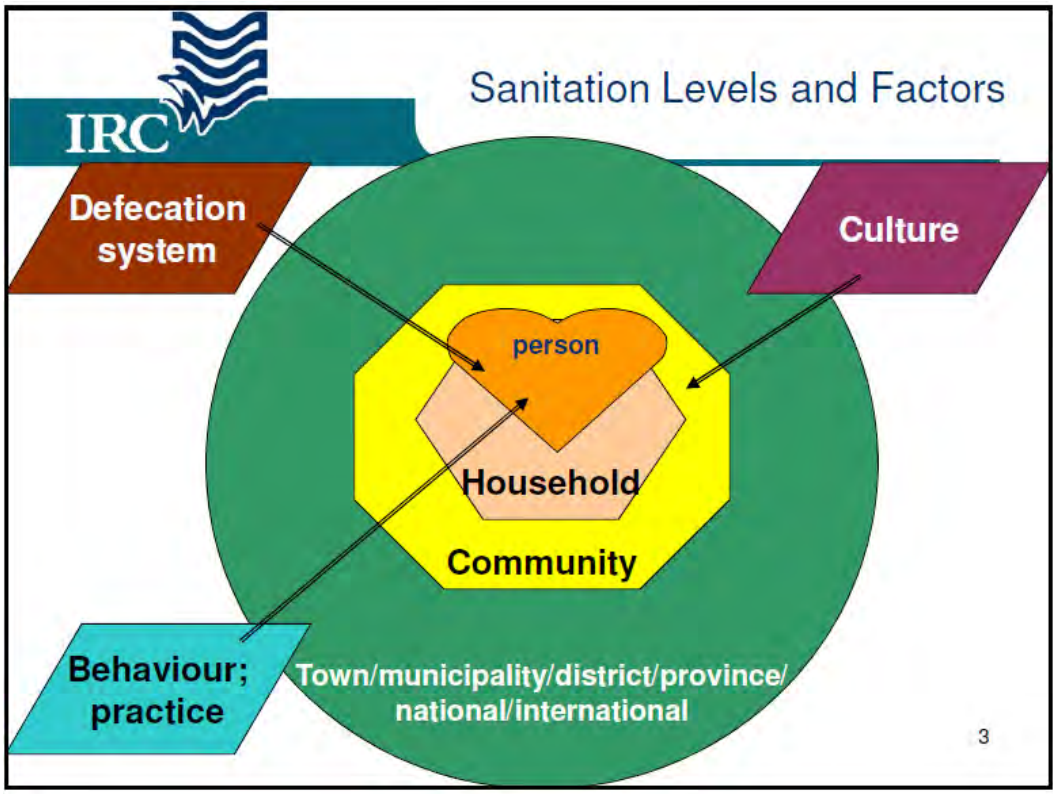
I am convinced that this workshop will provide a space for enhancing information, learning and sharing of experiences, encouraging practitioners to reflect critically on factors for improved urban sanitation and hygiene. It is also my conviction that, as practitioners, you will come up with strategies to ensure that our cities and towns become healthy places for all people.

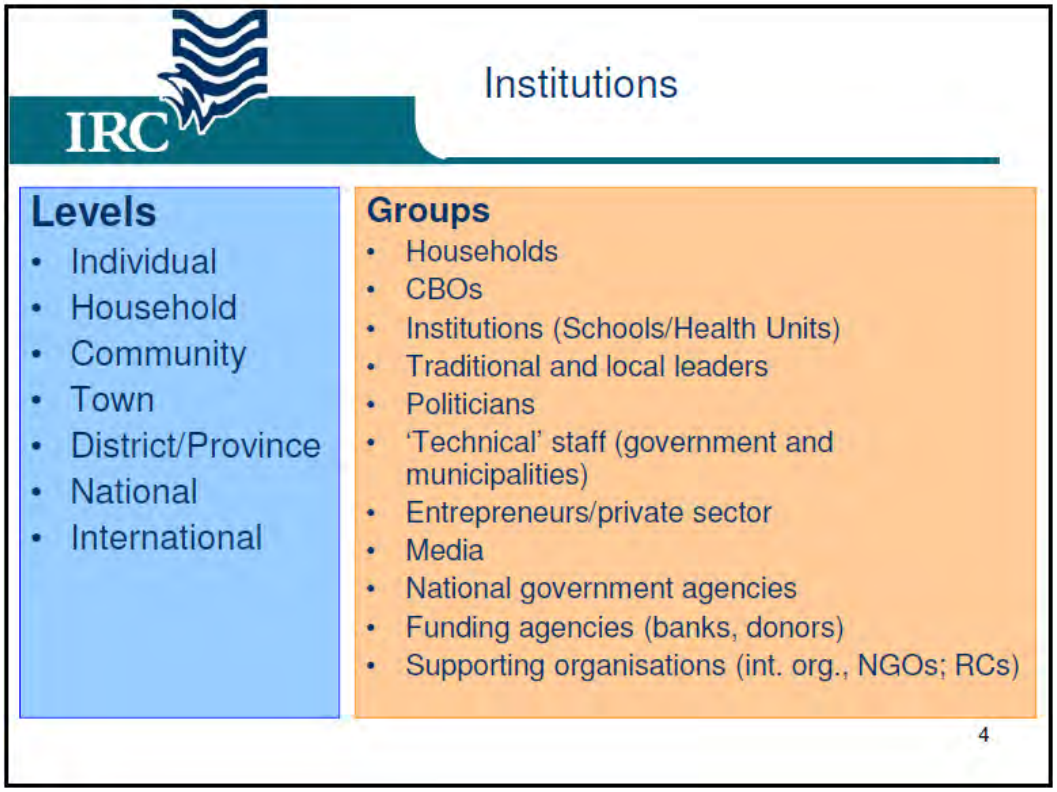
At this point, I declare this workshop officially open and I hope that you enjoy your stay in Kigali and have a fruitful discussion.

Thank you

Appendix 3 – Framework of analysis




IRC
Sanitation Levels and Factors
Defecation system
Culture
person
Household
Community
Behaviour; practice
Town/municipality/district/province/ national/international
3

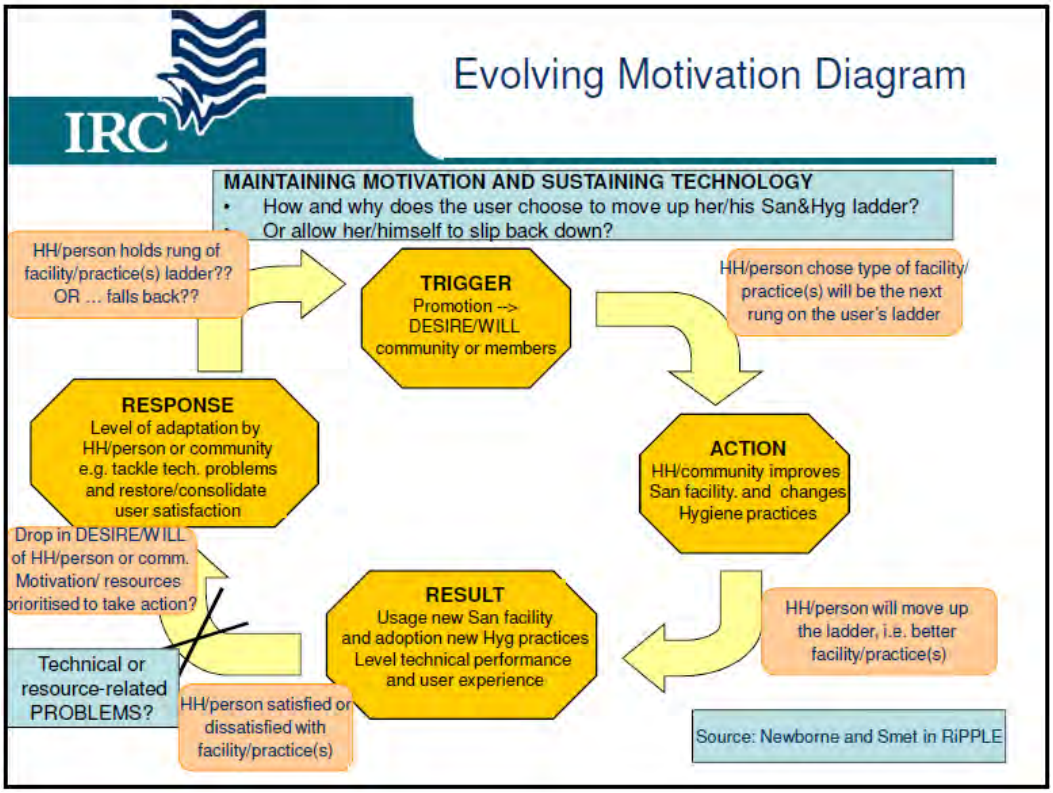

IRC
Institutions
Levels
• Individual
• Household
• Community
• Town
• District/Province
• National
• International
Groups
• Households
• CBOs
• Institutions (Schools/Health Units)
• Traditional and local leaders
• Politicians
• 'Technical' staff (government and municipalities)
• Entrepreneurs/private sector
• Media
• National government agencies
• Funding agencies (banks, donors)
• Supporting organisations (int. org., NGOs; RCs)
4

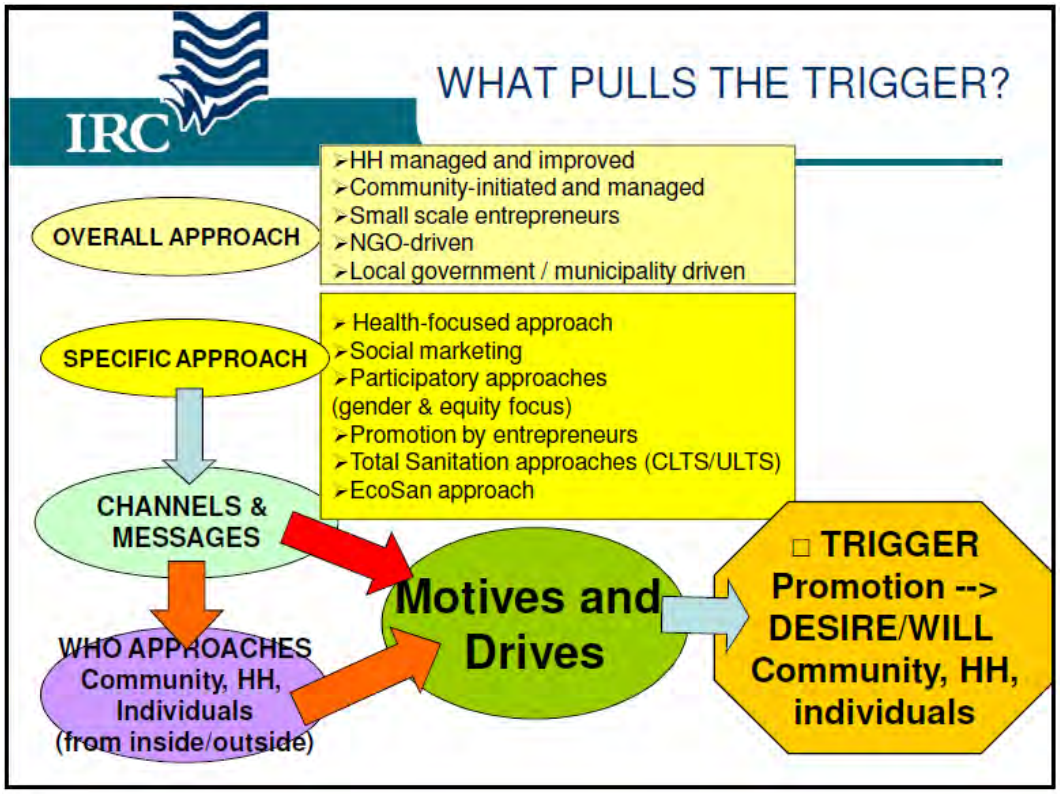
Institutional issues / best practices

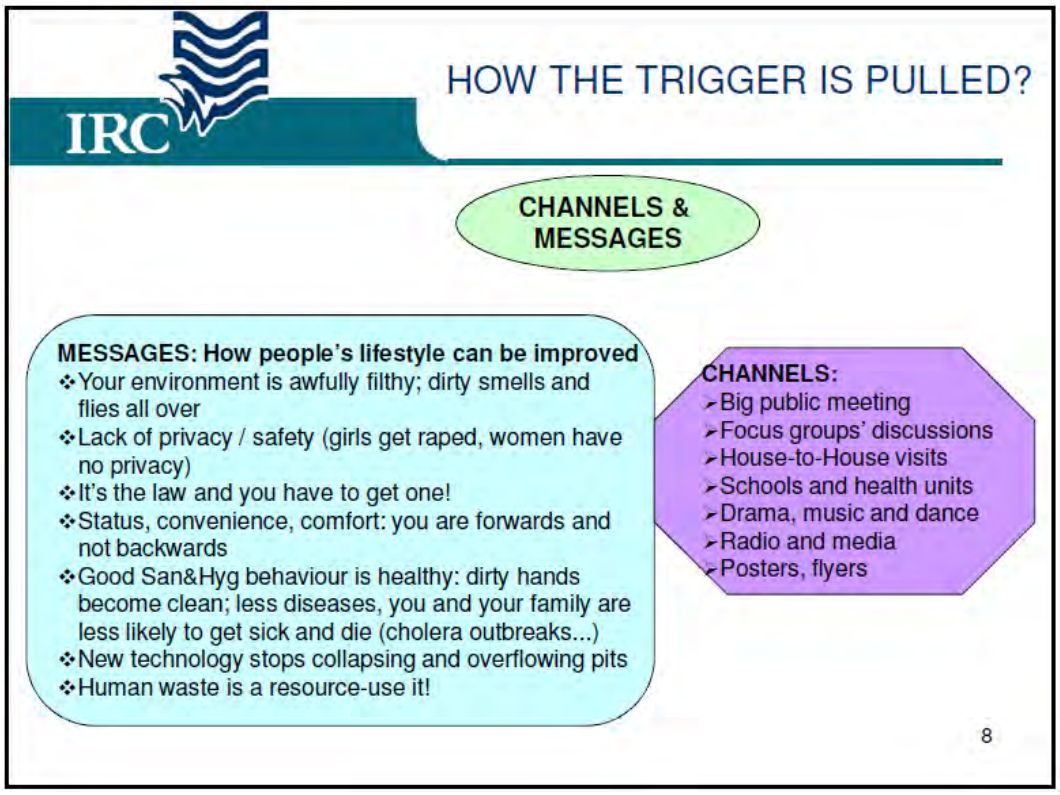
- Policies
- Regulation
- Strategy
- Guidelines
- Methodology / Approaches
- Financing
- Harmonisation
- Coordination
- Capacity (and cap dev't)
- Gender & equity
- Supply chain
- Private sector involvement
- Monitoring
- Bye laws & Enforcement
- Learning, R&D – innovation
- Scaling-up/ mainstream

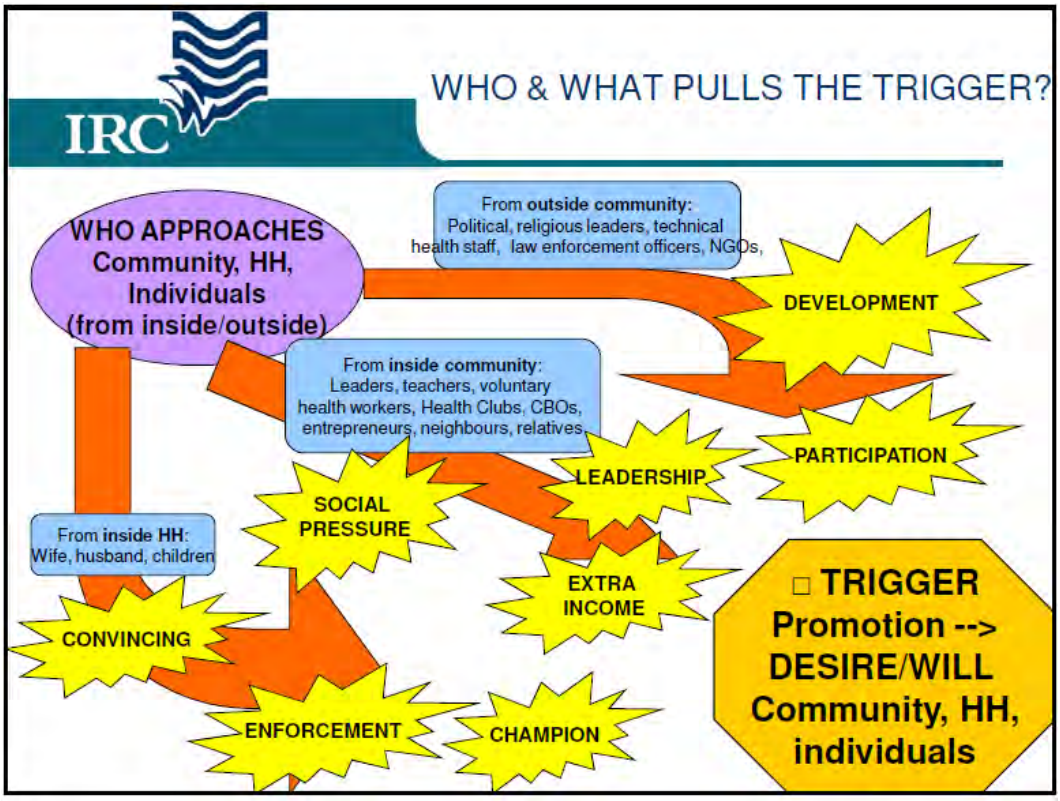
5

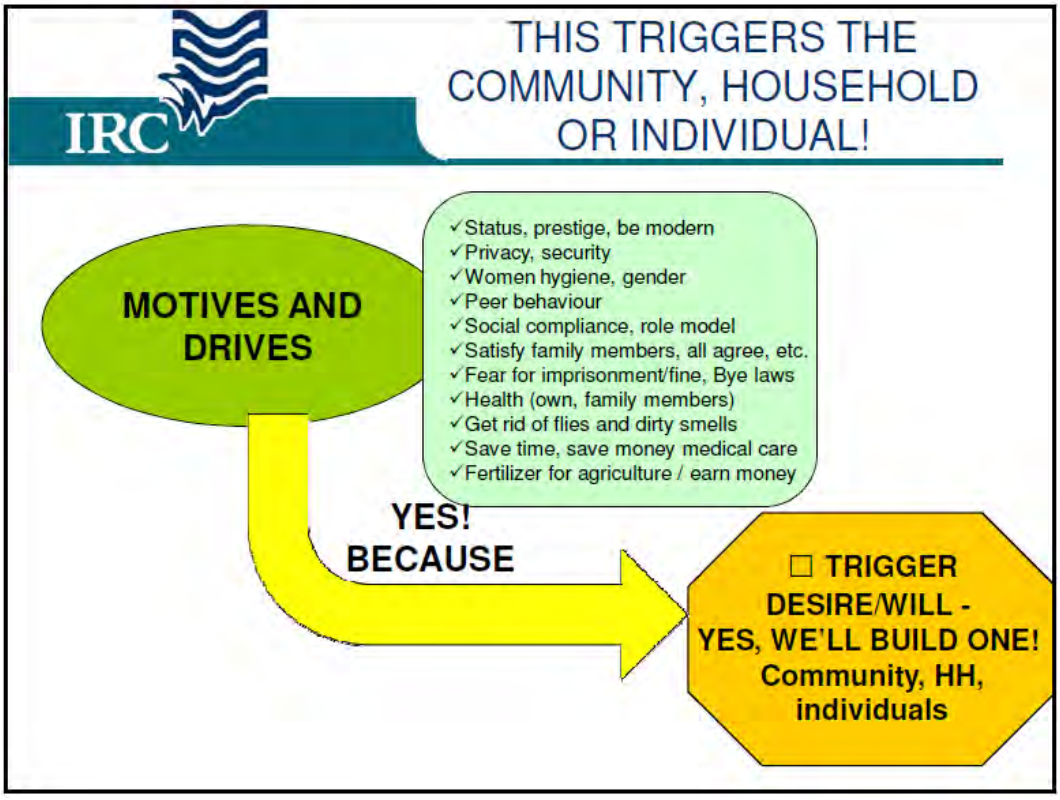
Evolving Motivation Diagram

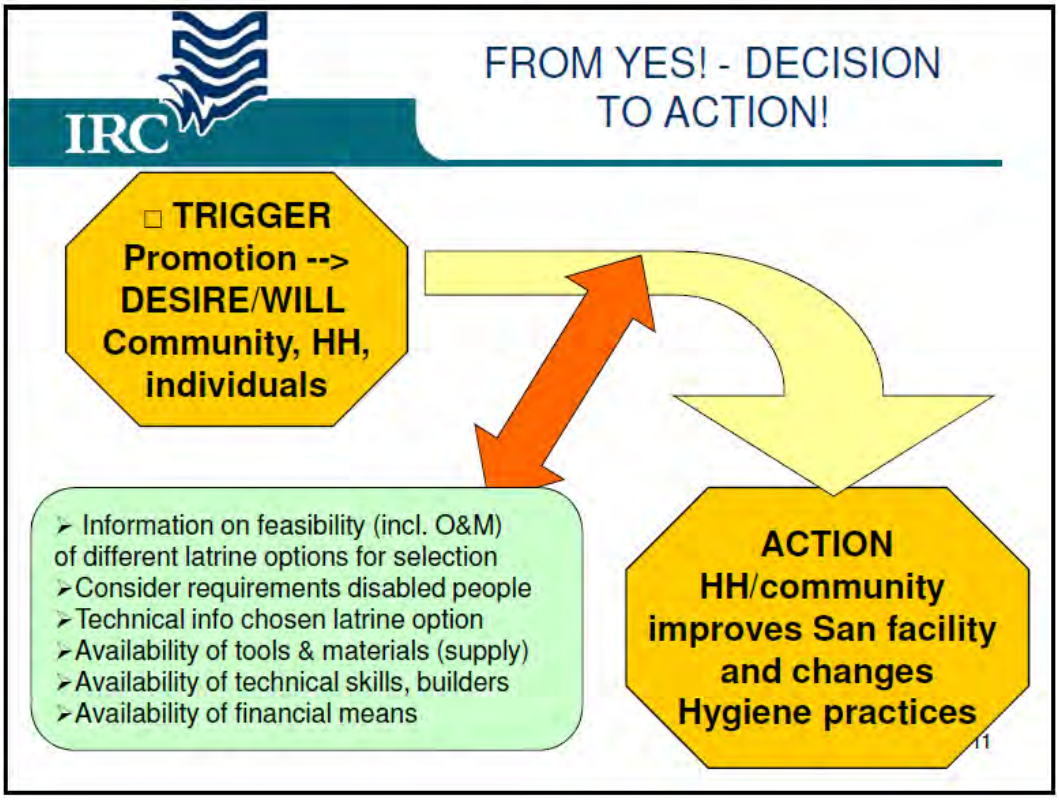



IRC
WHAT PULLS THE TRIGGER?
OVERALL APPROACH
HH managed and improved
Community-initiated and managed
Small scale entrepreneurs
NGO-driven
Local government / municipality driven
SPECIFIC APPROACH
Health-focused approach
Social marketing
Participatory approaches (gender & equity focus)
Promotion by entrepreneurs
Total Sanitation approaches (CLTS/ULTS)
EcoSan approach
CHANNELS & MESSAGES
WHO APPROACHES Community, HH, Individuals (from inside/outside)
Motives and Drives
□ TRIGGER Promotion --> DESIRE/WILL Community, HH, individuals


IRC
HOW THE TRIGGER IS PULLED?
CHANNELS & MESSAGES
MESSAGES: How people's lifestyle can be improved
Your environment is awfully filthy; dirty smells and flies all over
Lack of privacy / safety (girls get raped, women have no privacy)
It's the law and you have to get one!
Status, convenience, comfort: you are forwards and not backwards
Good San&Hyg behaviour is healthy: dirty hands become clean; less diseases, you and your family are less likely to get sick and die (cholera outbreaks...)
New technology stops collapsing and overflowing pits
Human waste is a resource-use it!
CHANNELS:
Big public meeting
Focus groups' discussions
House-to-House visits
Schools and health units
Drama, music and dance
Radio and media
Posters, flyers
8


IRC
WHO & WHAT PULLS THE TRIGGER?
WHO APPROACHES Community, HH, Individuals (from inside/outside)
From outside community: Political, religious leaders, technical health staff, law enforcement officers, NGOs,
DEVELOPMENT
From inside community: Leaders, teachers, voluntary health workers, Health Clubs, CBOs, entrepreneurs, neighbours, relatives
PARTICIPATION
LEADERSHIP
SOCIAL PRESSURE
From inside HH: Wife, husband, children
EXTRA INCOME
CONVINCING
ENFORCEMENT
CHAMPION
□ TRIGGER Promotion --> DESIRE/WILL Community, HH, individuals


IRC
THIS TRIGGERS THE COMMUNITY, HOUSEHOLD OR INDIVIDUAL!
MOTIVES AND DRIVES
✓Status, prestige, be modern
✓Privacy, security
✓Women hygiene, gender
✓Peer behaviour
✓Social compliance, role model
✓Satisfy family members, all agree, etc.
✓Fear for imprisonment/fine, Bye laws
✓Health (own, family members)
✓Get rid of flies and dirty smells
✓Save time, save money medical care
✓Fertilizer for agriculture / earn money
YES! BECAUSE
□ TRIGGER DESIRE/WILL - YES, WE'LL BUILD ONE! Community, HH, individuals


IRC
FROM YES! - DECISION TO ACTION!
TRIGGER
Promotion --> DESIRE/WILL
Community, HH, individuals
Information on feasibility (incl. O&M) of different latrine options for selection
Consider requirements disabled people
Technical info chosen latrine option
Availability of tools & materials (supply)
Availability of technical skills, builders
Availability of financial means
ACTION
HH/community improves San facility and changes Hygiene practices
11

Appendix 4 – Attendance list

#	Name	Country	Organisation	Position	Email address	Telephone number
1	Marco Forster	Burundi	Fichtner	Chef de mission	mf@ecopsis.com	+41794090301
2	Gordien Ngendakumana	Burundi	SETEMU		gordien2009@yahoo.fr	+25777730077
3	Valentin Nahimana	Burundi	Commune de Gitega	Mayor of Gitega	valnahi@yahoo.fr	+25779915393
4	Almaz Terrefe	Ethiopia	SUDEA	Director	a_terrefe@yahoo.se	+256778514880
5	Nina Henning	Kenya	SC Johnson / Community Cleaning Services	Manager	nina.henning@gmail.com	+254729592098
6	Grace Lubaale	Kenya	Mpereeza Associates	Consultant planner	glubaale@gmail.com	+254722783698
7	Vincent Njuguna	Kenya	WaterAid	Advisor	vincent.njuguna@gmail.com	+254722705747
8	Rose Nyawira	Kenya	Community Cleaning Services (CCS)	UCLTS coordinator	rose.nyawira@comcservice.com	+254720428986
9	Turi Omollo	Kenya	PATH	Communication and advocacy officer	tomollo@path.org	+254721771258
10	Daniel van Rooijen	Kenya	UNICEF	Officer	dvanrooijen@unicef.org	+254725914276
11	Elizabeth Wamera	Kenya	AED	Programme manager	ewamera@aed.org	+254728507531
12	Peter Hawkins	Mozambique	WSP	Team leader	phawkins@worldbank.org	+258828009650
13	Odette Muximpua	Mozambique	WSP	WES analyst	omuximpua@worldbank.org	+258823054579
14	Valérie Bey	Netherlands	IRC International Water and Sanitation Centre	Programme officer	bey@irc.nl	+3173044063
15	Marielle Snel	Netherlands	IRC International Water and Sanitation Centre	Programme officer	snel@irc.nl	+3173044067
16	Pamela Abbott	Rwanda	Institute of Policy Analysis and Research (IPAR)	Director of research	p.abbott@abdn.ac.uk	-
17	Eugene Dusingizumuremyi	Rwanda	Ministry of Infrastructure	Project officer	eugedu@yahoo.com	+250788420814
18	Leonard Gashugi	Rwanda	RISE	Secretary general	gashugil@yahoo.com	+250788486137

#	Name	Country	Organisation	Position	Email address	Telephone number
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21	C. Kabagire	Rwanda	Ministry of Health	PR	ckabagire@gmail.com	+250788865415
22	Eric Kagame	Rwanda	USAID	MCH specialist	ekagame@usaid.gov	+250788301283
23	Vincent Kanyamibwa	Rwanda	Ministry of Health	CBEHPP officer	kanyamibwav@yahoo.com	+250788596019
24	John Bosco Kanyesheja	Rwanda	Energy, Water and Sanitation Authority Rwanda (EWSA)	Advisor to MD	jbkanyesheja@electrogaz.co.rw	+250788306903
25	Frank Kanyesigye	Rwanda	The New Times	Journalist	kanye_frank@yahoo.co.uk	+250785712942
26	Joseph Katabarwa	Rwanda	Ministry of Health	Head environmental health department	jkatabarwa@yahoo.com	+250788461076
27	Kim Kizito	Rwanda	Radio to	Journalist	kizito.kim@gmail.com	+250785491069
28	Celestin Makuza	Rwanda	TLC Media (Event management)	CEO	csmakuza@yahoo.co.uk	+250788322335
29	Guy Mbayo	Rwanda	UNICEF	Chief WASH	gmbayokakumbi@unicef.org	+250788301396
30	John Mugabo	Rwanda	Kigali City Council	Waste management expert	mugjohn06@yahoo.com	+250788716358
31	Jackson Mugisha	Rwanda	Ministry of Local Government	Environmental facilitator	mugishaer@gmail.com	+250788627446
32	Vestine Mukeshimana	Rwanda	City of Kigaly	P.C.H.	emmytine@yahoo.fr	+250788858608
33	Aimable Munyawera	Rwanda	RHIBATI	Managing director	aimablemu@yahoo.fr	+250788524301
34	Irene V. Nambi	Rwanda	Rwanda Health Communication Centre	Communication officer	virenam@gmail.com	+250783116409
35	George Ndaruhuye	Rwanda	Kigali Institute of Sciences and Technology	Engineer	geomuhizi@yahoo.fr	+250783054680
36	Eriko Nishimura	Rwanda	Organic Solutions Rwanda	Chief Operations Officer	eriko.nish@gmail.com	+250783677733
37	Richard Nyirishema	Rwanda	SNV	WASH engineer	rnyirishema@snvworld.org	+250788536393
38	Nshuti Rugerinyange	Rwanda	WaterAid	Team leader	nshutis@yahoo.com	+250788300176
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45	Claire Uwanjirigira	Rwanda	Contact FM	Journalist	ingaclaire@yahoo.fr	+250788546192
46	Albertine Uwimana	Rwanda	UNICEF	Social mobilisation officer	auwimana@unicef.org	+250788407289
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48	Mayom Tor Dau	Southern Soudan	Ministry of Water Resources	Assistant D. For urban water and sanitation	mayomdau@ymail.com	+249918325860
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50	Salama Kitenge	Tanzania	WaterAid	Urban sanitation officer	SalamaKitenge@wateraid.org	+255713361777
51	Matthias Mulagwanda	Tanzania	PEVODE	Chairman	mulagwanda@hotmail.com	+255753791602
52	Mussa B. Natty	Tanzania	Dar es Salaam City Council	City engineer	mussanatty@yahoo.com	+255754279627
53	Brenda Achiro	Uganda	NETWAS Uganda	Senior programme officer	achbrens@yahoo.co.uk	-
54	Ineke Adriaens	Uganda	BTC	Junior assistant	ineke.adriaens@btcctb.org	+256788420953
55	Simon Ddembe	Uganda	WaterAid Uganda	Programme officer governance	demlein@yahoo.com	+256701075438
56	Gunder Edstrom	Uganda	UNICEF	Emergency WASH specialist	gundere@yahoo.com	+256778693593
57	James Kiyimba	Uganda	Water Aid	Documentation officer	JamesKiyimba@wateraid.org	+256712874677
58	René van Lieshout	Uganda	IRC International Water and Sanitation Centre	East Africa coordinator	lieshout@irc.nl	+256787350083

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61	Dennis Nabembezi	Uganda	Community Integrated Development Initiatives (CIDI)	Research director	nabembezidennis@yahoo.co.uk	+256772568359
62	Fred Nuwagaba	Uganda	GIZ	Technical adviser	Nuwagaba@ruwas.co.ug	+256772497458
63	Alex Ojuka	Uganda	Ministry of Water and Environment / Water and Sanitation Development Facility North	Environmental sanitation officer	alex.ojuka@mwe.go.ug	+256782988157
64	Grace Orishaba	Uganda	NETWAS Uganda	Programme officer	orishg@gmail.com	+256712617497
65	Innocent Kamara Tumwebaze	Uganda	Makerere University School of Public Health	PhD student	kamara.innocent@gmail.com	+256774266559
66	Matthew Waterkeyn	UK	Mott MacDonald	Project manager	matthew.water@gmail.com	+447846592600