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# Monitoring and Evaluation of Communication Support Activities in Low-Cost Sanitation Projects

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PREFACE

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This paper, "**Monitoring and Evaluation of Communication Support Activities in Sanitation Projects**", by Heli E. Perrett, is one of a series of informal Technical Notes prepared by TAG<sup>1/</sup> on various aspects of water supply and sanitation programs in developing countries. The papers were originally prepared as internal discussion documents; their wider distribution does not imply endorsement by the sector agencies, government, or donor agencies concerned with the programs, nor by the World Bank or the United Nations Development Programme. Comments and suggestions on the paper should be addressed to the Project Manager, UNDP Project INT/81/047, Water Supply and Urban Development Department, The World Bank, 1818 H Street, NW, Washington, DC, 20433.

This note deals with the subject of monitoring and evaluation of communication activities that support low-cost sanitation (LCS) programs. The note focuses more on the monitoring of such activities than on the impact the activities have, on the grounds that: (a) a well-designed Project Support Communications (PSC) program, kept sensitive to community and individual needs through regular feedback will necessarily have an impact on overall program success; (b) program monitoring can become a useful and essential management tool, guiding managers in decision making by providing them with relevant current information. Impact evaluations are often static means of measuring results of project intervention too late for those results to be used profitably; (c) impact evaluations, especially those which try to measure actual habit change, are frequently flawed due to the extreme difficulty of identifying and controlling compounding variables.

It uses sample questions, sample findings and possible solutions to illustrate procedures that are described for data collection, data handling, and analysis. The timing, frequency and procedures for reporting findings are discussed; and it ends with hints for dealing with common mistakes and a discussion of responsibilities and resources for monitoring and evaluation.

While all illustrations are drawn from communication components of sanitation projects, much of the discussion has broader relevance.

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<sup>1/</sup> TAG: Technology Advisory Group established under the United Nations Development Programme Global Project GLO/78/006 (renumbered on January 1, 1982; now UNDP Interregional Project INT/81/047: "**Development and Implementation of Low-cost Sanitation Investment Projects**"), executed by the World Bank.



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## **SUMMARY**

If communications activities are to maximize their usefulness to a project, they have to be carefully monitored during implementation, with simple practical information made available to management as needed. Evaluation of their impact is more complex: in a project situation it is usually difficult to separate the observable results of the communication activities from those of other planned inputs or of normal processes. Also, much of the information required for measurement of impact would usually be collected under general project evaluation systems, if these systems include attention to such questions as adoption, use, and maintenance.

Therefore, the present note stresses monitoring, that is, reviewing the process of communication, more than evaluation of the impact of communication components of low-cost sanitation projects. These monitoring and evaluation activities should be kept as simple as possible and oriented towards users of the data. The planning process really begins with asking what kinds of information management might need and when, and only then decides on the best information system and specific kinds of information to collect and analyze. This results in a problem-oriented approach.

All additional resources required for monitoring and evaluation should be estimated and committed at the project planning stage and included in the budget for the component.

Monitoring and evaluation of communication support activities of projects can be viewed as having four dimensions; the first three can be termed "monitoring" (or "process evaluation") and the fourth, evaluation. Monitoring, as defined here, covers functioning and utilization aspects of communication activities:

### **Functioning of the communication activities:**

- (a) Delivery of communications: whether the communication activities are actually taking place as planned.
- (b) Quality of communications: how good or how bad the communication activities are, always in terms of the intended audience.

### **Utilization of communications:**

- (c) How audiences are initially responding to what is being communicated to them and using that information.

### **Impact of communications:**

- (d) Whether the specific objectives of the communication activities were achieved or not, and why.

Data collected will, to the extent possible, deal with observable events and behaviors. Various sources of information will be used, with only the essential questions asked in house-to-house interviews.

## Introduction

1. This note is written for practical people working in developing countries who in one way or another are involved with planning or implementation of communication activities of sanitation projects. It is assumed that they are usually working within a limited budget and in situations where monitoring and evaluation are either fairly new or at least not wholeheartedly accepted by management. The emphasis is therefore on making such activities as simple and as useful as possible.

2. While the subject is monitoring and evaluation of communication support activities of sanitation projects, this note should have relevance to similar activities associated with drinking water supply, urban, health, nutrition and population projects.

3. **Communication support:** communication support components are now quite widely acknowledged as essential to the success of low-cost sanitation activities. Normally, the communication activities would start some three to six months before construction gets under way, parallel it, and continue for at least some six to nine months after it finishes. Usually there are four principal kinds of communication activities implemented:

- (a) encouragement of **participation** of local men and women, particularly in making decisions.
- (b) **promotion** of the project's construction or improvement activities at both community and household levels;
- (c) provision of various kinds of **information or instruction** as needed by the people in the project area (e.g., on how to apply for a unit, how to build the superstructure, how to clean and maintain the completed latrine); and
- (d) **health education**, to ensure that those people who obtain the new facilities use them regularly and employ good hygiene habits so that the health impact is assured.

4. In sanitation projects, field staff such as sanitarians, health auxiliaries, and health educators usually form the core of the communication strategy, although engineers, small contractors, community leaders and grass-roots groups or organizations often get involved as well. The work of these people is helped and enhanced by media and materials of various kinds: posters, slides, flip charts, and other aids. Because of the necessarily close coordination between the communication activities and the different phases of the construction program, the larger mass media (e.g., radio, films, newspapers) tend to be used sparingly, except in very large and long-term sanitation programs (such as currently being implemented in several states by the Government of India, with TAG assistance).

5. The main steps in the implementation of communication support activities of sanitation projects, and on which the monitoring will focus, normally include:



- background data collection;
- detailed design of the communication strategy (with special attention to coordination with the construction schedule);
- design, pre-testing and production of training materials (and occasionally, media messages);
- design, pre-testing and production of educational materials for use by field staff in their work;
- selection and hiring of communication staff (where a new system is being set up);
- training of field staff;
- fielding of staff;
- meetings with community leaders and organization of public meetings to present and discuss the project (including the technology options, detailed designs, financing plans);
- coordinated distribution of media messages to support on-the-ground personal contacts with area people and leaders;
- house-to-house visits to instruct on any self-help labor aspects of construction (often the superstructure);
- house-to-house visits to encourage and instruct on good maintenance;
- group meetings and house-to-house visits to encourage habitual good use of latrines, other improvements in personal and sometimes domestic hygiene, and good cleaning and maintenance practices.

6. This is obviously a very brief discussion of what communication support is designed to achieve in the context of sanitation projects. A fuller discussion with illustrations is available in another Technical Note in this series.<sup>2/</sup>

7. **Monitoring of communication activities:** Monitoring or "process evaluation" is an inbuilt review process which tells project managers or communication component managers (and others) whether or not the scheduled activities are being carried out as planned, and lets them know about any problems that require their immediate attention. This information should be available on a regular basis, as "**management information**", and then becomes good management practice.

8. **Evaluation of communication activities:** evaluation of impact is a longer-term activity. It is the process by which results of communication activities are measured against its targets or objectives, to see whether they have had the desired impact or any undesired negative effects. (Where

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<sup>2/</sup> Heli Perrett, **Planning of Communication Support in Sanitation Projects and Programs**, TAG Technical Note No. 2, UNDP/World Bank, Washington, D.C., 1983.

possible, the objectives are expressed in behavioral terms.) This evaluation tells project managers, and also others, whether or not the approach to communication support used in that particular case was successful and should be expanded and/or used elsewhere.

9. **Relationship between monitoring and evaluation:** While monitoring and evaluation are distinct in their roles, and sometimes in administrative arrangements (for instance, monitoring may be carried out by the implementing agency, and evaluation by a coordinating agency or organization), they are mutually supportive. Monitoring helps to explain trends in, and reasons for, evaluation findings. Monitoring data may call for modifications or additions to the evaluation system, and the reverse can occur where a first stage evaluation leads to an improved monitoring of the next phase. Therefore, functional linkages between the two are essential.

10. **Emphasis of the note:** This paper will emphasize monitoring more than evaluation for two reasons: first, monitoring as a functional management tool cannot be omitted from a communication component; second, evaluations of communication activities, where they are one of many component parts of a project, seldom provide reliable or valid results. The major problem is that of interpretation of the findings, and particularly of attribution to the communication activities of successes or failures that occur. Use of control populations is a sound solution in theory, but in practice it is often difficult to withhold essential information and education from one group of people. Even where it is possible, such control areas rarely remain "uncontaminated." On the other hand, use of complicated statistical techniques can be costly and may overtax the capabilities of the responsible agency.

11. At least part of the evaluation of impact of communication activities can usually be merged with evaluation of results of the project as a whole. But, if any good in-depth analysis of causes is wanted, then some additional studies would normally be needed.

#### **Methodology for Monitoring and Evaluation**

12. **Monitoring methodology:** The methodology used for monitoring communication support activities of sanitation projects will vary, but it may resemble the following:

- MIS
- (a) A management information system designed to provide regular information on execution and costs of communication activities (usually part of the management system for the project as a whole).
  - (b) A management information system designed to provide regular and continuous information on rate of adoption (measured at different points in the process; for example, the number of applicants signed up, number of slabs picked up, number of latrines built, etc.), unless such information is being collected elsewhere under the project.

- (c) A series of regularly scheduled interviews (e.g., every two months) with a limited number of representative households in the project area which will check on the most important questions, such as whether information is reaching the right people, whether they are understanding it, and whether they are using it as they were intended to at that particular point in time.
- (d) In-depth studies, varying in size and focus, which will often concentrate on causes or particular problem areas or problem population groups (e.g., use of latrines by children under age 10). These studies should be flexible, allowing modification or additional items to be scheduled as findings indicate.

13. To the extent possible, measurements should focus on observable events (e.g., materials distributed, meetings held,) or behaviors (e.g., attendance at meetings, signing up for a latrine,) rather than on knowledge or attitudes.

14. **Evaluation methodology:** Determining causality scientifically calls for use of treatment and matching control groups. But it is not usually possible in sanitation projects--or other development projects--to conduct this type of field experiment properly. Modifications of the scientific approach are therefore commonly used. Normally an interrupted time-series design is employed: that is, the comparison of project area people before and after a communication program, and, if possible, at some point midway as well. This is where a baseline measurement (i.e., data collection) becomes necessary as a first step. In the case of a low-cost sanitation program, change can occur slowly and may also be reversed over a period of time. This needs to be kept in mind when deciding on the timing of the "after" measurement. It can really never be said that the evaluation is "final". So many other factors can interfere, both negatively and positively, and evaluation of communication support activities can be fairly meaningless unless there has been at least some monitoring going on at the same time, or in-depth case studies which can help to determine the extent to which communication activities are to be given the credit or blame for what finally happened. The interrupted time series might also be complemented with continuing panel studies (in which a small sample of households is visited frequently during the whole process), or by conducting intensive case studies of a small number of households, particularly if the monitoring system for the communication component is weak or non-existent.

15. Again, it is important to note that as much data as possible should be based on unambiguously defined indicators (often visible states or behaviors).

16. If evaluation of communication activities is to focus on measurement of behavioral objectives (rather than knowledge or attitudes) then it will cover indicators which are not **solely** a result of the communication activities but of the project as a whole. It can measure, for instance, the extent to which the project achieved its objective of serving X number of households (because communication activities included promotion of latrines, and this is therefore one indication of the extent to which these activities achieved their own objectives as well as those of the project); or it can assess self-help construction, care and maintenance and even sludge re-use,

because communication activities encouraged and provided instruction for all these activities. Some of this information should also be collected for general administrative purposes and may therefore be able to be obtained from that source (although it may need to be checked). However, evaluation of communication activities will often probe such questions differently, for instance, focusing on the **types** of adopters of latrines and the **causes** of any failure to meet such quantitative objectives, with special attention to human factors.

17. Some of the information that is normally needed for evaluation of impact of the communication activities associated with low-cost sanitation programs will be very personal and difficult to obtain. Regular use of latrines falls into this category. This information should be cross-checked in as many ways as possible, since it will be one of the major objectives of communication activities. Such cross-checking could include, for instance, the inspection of traditional sanitation sites, inspection of latrines themselves, questioning of informants (such as local health workers), and asking other more indirect questions which would help to check on the validity of direct probings of the issue.

#### **Focus of the Monitoring**

18. The monitoring of communication support activities of low-cost sanitation projects can be viewed as covering three main categories:

- **delivery** of communications;
- **quality** of communications; and
- **utilization** of communications.

Each of these is defined and briefly described in this section.

19. The **delivery of communications** monitors whether the communication activities and preparatory stages involved are actually taking place as planned. It therefore reviews staff selection, hiring, training and fielding; materials design, pre-testing and production; any design and dissemination of radio broadcasts; billboard advertisements or other mass media activities; and all community and household level contacts of staff, as described above. Normally it monitors:

- whether the activities took place on **schedule**, and checks this against the construction schedule;
- whether they took place according to **plan** (frequency, channels, etc.);
- whether they took place at the **cost** stipulated; and
- **reasons** for any failures or diversions from the plan.

20. The **quality of communications** assesses on an ongoing basis how good or bad such activities are, always in terms of an intended public. Usually it looks at:

- **targeting:** that is, the extent to which the messages are reaching the intended audiences (such as "male heads of households without latrines in towns A and B" and so on);<sup>3/</sup>
- **understandability:** that is, whether the language and messages were being understood by the majority of people they were reaching;<sup>4/</sup>
- **acceptability:** that is, whether all the intended audiences reacted positively (or some of them negatively) to the "channel" and to the message itself (including visual as well as aural or written aspects of it); and
- **credibility:** that is, whether the intended audience felt that the message as presented could be believed or trusted.

21. The credibility aspect and even the acceptability question are difficult to measure well in the field. These could therefore be omitted from the monitoring system, and particularly from the later stages of monitoring, if resources are limited and if during the design stage all messages have been pretested with groups of people similar to the intended audiences. Where it is essential that instructions be correctly remembered (for instance, where all or part of the latrine is being constructed by the householder), then recall of the "messages" or instructions given should also be checked.

22. **Utilization of communications:** refers to how audiences are initially responding to what is being communicated and how they are using the information. If communication activities are successful, then in all cases they will result in some kind of behavioral response. For instance, advice by a sanitation inspector or a radio spot to "sign up at the nearest municipal center if you are interested in having a new latrine at a special low price for your home" should result in some people doing just that. An even earlier response could be community attendance at a public meeting convened to present and discuss the program. Monitoring would therefore check on such key points as: attendance at a public meeting, formation of a

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<sup>3/</sup> This is the most important indicator to be measured to assess quality. It may need to be periodically checked, as when the project enters a new phase of operations (e.g., moving from households with no latrines to those with existing latrines which require upgrading, or from higher to lower income groups). The specific audience will vary for different communication activities. For instance, at the promotion stage the male head or female head of the household may be most important because they make final purchase or acceptance decision, whereas women may be the primary audience for health education messages later on.

<sup>4/</sup> Not only will monitoring need to check on whether the intended audiences are being reached, but whether there is any **spillover** into non-project areas (particularly with mass media) since the latter may result in complications or inefficiencies for the project.

block (or community) committee, signing up for a latrine, collecting a slab, digging a pit, completing the superstructure of the latrine, and using and cleaning it properly. Some of these practices require a number of logistical supports for implementation, and the motivation, information or education provided is only one aspect. For instance, in the earlier example, people may have gone to the municipal center to sign up for latrines, only to find that the application forms had not arrived, or that the exact price of the latrines had not yet been decided on, due to project delays. Monitoring of communication support will therefore have to pay particular attention to reasons for failure and determine whether these are due to failures in communication activities or to other problems.

### Focus of the Evaluation

23. Evaluation of communication activities of sanitation projects will focus on measuring achievement of objectives of the communication component. These objectives will vary to a certain extent depending on the type of support that the project requires. They should be stated in terms of observable events or behaviors. Frequently the evaluation will focus on measuring the extent to which communication activities achieved the following types of objectives:

- **Organization:** setting up of XX number of community sanitation committees or similar grassroots groups.
- **Participation in planning:** defined in terms of involvement of project area people (men and women) in specific kinds of project decisions (such as selection between a number of options, detailed design of the final latrine, etc.).
- **Adoption:** application for project latrines by XX number of households from the project population.
- **Construction:** correct building of latrine superstructure by all adopting households (if the project itself does not construct the latrines).
- **Use:** regular use of new latrines by all household members (while discontinuing use of traditional alternatives or earlier insanitary latrines).
- **Use and hygiene habits:** adoption of good methods of use and associated hygiene habits by project households (including: hand washing after latrine use and before eating; and behaviors required by the technology chosen, such as proper flushing, closing doors, and not throwing wastewater down "dry" latrines; general cleanliness in the household; and improvement in any "problem" habits of the local people found during the design phase).
- **Cleaning:** regular cleaning of latrines.
- **Routine maintenance:** carrying out simple maintenance tasks, as required by the type of latrine, to keep it in good operating condition (e.g., repair of flyscreens, changing of light bulbs, etc.).

## **Data Collection for Monitoring Delivery of Communications**

24. Various sources of data and procedures for collecting them can be used for monitoring delivery, quality and utilization of communications (see Annex I for a list of sources). For monitoring delivery of communications the logs kept by HQ Administrators, field staff and their supervisors can be used to record most information needed on the quantitative aspects of their work. They can be used also to monitor distribution of media and materials. But staff and central and regional distribution points should of course also note posters received and distributed, generators and projectors out on loan, and so on. Information on deliveries needs to be checked against disbursement figures. All this is really nothing more than good management practice. PERT-type flow charts, on which events are displayed in terms of executing agent, time, and relationship to both prior and subsequent events, are useful monitoring/management tools for keeping track of delivery of communications.

25. At this point there should be no conceptual or methodological complexities, just efficiently kept administrative records, with rapid collation, summary, interpretation and transmittal of the information to management at regular intervals (often combined with other reports from the field).

26. **Questions management might ask:** Below are examples of the questions that management might ask at this level of monitoring, and to which the data collected by the system should therefore be able to respond (for instance, indicators would reflect such questions):

- (a) Did the activity take place as scheduled and as needed in terms of construction activities (e.g., were posters put up, public meetings held, house visits conducted, etc., on time)?
- (b) With what frequency (e.g., number of houses visited each month)?
- (c) When (how long before or after certain construction activities, noting dates and often also the times of day, as in the case of field visits, radio broadcasts)?
- (d) Where (if relevant, as in the case of locating posters, holding public meetings)?
- (e) Why did failures occur (public meetings planned but which did not take place, broadcasts not transmitted, etc.)?
- (f) Were there any cost overruns?

27. **Examples of Findings and Solutions:** Below are some examples of the kinds of findings that are liable to occur at this point and one type of action they might call for:

- (a) **Finding:** Promotional house visits are only being made in part of the assigned area, that which is closest to where the visitor lives.

**Reasons:** Bicycles assigned to community workers have not arrived and there is no budget for using public transport. Salaries are low and staff do not want to use their own money.

**Solution:** Management looks into reasons for non-delivery of bicycles and assigns interim travel budget to staff.

- (b) **Finding:** Radio spots advertising the availability of sanitary latrines are being broadcast as intended, but at mid-morning instead of in the evenings when more male heads of households are likely to be listening.

**Reason:** The project is relying on free public service radio time, with the result that spots are not broadcast at prime time (evenings).

**Solution:** Management decides to purchase radio time instead, so that broadcasting can be assured during prime time, on the premise that the incremental cost will be worth it.

- (c) **Finding:** Posters depicting sanitary use of new latrines (aimed primarily at women) are being put up in examining rooms in clinics. If they were put in the waiting rooms instead, they would reach a larger audience and more attention would be paid to them.

**Reason:** Instructions for field workers only stated "put posters up in area clinics".

**Solution:** Instructions to field workers are made more specific.

- (d) **Finding:** Health educators in one community are, according to their own reports, visiting an almost unbelievably large number of households per week.

**Reason:** The monitoring system has not picked up the cause, since this type of finding was not expected. Therefore management sends a supervisor to the area to check on whether: field workers are spending too little time with each household; falsifying records; or making errors in recording the number of visits due to lack of understanding of how to report those households where no one was at home during the visit (recorded separately from contacts achieved).

**Solution:** Will be defined according to identified cause, but will include better instructions to and supervision of all health educators.

#### **Data Collection for Monitoring the Quality of Communications**

28. Pre-testing of media and materials should already have given attention to the question. However, at least at the pilot stage of the project or during the first year, the monitoring system should make a few further checks on more specific indicators of quality (as in para. 20) in the case of the most important communication activities. Measuring quality is



both conceptually and practically more difficult than simply checking on the delivery of communications.

29. Until now the monitoring system has not required any householders to be questioned to obtain data. But with monitoring of quality of communications this becomes necessary. Questioning should be conducted as smoothly and efficiently as possible, and where concurrent motivation or education is still taking place it could be interwoven with these activities. (For instance, community workers may ask people about the radio spots in the context of general discussion of the project and what it offers.)

30. Field workers doing the promotion and education can assist in measuring the quality of their own activities through reporting on whom they contacted during visits. However, their supervisor should check to get feedback on how the field workers are accepted or liked, and whether what they say is being understood (if one waits to assess such quality until a final list of applicants is available, it may be too late, or a lot of time and effort may have been wasted). Additional checks on the quality of field workers can be made through rating them for initiative, checking on their performance at public meetings, and so on.

31. Feedback on quality can also be built into some media activities, as in the case of radio programs which are linked to listening groups ("radio forums") where they are reaching a literate audience with access to mails who could write to the program.

32. **Questions management might ask:** The data on quality of communications should be able to answer any management queries such as those below:

(a) **Targeting:**

- (i) Are the communication activities reaching Y kinds of people?
- (ii) If not, why not?
- (iii) Who else are they reaching? (Alternatively, this may be phrased as "Why are we getting requests for latrines from people in area Y, which is not included in the program?")

(b) **Comprehension:**

- (i) Do the audiences all understand the language of the communications?
- (ii) Do they understand correctly what is being said?
- (iii) If not, why not?

(c) **Attractiveness:**

- (i) Do the project populations like the field workers (or the radio programs, slide shows, etc.)?

(ii) Are the audiences interested in what is being said?

(iii) If not, why not?

(d) **Credibility**

(i) Are project area leaders and people believing what they are being told (e.g., that new latrines will be better for their health than existing ones, or that the dry humus from alternating pits will be safe to handle)?

(ii) If not, why not?

33. **Example of findings and solutions:** Some possible findings and ways of dealing with them are:

(a) **Finding:** Household heads, male or female, who have been identified as the key audience during promotion, are not being reached by sanitation inspectors during house-to-house visits.

**Reason:** Visits are being made between 8 a.m. and 4 p.m.--that is, during the working day of sanitation inspectors--whereas most men and about half of women household heads are not at home during that time period.

**Solution:** While it is aware that women may pass on information to their husbands, management decides that it is important to reach men directly, and changes work hours of sanitation inspectors accordingly. This change allows more working women household heads to be reached at the same time (although they were not the main concern of management).

(b) **Finding:** In a pilot project entire families, including male heads of households, were being reached with promotional activities, but apparently the men did not like the field workers, nor find what they said at all interesting or relevant.

**Reason:** The field workers in this case were young women (community development workers) who were not able to capture the attention or interest of the head-of-household decision-maker because, in the culture under review, women were not considered knowledgeable about subjects such as latrines.

**Solution:** Management hired male community development workers for the expansion phase of the project. However, since it was too late to hire males for the pilot phase, they complemented the efforts of the existing workers with public meetings for area males, called by and presided over by the (male) field engineers. During these meetings the field engineers also legitimized the community development workers as their representatives, which resulted in males paying more attention to what was being said.

(c) **Finding:** Data indicated that area people, and particularly women, were having difficulty grasping what the different technical

options looked like, and their relative advantages and disadvantages. This resulted in only limited participation in decision making.

**Reason:** The project population had a low level of education and was generally unfamiliar with sanitary latrines.

**Solution:** Management decided to have demonstration models made of different latrine options and to involve area leaders more in explaining comparative merits in terms that people at the public meeting could understand. This meant that the leaders first had to understand the technology, but this was found easier than expected as leaders tended to be more educated and sophisticated than the rest of the population. An added advantage was that this approach lent credibility to the project and made leaders themselves want to take a more active part in promoting it since they now felt identified with it.

- (d) **Finding:** The instructions on cleaning and maintenance of latrines are not being correctly followed.

**Reason:** The printed instruction sheet is given by the contractor to women, who are more likely to be at home during the day. But female literacy is 5 percent in that area and these instructions are relatively complex, with no illustrations. In some cases literate husbands or children do read the instructions to the women, but, by the time the cleaning tasks are done, they have forgotten; also, instruction sheets may have been lost.

**Solution:** Instructions are simplified and based primarily on drawings (pre-tested for comprehension by illiterates or semi-literates). Instead of being handed to the householder, they are nailed inside the door of the completed latrine by the small contractor. Community health workers are also requested to review these instructions periodically with householders.

#### **Data Collection for Monitoring the Utilization of Communications**

34. Some of the information on responses to information and ideas, and particularly details about earlier stages, can often be collected through observation (of meetings, for instance, or attendance at demonstration sites) or review of records (forms completed by applicants, lists of sanitation committees, lists of applicants, lists of latrine slabs distributed, contractor records, etc.). At later stages of the process, such as at the point of digging pits, erecting superstructures, using and cleaning latrines, there will be a need for house visits for purposes of observation and asking questions. Identification of causes requires interviews throughout--usually with informants and open-ended interviews with the people themselves.

35. At this point it is important to remember that as measurement of people's behavioral response to communication messages moves further along it becomes increasingly difficult to attribute completely either successes or failures to effects of communication activities. Other factors come into play such as delivery systems, credit facilities, other events in the

environment and so on. This needs to be recognized and made clear in interpretation of the data.

36. **Questions management might ask:** This part of the communications monitoring system should, either alone or in conjunction with other monitoring and evaluation activities<sup>5/</sup>, be able to answer such questions by management as these:

**Response to promotion activities:**

- (a) How many people have now signed up for latrines?
- (b) What percentage of sign-ups are from lower-income families (or a certain area, or female-headed households, or families with no existing latrines, etc.)?
- (c) How many of those households who sign up actually go ahead with the construction?
- (d) Why have some households dropped out between sign-up and construction?

**Response to instructions on building latrine superstructures:**

- (e) Are people completing their latrines? If not, why?
- (f) Are the superstructures so far constructed in agreement with instructions given?
- (g) Why are some families not completing latrines as instructed?

**Response to health education:**

- (h) Are people using new latrines properly? If not, why?
- (i) Are people using the right amount of water to flush (in pour-flush latrines)? If not, why not?
- (j) Are new owners cleaning and routinely maintaining their latrines properly? If not, why not?
- (k) Are owners satisfied with the latrines? If not, why not?

37. **Examples of findings and solutions:** Some illustrations of findings and resultant management actions follow:

- (a) **Finding:** There has been a considerable drop-out between the time that people indicated interest in the program at a public meeting,

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<sup>5/</sup> In the majority of cases other monitoring activities would supply most of the data needed here. The monitoring of communication activities should, however, pick up any communication system-related causes for the findings.

signed up formally at the sales center, and went ahead with building a latrine.

**Reason:** While some attrition is normal, this case exceeded expectations. However, monitoring had not picked up any specific causes. It **did** show that most of those who had dropped out were from lower income families in the area. In-depth probings were conducted with 20 households which had dropped out (not even a sample--just the first 20 able to be contacted). They all included in their reasons for dropping out the fact that they later discovered that the latrine would cost them much more up-front than they had thought initially and decided they could not afford one.

**Solution:** Management reviewed the financing plan and made it more advantageous to low-income families. More information on cost of latrines was also built into early communication activities.

- (b) **Finding:** A large percentage of households were not building the superstructure properly, and the thatched roofing was particularly bad, resulting in leakages.

**Reason:** The village sanitation assistants who were responsible for instructing and helping householders with the latrine superstructure were all males, but roof thatching is defined by them as women's work and they were therefore not giving instructions on this aspect.

**Solution:** In subsequent program areas one female and one male sanitation assistant were assigned to each area instead of two males so that they would be familiar with and willing to instruct on both traditional "male" and "female" construction aspects, and could deal more effectively with female and male beneficiaries.

- (c) **Finding:** Monitoring of use among the first families with completed latrines indicated that people were using the latrines for bathing as well as for defecation and pouring the water down the latrine pit.

**Reason:** The majority of houses in the area did not possess bathrooms and the latrine enclosure was attractive because it afforded privacy for bathing.

**Solution:** Design of the latrines was modified to accommodate this practice and the project was amended so as to provide soakaways for bath water adjacent to the initial latrines; meanwhile people were instructed not to pour bathing water down the latrine.

#### **Data Collection for Evaluating Impact of Communications**

38. So far this note has placed emphasis on monitoring, probably an appropriate emphasis in the case of communications activities within low-cost sanitation projects. Nevertheless, evaluation, where it can be included, can be very useful. Its purpose, as already stated, is to find out whether the objectives of the communication support activities are being met. It should also try to assess the extent to which achievement of these objectives can be attributed to communication activities.

**Implications for data collection:**

39. The accurate measurement of the impact of communication activities on overall program success is extremely difficult and problematic, largely due to a variety of compounding variables which are not easy to isolate and control. Since, for example, there are few, if any, proven models for communications success, one cannot predict with great certainty:

- (a) the time it will take for habit change, attitude change, or change of awareness to take place, under the best of conditions;
- (b) the number of different types of communication contacts (radio, film, personal contact, etc) necessary to influence behavior;
- (c) the number of **total** communication contacts required with the same message;
- (d) the best thematic approach to be used to support a particular message (e.g., positive or negative reinforcement);
- (e) the degree to which communication activities alone can modify behavior.

40. In the case of LCS, it is fairly clear that unless the cost of individual units is truly affordable; unless the program delivery mechanisms are working properly; and unless the potential client can in fact adopt LCS in his/her house (renters, for example, must obtain landlord approval), no amount of information will change behavior. In addition, impact is difficult to measure because habit change is difficult to measure. The end-result of a campaign to influence attitudes [the precursor to a habit change which may occur only later, and after the influence attitudes if other, non-communication interventions (e.g., a relative adopting a latrine)] is only changed attitudes - difficult if not impossible-to measure.

Even when measuring something concrete, like latrines, one can never know the degree to which communications influenced adoption unless one compares areas of latrine implementation where no promotion occurs and areas where promotion does occur. Even then, if one finds no significant difference, to what can that lack be attributed - the fact that the prevailing theory of communications is wrong; the fact that one element of the communications program was poorly designed; or the fact that the communications program as a whole was poorly designed?

Thus, the manager wishing to evaluate impact should be very sure to determine most clearly:

- (a) What kind of impact is to be measured.
- (b) What objectifiable indicators can be used to determine that impact.
- (c) What time period is considered sufficient for impact to occur.
- (d) What variables are likely to intervene in the process of communication that may negate potential impact. In terms of practical considerations concerning data collection.

**Questions management might ask:**

40. Management and others outside the immediate project are likely to want to know a number of specific facts from the evaluation data, some of which will repeat monitoring information, except that at this stage they will cover the entire project experience and a longer time span. They may ask, for instance:

- (a) How many families installed sanitary latrines?
- (b) Why did a larger number not do so?
- (c) What percentage of the adopters were from low-income families?
- (d) What percentage of adopters had previously not owned a latrine at all?
- (e) What percentage of adopters completed the superstructure?
- (f) What percentage of households are using the latrine properly?
- (g) Are there certain kinds of household members who are often failing to do so (such as children, the elderly)?
- (h) What are the main reasons for non-use of operating latrines?
- (i) Did the project serve any rented houses?
- (j) (If few were reached) Why were renters so difficult to serve?
- (k) What percentage of households served by the project have maintained latrines in good condition?
- (l) What percentage of households served by the project have emptied latrines themselves; what percentage paid others to do so?
- (m) Has the sludge, when fully digested, often been used for agricultural purposes?
- (n) If not, why not?
- (o) Is the environment noticeably improved?
- (p) Have associated health practices improved in response to health education?
- (q) What problem health habits remain among the area people which might undermine the value of the latrines?

**Examples of findings and solutions:**

41. Some examples of findings of the impact evaluation and what this might mean for future similar programs follow:

- (a) **Finding:** Although it was clear that latrines were being used by almost all families who had acquired them through the program, the condition of traditional defecation sites indicated that these were still in use as well.

**Reason:** Older members of families were still relying on the traditional practices and had not responded to health education and motivation.

**Solution:** In future programs more intensive motivation and education activities should be directed to the elderly community members in order to achieve greater improvement of the environment.

- (b) **Finding:** The incidence of broken traps in pour-flush latrines was greater than that to be expected under normal usage.

**Reason:** Frequently people used sticks to remove blockage, thus damaging the traps.

**Solution:** Future programs should place more emphasis on avoiding blockages (e.g., by not attempting to dispose of sanitary napkins in the latrine) and should include specific instructions to the householder on how to deal with blockages in particular, (not to use sticks or other sharp instruments).

- (c) **Finding:** The program had only reached 30 percent of area households without latrines; over the longer term only a few families of the remaining 70 percent followed the example of their neighbors, with the result that there was little improvement in the environment.

**Reason:** Many families among adopters were dissatisfied with the pour-flush latrines because of their water requirements, since most did not have household water connections and women had to walk a long way to collect water. The water problem was accentuated by the fact that implementation of the program was followed by a period of drought, with severe water shortages. Therefore, in most cases, latrine adopters exerted a negative influence on their neighbors rather than a positive one.

**Solution:** Future programs in this or similar areas which experience severe water shortages should consider technologies other than pour-flush latrines, and consult women more about their technology preferences, particularly if some options being considered would add to their workload.

#### **Data Handling and Analysis**

42. Often data handling and analysis is given too little attention when the monitoring and evaluation systems are planned. Unless serious thought is given to it, necessary data can be omitted, other data collected which is useless, or the data may be presented in such a way that it complicates later processing. A further problem is that often insufficient time is allocated to this later stage of the work.



43. Whatever the approach used for processing, careful editing will be necessary first to make sure that the data is complete and that any mistakes, inconsistencies, 'faking of data' or omissions are caught and corrected in time.

44. Coding should be simplified to the extent possible by pre-coded questions.

45. In the case of monitoring data, it is important to allow for frequent inspections and to keep running totals on key indicators. When monitoring data comes in, some basic tabulation on a sample of it should be done almost immediately, before any more detailed analysis is carried out.

### **Reporting**

46. Reporting procedures need to be defined before the system is designed in detail. The nature of the reports, their timing and frequency, will depend on the audiences. Such audiences should be determined in advance. They are likely to include:

- (a) the central manager of the communication support activities;
- (b) field-level supervisors of such activities and field staff;
- (c) the manager of the low-cost sanitation program;
- (d) any coordinating committee or agency;
- (e) senior officials at ministerial level;
- (f) other agencies interested in the sanitation program; and
- (g) donor agencies.

47. Even the best report will be useless if the decision it was meant to support has already been made. Timing of reports should therefore be agreed with the information users and, once agreed, complied with. Simple information on progress may be required monthly or even weekly, and during the first year of the program. But, usually, the main reports will be presented on a quarterly or semi-annual basis, to coincide with regular "state of the project" reports which bring together various kinds of information, including information on the communication aspect.

48. In reporting, as elsewhere in the monitoring and evaluation system, flexibility needs to be maintained. When there are special, urgent needs (e.g., a request for specific information by the minister or by the donor agency) or particular and unusual problems, a way should be devised for obtaining and presenting such information very rapidly, even if it has to be in a one-page memorandum.

49. In this context, it should be remembered that formal regular reports are not the only way of presenting monitoring and evaluation findings. Other ways include: a brief discussion of specific problems in a memorandum (as above); reports on field trips by management; special briefing reports, as needed; formal and often visual presentations of progress at meetings; and regular updatings of PERT or other charts or graphs.

50. Finally, there are usually differences between monitoring and evaluation in reporting formats. Of the two, evaluation is the more formal and tends to be more rigid--although it should never be completely so.

#### **Common Mistakes and Some General Rules**

51. Common failures in monitoring and evaluation of communication support activities are not very different from those found in monitoring and evaluation of other kinds of activities. They include:

- (a) **over-ambitious monitoring and evaluation systems**, resulting, for instance, in:
  - interference of data collection with other field staff activities;
  - annoyance of area people;
  - overloading of the data analysis and interpretation capabilities;
  - delays in getting necessary information to management.
- (b) **imprecise definitions of specific objectives and indicators** for monitoring and evaluation activities (often at least partly a result of woolly definition of program objectives themselves) resulting in difficulties in assessing whether goals were or were not being achieved;
- (c) **excessive rigidity**, with the result that monitoring and evaluation system modification is not possible when needed, or there is no ready access to information off the regular reporting schedule;
- (d) **poor planning** of later stages of monitoring and evaluation, such as data processing and use of data by management;
- (e) in case of evaluation, making the **time period too short** for some of the impacts (such as health improvements) to be observed;
- (f) **excessive costs**; and
- (g) **faulty interpretation** of results, particularly in the case of evaluation (i.e., in attributing effects to the communication activities).

52. In line with the above, some general rules to follow are:

- Rule 1: Keep the system as simple as possible, that is, monitor and evaluate only what will be useful, and can be used by specific and pre-defined types of people.
- Rule 2: Base monitoring and evaluation on a very carefully specified and generally agreed timetable and objectives, so that all key people are in agreement on what information monitoring and evaluation will make available, and when.
- Rule 3: Make provisions for having data analysis and reporting of findings take place at regular intervals which coincide with key points in the program.
- Rule 4: Whenever possible set up indicators which can be measured through observation of easily verifiable facts or happenings, rather than through questioning of beneficiaries.
- Rule 5: Ensure that the system always provides for finding out why something occurred, or that it is flexible enough to allow rapid back-checking of causes.
- Rule 6: Get the project area people involved as actively as possible in the process.

53. Monitoring and evaluation should therefore be viewed as fairly flexible systems to be approached from a common sense viewpoint. Low-cost sanitation activities, especially the communication support element, call for a certain amount of promotion and tactful presentation at the political levels. While monitoring and evaluation of the latter are important, they should then be approached in a similar manner and, like any innovation, may need to be introduced gradually.

### **Responsibility**

54. Monitoring of communication support should be viewed as an essential aspect of management of the communication activities of low-cost sanitation projects. It should therefore be financed through and carried out by those in charge of implementation of communication activities, although a separate unit may occasionally be set up for the purpose.

55. In case of evaluation, the usual debate is between in-house responsibility and contracting out (for example, to a research organization, a university, or a consulting firm). Most experts agree that at least someone other than those directly responsible for communication activities should be brought in so that the management of these activities themselves and their monitoring performance can also be evaluated.

56. But there are both advantages and disadvantages to contracting out the entire evaluation to an outside entity. On the positive side, it admittedly allows greater objectivity and helps save some, but not all, staff time needed for evaluation. On the negative side, it can lead to less useful focus of the evaluation and a clumsy and indigestible presentation of the

findings. Such findings are often less credible to the responsible agency, although they may appear more so to outsiders. Finally, evaluation by outsiders is of course more expensive.

57. In many cases the best solution to the evaluation dilemma may be to use a special research or evaluation unit within the same agency. This unit could maintain some objectivity and credibility and, at the same time, overcome or minimize some of the other problems of relying on outsiders through closer coordination with project staff and management. This approach also permits better linkage between monitoring and evaluation, which is important.

58. The person or persons in charge of monitoring of communication support and evaluation should combine expertise and commitment and have sufficient status within the agency to allow them to convince those in charge of communication activities to pay attention to the findings. Sometimes, they will need to bring findings to the attention of those in charge of other project activities, such as latrine construction, credit, or operation and maintenance.

#### **Resources Required**

59. Both monitoring and evaluation call for people, time and money. Exactly how much of each will be required varies according to the administrative responsibility for the activities, scope of the activities, and size of the communication activities themselves. Within certain constraints, monitoring and evaluation systems can be designed to fit available resources as well as the reverse.

60. Monitoring, and evaluation where indicated, should be made an integral part of the communication plan and resources committed at the outset. Unless an outside contractor is hired, such resources will include:

- (a) central staff time to design and oversee the activity and discuss findings with the appropriate people;
- (b) field staff time to collect information in addition to their other regular duties, or cost of hiring special data collectors;
- (c) central staff time to prepare and process the data and to write reports;
- (d) cost of reproduction of the data collection and analysis worksheets;
- (e) funds or vehicles and drivers for staff travel to the field for supervision purposes and for travel of any field staff outside normal areas of operation;
- (f) mailing costs for forms, from central to field levels and back; and
- (g) printing and other miscellaneous costs involved in reporting.

61. Before an agency commits itself to this work, it should carefully estimate how much existing staff time will be required for additional activities, and adjust its workload accordingly. As already stated, actual cost of monitoring communication support activities can and will vary. However, normally a reasonably good job could be done for about 5 percent of the total cost of communication activities themselves.

**Monitoring and Evaluation: A Developing State of the Art**

62. It would be misleading to pretend that the preceding pages represent a final work on the subject of monitoring and evaluation of communication support activities. They do not. This type of monitoring and evaluation is still comparatively new in the context of development programs, and there is a considerable amount of disagreement among practitioners. The present note should therefore be viewed as one step in the process of bringing more structure and consistency to the field. But as experience and understanding develops the note should be revised to reflect it.

## DATA COLLECTION PROCEDURES AND SOURCES

1. As the following paragraphs indicate, monitoring and evaluation can use a lot of information from many sources. The procedures and levels at which information is accessed also vary accordingly.
2. **Use of existing background information:** Any available background information on the project areas and people helps to decide what should be monitored or evaluated and assists in interpretation of findings. Such information may also provide a baseline for evaluation, as some idea is needed of what the sanitation situation was prior to implementation of the sanitation project (e.g., in terms of numbers, kinds and conditions of existing latrines, the use of latrines, and people's hygiene habits). However, the time lag between collection of such data and the beginning of implementation needs to be considered. Data may also be unreliable, incomplete or inaccessible. Where existing information is not adequate for purposes of a baseline, then collection of such community level information will have to be the first activity of an evaluation system.
3. **Review of administrative records:** Existing administrative records of the project can provide much of the information required for communication support monitoring. Such records include financial accounts, records of production and distribution of materials; those on staff hiring, training and fielding; records of applications for latrines; contractors' records of works completed; etc. Administrative records can also be useful in evaluation. Administrative records should always be checked before new data is collected through surveys. A good system for accessing, collating and summarizing such data from records is needed or they can become virtually useless.
4. **Analysis of cost data:** If the evaluation is also to give some idea of cost-effectiveness of communication activities, or even of cost per household reached during different stages of the program, then cost data will need to be assembled. These costs may end up being quite different from those estimated during the planning stage. Cost information should usually include: salaries; equipment; travel; per diems; and the design, production and transmission or distribution of media and materials. It should be remembered that costs of communication support are usually higher during the first year of the pilot stage, due to the purchase of equipment, development and refinement of the approach, training of staff, and so on. Since communication support is only one component or activity of a low-cost sanitation program, its cost should be separated from others as far as is possible.
5. **Direct interviews with beneficiaries:** More than likely the records of field workers and their supervisors will still need to be complemented by additional information obtained through direct interviews with at least a small sample of beneficiaries. Group interviews as well as individual interviews should be considered, particularly if qualitative information will suffice. Such information from interviews will be mainly useful for evaluation, or for checking quality of communications and the early response

of area people to them. Much of this type of data could be collected by community workers themselves (where the community has them) except for data intended to monitor the quality of field workers' own activities. Field workers would need some training for their data collection role.

6. Sometimes interviews with beneficiaries will also be required for in-depth probing of the causes of any problems experienced, in which case the number of households directly interviewed could be kept quite small (e.g., twenty representative households who have not completed the superstructure) and complemented by cross-checking with interviews of informants (people in the area who know the situation well and are able to give a less subjective opinion).

7. The way which family members are interviewed and the way questions are asked is also important, particularly where self-reporting of latrine usage, cleaning and/or associated behavior are involved. In such instances it is preferable to use a specific reference period such as "yesterday", "from yesterday morning to this morning", or another time frame, rather than phrase questions in general terms ("usually", "normally", etc.). Specific seasonal distinctions and day/night distinctions may also be necessary.

8. **Interviews of informants and others:** Particularly when serious difficulties arise, it is usually necessary to interview people other than householders themselves. Such other people might be the area contractors, the local engineers, health workers, community leaders, cinema owners or others. This data will help to complete the picture and check on the validity of information obtained from beneficiaries. Quite often, where qualification is not needed, interviewing informants will be less costly than interviewing area people, and may be just as reliable. Sometimes people such as community leaders, health workers and so on, may also form part of the intended audience of the communication activities as well.

9. **Observation:** Observation--usually carried out rapidly--will be needed to complement other ways of obtaining information. This includes observation of latrines during house visits by field workers, or by collectors of evaluation data. General observation of the environment and traditional defecation sites will often also be indicated both during monitoring and evaluation. Monitoring will also need to observe communication activities (public meetings, slide shows, demonstrations, etc.).

#### **In-service Training Activities**

10. **Monitoring and evaluation workshops:** Workshops for project staff can also provide useful data for monitoring and evaluation purposes as can in-service training sessions for field staff or any other such organized meetings of people intimately acquainted with what is happening under the project. Such opportunities should not be wasted, even if they were not in the original monitoring plan.

11. **Case studies:** Case studies can help probe in depth certain selected questions, by describing, usually over a fairly long period of time, what is happening among a few households or in one small area or sub-area of the project. They can also be simply exploratory case studies designed to give a description of the process involved. Even these can often be helpful in explaining the more quantitative findings, or suggest where to start looking for causes if major problems arise.







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