

Using the Life-cycle costs approach to collect household sanitation and hygiene data in Rwanda

In this series of conversations with various organisations talking about the use/adoption of the [WASHCost's life cycle costs approach \(LCCA\)](#), we had a conversation with Nelson Ekane.

The Life-cycle costs approach was used in the collection of household sanitation and hygiene data for the Stockholm Environmental Institute (SEI) project: Rules, Roles and Resources (RRR) - A comparative study of productive and conventional on-site sanitation.

This research examines productive sanitation pilot implementation in the Burera district in Rwanda, and compares this with conventional on-site sanitation (pit toilet) from three inter-related perspectives:

1. Institutions – *rules* – what (combinations of) formal and informal rules apply?
2. Organisation – *roles* – what labour is involved? How is the work managed?
3. Economics – *resources* – what payments are made? (in kind/cash, subsidised or on commercial basis).

The RRR research project is implemented in collaboration with [Kigali health institute](#) (KHI), Rwanda. SEI and KHI have collected data on sanitation and hygiene cost from 194 households in the Rugarama sector, Burera district. Traditional pit latrine is the predominant sanitation option in this region. The survey questionnaire was prepared in collaboration with IRC WASHCost experts.



Traditional latrine in Burera district

Collecting the sanitation cost data

Nelson Ekane, the [principal investigator](#) of the RRR research project says the life-cycle costs approach enabled the team collect considerable sanitation and hygiene cost data that is now being analyzed.

Apart from collecting data on the type of sanitation facility at household level, the survey questions also focused on the costs and maintenance issues of the sanitation facility.



Latrine with a handwashing facility

Data was collected on: the cost of labour (cash and kind) for construction of the toilet; the operation and maintenance cost for the toilet - cost for cleaning the toilet; the cost of collection and storage of human urine and faeces; the cost of transportation of human excreta (faecal compost and urine); occasional large maintenance costs- such as emptying of toilet pit/vault/basket; repair of building, and finally the income from sales of faecal compost and urine.



Discussion with women in Burera District



Discussion with men in Burera District

Data was also collected on gender division of labour and responsibilities with respect to construction and maintenance of sanitation facilities as well as on management of human excreta. Preliminary results of this survey should be available by the end of this year.



Nelson Ekane, EcoSan leaders & field assistant in Burera district

SEI will continue work on Multi-Level Sanitation Governance in Uganda and Tanzania in 2013 and 2014. The main aim is to improve understanding on how policy-making and the sanitation sector leadership drives or constrains action on the ground by governments, the private sector, civil society and individual households.

Household sanitation and hygiene cost data will be collected in Uganda and Tanzania using the life-cycle costs approach.

Since this is the first time the life-cycle costs approach is used by this research team, Nelson reported that the team faced a number of challenges in Rwanda for instance, the introduction of the questionnaire to local research assistants took time; the administration of the questionnaires from house to house needed much more time than planned for; some respondents could not remember how much they spent on certain materials and labour, causing some gaps in the dataset.

Nelson further notes that the Knowledge and data will be useful for SEI and partners in East Africa to help devise strategies for cost-effective waste management.

The findings of the RRR project will be shared at a workshop in Kigali with national WASH actors. This workshop will be hosted by KHI in Kigali, Rwanda. NETWAS Uganda, SEI sustainable sanitation knowledge node will be present at this workshop.

Finally, Nelson also noted that SEI would like to continue collaborating with IRC international water and sanitation centre in further applying the life cycle costs approach for the work they are doing in-country.

Vera van der Grift (IRC) based on an interview with Nelson Ekane, SEI

29 November 2012