



Operation and maintenance - the WHO toolkit

Malcolm Farley, UK



THE WORLD HEALTH Organisation (WHO) Operation and Maintenance Working Group (the Group) was launched at the Water Supply and Sanitation Collaborative Council (the Council) meeting at The Hague, in 1988. The Group's mandate was to initiate cooperation between external support agencies and developing countries, enabling them to develop tools and methodologies for improving their operation and maintenance (O&M) procedures. This would in turn optimise the efficiency of their water supply and sanitation services. Since the Oslo meeting The Group has met annually and has identified the key factors which are directly related to the performance of O&M and to the efficiency of services. The Group is now in a strong position to influence institutions and policy makers, and is ready to disseminate the results of its activities and tools.

Aims and scope of work

The Group's aims are to Promote the improvement of O&M in water supply and sanitation services, and to raise the level of awareness of its benefits. Its scope of work includes raising the profile of O&M through presentations, conferences and workshops, and by promotional literature, consolidating the available guidelines, manuals and training packages, and improving O&M by developing and applying new ones. It also aims to encourage exchange of information within a network of key players, led by members of the Group, and to guide practitioners in the practical application of the tools.

Activities and outputs

The Group has been active in preparing a number of tools - guidelines, manuals and training packages. Some of these are fully developed and have been tested, others are still in various stages of preparation, but all tools are intended to be used as an integrated package for optimising O&M services. The principal tools are:

Case Studies

Group members have produced 22 case studies describing their experience of different projects and concepts of operation and maintenance. The studies have been compiled into one document, which has been distributed to interested agencies. The document has been translated into French and is now in the process of being translated into Portuguese.

Status assessment

Developed as a response to the lack of sufficient guidelines for assessing O&M services in both urban and rural areas, this tool combines a literature and information database with a methodology for assessing O&M status. The tool is now being tested in selected countries.

A guide for Managers

This document examines the factors which may prevent systems working efficiently, and provides guidelines and solutions for optimisation. The same principles can be used to extend optimisation to fringe and poor areas. The guide was published in 1994 as an official WHO publication.

Leakage control training package

This training and resource package provides another link in the chain of system optimisation. It adopts a logical and "user- friendly" approach to training water practitioners at a range of levels, from senior managers to leak inspectors. Each module can be varied in content depending on the depth of knowledge required for a particular level of trainee. The package is now being reviewed by Group members and leakage experts prior to distribution.

Optimising water treatment plants

A practical approach to the improvement of water treatment plant performance, this document summarises the field experience in upgrading and improving a wide range of water treatment plants throughout the developing world. The guidelines show how both capacity and water quality of plants can be improved. A second draft has been prepared.

Training package on O&M management in rural areas

Developed for raising the level of training and for optimising the scarce resources for training activities in developing countries, this package provides hands-on material for conducting a course. The material can be adapted to local situations and makes use of local resource persons. The package has been tested in Namibia, and the findings used to prepare the final version, which is available for use by external support agencies or water agencies in developing countries. A French version is

available now, and the package is currently being translated into Portuguese.

Models of management systems

This document evaluates the factors which influence the development of O&M management systems for rural water supply and sanitation facilities in developing countries. It describes models in eight representative countries and offers guidance to planners and designers in selecting the most appropriate one. The document is available in French and will shortly be translated into Portuguese.

Technology choice

A manual for guiding the selection of technology for O&M is being developed. The tool aims to inform users of the O&M implications, particularly cost factors, of selecting a particular technology. A first draft has been discussed by the Group and the scope of work agreed.

Network survey

This is a new activity. The Group's aim is to prepare a manual on measurement and monitoring techniques for use in the field, to gain a better understanding of how a network is operating.

Future activities

The Group has now reached a stage where it has successfully developed a number of tools to service the identified needs. The next stage is to consider their application. At its 1995 meeting the Group considered the key actions needed for developing a Strategy for the integrated application of tools at country level, notably the mechanism for promoting the work and activities of the Group, and the dissemination and implementation of the toolkit. Promotion will be achieved via advocacy papers and information sheets, by posters and exhibitions, and by presentations at conferences and seminars. Actions to disseminate the activities and tools of the Group include development and support of training initiatives and programmes, and providing guidelines for training centres to follow. To demonstrate the use and results of its tools the Group will organise an implementation project, initially at city level to maximise technical support and to ensure success.

Delegates who wish to assist with the promotion and implementation of the WHO toolkit are welcome to contact the author for more information.