Public Awareness and Mobilisation for Ecosanitation

Madeleen Wegelin-Schuringa
IRC International Water and Sanitation Centre
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1. Introduction

Sanitation programmes depend critically for their success on effective public awareness and mobilization through information, education and communication. Experiences over the past decades demonstrate that even the technically best-designed programmes fail or produce meagre results, because decision makers and intended beneficiaries are not adequately consulted, informed, educated or mobilized.

One of the problems with sanitation is that it is rarely a strongly felt need, especially in rural areas. Few people realise that many diseases are caused by poor hygiene behaviour and sanitation, neither do they understand the way these diseases are transmitted. Although health considerations are rarely a motivating factor for a community to construct sanitation facilities, it is for health reasons that good hygiene behaviour and sanitation are promoted. For the community, various other factors such as privacy, convenience and status are more important. The key to getting people motivated to improve sanitation, is to understand these factors and to use them as a basis for the development of an intervention and communication strategy (Wegelin, 1991).

Another of the big challenges in mobilization for sanitation, is that human waste disposal is on the one hand an extremely individual issue as the use of toilets and hygiene behaviour is a private subject in most cultures. On the other hand, the lack of sanitation management is a public issue with repercussions far beyond the level of an individual user. Finding the right carrot (and stick) for the right audience is the key to success.

There is a distinct difference between communication and mobilization for sanitation in rural areas and in low-income areas in cities. Rural areas tend to be characterised by relative social cohesion and homogeneity, where it is relatively easy to reach audiences through traditional and participatory means of communication. The environmental conditions, moreover, are generally supportive to on-site sanitation solutions that can be managed at individual household level. Except for cement, construction materials are likely to be available in the surroundings and at specific periods (such as after harvesting or sowing), people have time to spend for construction.

The reverse is often true in low-income urban areas. These tend to be characterised by high population densities, where it is difficult to find room for individual toilets or sewerage systems; social cohesion can be quite low and it may be very difficult to get people to organise themselves for a communal activity. In addition, the proportion of the population that only rents their dwelling may be high and hence willingness to get involved in sanitation improvements may be low, as this is considered the task of the landlords. On the other hand, motivation for sanitation may well be high, especially for women, because lack of latrines are a severe problem with respect to convenience, privacy and safety.

2. Understanding Attitudes and Behaviour Change

Communication and mobilization for behavioural change is a complicated process of human actions, reaction and interaction. It involves looking at situations from the view point of other people, and understanding what they are looking for. It means understanding obstacles to change. It means presenting relevant and practical options, and it means telling people what the effect is of the choices they make.

What messages are influencing people's knowledge and attitudes and how does that contribute to changes in behaviour? Research in social sciences has shown that knowledge on a topic may increase, people may even change attitudes, but that the step to improved behaviour and practices is depending on a complex set of social and psychological factors. Hubley introduced the BASNEF model for understanding behaviour in health communication: Beliefs, Attitudes, Subjective Norms and Enabling Factors (Hubley, 1993).

Individual beliefs about the consequences of certain behaviour and the value placed on each consequence lead to personal attitude or judgement. Attitudes combined with subjective norms contribute to behavioural intention. Subjective norms are beliefs about what behaviour other influential people would wish the person to perform. Enabling factors such as income, water supply, access and sanitation technologies have to be available so that the intention leads to a change in behaviour. The model is adapted below because for sanitation the existing environmental conditions are a major influence in sanitation behaviour and hence this aspect is added.

Table 1 Behaviour change model (adapted from Hubley, 1993)			
Aspects	**Influences**	**Actions needed**	**Questions to ask**
Existing environmental conditions	Surface water used for drinking, access to bushes for privacy	Participatory assessment on environmental aspects supporting sanitation behaviour	What environmental conditions influence the options for sanitation?
Beliefs, Attitudes (individual)	Culture, values, traditions, education, experiences	Building on positive and neutral aspects in communication to modify beliefs and values	Why does a person want a latrine and what does it mean to have one?
Subjective Norms (community)	Family, community, social network, power structure, peer pressure	Communication directed at persons of influence in family and community	What interest do other people have in latrines or sanitation behaviour?
Enabling Factors (inter sectoral)	Level of income, appropriateness of sanitation technologies, status of women, environmental conditions	Awareness raising on appropriate technologies, capacity building activities in community, skill training	What do you need to have a latrine?

3. Communication and Mobilization Strategy

A systematic approach to plan and implement a strategy for public awareness, communication and mobilization is needed to mobilize different segments of society to support the development of sustainable sanitation management. This different components in this process are discussed below.

3.1 Assesment of Main Risk Factors and Problems in Environmental Sanitation

Before it is possible to develop a strategy for an intervention in environmental sanitation, it is necessary to get an overview of the present conditions with regard to environmental sanitation. An assessment will focus on the environmental conditions of influence on sanitation behaviour and on options for improvement, it will also make an inventory of the main risk factors and problems associated with the sanitation practices and technologies in use. Because hygiene behaviour is a major determinant for health risks connected to sanitation and latrine use, availability of water for hand washing, fly control and animals with access in the compound (chicken, pigs, goats, that may transfer faeces into the compound) have to be included as well.

The information gathered during the assessment is likely to indicate differences within the community, not only in facilities and practices used, but also in the attitudes of the people. On the basis of this, a rough classification of risks and problems and possibilities for technical intervention in environmental sanitation can be made for the purpose of follow-up planning with regard to communication and mobilization, but also with regard to technology choice and implementation.

3.2 Assessment of Current Knowledge, Attitudes, Practices and Policies

Sanitation is to a large extent a social phenomenon, rather than a technical one, and therefore it is essential that background information on cultural, social, economic and environmental factors influencing sanitation behaviour is acquired before actual planning can start. This is especially true when a new technology is to be introduced, but it is also needed to develop a communication and mobilization strategy and a strategy for hygiene education.

Sanitation behaviour is based on ideas and taboos associated with defecation and on traditional habits originated in local cultural, social and environmental conditions. There is a large extent of cultural variation in defecation practices, which will eventually determine what technology options will be acceptable to the people. For instance in a culture where handling of feces is acceptable (as is common in Vietnam or China), composting technologies are much more likely to be accepted than in cultures where handling of faeces is regarded to be impure (as for instance in India and Guinee). Similarly, religion can be very influential in sanitation practices, for instance, in Islamic communities, a latrine can never be facing Mecca and communal facilities may be less acceptable because it would entail women to go out of the house or compound for defecation. Sanitation practices are not only based on cultural and environmental conditions, but also on access to sanitation technology in terms of knowledge, materials and funds.

Awareness of health aspects of sanitation behaviour is important because it determines the degree of sustainability of an intervention in sanitation. When new latrines are constructed in a programme and sanitation behaviour is not addressed at the same time, people are unlikely to support the improvements with sustained behaviour change needed for improved health. The reverse however is also true: conventional health messages may be widely known and largely understood, but these messages by themselves may not enable people to implement desired changes because of other constraints, such as inappropriate technology in case of high water table or unstable soils.

At a national level, the policies that guide sanitation development need to be assessed, as well as implementation of such policies at the lower government levels. This responsibility often lies with the Ministry of Health, but can also be located with the Department of Water or combined in a Water and Sewerage department. Where this is the case, attention for hygiene education is likely to be low, as such departments usually concentrate on engineering aspects. It is therefore essential to assess at district or municipal level who is responsible for what aspects of sanitation development, guided by what policies and what targets.

3.3 Audience Segmentation

Segmentation of audiences and their communication needs is essential for effective communication and mobilisation. Without understanding the differences among various segments, or sub-segments, it is difficult to design effective messages that call for change. The process of audience segmentation has to be based on the outcome of the assessments of main risk factors and problems, the current knowledge, attitudes and practices as well as on the incentives that have already been identified. Target audiences for sanitation improvements range from community level to national level. In the process of audience segmentation, research has to be carried out to find the most efficient and effective way to reach each target group with respect to place, time and channel of communication. It is for instance, not very effective to conduct a public awareness campaign on television if the target group does not watch this medium regularly.

At *community level*, different target groups that can be identified are men, women, youth, children, the rich, the poor, ethnic minorities etc. All groups have different roles and responsibilities in society and may attach different values to services and the benefits to be derived from them. Consequently, their demand for and access to services and their economic behaviour differ and hence messages for their mobilization. In addition to these different segments of the community, community level organisations, traditional chiefs/community elders, churches, schools and health centres are target groups at community level.

At *district or municipal level*, the target group for advocacy and awareness raising are district/municipal planners, staff of different departments involved in sanitation management

(such as public works, water, sewerage, health), the private sector (formal and informal), the political representation (councillors, local chiefs), professional associations and NGOs. They must be informed on current environmental conditions, on health statistics at local level, on developments in the sanitation sector and on the integrated nature of water and environmental sanitation. The main aim of the messages is to motivate the target group to take initiative or support efforts at local level, with respect to planning, construction, operation and maintenance as well as with financial and human resources. Other aims may be to show the importance of hygiene behaviour in combating sanitation related diseases; to give examples of how without community involvement programmes fail; the need to put economic value on latrine use (what it costs to be ill) and sustainability elements at community level.

At *national, regional and provincial level*, people make policy decisions and/or influence development. This is an important target group as one reason why sanitation is receiving little attention is because it has not been given any priority at this level. Included in this target group are politicians (ministers, members of parliament, councillors), professional associations, educational institutions, donors, NGOs, churches and the media. To mobilise them, it is important to have data and information that they need to discharge to their respective audiences, such as for instance telling what it costs the nation if people get sick with dysentery, cholera or another water and sanitation related disease due to lack of sanitation.

3.4 Finding the Right Incentives

Because health considerations are rarely a reason to be interested in sanitation, it is necessary to find the reasons that do motivate people for it. At user level, these may be convenience, safety, privacy, status or economic incentives. It is more *convenient* to go to a latrine near or in the house than to have to walk to the bush, especially during the rainy season. The *safety* aspect is especially important in urban slum areas where social control is low. For women, going to a latrine at night may become almost an invitation for rape. Similarly, at night evil spirits abound and snakes or wild animals are not seen.

The most common need with respect to defecation is probably the desire for *privacy*, although the level of privacy needed may vary according to sex, age or social status. Generally, women have more need for privacy than men and often it is this aspect of a latrine that they like most, especially if the latrine can also be used for bathing. Another important factor influencing interest in latrines, especially with men, is connected with *status* and *prestige*. Usually the people who already have a latrine constitute the upper layer of the community, they are likely to be more 'modern', have an education and have seen the outside world: all attractive aspects in the eyes of the rest of the community. In densely populated areas, the aspect of a *clean environment* is often cited as a positive aspect of sanitation, not only by men and women, but also by the youth for the purpose of sports activities. Finally, reuse of excreta may be an *economic* incentive either for people for their own use or for sale to farmers.

It should be noted however, that if status or prestige are the motivating factors, this does not imply that people also use the latrine. There are many examples of latrines being used as storage rooms, or reserved only for visitors or certain members of the family. This implies that for effective and sustained use, hygiene education is a crucial aspect of sanitation improvements (Wegelin and Ikumi, 1997)

Just as with the communities themselves, it is unrealistic to expect other stakeholders such as government staff at different levels or the private sector to become interested in the improvement of sanitation conditions if they do not get anything out of it that they see as a profit. Obviously, such incentives are different for stakeholders at different levels. But it is necessary to find the right incentive for the right target group. At national level, these may be exposure as a good example at international for a; being quoted in the international media and literature or being at a good 'level' in international statistics on health or environment. At municipal or district level, these may be elections for the 'sanitation' town of the year; access to (regional) training for the municipal/district engineers that win the election or matching funds for cost recovery.

3.5 Setting Verifiable Goals

In order to direct the communication strategy and mobilization efforts, it is necessary to have an agreement on the specific operational goals of the intervention. These goals have to be set together with the main stakeholders involved and will be different for the different target groups. In the communication strategy, these will concern the effectiveness of the messages that are being communicated as well as the effectiveness of the channel that is being used. Thus, for each segment that is targeted, a goal has to be set, with a time span and an indicator that is to be measured and that is verifiable. The same applies to the mobilization effort. Indicators need to be set with government staff and programme staff, to assess if the mobilization efforts that have been designed at the start of the programme indeed have the desired effect. In traditional monitoring systems, these efforts would be monitored by counting the number of activities having taken place at community level, according to the plan. This however, does in no way assess the impact of the activities, although these are at this stage most important because they determine the interest that the community will eventually have in getting involved in sanitation improvements. Therefore, the indicators have to be set in such a way that they monitor the effectiveness of the mobilization (Shordt, 2000). The actual collection of monitoring data, in addition, should not be done by those who carry out the mobilization activities – most likely district/municipal government staff – but by those people or organisations on the ground that have an interest in sanitation improvements being carried out in a sustainable manner.

4. Enabling Factors

4.1 Financing, Cost Recovery and Willingness to Pay

Financing and cost recovery for sustainable sanitation schemes on the one hand and ensuring equity on the other are key issues which any sanitation programme needs to address. This concerns local community-based sanitation initiatives as well as large-scale programmes funded by international donor organisations.

The cost of on-site sanitation programmes can be divided into three categories. These are institutional and project delivery costs, material and labour costs and operation and maintenance costs. The first category includes the cost of community mobilization and development, communication, information and training, as well as technology delivery costs such as engineering supervision and logistic support. These costs are usually paid by the government or external support agencies.

Material and labour costs have to be paid by the community, at least to a large extent. This may be paid partly in cash and partly in kind, depending on the provision of appropriate financing and credit facilities and the total cost of the proposed sanitation intervention. Already at the mobilization stage, the community needs to be aware of the various components that make up the total costs and the parts that are covered by grants or subsidies. Generally, most government supported programmes do not include substantial grants or subsidies, hence targeted subsidies may be necessary from the rich to the poor, who cannot afford the costs of a latrine. Often the provision of credit schemes poses problems.

The last component is the cost of operation and maintenance, which has to be borne fully by the users. As the choice of technology will to a large extent determine the level of the costs of operation and maintenance, this has to be clearly communicated with the community at an early stage.

Willingness to pay for sanitation improvements, if people can opt for the sanitation system that they want and are willing to pay for, is found to be much higher than expected. This is proven in many well-known case studies such as Prosanear in Brazil, Baldia Pilot Project and Orangi Pilot Project in Pakistan and the Kumasi Sanitation Project in Ghana (Wright ,1997). The key features to success in this willingness to pay again are to a large extent dependent on an effective communication strategy:

1. Community members make informed choices on:

    o   Whether to participate in the project

    o   Technology and service level options based on willingness to pay – based on the principle that more expensive systems cost more

    o   When and how their services are delivered

    o   How funds are managed and accounted for

    o   How their services are operated and maintained

2. An adequate flow of information is provided to the community and procedures are adopted to facilitate collective action decisions within the community and between the community and other actors.

3. Governments play a facilitative role, set clear national policies and strategies, encourage broad stakeholder consultation and facilitate capacity building and learning.

4. An enabling environment is created for the participation of a wide range of providers of goods, services and technical assistance to communities, including the private sector and NGOs (Sara, Garn and Katz, 1998)

4.2 Technology

A first distinction between types of sanitation systems is based on disposal of the feces and liquids. This can be on-site (also called drop and store) or off-site (flush and discharge). An interim option is to collect and store the excreta temporarily on-site and to remove them later for reuse as fertilizer or for disposal at a treatment plant. Eco-sanitation promotes the on-site option and is based on three fundamental aspects: rendering human excreta safe, preventing pollution rather than attempting to control it afterwards and using safe products of sanitized human excreta for agricultural purposes (Winblad, 1998).

A second distinction between systems is 'wet' and 'dry'. In dry systems the excreta drop through a hole in to a pit, vault or receptacle, while in wet systems, water is used to flush and transport the excreta away. Availability of water is one of the key deciding factors in opting for a system which requires water to function or one that does not need water. Conventional waterborne sewerage systems have proven to be inappropriate to solve sanitation problems in developing countries as these systems are too costly both in construction and in operation and maintenance. Moreover, approximately 90% of the sewage in cities in developing countries is discharged untreated, polluting rivers, lakes and coastal areas seriously affecting environmental conditions.

Environmental factors such as soil condition, groundwater depth, risk of groundwater pollution and population densities directly influence the selection of appropriate technology. Also possibilities for reuse (farmers) are important because this can make waste income generating and hence attractive. A description of the different technologies is beyond the scope of this small paper, but in general, the appropriateness of a technology is dependent on the cost, the availability of materials necessary for its construction, the requirements for operation and maintenance and the cultural acceptability. Very important, in addition, is the flexibility to adapt the design (and especially the superstructure) to consumer preferences.

5 Methods and Tools for Communication and Mobilization

5.1 Mass Media

Media and other channels of communication have to be selected on the basis of what is appropriate, considering the preferences and characteristics of whoever is going to use the

information. This means that television exposure is only effective in places where watching is regular. Radio is in many developing countries a much more effective medium as it is much more common. Awareness raising films may also be shown with success in the 'open air' cinema, as a 'pre-programme' for the main film. Also theatre is being used very effectively for communication and mobilization. It can easily be adapted to the target audience, for instance to children.

The effectiveness of the use of written media depends not only on the literacy rate, but also on the circulation figures of local newspapers, although this may not mean much. In Kenya, for instance, newspapers are read widely at street corners where the papers are sold, but where also reading of unsold papers is permitted. Similarly, newspapers are likely to be shared among the literate people within a community. What has to be kept in mind in using mass media, is that generally this method of communication informs people, but is unlikely to effect behaviour change. For this to happen, participatory methods are more effective.

5.2 Participatory Methods

In participatory approaches, people are assisted to analyse their own situation and to come up with solutions that are most appropriate for their circumstances. Many such approaches are used in water and sanitation programmes and by involving users/communities/customers/beneficiaries from the start of a programme, the ownership is vested with them, which enhances sustainability. These participatory approaches can be applied at all phases in the project cycle and for different purposes. In the context of this chapter, they are used as a tool for public awareness raising for mobilization and for the development of a communication strategy. But they can also be used for implementation and construction, for operation and maintenance and for monitoring and evaluation.

Below some participatory methods are described in a short way. For the analysis of risk factors and problems in the sanitation environment, the most appropriate methods are community mapping and transect walks. The assessment of knowledge, attitudes and practices in sanitation is best done through focus group discussions, three pile sorting cards and the sanitation ladder.

Community mapping: groups of men and women draw a map of the local settlement including roads, houses, health facilities, all water sources and all latrines (public and houses with private latrines). The map usually includes other information needed for the project as well such as water sources. Through the mapping information can be obtained on access to water and sanitation, settlement patterns and division between different groups that make up the community. Also information can be obtained on radios or televisions present and on the division of different segments within the community.

Transect walks: these are systematic walks with key informants through the area of interest while observing, asking, listening and seeking out problems and solutions. Walking through the community leads to an understanding of the power divisions, environmental sanitation, risk practices and problems, sanitation technologies in use, construction quality and environmental conditions of importance to technology selection.

Focus group discussions: these are discussions with a small group of people in the community, either mixed or separate with the different segments of the community, on a specified topic. The aim of the focus group discussions is to get a deeper understanding of the issues that are being confronted with regard to the topic.

Three pile sorting cards: cards that contain pictures, words or sentences, depicting negative, positive and neutral aspects of a certain topic (sanitation) are given to the group for sorting in three piles (positive, negative and neutral). The discussions during the sorting will give insight in knowledge, attitudes and practices of hygiene behaviour.

Sanitation ladder: on cards different sanitation technologies are depicted. The groups are asked to sort the cards according to level of technology (from outside defecation to a VIP latrine or small bore sewerage system) and to indicate where people are at present in the ladder and where they want to go. This is a good tool for discussing upgrading of sanitation technologies and to assess what people like about which technologies.

6. Conclusion

Public awareness raising and mobilization is more than a one-off campaign in the mass media and one visit to a community. A systematic approach to plan and implement a strategy for awareness raising and communication is needed to mobilise different segments of society for sanitation improvements. This approach consists of a number of components and issues in a process:

1. Assessment of main risk factors and problems in environmental sanitation

2. Assessment of current knowledge, attitudes and practices

3. Audience segmentation

4. Finding the right incentives

5. Setting verifiable goals

6. Establishment of enabling factors: financing and technology options

The most effective methods carry out awareness raising and mobilization at community level, are participatory approaches that are based on interaction of people providing information and that let people examine their own experiences and learn from it. These approaches stimulate people to think about their own priorities versus sanitation and help them decide on a selection of technologies based on what they need and can afford.

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