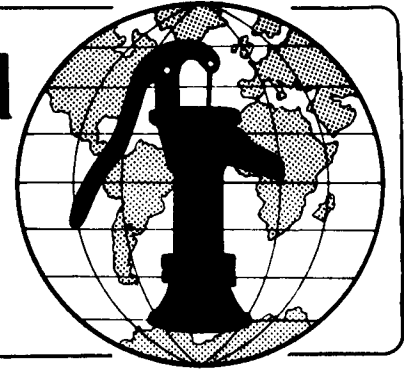


Water for the World

Community Participation in Implementing Water Supply and Sanitation Programs Technical Note No. HR. 2.I



The community plays very important roles in the implementation of its water and sanitation system. Once a project plan has been agreed upon by the community and the action agency, preparation for constructing the system should begin according to the work schedule proposed. The community, probably through its village committee, will work with the construction supervisor in organizing labor, keeping track of local contributions, arranging the procurement and storage of materials and equipment, and learning technical skills. The community will work with health workers in community health education and project promotion. The village water committee plays an important organizational role during the construction period.

There are many advantages to community members constructing their own water and sanitation system under expert guidance. Individual members of the community, both women and men, will learn trades or technical skills which will benefit the community in future projects. Project costs will be considerably lower if local labor, especially local volunteer labor, is used in place of paying skilled workers from outside the community. The community, especially the construction workers, will gain an understanding of the system as they put it together. Future operation and maintenance personnel can be chosen from those who understand the system best. In addition, a sense of ownership and pride is likely to be created in a community that has helped develop its own system. Such feelings will help the system be accepted and properly used and maintained by the community as a whole.

Before construction begins, it is very important that the action agency, the community water and sanitation committee, community leaders and the community as a whole understand the division of responsibilities, the supervisors' roles, the workers' roles, the list of tasks to be done, the timetable, and the line of communication for problems and progress reports. This should have been determined during the project planning stages and should be part of the official agreement. Refer to "Community Participation in Planning Water Supply and Sanitation Programs," HR.2.P.

A meeting before construction begins can serve as a review of agreements made earlier, especially if very much time has elapsed between phases. All this information should be made available to the whole community at public meetings and through traditional public announcements. Be careful that local involvement in construction is understood so that no overburdening of available resources, labor and time develops, resulting in poor standards of construction, loss of local interest, construction delays or local conflicts. Public gatherings are good opportunities for reviewing the benefits, use and maintenance of a system. Household and community hygiene education combined with technical information will re-establish the importance of a good water and sanitation system.

Role of the Construction Supervisor

The construction supervisor will be in charge of organizing and overseeing the building of the water and sanitation system. He will probably be from

outside the village and hired by the agency. This person must have a clearly defined management role so that he or she will have community support in dealing with any organizational problems. The supervisor must be acceptable to both the action agency and the villagers, have proper technical knowledge of water and sanitation systems, and be especially sensitive to the culture and the needs of the community.

Before construction begins, the supervisor must arrange for parts and material which will have to be purchased or constructed outside the community. These should have been determined in the planning phase. The supervisor should be responsible for working with the committee to make warehouse arrangements for tools, small equipment, fittings and other supplies and storage for large materials and equipment. The construction supervisor should work with the water committee to schedule construction. Work must be scheduled according to:

- material delivery (for example, pipe trenches should not be dug and open before pipes arrive),
- seasons and weather,
- harvesting and other community work patterns,
- holidays (religious, national, local),
- technical requirements.

The supervisor should determine the type and amount of training workers will need to complete the tasks listed in the planning phase. Provisions should be made to equalize the value of different tasks such as volunteer labor, cash payments and food contributions. Before each task is begun, or at the start of each day, the construction supervisor should brief workers on the task, the workers' construction duties, and the function of the piece to be constructed.

Role of Village Water and Sanitation Committee During Construction

The village committee can play a very important organizational role during construction. It should work closely with the construction supervisor to organize labor, arrange the storage of equipment, tools, vehicles and materials, and arrange the transportation of supplies within the community. If possible, a committee member who has experience in accounting should keep the financial ledgers during the construction period. Ledgers should be open to public inspection. Committee members should work closely with health educators to explain proper water use, environmental sanitation and personal hygiene so that community understanding of the purpose of a water and sanitation system will develop along with the workers' technical skills. It is very important that the village committee continue project promotion through the construction phase.

Role of Community Bookkeeper

The bookkeeper should maintain careful accounts of all local contributions. Balances for all recognized contributions, including cash, labor, materials, food, shelter, land, and water rights should be established. The agency should help the local bookkeeper set up books and provide instruction in these responsibilities. The local water and sanitation committee treasurer may also be the system bookkeeper.

Cash can be collected by the water committee to offset building costs and any outside labor costs necessary. Simple records should be kept of attendance of workers and construction expenses. Upon completion, the bookkeeper should calculate final project costs, set up financial repayment schedules, and review the terms of any loans or payments necessary with the rest of the water and sanitation committee and with the action agency.

Operation and Maintenance Personnel

One method of choosing operation and maintenance personnel is to use the construction period to select and begin training those who perform well. During the construction phase, the selected personnel will learn what the system is made of, how it is put together, and how it works. With this experience, they can understand and perform the work that will be expected of them later. Operation and maintenance personnel should be from the village. The future of the system will depend on their understanding of their duties and responsibilities and on their dedication to their assignment.

The number of people needed to operate and maintain a water supply or sanitation system depends on the size, complexity and sophistication of the system. One supervisor is usually adequate for small simple systems. More personnel may be needed if distribution systems, pumping stations or water treatment plants are included. Training several operators assures fuller coverage. Refer to "Methods of Operation and Maintenance Training," HR.3.M.

Training in household hygiene and sanitary use of household facilities should continue for household managers and mothers both during system construction and after the system is in use.

Upon Completion

When construction is completed, an inventory should be made of the installation. Detailed plans indicating the various pipelines, valves, equipment and other parts of the system should be recorded. Complete specifications should be included for all equipment, as well as manuals for operation, maintenance and spare parts. The village water committee should maintain a copy of these plans, as should the operation and maintenance personnel and the action agency's regional office.

Spare parts for the system should be carefully labeled, listed and stored. Some will be kept at the village and others at the action agency's office. Both groups should keep a list of materials and equipment stored by the other.

A construction period may be begun or finalized by a traditional ceremony to make it the community's own. Such a ceremony can transfer responsibility for the system from the construction supervisor or action agency to the operation and maintenance personnel, the health education team in the village and the water and sanitation committee. Before a dedication ceremony, a supervising engineer should approve the system. The action agency should explain possibilities for upgrading or extending the system in the future, if this is appropriate.

After the installation of a water supply system or excreta disposal facility is complete, monthly reports on the operation of the system by the operation and maintenance supervisor and periodic inspections by the project promoter from the action agency must be made. Refer to "Implementing Operation and Maintenance Training," HR.3.I.1.