Water for the World

Overview of Sanitation
Technical Note No. SAN. G

The technical notes on sanitation are divided into three series as shown on Table 1: SAN.1 - Simple Excreta and Washwater Disposal; SAN.2 - Combined Excreta and Washwater Disposal; and SAN.3 - Solid Waste Disposal. Within each series, the technical notes are organized according to methods (M), planning (P), design (D), construction (C), and operation and maintenance (O). All technical notes have both a title and a number within each category indicating where they fit on Table 1. For example, SAN.2.P.3, "Determining Soil Suitability," is part of the Combined Excreta and Washwater Disposal series (2), discusses planning (P), and is the third technical note (3) in the 2P series. See "Overview of Water and Sanitation System Development," HR.G, for a full discussion of the organization of the technical notes and a list of all of them. The sanitation technical notes are listed at the end of this note.

If possible, the technical notes should be read and used in order of methods, planning, design, construction, and operation and maintenance. This will give the reader a thorough understanding of the subject covered and allow him or her to proceed with the activity in an orderly manner. The methods, planning and design technical notes were written for people with some experience with sanitation systems who are responsible for project design and decision-making. The construction and operation and maintenance technical notes, in most cases, may be used by people with less experience since these activities require little or no decision-making. Thus, the construction and operation and maintenance technical notes may be used by someone who is carrying out their tasks, but is working under another person who has consulted the methods, planning and design notes for that particular project.

Sources of Further Information

The books listed below will be useful to those interested in further reading on the subjects covered by the technical notes on sanitation.

Appropriate Sanitation Alternatives: Field Manual, 1980. The World Bank, 1818 H Street, N.W., Washington, D.C. 20433 U.S.A.

Bamboo as a Building Material, F.A. McClure, 1953. U.S. Department of Agriculture, 14th and Independence Avenues, S.W., Washington, D.C. 20250 U.S.A.

Community Wastewater Collection and Disposal, D.A. Okun and G. Ponghis, 1975. World Health Organization, Av. Appia, 1211 Geneva 27 Switzerland.

Compost, Fertilizer and Biogas Production from Human and Farm Wastes in the People's Republic of China, edited by Michael G. McGarry and Jill Stainforth, 1978. International Development Research Center, Ottawa, Canada.

Composting: Sanitary Disposal and Reclamation of Organic Wastes, Harold B. Gotaas, 1956. World Health Organization, Av. Appia, 1211 Geneva 27 Switzerland.

Excreta Disposal for Rural Areas and Small Communities. E.G. Wagner and J.N. Lanoix, 1958. World Health Organization, Av. Appia, 1211 Geneva 27 Switzerland.

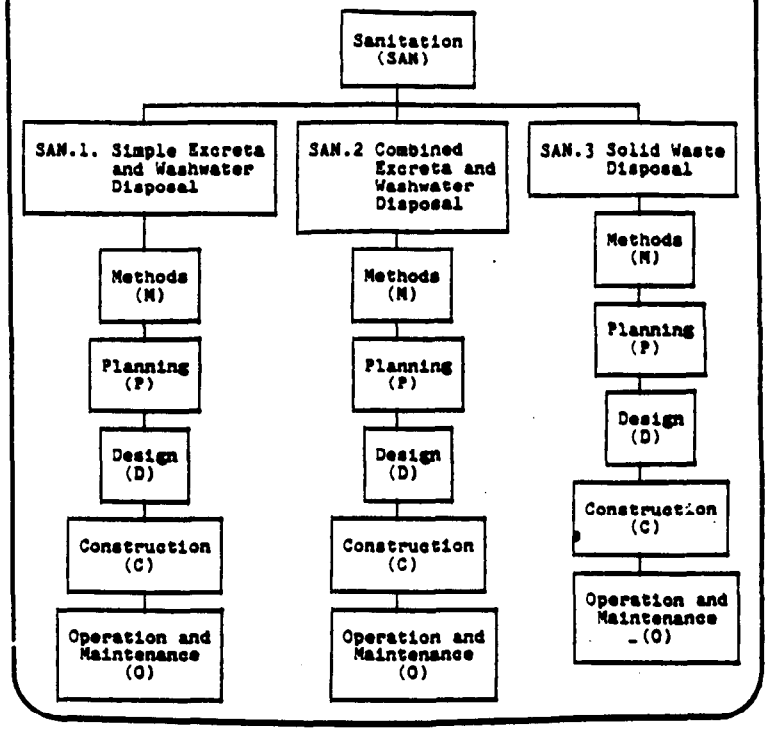
Management of Solid Wastes in Developing Countries, Frank Flintoff, 1976. World Health Organization, Av. Appia, 1211 Geneva 27 Switzerland.

Sanitation Without Water, Uno Winblad, 1980. Swedish International Development Authority, Stockholm, Sweden.

Small Excreta Disposal Systems, Richard Feachem and Sandy Cairncross, 1978. The Ross Institute of Tropical Hygiene, London School of Hygiene and Tropical Medicine, Keppel Street, Gower Street, London WC1E 7HT United Kingdom.

State of the Art Manual of On-Site Wastewater Management, 1979. National Environmental Health Association, 1200 Lincoln Street, Suite 704, Denver, Colorado 80203 U.S.A.

Table 1. Organization of Sanitation Technical Notes



List of Technical Notes

The following is a list of all the technical notes on sanitation.

SANITATION

SAN.G Overview of Sanitation

SAN.1 Simple Excreta and Washwater Disposal

Methods

SAN.1.M.1 Simple Methods of Excreta Disposal

SAN.1.M.2 Simple Methods of Washwater Disposal

Planning

SAN.1.P Planning Simple Excreta and Washwater Disposal Systems

Design

SAN.1.D.1 Designing Slabs for Privies

SAN.1.D.2 Designing Pits for Privies

SAN.1.D.3 Designing Privy Shelters

SAN.1.D.4 Designing Aqua Privies

SAN.1.D.5 Designing Bucket Latrines

SAN.1.D.6 Designing Compost Toilets

Construction

SAN.1.C.1 Constructing Slabs for Privies

SAN.1.C.2 Constructing Pits for Privies

SAN.1.C.3 Constructing Privy Shelters

SAN.1.C.4 Constructing Aqua Privies

SAN.1.C.5 Constructing Bucket Latrines

SAN.1.C.6 Constructing Compost Toilets

SAN.1.C.7 Constructing, Operating, and Maintaining Sumps, Soakage Pits, and Trenches

Operation and Maintenance

SAN.1.O.1 Operating and Maintaining Privies

2 3 NONE

SAN.1.O.4 Operating and Maintaining Aqua Privies

SAN.1.O.5 Operating and Maintaining Bucket Latrines

SAN.1.O.6 Operating and Maintaining Compost Toilets

SAN.2 Combined Excreta and Washwater Disposal

Methods

SAN.2.M Methods of Combined Washwater and Excreta Disposal

Planning

SAN.2.P.1 Planning Combined Washwater and Excreta Disposal Systems

SAN.2.P.2 Estimating Sewage or Washwater Flows

SAN.2.P.3 Determining Soil Suitability

Design

SAN.2.D.1 Designing Subsurface Absorption Systems

SAN.2.D.2 Designing Cesspools

SAN.2.D.3 Designing Septic Tanks

SAN.2.D.4 Designing Sewer Systems

SAN.2.D.5 Designing Stabilization Ponds

SAN.2.D.6 Designing a System of Stabilization Ponds

SAN.2.D.7 Designing Mechanically Aerated Lagoons

SAN.2.D.8 Designing Non-Conventional Absorption Disposal Systems

Construction

SAN.2.C.1 Constructing, Operating and Maintaining Subsurface Absorption Systems

SAN.2.C.2	Constructing Cesspools
SAN.2.C.3	Constructing Septic Tanks
SAN.2.C.4	Constructing Sewer Systems
SAN.2.C.5	Constructing Stabilization Ponds
SAN.2.C.7 (6-NONE)	Constructing Mechanically Aerated Lagoons
SAN.2.C.8	Constructing, Operating and Maintaining Non-Conventional Absorption Systems

Operation and Maintenance

SAN.2.O.3 (½ NONE)	Operating and Maintaining Septic Tanks
SAN.2.O.4	Operating and Maintaining Sewer Systems
SAN.2.O.5	Operating and Maintaining Stabilization Ponds
SAN.2.O.7 (6 NONE)	Operating and Maintaining Mechanically Aerated Lagoons

SAN.3 Solid Water Disposal

Methods

SAN.3.M	Methods of Solid Waste Management

Planning

SAN.3.P	Planning Solid Waste Management Systems

Design

SAN.3.D.1	Designing a Landfill
SAN.3.D.2	Designing a Composting System
SAN.3.D.3	Designing a Solid Waste Collection System
SAN.3.D.4	Designing a Biogas System

Construction

SAN.3.C.4	Constructing a Biogas System

Operation and Maintenance

SAN.3.O.1	Operating and Maintaining a Landfill
SAN.3.O.2	Operating and Maintaining a Composting System
SAN.3.O.3	Operating a Solid Waste Collection System
SAN.3.O.4	Operating and Maintaining a Biogas System

Technical Notes are part of a set of "Water for the World" materials produced under contract to the U.S. Agency for International Development by National Demonstration Water Project, Institute for Rural Water, and National Environmental Health Association. Artwork was done by Redwing Art Service. Technical Notes are intended to provide assistance to a broad range of people with field responsibility for village water supply and sanitation projects in the developing nations. For more detail on the purpose, organization and suggestions for use of Technical Notes, see the introductory Note in the series, titled "Using 'Water for the World' Technical Notes." Other parts of the "Water for the World" series include a comprehensive Program Manual and several Policy Perspectives. Further information on these