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KAP surveys in the context of WASH projects

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[1] Consortium comprises Harewelle International Limited, NR International, Practical Action Consulting, Cranfield University and AEA Energy and Environment

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1. Description of enquiry

Dear DEW Point,

Could you clarify the debate on using KAP surveys in the context of WASH projects (for baseline and impact)?

2. Clarifying the debate on the use of KAP surveys in the context of WASH projects

By Dr Mansoor Ali, Practical Action Consulting.

2.1 What is the KAP approach and how it is translated into surveys?

The Knowledge, Attitude and Practice (KAP) approach has its roots in human health and management sciences. Especially in the health sector, KAP has been used with patients on various long-term therapies in disciplines such as psychiatry and physiotherapy, where a long-term interaction is needed. In the organizational management KAP surveys are considered as a fundamental approach to allow organisations to assess the knowledge, attitudes and practices of all stakeholders to whom an intervention is targeted. These could be employees, managers, board of directors and customers. The approach is used by organisations that want to assess their knowledge base in order to come up with appropriate intervention strategies that will address needs peculiar to their environments.
Within the KAP approach, survey is one of the methods used to collect data and information about beliefs, practices and perceptions by asking a structured and predetermined set of questions. When applied in WASH projects, it takes the form of surveys, which produces quantitative information and analysis from a large number of randomly selected individuals. These individuals are local people who are particularly knowledgeable about the topic and are willing to talk about it in detail and at length. The data from a KAP survey are usually analyzed at the end of the survey and the indicators are established as baseline indicators. In planned WASH projects which are to be delivered over several years, these surveys are carried out at various stages of the project, to ultimately understand the final impact of the interaction. The key differences between using KAP as an approach versus KAP surveys as in WASH projects are in the process of interaction with the respondents, the duration of that interaction, the use of feedbacks, the nature of the intervention and the purpose of the analysis. In the management of human health the respondent may be a patient and the intervention can be changed at a relatively short notice. One individual patient may be dealing with one professional therapist. In an organizational context, the flexibility of approach is also possible, however in the case of WASH projects, which are targeted for a community and involve interventions of physical nature such as the construction of WASH facilities, flexibility can be challenging. This study also found that, although KAP surveys are often packaged together with water, sanitation and hygiene interventions, their application is far more relevant in hygiene education, as compared to operation and maintenance of centralized physical infrastructure. KAP has also been used successfully in programmes concerned with HIV/ AIDS, education and agriculture.

2.2 Common context in WASH programmes in developing countries

Essentially, most of the projects concerned with WASH deal with improved sanitation, enhancing water availability, improving water quality and working with people on hygiene education. In many ways, these interventions are interconnected. For example, you can only talk about changes in the attitudes on the use of toilets if they are available within a convenient distance to the users. Hygiene practices will need reliable and clean sources of water and so on. Most of the WASH programmes work with poor people, as needs are always greater with this population group. These programmes are designed with a goal to improve health and in some cases the local environment. The specific goals include reducing infant mortality rates and/or the health of women and children, improving water quality and quantities and measuring changes in hygiene behaviour. Often district and municipal governments are the project partners, with an intention to build the capacity of their technical staff. If the approach of delivering water and sanitation services through entrepreneurs is included, then the growth and sustainability of enterprises are also considered important. It is also intended that the target groups are very much empowered with the planning process and involved in the whole project process. It is often hypothesized that the current attitudes and behaviour of the target population create risks for their health and, through improving their knowledge and helping them to change attitude which then translate into good practices, these risks can be substantially reduced. In a structurally planned programme, this is developed as a set of activities (inputs), outputs (measurable changes), indicators (how to measure them) and outcomes (what will change because of those outputs). The indicators are developed so as to be verified at various stages of the project cycle.

2.3 What is the purpose of baseline surveys and impact assessment in WASH programmes?

Baseline surveys, intermediate evaluations and final impact assessment studies are necessary parts of all WASH programmes. The purpose of baseline surveys, often in combination with other fieldwork methods, is to establish a baseline figure on various indicators, which will be addressed and changed with the project interventions. Then through impact assessments at the final stages of the project, these indicators could be monitored and verified. A positive change in some of the baseline indicators is often attributed to the success of the project interventions and vice versa. The example given below explains how an indicator can be monitored throughout a project.

Project Indicator	**Baseline Indicator**	**Mid Term Review Project Indicator**	**Final Impact Indicator**
Percentage of women regularly washing hands with soap or ash after defecation	Only 12% of women regularly wash hands with soap or ash after defecation	20% of women regularly wash hands with soap or ash after defecation and another 15% recognize the importance of it	At-least 65% of women are regularly washing hands after defecation

With a carefully designed project, especially those dealing with a small set of indicators, it is possible to accurately measure the changes between the baseline surveys and the final impact assessment. However with more complex projects dealing with systems, rather than single interventions, it is much more difficult. Therefore, despite the project team's good intentions, the evidence is often non-conclusive and reported as 'anecdotal'. Then there is also the debate on the methods of measurement, choice of indicators and respondents' attitudes to surveys. Structured surveys that use questionnaires are also criticized for not promoting enough interaction, being professionally controlled and not a good tool to promote

true consultation between different groups. In spite of this debate, KAP surveys are still a common tool in WASH projects and this may be the case for a foreseeable future.

2.4 Examples of where and how KAP surveys are used in WASH programmes

Within the context explained above, KAP surveys are used by programme staff and evaluators both as a tool to plan the project and/or to monitor its impact. Toolkits have been developed with training and other support offered to programme staff. This quick review has found the following resources on the use of KAP in WASH programmes:

UNICEF Programmes: UNICEF is one of the largest and most consistent user of the KAP approach because of its relevance to the WASH sector. UNICEF's *'Manual on Communication for Water Supply and Environmental Sanitation Programmes'* (1999) is perhaps the most clearly written document produced in the last 10 years. It explains KAP as an approach and puts enough emphasis on the flexibility and sensitivity of the methods used. Then there are a range of country reports, thematic papers, network and alliances with which UNICEF works. UNICEF's annual report (2008) includes KAP principles in a number of their focus areas, including Community Approaches to Total Sanitation (CATS), School Sanitation and Hygiene Education. For example, under the non-negotiable principles of CATS the first principle is:

"The aim is to attain total sanitation, i.e. to achieve open defecation free communities by use of safe, affordable and user-friendly solutions/technologies. It implies that the objective of any sanitation intervention is the sustainable use of sanitation facilities (as opposed to the construction of infrastructure). Safe disposal of human excreta includes the management of children's faeces".

IRC Thematic Paper 14: Although not directly about KAP, we found that the Thematic Overview Paper 14 by International Water and Sanitation Centre (IRC), titled *'Knowledge and Information Management in the Water and Sanitation Sector: A hard nut to crack'* by Jan Teun Visscher, Jaap Pels, Viktor Markowski and Sascha de Graaf, is a useful and relevant document. It is worth noting that this paper is written from a knowledge management perspective and brings great insight on the knowledge and attitudes both at the level of individuals, groups and organisations.

KAP Specific Reports: The Mercy Corps report called *'Assessment of Knowledge, Attitudes, and Practice (KAP) on Water, Sanitation and Non Food Items among Internally Displaced Populations in Zalingie, West Darfur, Sudan'* is an example of the actual use, analysis and reporting of the KAP survey. The intervention in Darfur started as an emergency response and later aimed to enhance the participation and ownership of the beneficiary population.

Al-Mustafa Development Network carried out a Pre-KAP survey in Muzaffarabad in Pakistan with school children aged 9 to 12 years and summarized the results in a report form. The questions are simple and provide some good examples of knowledge probing questions:

An example of how KAP survey results can be summarized and presented.

In this section of the survey questions were put to groups of students aged 9 to 12 years in Muzafarabad, Pakistan and most of the questions are about knowledge and perceptions.

Question 1: 60% of the student groups responded that they need to wash their hands when there is visible dirt.
Question 2: 92% of the student groups responded that hands should be washed before eating and after defecation; interestingly 60% said that hands should be washed even before reading.

Question 3: Nearly 80% students said that diarrhoea spreads because of dirty water and eating with dirty and unwashed hands.
Question 4: Only 58% students responded that a person should use ORS if he/she gets diarrhoea.
Question 5: 52% of the students responded that diarrhoea can kill children.
Question 6: 91% of the students responded affirmative that children who eat too much sweets get worms in their body.
Question 7: 78% students feared that worms' medicine makes a person weak and ill.
Question 8: 54% of the children responded that worms inside our body are harmless.

Non-WASH use of KAP: Studies by Mugumya (2006) on understanding child labour and Gordon and Phiri (2000) on HIV/AIDS are good examples of KAP use in non-WASH sectors. Both the studies concluded on the importance of attitude of the facilitator and limitation of using just the structured questionnaires. Gordon and Phiri wrote, "… facilitation skills are playing an essential role for safely and successfully using participatory processes in sexual and reproductive health. They take time and practice to acquire. Programmes should aim to design participatory processes that match the level of skill of the majority of facilitators in order not to undermine facilitators and put everyone at risk".

2.5 Issues raised in the use of KAP survey on WASH projects

The relevant importance and use of KAP depend on the nature of the project and the importance it gives to human aspects. It will depend on the mix of physical and social elements in the project activities. To demonstrate this, we have compiled the simple table below:

Nature of WASH Interventions (examples) and Relevance of KAP:

Intervention	Description	KAP Relevance
Deep tubewell for water supply	This will involve site selection, construction and actual operation of the tubewell to ensure water supply.	**Low:** the community may have a knowledge of the water source, but it can not access water without external support. Need for interaction is low.
Centralised water treatment plant	This will involve treating water through settling and use of chemicals and will involve technical operations mainly.	**Low:** some community members will work as the operatives but most of the community members like to receive treated water.
Water supply to households in donkey carts	This is the collection of water from the treatment plant and its further distribution to households.	**Medium:** Both the water distributors and households can play a role in keeping the water clean and sustain the system.
Water storage and use at the point of use	This is about working with households to educate and introduce simple technologies to reduce contamination.	**High:** Households' knowledge, attitude and practices are significantly important to safely store the water.
Construction of on-site sanitation facilities	This is about working with households or community groups and convince them to stop open defecation and build toilets.	**High:** The whole process, from raising awareness to actual construction, could be assessed by a KAP approach.
Consistent use and maintenance of the toilets	This is about working with men, women and children to ensure that constructed toilets are consistently used and maintained.	**High:** As above.

Participatory hygiene education	This to ensure that other important practices concerned with personal hygiene and habits to wash hands with soap or ash are maintained.	**Highest:** The process from imparting knowledge to change in attitudes and practices could be assessed by KAP.

With this table we would like to emphasise that the KAP approach has a high relevance in certain WASH project interventions and could contribute substantially. Having said that it is also important to recognize that a KAP approach should not be used in a mechanic way through surveys, relying on questionnaire surveys, leading to tables and charts. It must be used in the true spirit, where the use of different tools is possible to assess knowledge, attitudes and practice. The choice of tools, the flexibility of its use and the attitudes of facilitators are some important issues to consider. The current use of KAP in pre-planned projects, where indicators of change are decided by so-called 'WASH specialists' and communities are used as passive recipient, is a main concern on the use of KAP in practice. As said earlier, the continuous interaction, similar to the one between patient and doctor, between the specialists and WASH beneficiaries is important to achieve the full benefits of the KAP approach. Often this is not possible in large WASH projects because of the current nature of projects, the use of external consultants to conduct KAP surveys, and the high cost of consultants restricting their continuous interaction with the community.

As far as the use of KAP surveys relying mainly on questionnaires is concerned, there are a range of issues raised both by practitioners and researchers. Some of the pioneering work done at the Institute of Development Studies (IDS) on Community-Led Total Sanitation (CLTS) suggests alternative participatory approaches to improve sanitation and hygiene (see the CLTS website) leading to a sustained change in attitude. This is done by using more open-ended participatory approaches. Some of the common issues raised with the use of questionnaire surveys include:

- Initial research into the community, their understanding and values does not often happen properly. What may be important to one person may not be a priority to another and without investigation often key observations are not made before the questionnaire is applied. Often there is a lack of engagement with the community from the outset.
- Often questionnaires are too lengthy. This can lead to confusion, people can get bored, the questions can be invasive and inaccurate information can result. There is a suggestion that a questionnaire must not take more than 20 minutes.
- Often the questions are not clear and concise or relevant to the topic. There are conceptual gaps when using terminology and no thought of how it will be understood by those receiving it. There are differences in interpretation and varying levels of consistency between each survey.
- There are often confusions with translation, for example "what time does it take you to cook dinner" can be easily misinterpreted as "what time did you start cooking". Usually a translation and reverse translation back to the original language is recommended and to be done by different persons.
- Through using only quantitative methods one type of information is gathered without taking into consideration the quality of life of the beneficiaries, its dynamic nature or their social relationships, aspirations and individual values. Often it is not seen as an empowering process for those taking part as it is not a participatory process but a technical one in nature.
- Analysis can be time consuming and can also be a drain on resources. Often in the beginning thought is not put into what the information is going to be used for and how it is going to be analyzed. How do you identify the most crucial information, how are

you going to generate your results and how do you plan to present this data? How much of the data collected will be used?

2.6 Clarifying the debate and the way forward

Based on this rapid literature review, our own thinking and discussions, here are some concluding points to move forward:

1) The KAP approach has a potential to understand the baseline conditions, monitor the progress and measuring the impact in WASH projects. However, it has more applicability in certain aspects of WASH interventions, as compared to others. Therefore, it is important to analyse and suggest where to use KAP fully on the total project and where on certain aspects only. It is not a good idea to fit KAP into all types of WASH interventions.

2) KAP is an approach and one must not negotiate on its core principles. Care need to be taken when it is converted to fieldwork tools, such as a structured questionnaire, which is often administered through enumerators. Flexibility, open-endedness, trust building and space for experimentation are some of the important principles of the KAP approach. Strong reliance on questionnaires only must not trade-off on some of these important principles.

3) Therefore it is important that KAP must be used in combination with a number of methods, not just questionnaires.

4) The attitude of team facilitators and their approach is important to get the right information and to analyse it. The whole approach needs to be participatory, shifting the powers to communities and building on what they know already. External experts, externally designed indicators and results for external use only are some of the things which need to be avoided. Similarly time availability is important.

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