Applying the life-cycle costs approach to sanitation
Posted by jonpar - 21 Sep 2012 06:04

Attached is the Briefing Note 3 - Applying the life-cycle costs approach to sanitation (December 2011) referred to in the previous posting (www.washcost.info/page/1626).

Briefing Note 3 - Applying the life-cycle costs approach to sanitation, December 2011

This briefing note presents an application of the life-cycle costs (LCCA) approach to sanitation in rural and peri-urban areas in four different countries— Andhra Pradesh (India), Burkina Faso, Ghana, and Mozambique. The document compares the differences between the financial costs of traditional and improved latrines, and the quality of service delivered to users.

I would encourage you all to read and assimilate the information that is coming out from the WASHCost project.

Jonathan

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Re: New co-leads for Working Group 2 - Finance and Economics
Posted by Tomsolna - 03 Oct 2012 05:40

Regarding the briefing note, it shows how difficult it is to gather data and also how complicated it is to compare data between countries. Has any costs benefit analysis been done?

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The cost of sustaining sanitation services for 20 years
Posted by verhoeven - 02 Nov 2012 10:34

Since 2008, the WASHCost project is developing a new methodology for monitoring and costing sustainable WASH services by assessing costs and comparing them against levels of service provided. The methodology -known as the “life-cycle costs approach”- is being tested in Burkina Faso, Ghana, India, and Mozambique. The life-cycle costs approach aims to improve the quality and cost-effectiveness of WASH service delivery—to essentially provide WASH services that last indefinitely.

In countries where WASHCost has carried out research, the expenditure on sanitation is too low, and is focused almost entirely on the capital costs of building latrines. There is a striking difference between the

expenditure required to provide a basic service and what is actually being spent. Too little is being spent on stimulating and sustaining demand for hygienic latrine use and on ensuring that latrines are kept clean and in good repair. The absence of arrangements for pit emptying and measures to ensure environmental protection is adversely affecting service levels.

Download the infosheet to know more about the true costs of providing sanitation services

For more information on the WASHCost project see www.washcost.info/

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Re: The cost of sustaining sanitation services for 20 years

Posted by christoph - 05 Dec 2012 13:21

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Dear all,

I did see quite a few mentioning lately of the washcost infosheet2, but I did not come across critics. I am wondering a bit, as I do have some concerns about the paper(s) (I just was not able to write earlier).

Reading the Infosheet 1+2 I thought about the aspects below and I would appreciate if somebody could explain the way the paper was thought (all references refer to infosheet 2):

• I do have a problem with the definition of basic service in Table 3.

I clearly understand the necessity of having an intermediate definition of service which might be called basic service, as the shared toilets are not called “improved”, but they bring a significant advance in sanitation. But I do not understand how we can speak of basic service when “Facilities used by some household members”. It seems to me that the definition is very much related to the aspect of “Non problematic environmental impact/ Safe disposal”. How can we speak of basic service when the pit is not secure (lining the pit, securing the walls, minimum of privacy) (and US$ 7 /pe (pe = person) (table 1) does not offer the possibility to build a secure toilet). Therefore mixing up the extremely cheap toilets with good communal toilets in a same category is not right. These are two different things. One can provide a good quality service whereas the other is a danger for the user.

• Table 1 mentions that all given cost numbers are capable of providing a basic level of service. I don't agree with the first category. It is just dangerous to scratch a hole in the ground (no cost), to put in some wooden sticks (no cost), to hang some plastic rags (no cost), and to put a concrete slab (US$ 45 / 5 pe = 7 U$/pe) = basic service by definition.

• Still Table 1: If the numbers refer to shared toilets (higher number of users = less cost per user) the numbers are ok but it would be important to state that more clearly. Automatically I did do my numbers for the typical household and came to the conclusion that the numbers are impossibly low. The large danger of that point is that due to the lack of numbers there is a tendency of using the only source as the reference from the lower end, not noticing the fact that there is a gap for instance of factor 10 !! US$(36 – 358).

• The text expresses "The capital maintenance expenditure (pit emptying, major repairs and replacement) required to maintain a basic level of service ranges from US$ 0.5 to US$ 6 per person per year, depending on the type of latrine".. shown in table 2.

Lets say the pit emptying is every 5 years and 8 persons are using the pit. That would be 20 U$ for the emptying. How on earth anybody can think that it is possible to empty a pit safely (for the worker) and environmentally friendly for 20 US$? Did I get something wrong? If I did so, it might be good to clarify in the text because it might be misunderstanding.

Running out of time,I have to stop here.

Hoping for some comments and discussion.

Christoph

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Re: Applying the life-cycle costs approach to sanitation

Posted by Ekane - 14 Dec 2012 12:46

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Dear all,

I am Nelson Ekane, an interdisciplinary researcher at Stockholm Environment Institute (SEI). For more information about my work and research interests, please click the following link: sei-international.org/staff?staffid=166

SEI is applying the life-cycle costs approach to sanitation in the Burera district in Rwanda. Please follow a conversation between Nelson Ekane (SEI) and Vera van der Grift (IRC WASHCost). Available at:

www.washcost.info/page/2562

Best regards,

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Re: The cost of sustaining sanitation services for 20 years

Posted by peterburr - 20 Dec 2012 13:46

Dear Christoph,

Thank you for your post, the issues your raise are important issues and please see my responses below.

As a general note, for a more comprehensive background to the thinking underpinning the service ladder, please see: “Assessing sanitation service levels” working paper found here: www.washcost.info/page/902.

On your first point: *I do not understand how we can speak of basic service when “Facilities used by*

some household members". It seems to me that the definition is very much related to the aspect of "Non problematic environmental impact/ Safe disposal".

This issue has rightly been the source of some debate in the team. It was very important for us that the indicators we used needed to take in account the reality of existing sanitation and hygiene practices in rural and peri-urban communities of Andhra Pradesh, Burkina Faso, Mozambique and Ghana, where this research took place.

Of course as a sector our ultimate aim is for all family members, in all areas, to use their latrine all the time and initially this was how a basic level of service was defined. However this is a long way from the in-country reality and more pragmatically the field testing of the service levels found that it was not possible to collect specific and reliable data on infant faecal disposal or to accurately differentiate which household members did or did not use the latrine. Consequently the service ladder was changed to "some family members using the latrine" as the most practical and realistic way to approach a basic service

Saying this in more developed countries these indicators may set the bar too low for national guidelines or public acceptability. Therefore the ladder can be redrawn to take into account national considerations and would be very interesting to see other examples of this.

On the second point: *How can we speak of basic service when the pit is not secure (lining the pit, securing the walls, minimum of privacy).*

If a latrine was inadequately lined and represented a risk of environmental pollution, the environmental protection service level would classed as "limited/no service". As each service level parameter can only be met where all the four indicators on Access, Use, Reliability and Environmental protection are met, the overall service level would be given as limited/no service.

It is important that service ladder not be prescriptive about the technical specifications of latrines which may not relevant, appropriate or realistic in certain contexts. By focusing on the services received by users rather than the simply the type of latrine in place the service levels are flexibility enough to be able to account for variations in: technical specifications, national standards and issues of population density and environmental risk that are unique to particular contexts.

Your additional point states that the lower-bound benchmark values for capital expenditure and capital maintenance expenditure are *impossibly low.*

This may very well be true in the South American context, where latrine standards and costs may be much higher (indeed maybe much closer to the upper-bound values given). However this is not always the case in rural African and particularly Asian contexts, the lower bound figures are based on genuine findings from these areas. The factor of 10 difference between the lower and upper bound of latrines demonstrates this variation well. The primary challenge is of course to decide exactly where the appropriate costs in a particular country lie along this range.

Given this it would be great to discuss your experiences and data on CapEx and CapManEx further on this and see where it takes us.

I hope these explanations have been useful,

Kind Regards

Peter Burr

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More questions on the results of the WASHCost project

Posted by muench - 14 Jan 2013 21:48

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I have recently studied a bit more the results from the WASHCost project. Their website is really very informative, with information in English and French, including training materials. Well done to the WASHCost project team! Very good dissemination work.

I had some questions to Peter Burr, which he answered by e-mail, and which I would like to share here in case others have similar questions:

Question:

we were wondering if your case examples only focused on the conventional basic sanitation systems (VIP latrines) or also on e.g. UDDTs (ecosan), constructed wetlands, biogas plants. To what extent were aspects of reuse included in the cost calculations (e.g. replacing fertilizer costs)?

Peter's answer:

For your information, the research study focussed on the sanitation schemes found we almost exclusively were the traditional schemes (VIP, Traditional Pit, Pour flush and non-networked septic tanks). Replicating the costing methodology for urine diverting, constructed wetlands etc.. is of course possible and desirable but the input on these would be more conceptual (how to cost it) rather than evidence based evidence found costs. The same is true for re-use.

Question:

It is funny that this LCCA is so novel for WASH, for me it feels like an old hat, thinking back to my days as a process engineer with Brisbane Water where we always did that.

Peter's answer:

From a utility/developed country perspective it is absolutely old hat. In fact the conceptual grounding of WASHCost borrowed alot from the regulatory accounting approach employed by OfWat in the UK. The challenge therefore is to translate this thinking into rural context of low and middle income developing countries.

Question:

Those spreadsheets seem very much like tools to analyse the status quo, rather than tools to calculate and analyse future possible options. Is that true that there is a big focus on the status quo analysis?

Peter's answer:

Yes in the sense that understanding the staus quo provides better information for ongoing management and planning. However additional tools are in development that will translate existing indicators into assessments of service sustainability (see the upcoming development of the WASHCost calculator) as and also integrated with asset management planning (as part in my own work in rural Ghana).

Question:

I have done a bit more homework and reading on your website. The training materials looks very nice, it is awesome how many spreadsheets you have made available, really excellent! - I was missing a bit the powerpoint files which are so good for raising awareness. Are they part of that free online course (which I cannot access because it is full and registrations are closed)?

I noticed a French online course, but it is also not accessible.

Would it be possible that I get a login or some other means of seeing the French training materials? Are there any presentations amongst them?

Answer by Peter:

I will have to get back to you about the french translations once I chat to the training tech team.

For more information on the WASHCost project see: www.washcost.info

The WASHCost Project researches the life-cycle costs of water, sanitation and hygiene (WASH) services in rural and peri-urban areas in four countries. The rationale is that WASH governance will improve at all levels, as decision makers and stakeholders analyse the costs of sustainable, equitable and efficient services and put their knowledge to use.

If anyone else has questions about the results from the WASHCost project, please put them here. Peter said he would try to answer them (although: however I am soon going to be up-country in ghana and have much more intermittent access to emails etc...

Regards,

Elisabeth

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