TO DRY OR NOT TO DRY? – PEOPLE MATTER IN SCALING UP DRY SANITATION

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ABSTRACT

This paper focuses on opportunities and challenges related to increasing basic access to improved and sustainable sanitation facilities and hygiene practices by the rural poor in Nepal. This study uses "FOAM" (Focus-Opportunity-Ability-Motivation) as the external frame of reference to explore sanitation and hygiene related practices and choices, and opportunities and willingness to make these choices, in rural Nepal. Sanitation and hygiene are considered intrinsically linked, both being essential should the main objective be improved public and environmental health. This combination has various layers of complex challenges: political, economic, social, cultural, technical, environmental, legal and financial alike.

Sanitation and hygiene are not only about technology, but have a strong behavioural and psychological dimension in them. Both are very personal, intimate practices. Practices, which at the same time can have a profound impact on other people: family, school, neighbourhood, and community at large. There are a number of internal and external constraints that limit people's choices, from property and land ownership to a range of issues that characterize desperate poverty. Thus, promoting a specific technology option, dry sanitation, adds another intriguing layer of complexity into already complex world of sanitation and hygiene.

Amongst the dry sanitation (DT) practioners there is consensus that dry sanitation can be both technically and socially viable, with possibly safe end-product that adds valuable nutrients to land and thus, contribute to both rural and peri-urban agriculture and livelihoods.

Yet, there are also a number of weaknesses. These critical questions relate to sustainability, scaling up, cultural acceptability, affordability and safety. It is obvious that we still need more practical experience under various climatic and socio-cultural settings, together with related reliable and vigorous, impartial monitoring. Based on field observations, individual and small group discussions, as well as key informant interviews, a number of issues were identified utilizing the FOAM framework. It is hoped that presenting these findings would encourage more open and critical debate about what are the choices, opportunities and limitations, and what we still have to know to scale up such technology options as dry sanitation. There are 2.3 billion people in need of sanitation after all!

INTRODUCTION AND BACKGROUND

Sanitation and hygiene as behavioural challenges

Sanitation and hygiene are not only about technology, but have a strong behavioural and psychological dimension in them. Sanitation and hygiene are both very intimate, personal practices. Yet, at the same time they have a profound impact on other people: family, school, neighbourhood, and community at large, as well as to environment. There are a number of internal and external constraints that limit people's choices, from property and land ownership to a range of issues that characterize desperate poverty. Thus, promoting a specific technology option, dry sanitation, adds another intriguing layer of complexity into already complex world of sanitation and hygiene.

In this paper sanitation and hygiene are considered intrinsically linked, both being essential should the main objective be improved public and environmental health. Dry toilet (DT) dilemma is not only about a choice of sanitation technology, but also about hygiene. The dry sanitation users *have to be aware* and be willing to operate and maintain their system safely. This call for both adequate sanitation *and* hygiene has implications for the technology development but that is not all. This combination has various layers that all affect where sanitation and hygiene are positioned in local development agenda: political, economic, social, cultural, technical, environmental, legal and financial alike.

This paper focuses on opportunities and challenges related to increasing basic access to improved and sustainable sanitation facilities and hygiene practices by the rural poor. This study uses "FOAM" (Focus-Opportunity-Ability-Motivation) as the external frame of reference to explore sanitation and hygiene related practices and choices, and opportunities and willingness to make these choices, in Far and Mid Western rural Nepal.

Introduction to Rural Village Water Resources Management Project, Nepal

This article was written within the context of the Rural Village Water Resources Management Project (RVWRMP). RVWRMP has worked in ten districts of the Far- and Mid-Western Nepal since October 2006. Far and Mid Western Nepal is characterized by extreme poverty, rugged dry terrain, low literacy and overall educational status, high seasonal migration over the border to India, and by many other features that makes the region more poor and in many ways different compared to other regions in Nepal. Mid- and Far Western Nepal have also been the hot spot of the conflict over the past decade, leaving a legacy that can be felt in everyday life.

RVWRMP aims to improve the quality of life of the local people and environmental conditions, and to increase opportunities to rural livelihoods through rational, equitable and sustainable practices of water resources planning and use. To achieve this, RVWRMP enhances local capacity to manage local water resources sustainably, and provides technical, financial and management support to increase access to sanitation, drinking water supply, and irrigation, as well as to pico/micro hydro power facilities. RVWRMP is a bilateral project between Government of Nepal and Government of Finland.

RVWRMP follows a participatory Step-By-Step approach, and has mainstreamed gender and social inclusion throughout all its activities. The Water Users Committees (WUCs) are the main focus of attention. There are also a number of other community level actors of

importance, including local non-governmental organizations (NGOs) and Community Organizations (COs). In addition, RVWRMP has also hired Community Mobilizers and Sanitation Promoters to provide further continuity and support at the community level. Unfortunately many of these local actors, NGOs and individual Community Mobilizers alike, have very low capacity. RVWRMP has provided a number of training events to build the local capacity but alas, many efforts especially at the NGO level are undermined by high staff turn over and/or reluctance of these people to spend time in the villages.

RVWRMP's core concern is poverty. The working Village Development Committees (VDCs) have been selected accordingly, based on the following criteria:

1. VDC Poverty Status
2. Percentage of excluded groups
3. Women illiteracy and relative number of single women
4. Remoteness from road-head (distance)
5. Situation of water resources facilities e.g. drinking water & sanitation, energy/hydropower and irrigation.

This selection criteria positions RVWRMP into very remote locations of very remote districts. Needless to say, there are numerous priorities competing for attention.

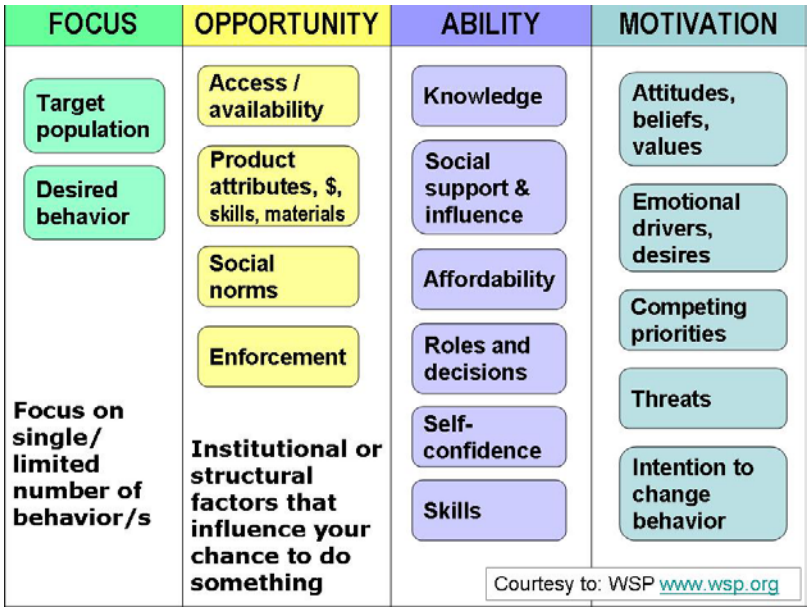
In June 2009 RVWRMP is active in 52 VDCs and have 380 various types of schemes at different stages of interaction. Most of these schemes are gravity flow water supply systems, but there are also EcoVillages, EcoSchools and schemes integrating multiple use of water. Sanitation is included into all water supply schemes. In addition there are 75 stand alone environmental sanitation schemes. The total population expected to benefit from improved sanitation is nearly 75,000. In June 2009, nearly third have already benefited.

METHODOLOGY

This paper is based on field observations and small group discussions, as well as key informant interviews. The behaviour change framework titled as “FOAM” was utilized as an external frame of reference to analyze the results. "FOAM" has been developed by the Water and Sanitation Program (WSP). WSP has been receiving funding from the Bill and Melinda Gates Foundation over the past few years to implement the project “Total Sanitation and Sanitation Marketing (TSSM)” in Indonesia, India, and Tanzania. Within this project WSP tests new approaches to generate demand for sanitation at large scale and to increase the supply of sanitation products and services. The team has been developing the FOAM framework to better understand the determinants of sanitation and hygiene behaviour, and to develop a behaviour change framework that could be applied to trigger demand and supply side interventions of the project.

This paper uses the "draft" form of FOAM as presented in 2008 (Figure 1), and acknowledges that WSP has been developing the concept further since then. Yet, for the purposes of this paper the draft is useful as it is, helping to broaden the scope of thinking: by far the main interest has been in increasing awareness and knowledge,.

Figure 1. FOAM – the external frame of reference



RESULTS AND DISCUSSION

Understanding behaviour

Remote poor rural communities living from subsistence farming in water scarce and food deficient Far and Mid Western Nepal have a range of pressing needs. Any development project or programme helping to improve the quality of life in these villages have to be sensitive to these basic needs, and understand the underlying coping mechanisms, culture and behaviour.

Sanitation and hygiene promotion are often built on two key drivers: the other relates to health and the other to environment. We, as sanitation and hygiene *aficionados* believe that these, or at least one of these, are what motivates people to change behaviour and act accordingly. However, many recent studies on hygiene and sanitation behaviour in various countries have raised the question whether these two are enough. As outlined in the Hand Washing Handbook, there are likely to be more strong and profound personal drivers, such as desire to be respected, to belong, to be clean, comfortable and fresh, and to provide the best for the families. (World Bank, 2005, p.22). Furthermore, reported behaviour is by no means the same as the actual, observed behaviour. In RVWRMP baseline studies 95% of the respondents agree washing hands. Yet, in practice in water scarce communities this is simply not possible, and field observations (and personal experience!) suggest that washing hands is rather wishful thinking most of the time.

Industry invests heavily in understanding consumers, in market research and studies of customers' behaviour. A bottle of Coke is more easily available in the most remote corners of the world than a latrine. These market research techniques have been used also by health programmes and behavioural scientists, especially in the context of HIV/AIDS programmes. The dilemma with HIV/AIDS is similar to sanitation and hygiene in the sense that quite often people do know the risks and are well aware of the lethal consequences of certain kind of behaviour, and yet, they do not act accordingly. Awareness and knowledge alone are not enough to trigger the "right" behaviour.

How does understanding behaviour and personal drivers help a sanitation and hygiene programme? A study in Bobo-Dioulasso, Burkina Faso, aimed to determine whether a large, 3-year hygiene promotion programme was effective in changing behaviours associated with the spread of diarrhoeal diseases. The programme was tailored to local customs, targeted specific types of behaviour, built on existing motivation for hygiene, and used locally appropriate channels of communication. The content of the messages was designed in the light of the findings of the qualitative research. This study had suggested that mothers *desired hygiene for aesthetic and social reasons, not for the sake of avoiding diarrhoea*. Hence, messages were built accordingly. The study suggested that a health promotion intervention has to be properly conceived and preferably based on detailed research about local practices, motivation, and facilities. (Curtis et.al., 2001). RVWRMP should explore in a similar way its diverse working districts and tailor its package accordingly.

The same applies in promoting latrines, and more so, in promoting specific types of latrines, such as dry latrines. We have to know who are the focus groups, how to communicate with each group, and tailor the messages accordingly. RVWRMP should explore its sanitation technology options in a similar way: what *really* triggers people to accept and adapt certain types of technology, considering the cultural diversity within the ten working districts? As noted by Rosenquist Dellstrom in her psychosocial analysis of the human-sanitation nexus (2005), *"It is crucial to understand that the solutions should be designed to fit the needs of the people, rather than people having to be fitted into existing solutions."*

Focusing – on what exactly?

RVWRMP Environmental Sanitation Guidelines provide the overall framework within which the various stakeholders operate. This Guideline provides guidance for a range of activities, and introduces among other things nine key messages. There are also a large number of activities that *can* be included into a environmental sanitation scheme, with equally large number of training topics and related specific messages. The range of messages becomes even more broad in the context of EcoSchools and EcoVillages. It is clear that it has been very difficult to establish focus. Many trainers (local NGOs) tend to go through the complete package, partly because they believe that they have to do it all and partly because of their own low capacity to make changes/exceptions on ready made agenda.

It is not easy to establish focus *and* stay with a few messages only. In the midst of numerous basic needs it is just "too tempting" to try to do everything, to raise awareness at all fronts simultaneously. Yet, at the same time we, as RVWRMP, should every now and then step back and explore what really are the risk practices, who carries these out and what really could be done to address that? Advocating a specific technology option becomes tricky in this setting where the activities are about multiple basic needs.

Opportunities

In FOAM framework "*opportunities*" is defined as *"institutional or structural factors that influence an individual's chance to perform certain behaviour"*. (Devine, 2008). These may relate to such as quality of service and product attributes. These can be both perceived or actual characteristics of the product itself (in this case DT) or related services (know how, maintenance, etc.). Availability and access to DT technology in the first place is the key here. While triggering demand for DT technology we have to make sure that there is the corresponding supply of skills, products and services available. Hence, opportunity refers

also to access to experienced, knowledgeable masons or service/product providers, availability of components and materials, and opportunity to choose accordingly.

Quality of service is another aspect of product characteristics, referring to the extent to which service is of high value. From objective point of view this is about compliance with safety, quality, etc. standards, and from the subjective point of view, about users' perceptions about services and the use of the product (DT!). Ease of cleaning and maintenance, status and comfort are all important aspects of subjective perceptions. Dry sanitation does not score high where many people, including sector professionals, associate dry toilet with pit toilets. The actual experiences with the DT technology may also be negative. This is true especially where the system was not correctly built in the first place.

From the institutional point of view opportunities refer to *individual opportunities to behave or not to behave.* This is influenced by the social norms, a sensitive and deep rooted issue of its own right. Social norms are the standards which exist in the community or household for an individual to follow. Social norms and religious beliefs affect people's views of cleanliness and hygiene in community. Unfortunately these may be more ritualistic or cosmetic acts rather than truly effective hygiene measures from the public health point of view. In many rural communities and even urban areas open defecation is completely acceptable, and no one will react on a child defecating on the main street. Urinating in public is even more broadly acceptable: we do not need to go very far from where ever in the world we are to see especially men shamelessly "relieving themselves" against the building walls (somehow there has to be something to aim against, a wall or a tree…).

How much would RVWRMP "dare" to try change social norms? RVWRMP is already active in raising debate and awareness in the context of gender and social inclusion, paying attention to such humiliating practices as isolating menstruating women into huts that would hardly qualify even as an animal shelter, see Box 1.

Box 1. RVWRMP supported film CHHAU - Menstruation, by Ramesh Khadka, 43 min. World Himalaya Film Festival 14 and 15 February 2009, Amsterdam

Chhaupadi is a social practice prevalent in the western districts of Achham and Doti in Nepal. Women undergoing their monthly cycles are called chhaus in parts of these and other surrounding districts. (...) This video attempts to document this undeniable social reality facing the western Nepal by means of the camera. Alarmingly, at an average, a fifty year old woman will have spent approximately 10 years in these inhuman living conditions. Technological, economic and social advancements of the 21st century, improving lives and living elsewhere, have failed to bring about a change in the lifestyle of the women here. (…)

Source:
http://www.himalayafilmfestival.nl/eng/index.php?pagina_id=20&film_id=392&alt_jaar=2009

See also:
http://www.nepalitimes.com.np/issue/2009/03/3/Review/15718

Ability to Act

In FOAM framework, "*ability*" is defined as *"individual's skills and proficiency to perform a behaviour"* (Devine, 2008). An aspect of this is knowledge: the true facts accumulated through learning about objects, actions, and events. This is the strong point of majority of the traditional health, sanitation and hygiene projects and programmes. There is certainly a plenitude of information, education and communication materials in this front. RVWRMP shares a range of materials with other sector actors in Nepal, produced by such agencies as UNICEF. Is it time for RVWRMP to re-tailor the messages, or perhaps "revamp" the existing Information, Education and Communication materials prepared by others, usually for more developed areas?

RVWRMP has successfully produced its own series of hygiene and sanitation posters as well, although DT is yet to get "a poster of its own right".

Ability as "*proficiency to perform a behaviour*" is about social support: physical, emotional, or informational assistance an individual gives or receives for a behaviour within the community or household. These include such as advice from relatives, friends, opinion leaders, community workers, neighbours and media, assistance in getting water, cleaning facility, etc. and also about physical assistance for children, disabled and elderly. Ability is also about people's previous experience with sanitation facilities. In case of RVWRMP, the previous experience can be practically nil. There have also been such unfortunate cases where the urine diversion systems in the modified Sulabh latrines were not constructed as designed, the owners ending up with a product that is a far cry from what they expected.

To make the choice and be able to act, cost information is needed. Somehow DT practioners like to present more optimistic cost figures than what they are in reality; or no cost data at all. In RVWRMP sanitation schemes, for instance, the actual hardware investment cost is only about a quarter or a third of the total latrine unit cost: the other costs come from sanitation and hygiene promotion and training activities, monitoring and such as Users Committee management costs. All these are necessary if the approach is as it is: the project works through the Users Committee and pays part of the latrine costs. Some other approaches, such as Total Sanitation, can have a zero subsidy policy in which case it is even more critical that people know how much the different sanitation technologies actually and truly cost. This "zero subsidy" does not mean free programmes, though, the investment is more on promotion and award side of the action. Obviously benefits of sanitation and hygiene promotion are more far reaching than what can be counted in terms of number of latrines, and hence, do not need to be justified in terms of unit costs (per latrine!).

Motivated to motivate

What drivers, habits, and/or environment can change behaviour? What motivates people to choose or not to choose? Even if sanitation is a well established basic need (at least amongst the professionals), it is often not a felt one in a remote village struggling to get a meal a day. Livelihoods improvements is assumed to be one of the key drivers, and RVWRMP is supporting kitchen gardening and organic composting to improve vegetable production. In this context it might be easy to motivate people to adapt dry sanitation or urine diverting ecosan options. Yet, this would add again another training topic into the already heavy agenda. No programme should encourage the use of urine or faecal matter in gardening without adequate hygiene awareness and training programs, especially with regards to occupational and food safety. The health and safety messages have to be loud and clear.

Water and Sanitation Program (WSP) has made remarkable efforts in trying to understand the drivers and options, see for instance WSP Africa (2004a & 2004b) and WSP South Asia (2005). Note that the choice of not choosing is also a choice and as such, not to be ignored. Based on personal observations, in many RVWRMP scheme areas there is still the rush to construct certain number of latrines rather than spend time triggering the demand first. Or constructing water seal Sulabh latrines where there were no water. Consequently, in one of the districts for instance, it was found that vast majority of latrines were not being completed *and* used. We in RVWRMP have to explore this aspect more thoroughly and make sure that the promotional activities come first, and build on what people really desire. The question for us remains: what really motivates people in different communities?

CONCLUSIONS AND RECOMMENDATIONS

We have to understand people's core drivers better, and tailor our approach and messages accordingly. RVWRMP acknowledges that it will need to pay more attention to the actual behaviour and core drivers of the different focus groups. We will have to explore systematically what motivates people in each working area: what people really want, dream of, desire? Are any of these even vaguely linked to sanitation and/or hygiene? We should approach this appreciatively, building on what ever best practice can be identified in each location. We should be more sensitive in how people communicate, acknowledging the diversity of culture and traditions in the ten working districts.

Overall, it time for the dry toilet practioners to invest in systematic consumer research to really understand people's lives, desires, and the ways they communicate to develop and deliver appropriate products and related promotional messages. This process should not ignore the intelligence provided by the people themselves. Sustainability, scaling up, cultural acceptability, affordability and safety remain challenges. It is obvious that we still need more practical experience under various climatic and socio-cultural settings, together with related reliable and vigorous, impartial monitoring.

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