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PROGRAMME ON EXCHANGE AND TRANSFER OF INFORMATION

POETRI

INTERMEDIATE THESAURUS ON COMMUNITY WATER SUPPLY AND SANITATION
FOR DEVELOPING COUNTRIES



WATER RESEARCH CENTRE



INTERNATIONAL REFERENCE CENTRE
FOR COMMUNITY WATER SUPPLY
AND SANITATION

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Introduction

This thesaurus has been constructed to provide a controlled vocabulary for use in the indexing, storage, and retrieval of documentation in small and middle scale information systems in developing countries, in the context of POETRI (the Programme on Exchange and Transfer of Information initiated by the International Reference Centre for Community Water Supply), with the aim of improving the capacity of the participating countries to absorb scientific and technical information from elsewhere and facilitating cooperation between countries by the efficient exchange and transmission of information on relevant knowledge and experience.

The thesaurus will also provide the descriptors to be added to each abstract, and used in the subject index, for the POETRI abstract journal. The subjects covered include all aspects of community water supply and sanitation in developing countries and the thesaurus will therefore give guidance in the selection of material for the abstract journal.

The number of descriptors has been kept to a minimum (about 1800), with the intention that more specific concepts should be represented by a combination of descriptors.

The spelling of terms is based on Webster's New Collegiate Dictionary, and no cross references have been provided for alternative spellings. The user should note particularly the use of "f" in preference to "ph" in chemical names such as sulfur; and the use of "e" in preference to "ae" in stems such as fec-(faec-) and hemo-(haemo-), since this can have a considerable effect on the alphabetical order.

The collating sequence is word-by-word, where all terms beginning with a given complete word precede any terms beginning with the same sequence of letters as part of a word. This presents a problem with terms which are sometimes written as separate words and sometimes combined into a single word, for example "ground water" and "groundwater", since this can affect the position in the list; while every effort has been made to determine and apply the most usual form, in these cases the user is requested, if necessary, to look in the alternative position.

The thesaurus is constructed to show:

- (i) equivalence relations, which are indicated by
USE = use what follows
or UF = used for;
- (ii) hierarchical relations, which are indicated by
BT = broader term (or superordinated, more general concept);
and NT = narrower term (or subordinated, more specific concept);
- (iii) associative relations, indicated by
RT = related term (concept related in an unspecifiable
non-hierarchical manner).

In a few cases, where necessary to clarify or explain the intended use of a descriptor, a scope note has been added in brackets.

Terms followed by the instruction USE should not be used for indexing purposes but substituted according to this instruction. These terms are synonyms (terms with the same or almost the same meaning) or quasi-synonyms (terms which although differing in meaning are to be considered as synonyms for the present documentation system).

In the interest of compactness, some attempt has been made to avoid unnecessary repetition. Therefore, to obtain all aspects of a particular concept, it will sometimes be helpful to treat the narrower terms (NT) as an indication of further entry points to the thesaurus where additional terms may be found.

This thesaurus is being introduced at the beginning of the International Drinking Water Supply and Sanitation Decade and will be updated when necessary. Comments and suggestions for modifications and additions to be incorporated in future listings will be welcomed.

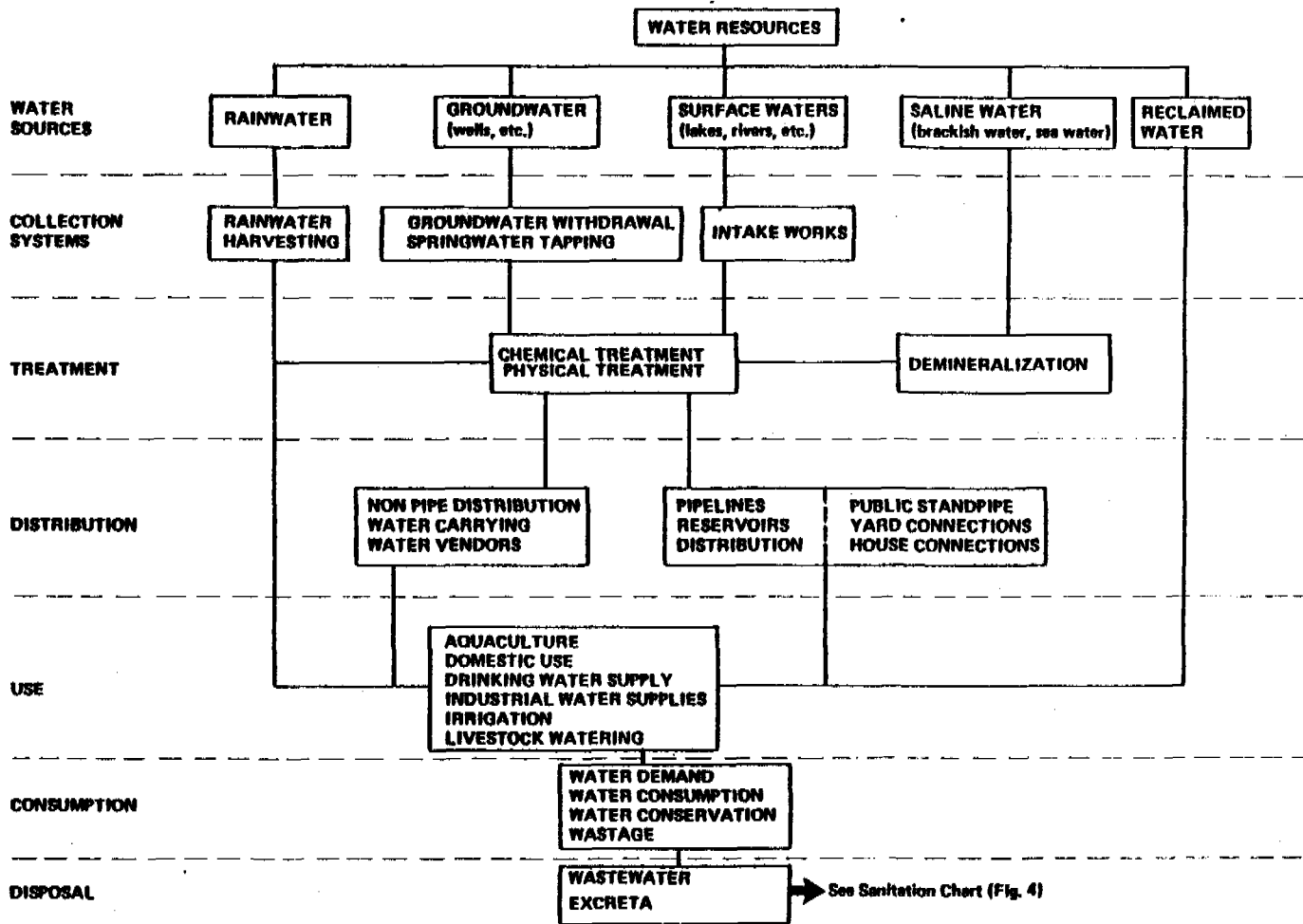


Fig. 1.

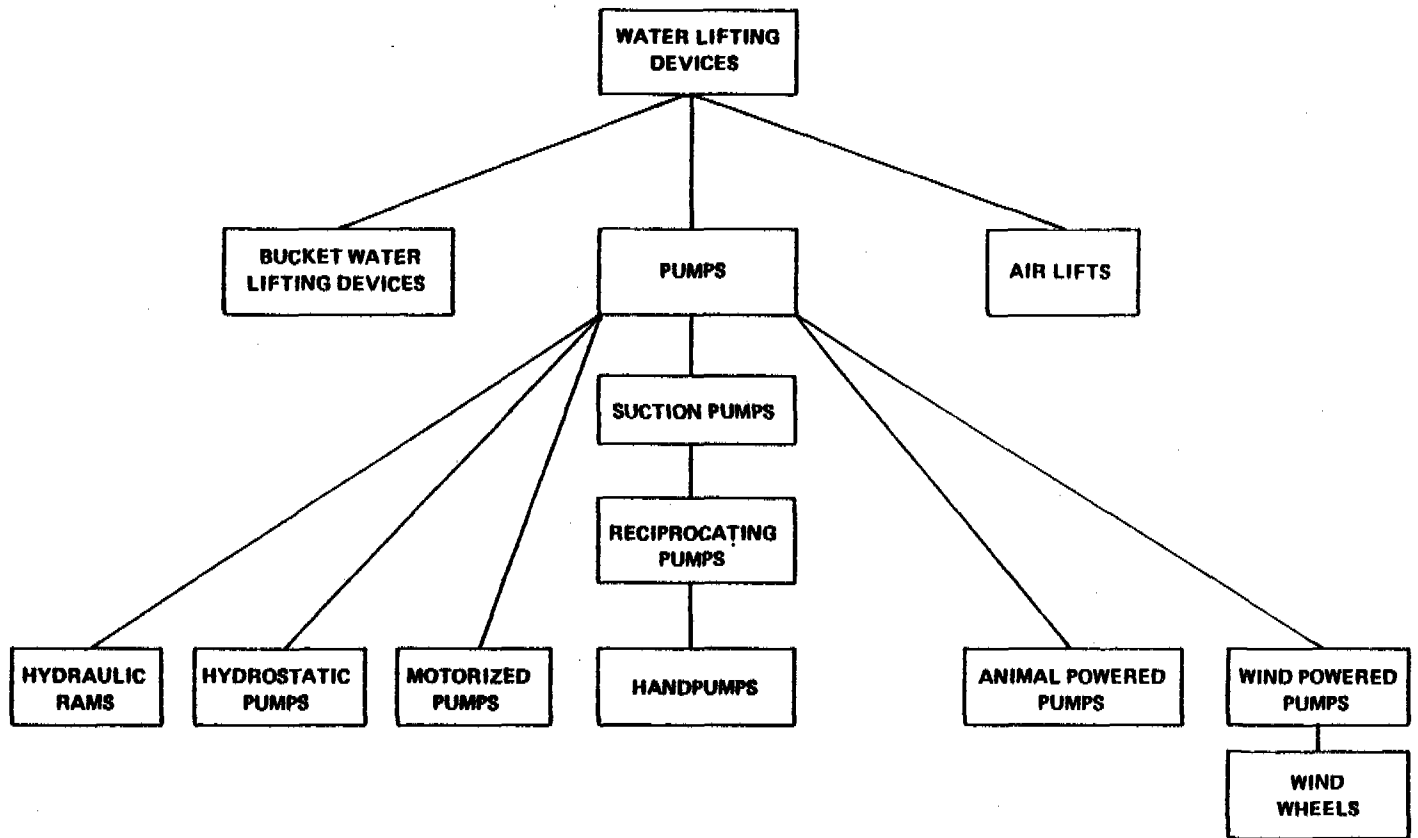


Fig. 2.

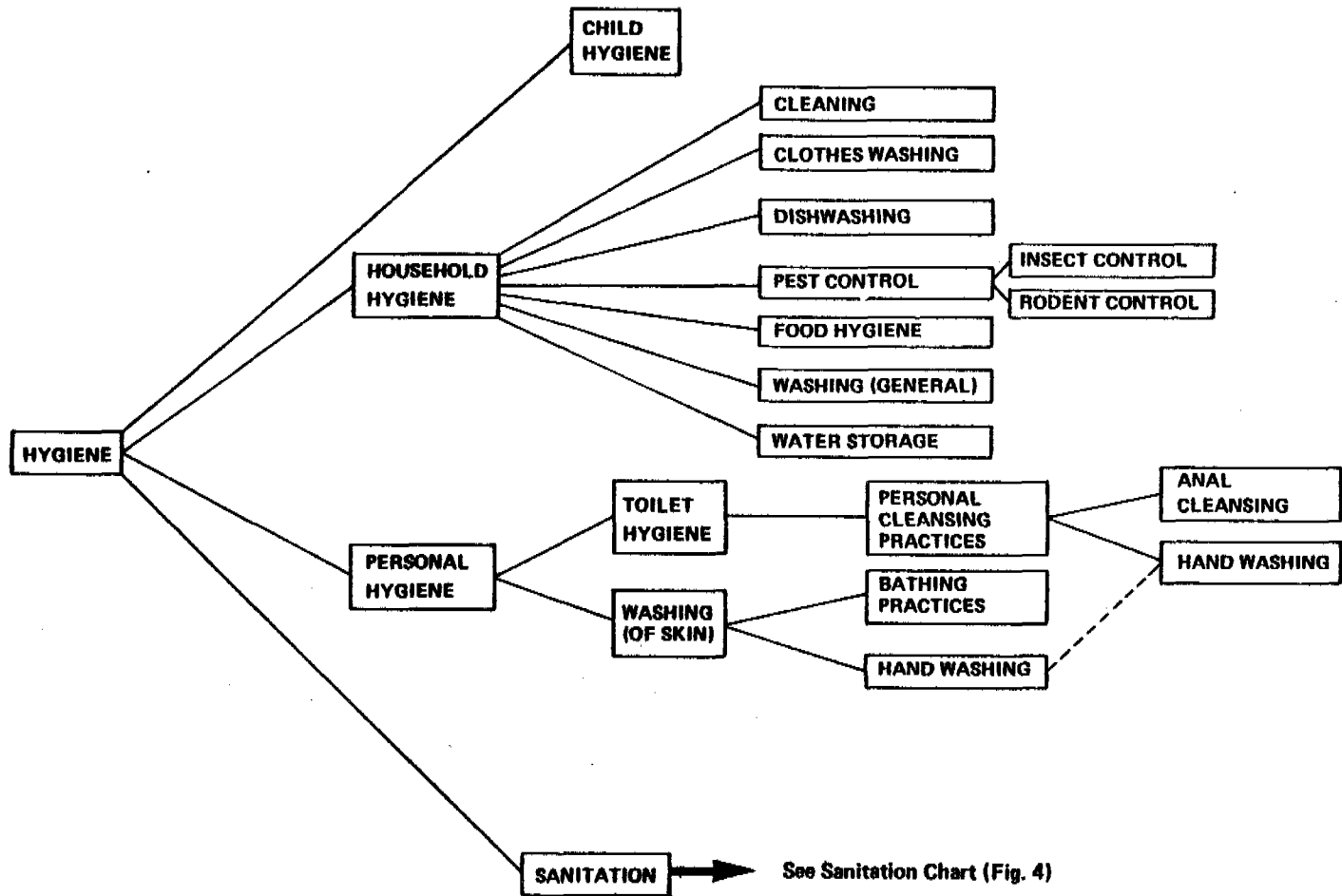


Fig. 3.

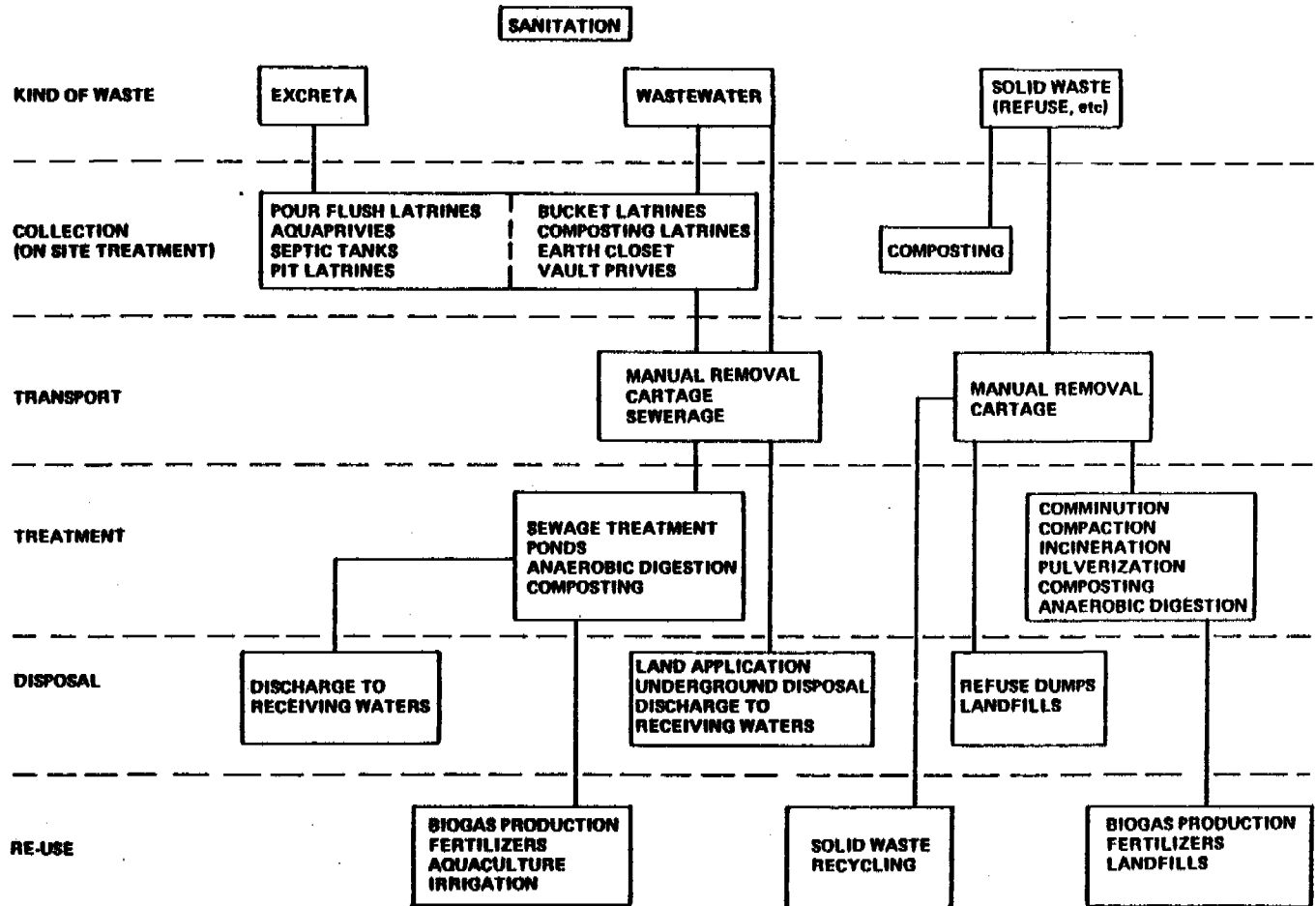


Fig. 4.

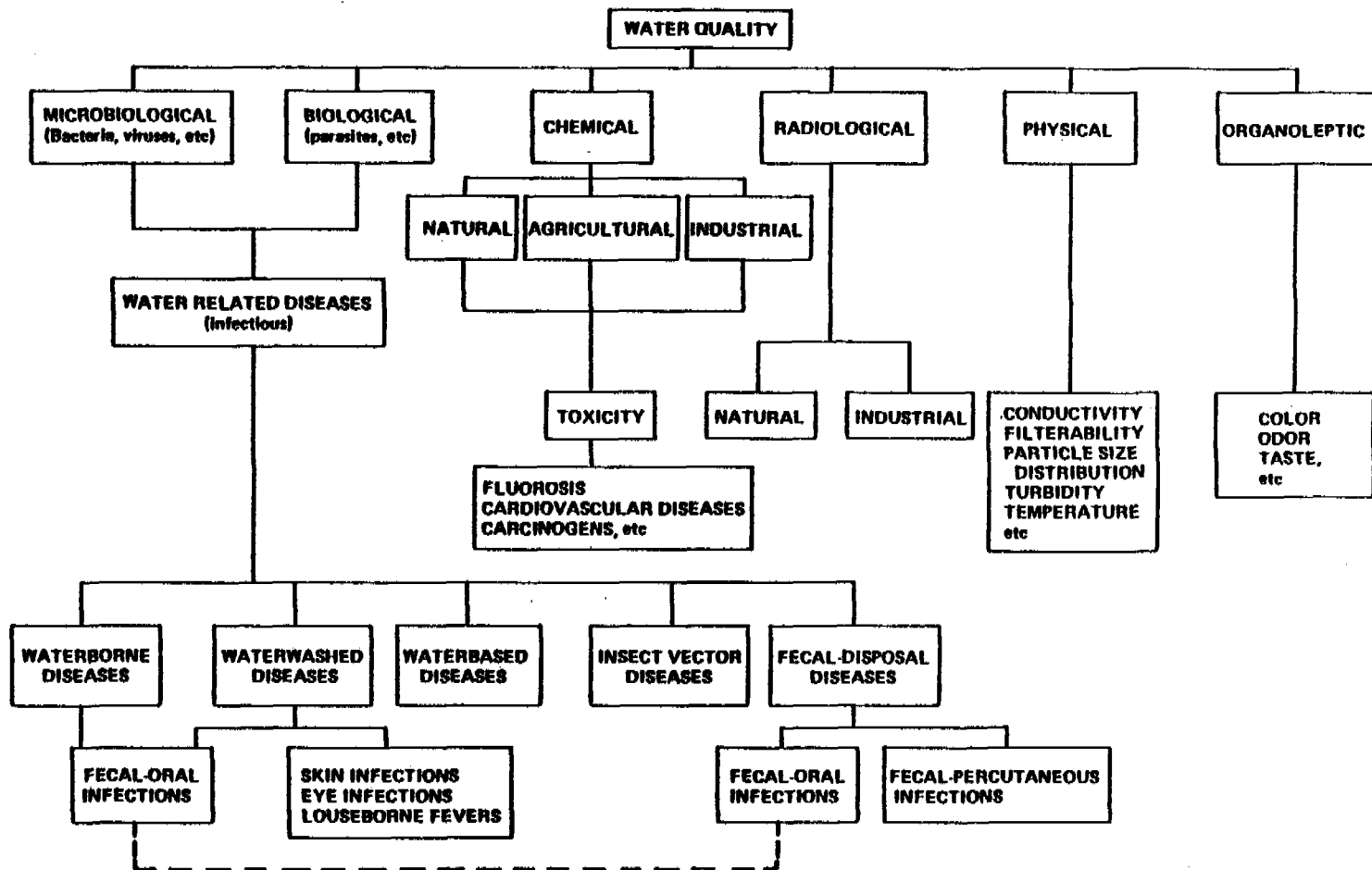


Fig. 6.

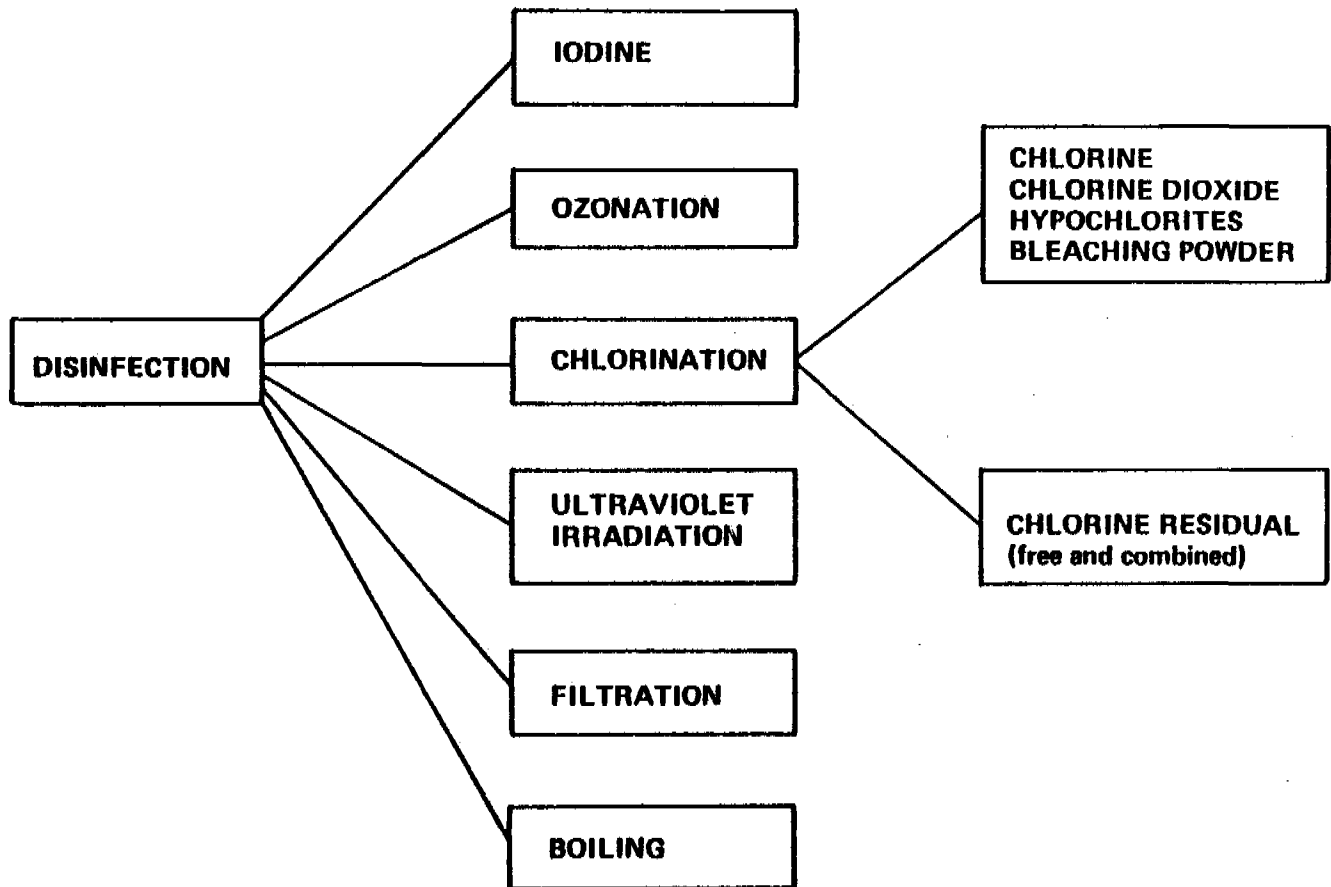


Fig. 6.

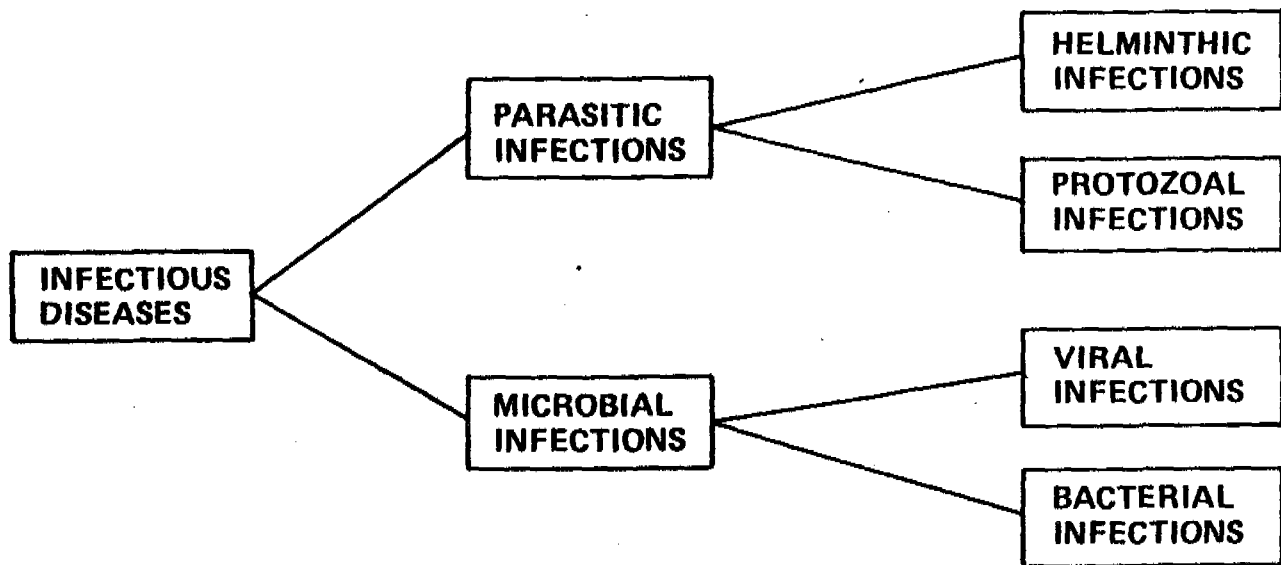


Fig. 7.

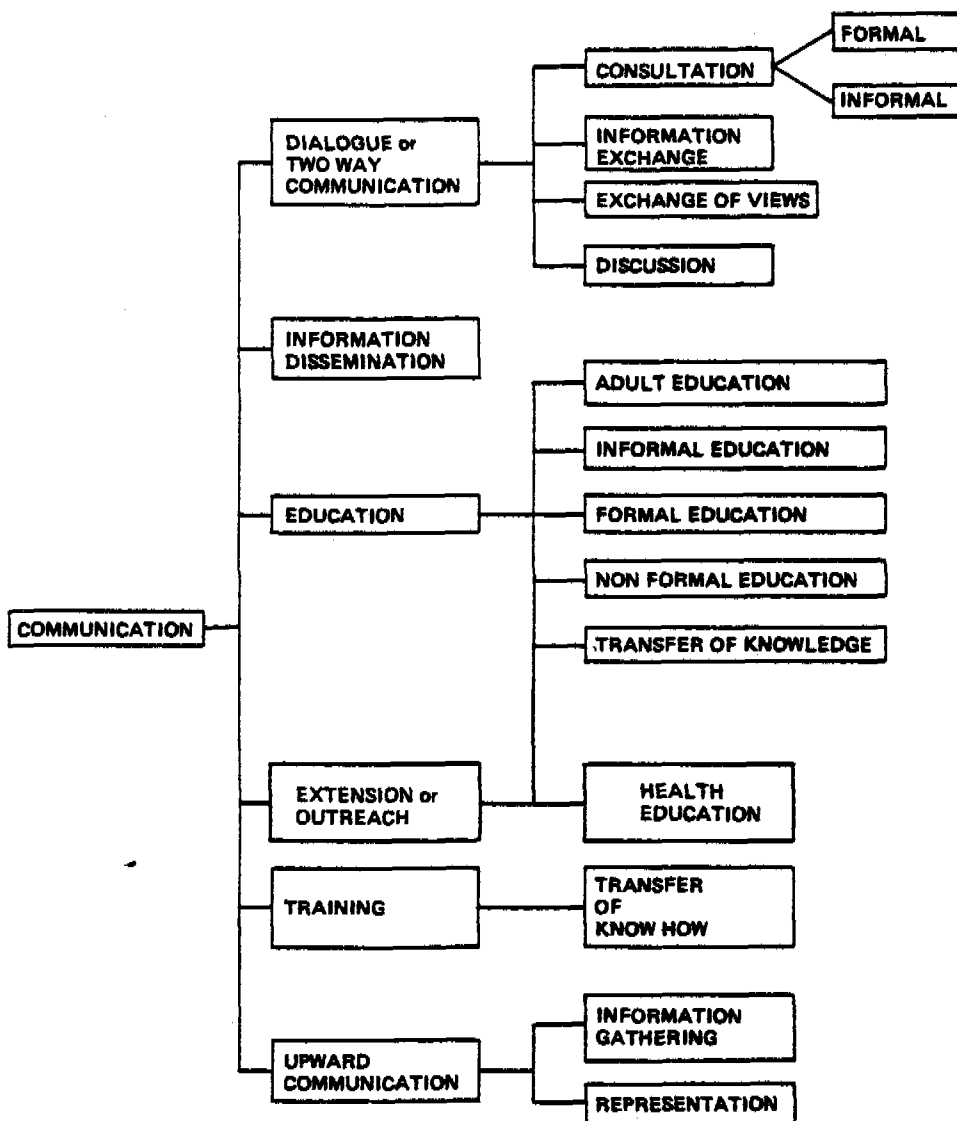


Fig. 8.

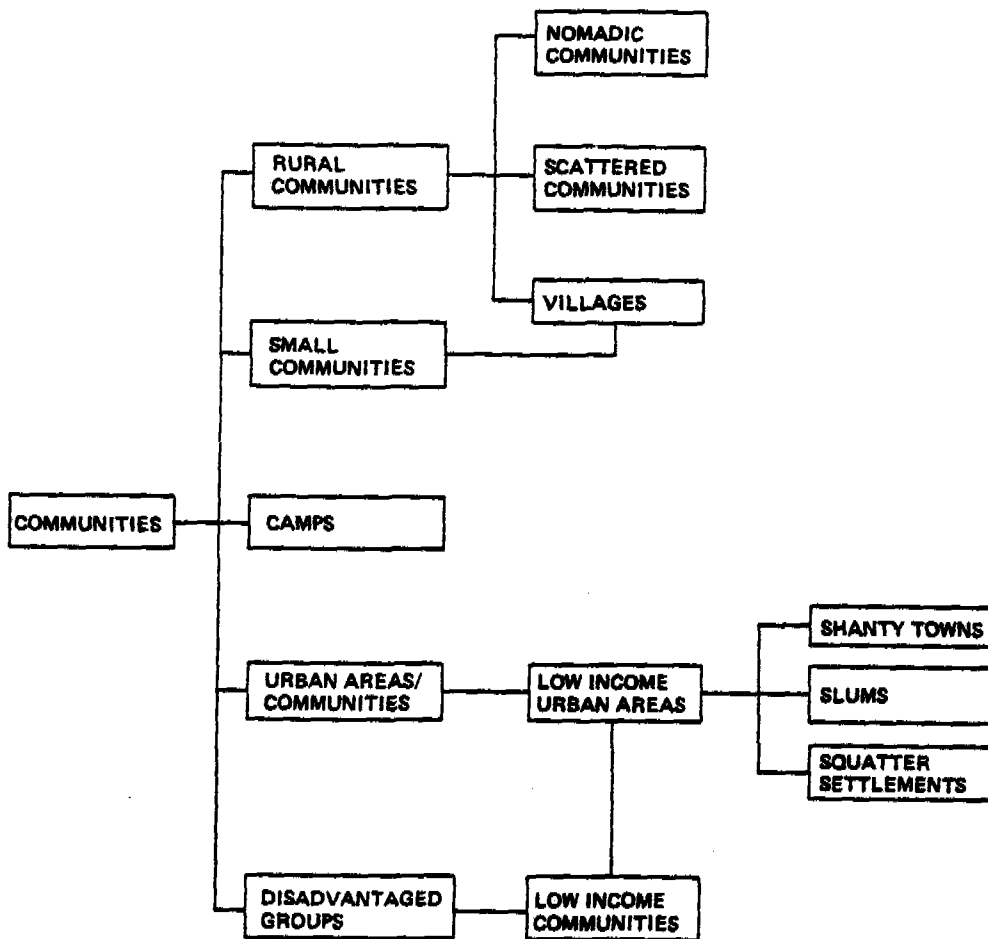


Fig. 9.

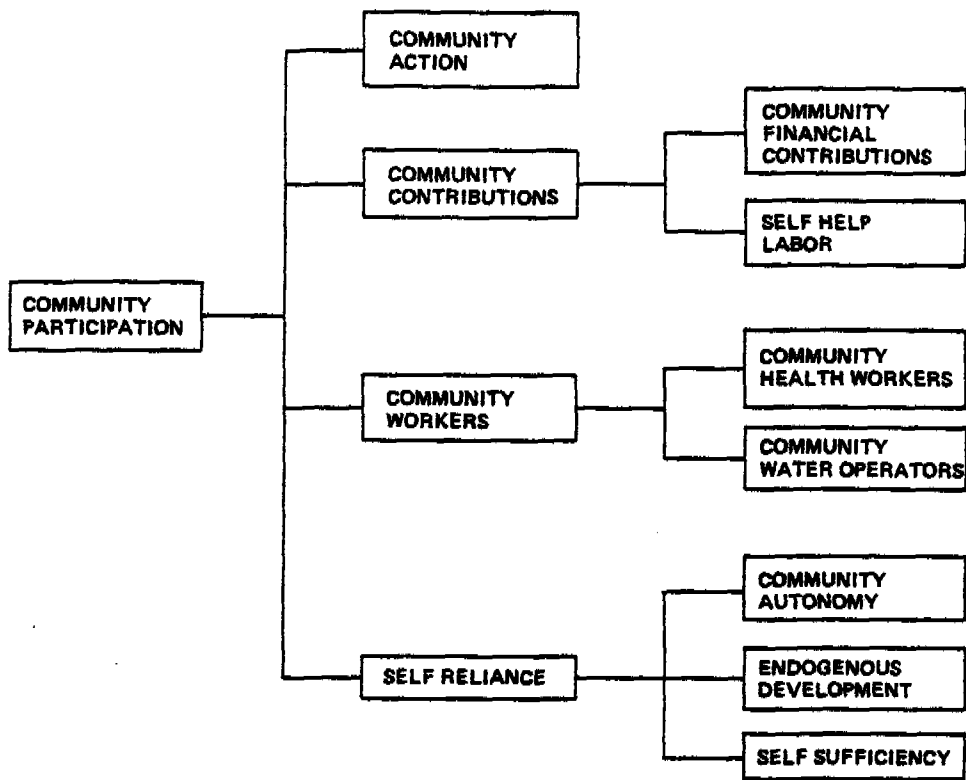


Fig. 10.

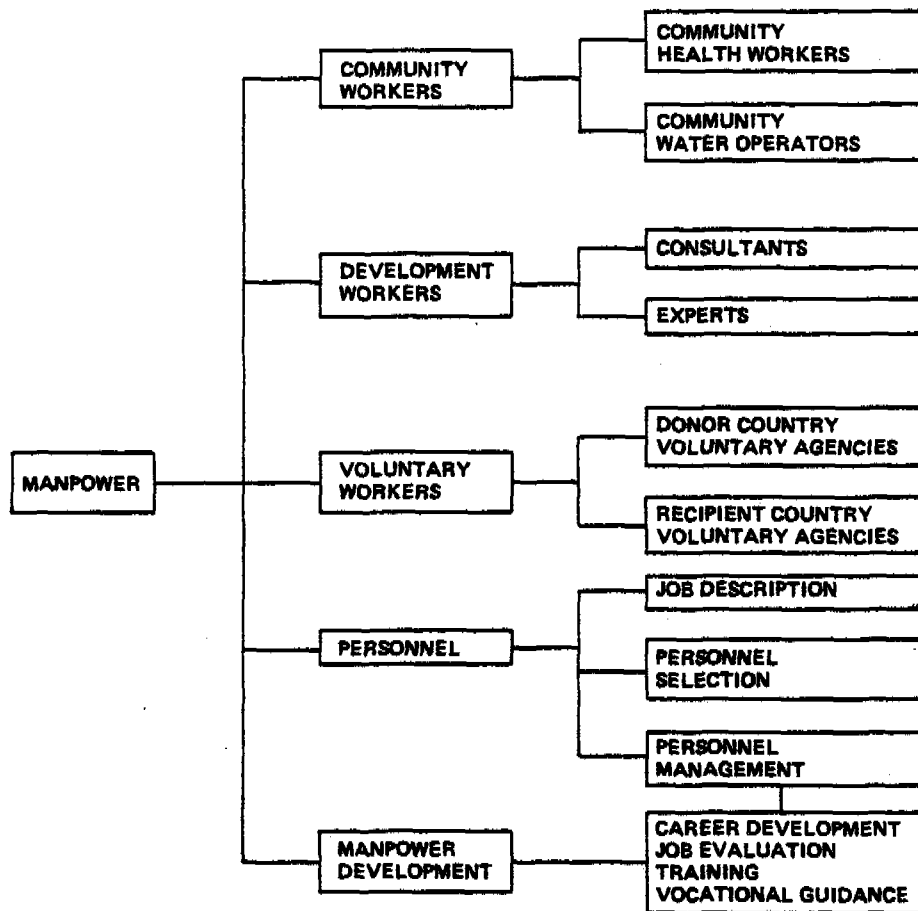


Fig. 11.

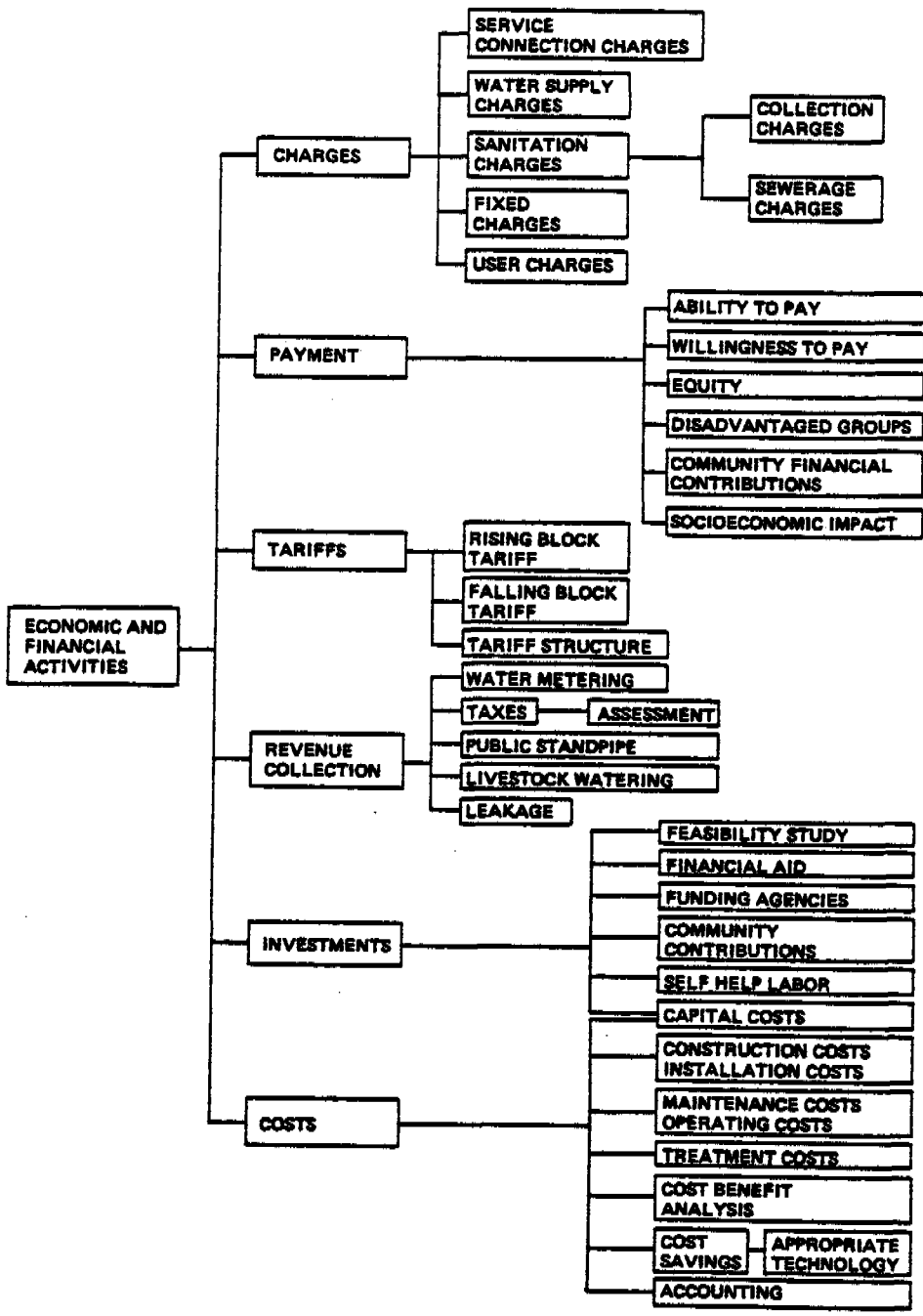


Fig. 12.

**INTERMEDIATE THESAURUS ON COMMUNITY WATER SUPPLY AND SANITATION
FOR DEVELOPING COUNTRIES**

ABILITY TO PAY

RT charges
equity
low income communities
payment
willingness to pay

ABS (acrylonitrile/butadiene/styrene)

BT plastics

ABS (detergent)

USE **ALKYLBENZENESULFONATE**

ABSORPTION

BT physical treatment

ABSORPTION TRENCHES

USE **SEEPAGE PITS**

ABSTRACTION OF WATER

See **WATER COLLECTION SYSTEMS**

**ACCEPTANCE (favorable attitude to
a facility provided)**

UF **PUBLIC ACCEPTANCE**

BT social aspects
NT consumer
acceptance
RT adoption
attitudes
behavior
community
decision making
community participation
consultation
felt needs
information gathering
persuasion
problem identification
social change
sociocultural aspects
taboos
use (of facilities)
willingness to pay

ACCESS TO WATER

UF **AVAILABILITY OF WATER**
UF **WATER ACCESSIBILITY**

NT reasonable access
RT equity
household hygiene
socioeconomic impact
water quantity

ACCOUNTING

NT management accounting
RT costs

ACIDITY

RT pH value

ACTIVATED CARBON TREATMENT

BT adsorption
RT color removal
dechlorination
odor control

ACTIVATED SILICA

RT coagulation/flocculation

ACTIVATED SLUDGE

(including **ACTIVATED SLUDGE PROCESS**
and **ACTIVATED SLUDGE PLANT**)

BT aerobic treatment
biological treatment
sludge
NT biosorption process
contact stabilization
extended aeration
RT aeration
oxidation ditches
sludge treatment

ADENOVIRUSES

BT viruses

ADITS

RT boreholes
groundwater withdrawal
horizontal drilling
wells

ADMINISTRATION

RT community participation
decision making
evaluation
financing
management
policy
process control
program planning

ADMINISTRATORS

BT personnel

ADOLESCENTS

UF TEENAGERS

BT humans
RT children

ADOPTION (action of installing or
using a facility etc. for
oneself)

UF ADOPTION OF INNOVATIONS

BT social aspects
RT acceptance
attitudes
behavior
community decision making
diffusion
feasibility study
felt needs
impact
innovations
persuasion
problem identification
social change
sociocultural aspects
taboos
use (of facilities)

ADOPTION OF INNOVATIONS
USE **ADOPTION**

ADSORPTION

BT physical treatment
NT activated carbon treatment

ADULT EDUCATION

BT education
RT extension
formal education
non formal education

ADVISERS

RT consultants
development workers
experts

AEDES (including **AEDES AEGYPTI**)

BT mosquitoes
RT dengue
yellow fever

AERATED LAGOONS

BT aerobic treatment
oxidation ponds
RT aeration
aerobic lagoons
oxidation ditches

AERATION

UF REAERATION

BT wastewater treatment
water treatment
NT mechanical aeration
oxygenation
RT activated sludge
aerated lagoons
aeration tanks
aerators
aerobic treatment
dissolved oxygen
extended aeration
oxidation ditches
self purification

AERATION TANKS

BT tanks
RT aeration
aerators

AERATORS

NT bubble aerators
cascade aerators
drum aerators
multiple tray aerators
spray aerators
waterfall aerators
RT aeration
aeration tanks
mechanical aeration
rotors

AERIAL PHOTOGRAPHY

BT photography
remote sensing
surveys
RT groundwater exploration
hydrogeological prospecting
phreatophyte survey
routing
topographic survey

AEROBIC DIGESTION

BT aerobic treatment
digestion
sludge digestion

AEROBIC LAGOONS

BT oxidation ponds
NT high rate aerobic lagoons
RT aerated lagoons

AEROBIC TREATMENT

BT biological treatment
NT activated sludge
aerated lagoons
aerobic digestion
RT aeration
digestion

**AFFORESTATION
USE FOREST MANAGEMENT****AGREEMENT
USE CONTRACT****AGRICULTURAL WASTE (solid)**

BT solid waste
NT animal excreta
RT agricultural wastewater
agriculture
composting

AGRICULTURAL WASTEWATER

BT wastewater
RT agricultural waste
agriculture

**AGRICULTURE
UF FARMING**

NT crop production
RT agricultural waste
agricultural wastewater
arable land
excreta use
fertilizers
irrigation
land
land use
nutrients
rural areas
sludge use
soil
wastewater reuse

**AID
USE DEVELOPMENT AID****AIR ESCAPE**

BT pressure relief
RT pipelines
valves

AIR FLOTATION

BT flotation
RT algae harvesting

AIR LIFTS

BT water lifting devices
RT pumps

ALCALIGENES

BT fecal bacteria

ALGAE

BT aquatic plants
microorganisms
phytoplankton
NT blue-green algae
diatoms
seaweeds
unicellular algae
RT algae control
algae harvesting
algal blooms
eutrophication

ALGAE CONTROL

BT weed control
NT algicides
RT algae

ALGAE HARVESTING

RT air flotation
algae
aquaculture
wastewater reuse

ALGAE PONDS
USE HIGH RATE AEROBIC LAGOONS

ALGAL BLOOMS

RT algae

ALGICIDES

BT algae control
pesticides
NT copper sulphate

ALKALINITY

BT chemical quality
RT pH value
stabilization

ALKYLBENZENESULFONATE

UF ABS (detergent)

BT detergents

ALLOCATION

RT apportionment

ALTERNATING DOUBLE FILTRATION

BT biological filtration

ALTERNATIVE TECHNOLOGY
USE APPROPRIATE TECHNOLOGY

ALTERNATIVES

RT decision making
selection

ALUM

UF ALUMINUM SULFATE

NT liquid alum
RT alumina
aluminized red mud solids
coagulation/flocculation
ferric chloride
ferrous sulfate
wastewater treatment
water treatment

ALUMINA

UF ALUMINUM OXIDE

RT alum
defluoridation

ALUMINIZED RED MUD SOLIDS

UF ARMS
UF RED MUD

RT alum
coagulation/flocculation
phosphorus removal

ALUMINUM OXIDE

USE ALUMINA

ALUMINUM SULFATE

USE ALUM

AMEBIASIS

UF AMOEBIC DYSENTERY

BT dysentery
protozoal infections
RT Entamoeba

AMMONIA

BT nitrogen compounds
RT nitrification

AMOEBIC DYSENTERY

USE AMEBIASIS

ANAEROBIC DIGESTION

BT anaerobic treatment
decomposition
digestion
fermentation
sludge digestion
solid waste treatment
NT methane fermentation
RT anaerobic filters
biogas production
methane

ANAEROBIC FILTERS

BT biological filtration
RT anaerobic digestion

ANAEROBIC LAGOONS

(or ANAEROBIC-AEROBIC LAGOONS)

BT anaerobic treatment
oxidation ponds

ANAEROBIC TREATMENT

BT biological treatment
NT anaerobic digestion
anaerobic lagoons
RT digestion
fermentation

ANAL CLEANSING

BT personal cleansing practices

ANALYSIS

USE EXAMINATION

ANALYSIS (OF WATER)

See WATER ANALYSIS

ANALYTICAL QUALITY CONTROL

BT quality control
RT water analysis

ANALYTICAL TECHNIQUES

RT examination
monitoring
water analysis

ANCYLOSTOMA

BT hookworms
RT ancylostomiasis
larva migrans

ANCYLOSTOMIASIS

BT hookworm infections
RT Ancylostoma

ANIMAL CARRYING (of water)

BT water carrying
NT ox carrying

ANIMAL EXCRETA

UF ANIMAL WASTES
UF CATTLE WASTES
UF DAIRY WASTE
UF DUNG
UF LIVESTOCK WASTES
UF MANURE
UF PIG MANURE
UF POULTRY MANURE
UF SWINE MANURE

BT agricultural waste
excreta
NT feces
urine
RT animal excreta disposal
markets
slaughterhouses

ANIMAL EXCRETA DISPOSAL

RT animal excreta
biogas production
excreta disposal
sanitation

ANIMAL FEED

UF FEEDING STUFF

RT fish feed

ANIMAL LIFE

UF ANIMALS
UF FAUNA

NT aquatic animals
domestic animals
livestock

ANIMAL POWER

BT energy

ANIMAL POWERED PUMPS

BT pumps

ANIMAL WASTES
USE **ANIMAL EXCRETA**

ANIMALS

USE **ANIMAL LIFE**

ANKYLOSTOMA

See **ANCYLOSTOMA**

ANOPHELES

BT mosquitoes
RT malaria

ANTHROPOLOGICAL ASPECTS

USE **SOCIOCULTURAL ASPECTS**

ANTHROPOLOGY

UF CULTURAL ANTHROPOLOGY
UF ETHNOLOGY
UF SOCIAL ANTHROPOLOGY

BT social sciences
NT applied anthropology
RT information gathering
sociology

APPEARANCE

USE **VISUAL QUALITY**

APPLIED ANTHROPOLOGY

BT anthropology

APPORTIONMENT

RT allocation

APPRAISALS

UF **ASSESSMENTS**

BT evaluation
NT appraisals (rapid)
feasibility study
RT comparison
information gathering

APPRAISALS (rapid)

BT appraisals
evaluation

APPROPRIATE TECHNOLOGY

UF ALTERNATIVE TECHNOLOGY
UF INTERMEDIATE TECHNOLOGY
UF LOW COST TECHNOLOGY
UF VILLAGE TECHNOLOGY

BT technology
RT cost savings
local materials
small scale

APRONS (hard surfaces)

UF PLATFORMS

RT public standpipe
wells

AQUACULTURE

BT wastewater reuse
water use
NT fish culture
mariculture
RT algae harvesting
aquatic plants
wastewater treatment

AQUAPRIVIES

BT latrines
RT mound systems
septic tank systems

AQUATIC ANIMALS

BT animal life

AQUATIC CRUSTACEANS

BT aquatic hosts
NT copepods
crabs
RT paragonimiasis
waterbased diseases

AQUATIC HOSTS

NT aquatic crustaceans
aquatic plants
aquatic snails
fish
RT waterbased diseases

AQUATIC PLANTS

UF AQUATIC WEEDS
UF WEEDS (aquatic)

BT aquatic hosts
macrophytes
NT algae
duckweed
rushes
seaweeds
water hyacinth
RT aquaculture
fascioliasis
fasciolopsiasis
wastewater treatment

AQUATIC SNAILS

UF SNAILS

BT aquatic hosts
RT clonorchiasis
fascioliasis
fasciolopsiasis
gastrodiscoidiasis
helminthic infections
heterophyiasis
metagonimiasis
opisthorchiasis
paragonimiasis
schistosomiasis
waterbased diseases

AQUATIC WEEDS

USE AQUATIC PLANTS

AQUEDUCTS (conduits, usually large,
for conveyance of water)

BT conduits
RT pipelines

AQUIFER RECHARGE

See RECHARGE

AQUIFERS

UF GROUNDWATER RESERVOIRS

RT groundwater
recharge
springwater
water table

ARABLE LAND

BT land
RT agriculture
land use

ARBOVIRAL INFECTIONS

BT viral infections
water related insect vector
diseases
NT encephalitic diseases
hemorrhagic diseases
RT arboviruses

ARBOVIRUSES

BT viruses
RT arboviral infections

ARID ZONES

UF DESERTS

RT desertification
drought
dry climate
hot climate
irrigation

ARMS

USE ALUMINIZED RED MUD SOLIDS

ARSENIC**ARTESIAN SPRINGS**

BT springwater

ARTESIAN WELLS

BT wells

ARTHROPODS

NT lice
mites
RT parasites

ARTIFICIAL LAKES

UF MAN MADE LAKES

BT lakes
RT dams
limnology
reservoirs

ARTIFICIAL RECHARGE (augmentation of
natural recharge of
groundwater)

BT recharge
RT bank filtration
groundwater recharge
infiltration ditches
infiltration ponds
recharge wells

ASBESTOS

BT health aspects
RT asbestos cement

ASBESTOS CEMENT

BT construction materials
pipe materials
RT asbestos
concrete

ASCARIASIS

UF ROUNDWORM INFECTION

BT fecal-oral infections
helminthic infections
RT Ascaris

ASCARIS

(including ASCARIS LUMBRICOIDES)

BT nematodes
RT ascariasis

ASSESSMENTS
USE APPRAISALS

ASSIMILATIVE CAPACITY
UF WASTE ASSIMILATIVE CAPACITY

BT capacity
RT self purification

ATOMIZATION

NT mist shower
RT nozzles
water conservation

ATTITUDES*

UF OPINIONS
UF PUBLIC ATTITUDES
UF PUBLIC OPINION
UF SOCIAL ATTITUDES

BT social aspects
RT acceptance
adoption
behavior
caste
community decision making
felt needs
health education
interests
motivation
perception
persuasion
problem identification
psychology
social change
sociocultural aspects
taboos
use (of facilities)
values
*for favorable attitudes
See ACCEPTANCE

AUDIOVISUAL AIDS
UF INSTRUCTIONAL AIDS
UF TEACHING AIDS

BT communications media
RT communication
demonstrations
discussion groups
education

AUDIOVISUAL AIDS (contd)
extension
health education
non formal education
training

AUGERING
See WELL DRILLING

AUGMENTATION

BT water resources management
NT low flow augmentation
streamflow augmentation
RT water yield improvement

AVAILABILITY

AVAILABILITY OF WATER
USE ACCESS TO WATER

AWARENESS
UF CONSCIENTIZATION

BT communication
dialogue
RT education
interests
mobilization
non formal education

BABIES
USE INFANTS

BABY FEEDS

BACILLARY DYSENTERY
USE SHIGELLOSIS

BACK FLOW

NT back siphonage
RT cross connections

BACK SIPHONAGE

BT back flow
RT plumbing

BACKWASHING (water wash or air and
water wash)**UF FILTER BACKWASHING**

RT granular bed filtration

BACTERIA

BT microorganisms
NT bifidobacteria
Campylobacter
Chlamydia
coliforms
fecal bacteria
indicator bacteria
iron bacteria
pathogenic bacteria
spirochetes
sulfur bacteria
RT bacterial infections
bactericides
bacteriological examination
bacteriological quality
diseases
fecal-oral infections
pathogens

BACTERIA BEDS
USE BIOLOGICAL FILTRATION**BACTERIAL DIARRHEAS**

BT diarrheal diseases

BACTERIAL ENTERITIS

BT bacterial infections
enteritis
salmonellosis
NT Campylobacter enteritis
RT Salmonella

BACTERIAL INFECTIONS

BT microbial infections
NT bacterial enteritis
cholera

BACTERIAL INFECTIONS (contd)

leptospirosis
melioidosis
paratyphoid
salmonellosis
shigellosis
skin sepsis
typhoid
yersiniosis
RT bacteria
enteric infections
fecal-disposal diseases
fecal-oral infections
pathogenic bacteria
viral infections

BACTERIAL SKIN SEPSIS
USE SKIN SEPSIS**BACTERICIDES**

BT pesticides
RT bacteria
disinfection
pathogenic bacteria

BACTERIOLOGICAL EXAMINATION

BT examination
microbiological analysis
water analysis
NT membrane filters
multiple tube method
RT bacteria
biological analysis

BACTERIOLOGICAL QUALITY

BT microbiological quality
RT bacteria
biological quality

BACTEROIDES

BT fecal bacteria

BAFFLES

RT channels
tanks

BALANCING RESERVOIRS
USE EQUALIZATION BASINS

BALANTIDIASIS

BT fecal-oral infections
protozoal infections
RT Balantidium

BALANTIDIUM
(including **BALANTIDIUM COLI**)

BT protozoa
RT balantidiasis
colonic ulceration
diarrheal diseases

BAMBOO

BT construction materials
pipe materials

BANCROFTIAN FILARIASIS

BT filariasis

BANGALORE METHOD

BT composting

BANK FILTRATION
UF INDUCED RECHARGE

RT artificial recharge

BANK STORAGE
UF LATERAL STORAGE

BT water storage
RT rivers

BAR SCREENS

BT screens

BARIUM

BT heavy metals

BARRAGES
USE DAMS

BASELINE STUDIES

BT studies

BASIC NEEDS
UF MINIMUM ESSENTIAL NEEDS

BT essential needs
RT human rights

BASINS (RESERVOIRS)
See **RESERVOIRS**

BASINS (TOPOGRAPHICAL)

NT river basins

BASINS (VESSELS)
USE TANKS

BATCH COMPOSTING LATRINES

BT composting latrines
RT continuous composting latrines

BATCH OPERATION

BATHING FACILITIES

NT public bathing facilities
RT bathing practices
community blocks
domestic use
washing (of skin)

BATHING PRACTICES (washing of whole
body with or without
immersion)

BT washing (of skin)
NT showering
RT bathing facilities
hand washing
soap
sullage

BATHING WASTEWATER
See **SULLAGE**

BATHING WATER

RT swimming pools
washing (of skin)

BEEF TAPEWORM
See **CESTODES** and **TAENIASIS**

BEHAVIOR

UF **HABITS**
UF **LIFE STYLE**

BT social aspects
NT misuse (of facilities)
personal hygiene
use (of facilities)
RT acceptance
adoption
attitudes
excreta disposal
health education
social change
sociocultural aspects
taboos
variations

BELIEFS

BT sociocultural aspects
NT health beliefs
indigenous beliefs
religious beliefs
RT perception
resistance to change
taboos
values

BENEFITS (positive consequences of
a project)

BT impact
NT cost benefit analysis
health benefits
socioeconomic impact
RT equity
evaluation
innovations
values

BENTONITE

BT clays
RT coagulation/flocculation
drilling fluids

BIBLIOGRAPHY

RT literature review
state-of-the-art review

BIFIDOBACTERIA

BT bacteria
RT fecal bacteria

BIGHEAD CARP
See **CARP**

BILHARZIASIS
USE **SCHISTOSOMIASIS**

BIOACCUMULATION

RT uptake

BIOCHEMICAL OXYGEN DEMAND
UF **BIOLOGICAL OXYGEN DEMAND**
UF **BOD**

BT oxygen demand
RT wastewater strength

BIOCHEMICAL STABILITY
See **STABILITY (BIOCHEMICAL)**

BIODEGRADATION

BT decomposition
RT biological treatment
putrescibility

BIODISKS
USE **BIOLOGICAL DISKS**

BIODRUMS
USE **BIOLOGICAL DRUMS**

BIOFILTERS
USE **BIOLOGICAL FILTRATION**

BIOGAS

UF DUNG GAS
UF GOBAR GAS
UF SLUDGE GAS

RT biogas production
carbon dioxide
energy
methane

BIOGAS PRODUCTION

BT excreta use
solid waste recycling
NT methane production
RT anaerobic digestion
animal excreta disposal
biogas
composting
methane fermentation
sludge digestion

BIOLOGICAL ANALYSIS

BT examination
water analysis
RT bacteriological examination
microbiological analysis

BIOLOGICAL DISKS
UF BIODISKS

BT rotating biological contactors

BIOLOGICAL DRUMS
UF BIODRUMS

BT rotating biological contactors

BIOLOGICAL FILTRATION
(including **BIOLOGICAL FILTERS**)
UF BACTERIA BEDS
UF BIOFILTERS
UF PERCOLATING FILTERS
UF TRICKLING FILTERS

BT biological treatment
NT alternating double filtration

BIOLOGICAL FILTRATION (contd)
anaerobic filters
high rate filtration
intermittent filters
RT filter media
filtration

BIOLOGICAL OXIDATION
UF BIOOXIDATION

RT biological treatment

BIOLOGICAL OXYGEN DEMAND
USE **BIOCHEMICAL OXYGEN DEMAND**

BIOLOGICAL QUALITY

BT water quality
RT bacteriological quality

BIOLOGICAL TREATMENT
(including **BIOLOGICAL TREATMENT PLANT**)

BT wastewater treatment
NT activated sludge
aerobic treatment
anaerobic treatment
biological filtration
oxidation ditches
oxidation ponds
rotating biological contactors
RT biodegradation
biological oxidation

BIOMASS

RT photosynthesis
productivity

BIOOXIDATION
USE **BIOLOGICAL OXIDATION**

BIOSORPTION PROCESS

BT activated sludge

BIRTH RATE

RT population increase

BLACKFLIES
USE **SIMULIUM**

BLEACHING POWDER
UF **CHLORINATED LIME**

RT chlorination
disinfection

BLOCKAGE
UF **CLOGGING**

BT breakdown

BLOOD FLUKES
See **SCHISTOSOMIASIS** and **TREMATODES**

BLOOMS
See **ALGAL BLOOMS**

BLUE-GREEN ALGAE

BT algae

BOD
USE **BIOCHEMICAL OXYGEN DEMAND**

BODY CARE
USE **PERSONAL HYGIENE**

BODY LICE
USE **LICE**

BOILING

BT disinfection

BOOSTER PUMPS

BT pumps
RT water distribution

BOOSTER STATIONS

BT pumping stations
RT water distribution

BORE BITS

RT well boring

BOREHOLE LATRINES

BT dry excreta disposal on site
latrines
RT pit latrines
trench latrines

BOREHOLES

BT deep wells
RT adits
drilled wells
driven wells
groundwater withdrawal
handpumps
horizontal drilling
horizontal wells
shallow wells
well boring

BORING

See **WELL BORING**

BORON

BORRELIA

BT spirochetes
RT louseborne relapsing fevers

BOX AND CAN PRIVIES
USE **BUCKET LATRINES**

BRACKISH WATER

BT saline water
RT desalination
estuaries
salinity

BRANCHED SYSTEMS

BT water distribution

BREAK PRESSURE TANKS

BT pressure relief
tanks
RT pipelines
transmission lines

BREKBBONE FEVER
USE DENGUE

BREAKDOWN

BT equipment failure
NT blockage
RT equipment

BREAKPOINT CHLORINATION

BT chlorination

BREWING

BT water use
RT socioeconomic impact

BRICK

BT construction materials

BRICKMAKING

BT housebuilding
water use
RT socioeconomic impact

BRINE SHRIMP

BT shrimps

BROAD CRESTED WEIRS

BT weirs

BROADCASTING MEDIA

UF RADIO
UF TELEVISION

BT mass media
RT printed media

BROMINE (including BROMINATION)

RT disinfection

BUBBLE AERATORS

BT aerators

BUCKET LATRINES

UF BOX AND CAN PRIVIES

BT dry excreta disposal off site
latrines
NT mechanical bucket latrines
RT night soil collection

BUCKET PUMPS

BT handpumps

BUCKET WATER LIFTING DEVICES

BT water lifting devices
RT irrigation
wells

BULRUSHES

BT rushes

BURIAL

BT dry excreta disposal
garbage disposal
refuse disposal
underground disposal

BURNING

USE INCINERATION

BURNING TOILETS

USE INCINERATOR TOILETS

BURSTS

BT pipe failure

BUTTERFLY VALVES

BT valves

CADMIUM

BT heavy metals

CAGE ROTORS

BT rotors
RT oxidation ditches

CAISSON SINKING TECHNIQUE

BT hand digging

CALCIUM HYDROXIDE

USE LIME

CALCIUM HYPOCHLORITE

BT hypochlorites
RT disinfection

CALCIUM OXIDE

USE LIME

CALGON

UF SODIUM HEXAMETAPHOSPHATE

RT corrosion control
softening

**CAMPAIGNS (for community action or
of community education)**

RT communication
communications media
community action
community development
community participation
education
extension
mobilization

CAMPS

UF REFUGEE CAMPS

BT communities
RT squatter settlements

CAMPYLOBACTER

BT bacteria
RT Campylobacter enteritis
diarrheal diseases

CAMPYLOBACTER ENTERITIS

BT bacterial enteritis
RT Campylobacter

CANALS

BT conduits
surface waters
NT irrigation canals

CAPACITY

NT assimilative capacity
RT volume

CAPITAL COSTS

BT costs
RT investments

CARBON DIOXIDE

RT biogas

CARBON/NITROGEN RATIO

RT nitrogen compounds
organic carbon

CARCINOGENS

BT health aspects
RT chemical quality
chlorination

CARDIOVASCULAR DISEASES

BT water related diseases
RT chemical quality

CAREER DEVELOPMENT

BT manpower development
RT personnel management
vocational guidance

CARP

BT fish
RT fish culture

CARRIERS (OF DISEASE)

RT infectious diseases

CARRYING WATER

See **WATER CARRYING**

CART REMOVAL

BT cartage
RT handcarts
truck removal

CARTAGE

BT dry excreta disposal off site
night soil collection
off site disposal
refuse collection
removal
transport
NT cart removal
truck removal
RT manual removal
vehicles
wheelbarrows

CARTRIDGE FILTERS

BT filtration

CASCADE AERATORS

BT aerators

CASE STUDIES

BT evaluation methods
impact assessment
RT questionnaires
research
surveys

CASINGS

NT well casings

CAST IRON

BT construction materials
iron
pipe materials
RT ductile iron
steel

CASTE

BT dominant groups
social structure
RT attitudes
sociocultural aspects

CASTINGS

NT special castings
RT handpumps
metals
pipes

CAT LIVER FLUKE

See **OPISTHORCHIASIS** and **TREMATODES**

CATCHMENT AREAS

UF CATCHMENTS
UF DRAINAGE BASINS
UF INTAKE AREAS
UF SURFACE WATER CATCHMENTS
UF WATERSHED AREAS

NT groundwater basins
river basins
RT rainwater
rainwater harvesting
runoff

CATCHMENTSUSE **CATCHMENT AREAS****CATERING**See **FOOD PREPARATION****CATFISH**BT fish
RT fish culture**CATHODIC PROTECTION**BT corrosion control
RT stability (chemical)**CATTLE WASTES**USE **ANIMAL EXCRETA****CATTLE WATERING**USE **LIVESTOCK WATERING****CEMENT**BT construction materials
RT concrete**CEMENT MORTAR**BT construction materials
mortar**CENTRIFUGAL PUMPS**

BT rotary pumps

CENTRIFUGES(including **CENTRIFUGATION**)

BT sludge dewatering

CESSPOOLSBT excreta disposal systems
RT pit latrines**CESTODES**UF **TAPEWORMS**BT helminths
NT *Diphyllobothrium*
Hymenolepis
*Taenia***CHAIN PUMPS**

BT handpumps

CHANGESif social USE **SOCIAL CHANGE**;
otherwise USE **VARIATIONS****CHANNELS**BT conduits
RT baffles**CHARGES**UF **FEEES**NT collection charges
fixed charges
sanitation charges
service connection charges
user charges
water supply charges
RT ability to pay
costs
disadvantaged groups
equity
payment
revenue collection
socioeconomic impact
tariffs
willingness to pay**CHEMICAL CLOSETS**USE **CHEMICAL TOILETS****CHEMICAL COAGULATION**

BT coagulation/flocculation

CHEMICAL COMPOSITIONRT chemicals
chemical quality

CHEMICAL DECOMPOSITION

BT decomposition

CHEMICAL DOSING

BT chemical treatment
dosing and dosing equipment
RT chemicals
coagulation/flocculation
intake works

CHEMICAL EXAMINATION

BT examination
water analysis

CHEMICAL LATRINES

USE CHEMICAL TOILETS

CHEMICAL OXYGEN DEMAND

UF C.O.D.

BT oxygen demand
NT dichromate value
permanganate value
RT wastewater strength

CHEMICAL QUALITY

BT water quality
NT alkalinity
dissolved solids
hardness
nitrates
oxygen demand
pH value
sodium adsorption ratio
suspended solids
toxicity
RT carcinogens
cardiovascular diseases
chemical composition
chlorine demand
fluorosis
health aspects

CHEMICAL STABILITY

See STABILITY (CHEMICAL)

CHEMICAL TOILETS

UF CHEMICAL CLOSETS
UF CHEMICAL LATRINES

BT toilets

CHEMICAL TREATMENT

BT wastewater treatment
water treatment
NT chemical dosing
coagulation/flocculation
neutralization
precipitation (chemical)
RT chemicals
clarification
disinfection

CHEMICALS (for treatment of water and wastewater)

UF COMPOUNDS

UF REAGENTS

(see also the individual
methods of treatment)

NT detergents
polyelectrolytes
RT chemical composition
chemical dosing
chemical treatment
coagulation/flocculation
disinfection

CHEMICALS (in water)

See CHEMICAL QUALITY

CHILD HEALTH

BT health
RT child hygiene
children
diarrheal diseases
environmental health
infants
public health

CHILD HYGIENE

BT hygiene
RT child health
children
clothes washing
excreta disposal

CHILD HYGIENE (contd)

health education
health impact
household hygiene
infants
personal hygiene
sanitation
washing (of skin) .
women

CHILDREN**UF TODDLERS**

BT humans
RT adolescents
child health
child hygiene
educational attendance
infants
water carriers

CHINESE LIVER FLUKE

See **CLONOCHIASIS** and **TREMATODES**

CHLAMYDIA

(including **CHLAMYDIA TRACHOMATIS**)

BT bacteria
RT trachoma

CHLORAMINES

RT chlorination

CHLORIDES

NT sodium chloride
RT saline water
salinity

CHLORINATED COPPERAS

RT coagulation/flocculation
ferrous sulfate

CHLORINATED LIME

USE **BLEACHING POWDER**

CHLORINATION

(including **CHLORINATORS**)

BT disinfection
NT breakpoint chlorination
hypochlorination
pot chlorination
RT bleaching powder
carcinogens
chloramines
chlorine
chlorine demand
chlorine dioxide
disease control
hypochlorites
trihalomethanes

CHLORINE

NT chlorine residual
combined available chlorine
free available chlorine
RT chlorination
hypochlorination
hypochlorites

CHLORINE DEMAND

RT chemical quality
chlorination

CHLORINE DIOXIDE

RT chlorination
disinfection

**CHLORINE RESIDUAL (free and
combined)****UF RESIDUAL CHLORINE**

BT chlorine
RT disinfection

CHOICE

USE **SELECTION**

CHOLERA

BT bacterial infections
fecal-oral infections
RT diarrrheal diseases
Vibrio cholerae

CHROMIUM

BT heavy metals

CISTERNS (small covered water storage tanks, often underground)

BT reservoirs
tanks
water storage
RT rainwater storage

CITIES

USE URBAN AREAS

CIVIL ENGINEERING

BT engineering
NT hydraulic engineering
RT environmental engineering
sanitary engineering
water engineering

CLARIFICATION (removal of colloidal or suspended matter)**UF WATER CLARIFICATION**

BT wastewater treatment
water treatment
NT coagulation/flocculation
filtration
sedimentation
RT chemical treatment
colloidal matter
physical treatment
suspended solids removal

CLAY JARS

BT water storage

CLAYS

NT bentonite
RT construction materials
drilling fluids
soil

CLEANING

BT domestic use
household hygiene
RT disinfection
washing (in general sense)

CLEANING AGENTS

NT detergents

CLEAR WATER RESERVOIRS

USE SERVICE RESERVOIRS

CLIMATE

NT cold climate
dry climate
hot climate
RT drought
humidity
precipitation (atmospheric)
temperature

CLOGGING

USE BLOCKAGE

CLONORCHIASIS

(or CHINESE LIVER FLUKE)

BT fecal-disposal diseases
helminthic infections
RT aquatic snails
Clonorchis

CLONORCHIS

(including CLONORCHIS SINENSIS)

BT trematodes
RT clonorchiasis

CLOSTRIDIUM

BT fecal bacteria

CLOTHES WASHING

BT washing (in general sense)
RT child hygiene
household hygiene
laundries

CLOUD SEEDING

RT clouds

CLOUDS

BT water sources
RT cloud seeding

COAGULANT AIDS

USE COAGULATION/FLOCCULATION

COAGULANTS

USE COAGULATION/FLOCCULATION

COAGULATION (initial aggregation of colloidal and fine suspended material) (this term is, however, often used to denote the combined coagulation/flocculation process)

USE COAGULATION/FLOCCULATION

COAGULATION/FLOCCULATION

UF COAGULANT AIDS
UF COAGULANTS
UF COAGULATION
UF FLOCCULATING AGENTS
UF FLOCCULATION

BT chemical treatment
clarification
NT chemical coagulation
mechanical flocculation
orthokinetic flocculation
RT activated silica
alum
aluminized red mud solids
bentonite
chemical dosing
chemicals
chlorinated copperas
colloidal matter
color removal

COAGULATION/FLOCCULATION (contd)

ferric chloride
ferric sulfate
ferrous sulfate
iron salts
isoelectric point
lime
phosphorus removal
polyelectrolytes
stability (colloidal)
suspended solids removal
zeta potential

COATINGS

UF PROTECTIVE COATINGS

RT linings
pipes
valves

COCKROACHES

BT insects
RT water related insect vector
diseases

COCONUT FIBER FILTRATION

BT deep bed filtration

C.O.D.

USE CHEMICAL OXYGEN DEMAND

COLD CLIMATE

BT climates

COLIFORMS (or COLIFORM BACTERIA)

BT bacteria
NT fecal coliforms

COLLECTING SEWERS

BT sewers

COLLECTION CHARGES,

BT charges
RT night soil collection
refuse collection

COLLECTION OF WASTES

See **NIGHT SOIL COLLECTION,**
REFUSE COLLECTION, and
WASTEWATER COLLECTION

COLLECTION TIME

See **WATER COLLECTION TIME**

COLLECTIVE ACTION

USE **COMMUNITY ACTION**

COLLOIDAL MATTER

RT clarification
coagulation/flocculation
color
humic substances
stability (colloidal)

COLONIC ULCERATION

BT fecal-oral infections
protozoal infections
RT Balantidium
Entamoeba histolytica

COLOR

BT organoleptic quality
visual quality
RT colloidal matter
humic substances
odor
taste
turbidity

COLOR REMOVAL

UF **DECOLORATION**

BT wastewater treatment
water treatment
RT activated carbon treatment
coagulation/flocculation

COMBINED AVAILABLE CHLORINE

BT chlorine

COMBUSTION

USE **INCINERATION**

COMFORT STATIONS

USE **PUBLIC TOILETS**

COMMINUITION

UF **MACERATION**

BT physical treatment
solid waste treatment
RT garbage grinding

COMMON CARP

See **CARP**

COMMUNAL LATRINES

USE **PUBLIC TOILETS**

COMMUNAL WATER POINT

USE **PUBLIC STANDPIPE**

COMMUNAL WELLS

USE **WELLS**

COMMUNICABLE DISEASES

USE **INFECTIOUS DISEASES**

COMMUNICATION

NT awareness
dialogue
education
extension
information dissemination
mobilization
persuasion
training
upward communication
RT audiovisual aids
campaigns
communications media
community participation
social aspects

COMMUNICATIONS MEDIA

UF **EXTENSION MEDIA**

NT audiovisual aids
demonstrations
discussion groups
entertainments
face to face communication
mass media

COMMUNICATIONS MEDIA (contd)

RT campaigns
 communication
 dialogue
 education
 extension
 health education
 information dissemination
 persuasion
 training
 transfer of knowledge

COMMUNITIES

UF HUMAN SETTLEMENTS
 UF SETTLEMENTS (of people;
 localities)

NT camps
 disadvantaged groups
 rural communities
 small communities
 urban communities
 RT community participation
 housing
 mobilization
 social aspects
 social sciences
 social structure

COMMUNITY ACTION (action by the
 community with
 little outside help)

UF COLLECTIVE ACTION
 UF COMMUNITY EFFORT (if with little
 outside involvement)
 UF SELF HELP

BT community participation
 RT campaigns
 community autonomy
 community contributions
 community development
 endogenous development
 mobilization
 self help labor
 self reliance

COMMUNITY AUTONOMY

BT self reliance
 RT community action
 community development
 endogenous development
 self sufficiency

COMMUNITY BLOCKS (communal facilities
 for water supply,
 excreta disposal,
 washing, bathing,
 laundry, etc)

BT sanitation
 RT bathing facilities
 latrines
 personal hygiene
 public bathing facilities
 public laundry facilities
 public showers
 public standpipe
 public toilets
 washing
 washing (of skin)
 water supply

COMMUNITY CHOICE
 USE **COMMUNITY DECISION MAKING**

COMMUNITY CONTRIBUTIONS

BT community participation
 investments
 NT community financial contribution
 self help labor
 RT community action
 community workers
 mobilization

COMMUNITY CONTROL if no outside
 involvement,
 See **COMMUNITY AUTONOMY**:
 if with outsiders,
 See **COMMUNITY PARTICIPATION**

COMMUNITY DECISION MAKING

UF COMMUNITY CHOICE
 UF USER CHOICE
 BT decision making
 planning
 RT acceptance
 adoption
 attitudes
 community leaders
 community meetings
 community participation
 community power structure
 consultation
 felt needs
 interests

COMMUNITY DECISION MAKING (contd)

negotiation
 power (social)
 representation
 social structure
 water committees
 willingness to pay

COMMUNITY DEVELOPMENT

BT development
 RT campaigns
 community action
 community autonomy
 community participation
 endogenous development
 mobilization
 rural development
 self reliance
 self sufficiency
 social development
 water committees

COMMUNITY EDUCATION

See **EDUCATION**

COMMUNITY EFFORT

USE **COMMUNITY ACTION** (little outside
 involvement) or
 USE **SELF HELP LABOR** (in relation to a
 water authority
 project)

COMMUNITY FINANCIAL CONTRIBUTIONS

BT community contributions
 financing
 payment
 RT negotiation
 self help labor
 willingness to pay

COMMUNITY HEALTH

USE **PUBLIC HEALTH**

COMMUNITY HEALTH WORKERS

BT community workers
 health personnel
 RT promoters

COMMUNITY LEADERS

UF LEADERS

BT community power structure
 NT formal leaders
 informal leaders
 RT community decision making
 consultation
 dominant groups
 factionalism
 representation

COMMUNITY MEETINGS

UF VILLAGE ASSEMBLIES

RT community decision making
 community participation
 dialogue
 representation
 upward communication

COMMUNITY ORGANIZATION

define as **COMMUNITY POWER STRUCTURE**
 or **MOBILIZATION**

COMMUNITY PARTICIPATION

BT social process
 NT community action
 community contributions
 community workers
 self reliance
 RT acceptance
 administration
 campaigns
 communication
 communities
 community decision making
 community development
 community meetings
 consultation
 decision making
 dialogue
 discussion groups
 education
 evaluation
 felt needs
 food for work
 interests
 mobilization
 negotiation
 policy
 promoters
 representation
 rural communities

COMMUNITY PARTICIPATION (contd)

small communities
social aspects
upward communication
villages
water committees
willingness to pay

**COMMUNITY POWER STRUCTURE
UF COMMUNITY ORGANIZATION
UF LOCAL POWER STRUCTURE**

BT power (social)
NT community leaders
dominant groups
factionalism
RT community decision making
disadvantaged groups
interests
national power structure
social structure
stratification (of social groups)

**COMMUNITY WATER COMMITTEES
USE WATER COMMITTEES****COMMUNITY WATER OPERATORS
USE WATER OPERATORS****COMMUNITY WATER SUPPLIES
USE WATER SUPPLY****COMMUNITY WORKERS (community members
trained for
specific jobs)**

BT community participation
manpower
NT community health workers
water operators
RT community contributions
personnel
water committees

**COMMUNITY WORKERS (for agency
personnel
responsible
for work in
communities
USE EXTENSION AGENTS)****COMPACTION**

BT physical treatment
solid waste treatment

COMPARATIVE ANALYSIS

BT evaluation methods
examination
RT research

COMPARISON

RT appraisals
decision making

COMPOSTING

BT dry excreta disposal
excreta use
garbage use
sludge use
solid waste recycling
solid waste treatment
wastewater treatment
NT Bangalore method
composting latrines
Indore process
RT agricultural waste
biogas production
fertilizers
humus

**COMPOSTING LATRINES
(or COMPOSTING TOILETS)**

BT composting
dry excreta disposal on site
latrines
NT batch composting latrines
continuous composting latrines
Vietnamese double vault
RT mouldering latrines
vault privies

**COMPOUNDS
USE CHEMICALS****COMPUTER MODELS**

BT models
RT mathematical models

COMPUTERS**CONCRETE**

BT construction materials
NT reinforced concrete
RT asbestos cement
cement

CONDENSATION

RT precipitation (atmospheric)

CONDITIONING (including CONDITIONERS)

NT sludge conditioning

CONDUCTIVITY

BT physical quality
RT salinity
total dissolved solids

**CONDUITS (artificial or natural ducts,
either open or closed, used
for conveying water or
wastewater)****UF WATER CONDUITS**

BT transmission lines
NT aqueducts
canals
channels
culverts
flumes
laterals
open conduits
pipelines
tunnels
RT pipes

CONJUNCTIVITIS

BT eye infections

CONNECTION CHARGES

USE SERVICE CONNECTION CHARGES

CONSCIENTIZATION

USE AWARENESS

**CONSERVANCY SYSTEMS
USE NIGHT SOIL COLLECTION****CONSERVATION OF WATER**

See WATER CONSERVATION

CONSTANT RATE FILTRATION

BT filtration

CONSTRAINTS

NT limiting factors
RT problem identification

CONSTRUCTION

NT construction materials
RT construction costs
construction management
design
maintenance
plumbing
technology

CONSTRUCTION COSTS

BT costs
RT construction

CONSTRUCTION MANAGEMENT

BT management
RT construction

CONSTRUCTION MATERIALS

BT construction
materials
NT asbestos cement
bamboo
brick
cast iron
cement
cement mortar
concrete
corrugated iron
ductile iron
ferrocement
fiberglass
galvanized iron

CONSTRUCTION MATERIALS (contd)

local materials
masonry
mortar
plastics
steel
wood
RT clays
metals
pipe materials

CONSTRUCTION OF WELLS
See **WELL CONSTRUCTION****CONSTRUCTION WORKERS**

BT personnel

CONSULTANTS

BT development workers
NT consulting engineers
RT advisers
experts

CONSULTATION (with the community)

BT dialogue
social process
NT formal consultation
informal consultation
representation
RT acceptance
community decision making
community leaders
community participation
decision making
discussion groups
felt needs
information exchange
negotiation
planning
upward communication
water committees

CONSULTING ENGINEERS

BT consultants
engineering personnel

CONSUMER ACCEPTANCE

BT acceptance

CONSUMERS

RT consumption
user charges
users

CONSUMPTION

NT water consumption
RT consumers

CONTACT PERIOD**CONTACT STABILIZATION**

BT activated sludge

CONTAGIOUS DISEASES
USE **INFECTIOUS DISEASES****CONTAMINANTS**
USE **POLLUTANTS****CONTAMINATION**

BT pollution

CONTINUOUS COMPOSTING LATRINES

BT composting latrines
RT batch composting latrines

CONTRACEPTION

BT family planning

**CONTRACT (agreement between community
and agency about
responsibilities)**

UF AGREEMENT

CONTROLLED TIPS
USE **SANITARY LANDFILLS****CONVEYANCE OF WATER**
See **WATER TRANSMISSION**

COOKING

BT domestic use
RT dishwashing
food preparation
household hygiene
waterwashed diseases

COOPERATION

NT development cooperation
international cooperation
technical cooperation

COOPERATIVES

NT water users' cooperatives

COPEPODS

BT aquatic crustaceans
NT cyclops
RT diphyllbothriasis

COPPER

BT heavy metals

COPPER SULPHATE

BT algicides

COPPERAS

USE FERROUS SULFATE

CORROSION

RT corrosion control
corrosion resistance
decomposition

CORROSION CONTROL

BT water treatment
NT cathodic protection
RT calgon
corrosion

CORROSION RESISTANCE

RT corrosion

CORRUGATED IRON

BT construction materials

COST BENEFIT ANALYSIS

BT benefits
evaluation
systems analysis
RT cost effectiveness
costs
decision making
economics
feasibility study
financing

COST EFFECTIVENESS

BT evaluation
RT cost benefit analysis
efficiency
feasibility study

COST SAVINGS

RT appropriate technology
costs

COSTS

NT capital costs
construction costs
installation costs
maintenance costs
operating costs
treatment costs
water costs
RT accounting
charges
cost benefit analysis
cost savings
depreciation
economics
efficiency
evaluation
financing
management accounting
revenue collection
socioeconomic impact
user charges

COURSES

BT curricula
RT curriculum development
manuals

COVERING

BT protection
NT well covers
RT sealing
spring protection

COW DUNG

See **ANIMAL EXCRETA**

COXSACKIEVIRUSES

BT enteroviruses

CRABS

BT aquatic crustaceans
RT paragonimiasis

CRITERIA

NT health criteria
selection criteria
RT standards

CROP PRODUCTION

BT agriculture
NT vegetable growing
RT plant life

CROSS CONNECTIONS

RT back flow
plumbing
water distribution

CRUDE

USE **RAW**

CULEX (culicine mosquitoes)

BT mosquitoes
RT filariasis
viral infections

CULTURAL ANTHROPOLOGY
USE **ANTHROPOLOGY****CULTURAL ASPECTS**
USE **SOCIOCULTURAL ASPECTS****CULTURAL CHANGE**
USE **SOCIAL CHANGE****CULVERTS** (closed conduits for passage
of water under a road, etc.)

BT conduits

CURRICULA

BT training
NT courses
RT education
teaching personnel

CURRICULUM DEVELOPMENT

RT courses

CUSTOMS

BT sociocultural aspects

CUTANEOUS FUNGAL INFECTIONS

BT fungal infections
skin infections
NT tinea
RT fungi

CYCLOPS

BT copepods
RT helminthic infections

CYPRINUS CARPIO
See CARP

CYSTICERCOSIS

BT fecal-disposal diseases
helminthic infections
RT Taenia
taeniasis

CYSTS (see also individual
microorganisms)

DAILY VARIATIONS

BT variations
RT diurnal variations
hourly variations
seasonal variations

DAIRY WASTE
USE ANIMAL EXCRETA

DAMAGE

NT wilful damage
RT misuse (of facilities)

DAMS

UF BARRAGES

RT artificial lakes
dykes
flow control
impounding reservoirs
irrigation
reservoirs
water sources
water storage

DEATH

USE MORTALITY

DECHLORINATION

RT activated carbon treatment
sodium sulfite

DECHLORINATION (contd)
sodium thiosulfate
sulfur dioxide

DECISION MAKING

BT management
social process
NT community decision making
selection
RT administration
alternatives
community participation
comparison
consultation
cost benefit analysis
feasibility study
negotiation
planning
policy
problem identification

DECLINING RATE FILTRATION

BT filtration

DECOLORATION

USE COLOR REMOVAL

DECOMPOSITION

BT excreta treatment
NT anaerobic digestion
biodegradation
chemical decomposition
fermentation
RT corrosion

DECONTAMINATION

BT pollution control
RT disinfection

DEEP BED FILTRATION

BT filtration
NT coconut fiber filtration
multilayer filtration
rapid filtration
sand filtration
RT filter media

DEPRECIATION

RT costs

**DEPRIVATION
USE POVERTY****DESALINATION
(including DESALINATION PLANTS)
UF DESALINIZATION**

BT demineralization
wastewater treatment
water treatment
NT distillation
evaporation
reverse osmosis
RT brackish water
saline water
salinity
salts
seawater

**DESALINIZATION
USE DESALINATION****DESERTIFICATION**

BT environmental degradation
RT arid zones
forest management
overgrazing

**DESERTS
USE ARID ZONES****DESIGN**

NT electrical design
engineering design
mechanical design
process design
RT construction
design criteria
design standards
equipment
maintenance
optimization
technology

DESIGN CRITERIA

RT design
design standards
equipment
process design

DESIGN STANDARDS

BT standards
RT design
design criteria
technology

DESILTING

RT dredging
sedimentation
siltng

DESLUDGING

NT manual removal
mechanical removal
RT removal
sedimentation tanks
septic tank systems

DESTRUCTION

BT excreta treatment
NT incineration

**DETENTION
See also STORAGE****DETENTION PERIOD****DETENTION TANKS**

BT tanks
RT equalization
sedimentation
storage tanks

**DETERGENTS
UF SYNTHETIC DETERGENTS**

BT chemicals
cleaning agents
NT alkylbenzenesulfonate

DETRITUS

BT solid waste
RT detritus tanks

DETRITUS TANKS

BT sedimentation tanks
tanks
RT detritus

DEVELOPED COUNTRIES

UF INDUSTRIALIZED COUNTRIES

DEVELOPING COUNTRIES

UF LESS DEVELOPED COUNTRIES
UF UNDERDEVELOPED COUNTRIES

RT international cooperation

DEVELOPMENT

BT social change
NT community development
economic development
endogenous development
rural development
social development
technical development
water resources development

DEVELOPMENT AID

UF AID

NT economic aid
financial aid
multilateral aid
technical assistance
RT development cooperation
development policy

DEVELOPMENT COOPERATION

BT cooperation
RT development aid
development workers
international cooperation
technical cooperation

DEVELOPMENT POLICY

BT policy
RT development aid
self reliance

DEVELOPMENT PROGRAMS

BT programs
RT demonstration projects

DEVELOPMENT WORKERS

BT manpower
NT consultants
experts
RT advisers
development cooperation
personnel

DEWATERING OF SLUDGE

USE SLUDGE DEWATERING

DIALOGUE

UF TWO WAY COMMUNICATION, unless
upward

BT communication
NT awareness
consultation
discussion
exchange of views
information exchange
RT communications media
community meetings
community participation
discussion groups
education
extension
face to face communication
health education
non formal education
persuasion
social process
transfer of knowledge
upward communication

DIAPHRAGM PUMPS

BT reciprocating pumps

DIARRHEAL DISEASES

BT enteric infections
fecal-oral infections
water related diseases
NT bacterial diarrheas
dysentery
giardiasis
parasitic diarrheas
viral diarrheas
RT Balantidium
Campylobacter
child health
cholera
Escherichia coli (entero-
pathogenic strains)
gastroenteritis
Giardia
Norwalk agent
protozoal infections
rotaviruses
salmonellosis
Shigella
Vibrio

DIATOMITE FILTRATION (or DIATOMACEOUS EARTH FILTRATION)

BT filtration
RT kieselguhr

DIATOMS

BT algae
RT unicellular algae

DICHROMATE VALUE

BT chemical oxygen demand
RT permanganate value

DIE OFF

RT survival time

DIESEL ENGINES

BT motors
RT prime movers
pumps

DIFFUSION

UF DIFFUSION OF INNOVATIONS

RT adoption
information dissemination
innovations

DIFFUSION OF INNOVATIONS USE DIFFUSION

DIGESTED SLUDGE

BT sludge
RT raw sludge
sludge digestion
sludge disposal

DIGESTERS USE DIGESTION TANKS

DIGESTION

NT aerobic digestion
anaerobic digestion
sludge digestion
RT aerobic treatment
anaerobic treatment
digestion tanks

DIGESTION TANKS UF DIGESTERS

BT tanks
RT digestion
Imhoff tanks
sludge digestion

DIGGING

See WELL DIGGING

DIPHYLLOBOTHRIASIS (or FISH TAPEWORM)

BT fecal-disposal diseases
helminthic infections
RT copepods
Diphyllbothrium

DIPHYLLOBOOTHRIUM

BT cestodes
RT diphyllobothriasis

DIPPER AND BUCKET SYSTEM

BT night soil collection

DIRECT ACTING PUMPS UF PISTON PUMPS

BT reciprocating pumps

DIRECT FILTRATION

BT filtration

DISADVANTAGED GROUPS UF ETHNIC ASPECTS UF WEAKER SECTIONS

BT communities
NT low income communities
RT charges
community power structure
dominant groups
equity
informal leaders
interests
low income urban areas
national power structure
payment
poverty
representation
shanty towns
slums
squatter settlements
stratification (of social
groups)
women

DISASTERS

NT drought
earthquakes
floods
RT emergency operation

DISCHARGE USE EMISSION

DISCUSSION

BT dialogue
RT discussion groups

DISCUSSION GROUPS UF STUDY GROUPS

BT communications media
RT audiovisual aids
community participation
consultation
dialogue
discussion
face to face communication
representation
water committees

DISEASE CONTROL

RT chlorination
diseases
disinfection
household hygiene
health care
sanitation

DISEASE TRANSMISSION

RT epidemiology

DISEASES

NT fish diseases
infectious diseases
water related diseases
RT bacteria
demography
disease control
environmental health
epidemics
health
helminths
morbidity
mortality
parasites
pathogens
protozoa
viruses

DISHWASHING

BT washing (in general use)
RT cooking
food hygiene
food preparation
household hygiene
sullage

DISHWATER USE SULLAGE

DISINFECTION (including DISINFECTANTS)

BT wastewater treatment
water treatment
NT boiling
chlorination
hypochlorination
ozonation
ultraviolet irradiation
RT bactericides
bleaching powder
bromine
calcium hypochlorite
chemical treatment
chemicals
chlorine dioxide
chlorine residual
cleaning
decontamination
disease control
emergency operation
filtration
heat treatment
household hygiene
hypochlorites
iodine
ozone
silver
sodium hypochlorite

DISKS (BIOLOGICAL) See BIOLOGICAL DISKS

DISPOSAL (of wastes: See also individual types of waste)

NT dumping
incineration
land application
sea disposal
surface water disposal
underground disposal

DISSEMINATION OF INFORMATION See INFORMATION DISSEMINATION

DISSOLVED OXYGEN

BT oxygen
RT aeration
solubility

DISSOLVED SOLIDS

BT chemical quality
NT total dissolved solids
RT solubility

DISTILLATION

BT desalination
NT solar distillation
solar stills
RT evaporation

DISTRIBUTION MAINS

BT pipes
RT water distribution

DISTRIBUTION RESERVOIRS USE SERVICE RESERVOIRS

DISTRIBUTION SYSTEMS USE WATER DISTRIBUTION

DITCHES

NT oxidation ditches
RT trenching

DIURNAL VARIATIONS

BT variations
RT daily variations
hourly variations
seasonal variations

DIVERSION WORKS USE HEADWORKS

DIVISION OF LABOR

BT labor
RT women's work

DOCTORS

BT medical personnel
RT health care

DOMESTIC ANIMALS

BT animal life
RT livestock

**DOMESTIC APPLIANCES
USE HOUSEHOLD APPLIANCES****DOMESTIC HYGIENE
USE HOUSEHOLD HYGIENE****DOMESTIC SEWAGE
See SEWAGE****DOMESTIC USE**

BT water use
NT cleaning
cooking
food preparation
kitchen garden watering
personal cleansing practices
toilet flushing
washing (in general sense)
RT bathing facilities
drinking water supply
household hygiene
livestock watering
wastewater reuse
water reuse

**DOMESTIC WASTES (liquid)
See SEWAGE and SULLAGE****DOMESTIC WASTES (solid)
See REFUSE****DOMINANT GROUPS**

BT community power structure
NT caste
RT community leaders
disadvantaged groups
factionalism
formal leaders
informal leaders
national power structure
power (social)
stratification (of social groups)

DONOR COUNTRY VOLUNTARY AGENCIES

BT voluntary agencies
RT voluntary workers

DOSING and DOSING EQUIPMENT

NT chemical dosing

**DOUBLE SEPTIC BINS
USE VIETNAMESE DOUBLE VAULT****DOWSING**

RT groundwater exploration

DRACONTIASIS

UF GUINEA WORM INFECTION

BT helminthic infections
RT Dracunculus

DRACUNCULUS

UF GUINEA WORM

BT nematodes
RT dracontiasis

DRAINAGE

NT land drainage
open channel drainage
storm drainage
tile drainage
underdrainage
RT drains
galleries
sewerage

DRAINAGE BASINS
USE CATCHMENT AREAS

DRAINAGE CHANNELS

BT drains

DRAINAGE PIPES

BT drains
pipes

DRAINFIELDS

BT subsurface disposal

DRAINS (open or closed)

NT drainage channels
drainage pipes
earth drains
open drains
surface water drains
RT drainage
plumbing

DRAWDOWN

RT reservoirs
wells

DREDGING

RT desilting

DRILLED WELLS

BT wells
RT boreholes
deep wells
horizontal drilling
horizontal wells
well drilling

DRILLING

See **WELL DRILLING**

DRILLING FLUIDS

RT bentonite
clays
well drilling

DRILLING RIG

BT equipment
RT well drilling

DRINKING WATER
UF POTABLE WATER

DRINKING WATER QUALITY

BT water quality

DRINKING WATER QUALITY GUIDELINES

BT water quality guidelines

DRINKING WATER SUPPLY

BT water supply
RT domestic use

DRIP IRRIGATION

BT irrigation

DRIVEN WELLS

BT wells
RT boreholes
well driving

DROUGHT

BT disasters
RT arid zones
climate
dry season
water shortage

DRUM AERATORS

BT aerators

DRY CLIMATE

BT climate
RT arid zones

DRY EXCRETA DISPOSAL

UF DRY TREATMENT
UF NON WATER CARRIED EXCRETA
DISPOSAL SYSTEMS

BT excreta disposal
NT burial
composting
dry excreta disposal off site
dry excreta disposal on site
RT latrines
excreta disposal systems
refuse disposal
wet excreta disposal

DRY EXCRETA DISPOSAL OFF SITE

BT dry excreta disposal
off site disposal
NT bucket latrines
cartage
vault privies
RT manual removal
mechanical removal

DRY EXCRETA DISPOSAL ON SITE

BT dry excreta disposal
on site disposal
NT borehole latrines
composting latrines
earth closets
mouldering latrines
overhung latrines
pit latrines
Reed odorless earth closet
trench latrines

DRY PITS

USE DRY WELLS

DRY SEASON

RT drought

DRY TREATMENT

USE DRY EXCRETA DISPOSAL

DRY WELLS

UF DRY PITS

BT pumping stations

DRYING BEDS

See **SLUDGE DRYING BEDS**

DUAL FLUSH TOILETS

BT flush toilets
RT low flush toilets
water conservation

DUAL MEDIA FILTRATION

BT multimedia filtration
RT filter media
multilayer filtration
size graded filtration

DUAL WATER SUPPLY SYSTEMS (providing
water of
different
quality for
different
purposes)

BT water distribution
water supply systems

DUCKWEED

BT aquatic plants

DUCTILE IRON

BT construction materials
iron
pipe materials
RT cast iron
steel

DUG WELLS (constructed by manual
labour)

BT shallow wells
NT hand dug wells
RT handpumps
open wells
well digging
well lining

DUMPING

BT disposal
NT landfills
refuse dumps

DUNG

USE **ANIMAL EXCRETA**

DUNG GAS

USE **BIOGAS**

DWARF TAPEWORM

See **HYMENOLEPIASIS** and **CESTODES**

DYKES

RT dams

DYSENTERY

BT diarrheal diseases
NT amebiasis
shigellosis

DYSENTERY (amoebic)

See **AMEBIASIS**

DYSENTERY (bacillary)

See **SHIGELLOSIS**

E. COLI

See **ESCHERICHIA COLI**

EARTH CLOSETS

BT dry excreta disposal on site
latrines
NT Reed odorless earth closet

**EARTH DRAINS (unlined or formed by
the wastewater)**

BT drains

EARTHQUAKES

BT disasters
RT emergency operation

ECHOVIRUSES

BT enteroviruses

ECOLOGY

UF ENVIRONMENTAL BIOLOGY

RT ecosystems
environment
pollution

ECONOMIC AID

BT development aid
RT equipment
financial aid
manpower
materials

ECONOMIC ASPECTS

RT economics

ECONOMIC DEVELOPMENT

BT development
RT economics
social development

ECONOMIC IMPACT

USE **SOCIOECONOMIC IMPACT**

ECONOMIC POLICY

BT policy

ECONOMICS

BT social sciences
NT socioeconomic impact
RT cost benefit analysis
costs
economic aspects
economic development
financing
investments

ECOSYSTEMS

RT ecology
environment

EDUCATION

BT communication
NT adult education
education of women
educational attendance
formal education
health education
informal education
non formal education
transfer of knowledge
RT audiovisual aids
awareness
campaigns
communications media
community participation
curricula
dialogue
extension
face to face communication
information dissemination
mobilization
teaching personnel
training
use (of facilities)

EDUCATION OF WOMEN

BT education
RT women

EDUCATIONAL ATTENDANCE

BT education
RT children
schools
socioeconomic impact
time gains

EFFICIENCY**UF PERFORMANCE**

RT cost effectiveness
costs
management
performance ratio

EFFLUENT (partially or completely
treated wastewater)

NT primary effluent
secondary effluent
septic tank effluent
sewage effluent
tertiary effluent
RT wastewater

EFFLUENT (untreated)
USE WASTEWATER**EICHHORNIA**
USE WATER HYACINTH**ELECTRIC MOTORS**

BT motors
RT pumps

ELECTRICAL DESIGN

BT design

ELECTRICITY

BT energy

ELEPHANTIASIS

BT filariasis
RT filariae

ELEVATED RESERVOIRS
USE SERVICE RESERVOIRS**ELUTRIATION****EMERGENCY OPERATION**

BT operation (of facilities)
RT disasters
disinfection
earthquakes
floods

EMISSION
UF DISCHARGE

EMISSION STANDARDS

BT standards
RT surface water disposal

ENCEPHALITIC DISEASES

BT arboviral infections

ENDAMOEBIA
See **ENTAMOEBIA**

ENDEMIC DISEASES
USE **INFECTIOUS DISEASES**

ENDOGENOUS DEVELOPMENT (participatory
development
initiated
within the
community)

BT development
self reliance
RT community action
community autonomy
community development

ENERGY UF POWER SOURCES

NT animal power
electricity
geothermal energy
human power
hydropower
internal combustion
solar energy
wind power
RT biogas
energy consumption
ethanol
fuel
methane
photosynthesis

ENERGY CONSUMPTION

RT energy

ENGINEERING

NT civil engineering
environmental engineering
RT engineering personnel
technology

ENGINEERING DESIGN

BT design

ENGINEERING PERSONNEL

BT personnel
NT consulting engineers
RT engineering

ENTAMOEBIA
(including **ENTAMOEBIA HISTOLYTICA**)

BT protozoa
RT amebiasis
colonic ulceration
liver abscess

ENTERIC FEVERS
See **PARATYPHOID** and **TYPHOID**

ENTERIC INFECTIONS
UF **INTESTINAL TRACT INFECTIONS**

BT gastrointestinal diseases
infectious diseases
NT diarrheal diseases
enteritis
paratyphoid
RT bacterial infections
fecal-oral infections
gastroenteritis
viral infections
water related diseases

ENTERITIS

BT enteric infections
NT bacterial enteritis
RT gastroenteritis

ENTEROBACTERIACEAE

BT pathogenic bacteria
NT *Escherichia coli*

ENTEROBIASIS

UF OXYURIASIS
 UF PINWORM INFECTION

BT fecal-oral infections
 helminthic infections
 RT Enterobius

ENTEROBIUS

BT nematodes
 RT enterobiasis

ENTEROCOCCI

USE STREPTOCOCCI

ENTEROVIRUSES

BT viruses
 NT coxsackieviruses
 echoviruses
 polioviruses
 RT fecal-oral infections

ENTERTAINMENTS

BT communications media

ENVIRONMENT

RT ecology
 ecosystems
 environmental degradation
 environmental health
 habitat
 sanitation

ENVIRONMENTAL BIOLOGY

USE ECOLOGY

ENVIRONMENTAL DEGRADATION

NT desertification
 pollution
 RT environment
 forest management

ENVIRONMENTAL ENGINEERING

UF PUBLIC HEALTH ENGINEERING

BT engineering
 NT sanitary engineering
 RT civil engineering
 environmental health
 hydraulic engineering
 pollution control
 sanitation

ENVIRONMENTAL HEALTH (aspects of human

health affected
 by man-made
 or natural
 environments,
 including
 effects of all
 forms of
 pollution)

BT public health
 RT child health
 demography
 diseases
 environment
 environmental engineering
 excreta disposal
 health aspects
 hygiene
 industrial pollution
 pollution
 refuse disposal
 sanitary engineering
 sanitary inspectors
 sanitation
 sludge disposal
 slum upgrading
 wastewater disposal
 water related diseases
 water supply

ENVIRONMENTAL HEALTH PERSONNEL

USE SANITARY INSPECTORS

ENVIRONMENTAL HYGIENE

USE SANITATION

ENVIRONMENTAL POLLUTION

USE POLLUTION

ENVIRONMENTAL PROTECTION

NT pollution control
source protection
vector control
RT forest management
socioeconomic impact

**ENVIRONMENTAL SANITATION
USE SANITATION****EPIDEMIC DISEASES
USE INFECTIOUS DISEASES****EPIDEMIC HEPATITIS
USE INFECTIOUS HEPATITIS****EPIDEMIC TYPHUS
UF LOUSEBORNE TYPHUS
UF RICKETTSIAL TYPHUS**

BT waterwashed diseases
RT Rickettsia prowazekii

EPIDEMICS

RT diseases

EPIDEMIOLOGY

RT disease transmission
infectious diseases

EPILIMNION

RT hypolimnion
lakes
limnology
reservoirs
stratification (in water bodies)
thermocline

EQUALIZATION

BT stabilization
RT detention tanks
equalization basins

**EQUALIZATION BASINS
UF BALANCING RESERVOIRS**

BT storage tanks
RT equalization
reservoirs

EQUILIBRIUM

RT stability (chemical)

EQUIPMENT

NT drilling rig
hydraulic equipment
machinery
treatment plant
water lifting devices
RT breakdown
design
design criteria
economic aid
equipment failure
flow measurement
maintenance
repair
spare parts
water metering

EQUIPMENT FAILURE

NT breakdown
RT equipment

**EQUITY (fair distribution of costs
and benefits among sections
of population)**

BT interests
RT ability to pay
access to water
benefits
charges
disadvantaged groups
food for work
human rights
labor
livestock watering
needs
payment
policy
representation
women

ESCHERICHIA COLI

BT Enterobacteriaceae
fecal coliforms

ESCHERICHIA COLI (ENTEROPATHOGENIC STRAINS)

BT pathogenic bacteria
RT diarrheal diseases
gastroenteritis

ESSENTIAL NEEDS

BT needs
NT basic needs

ESTUARIES

BT surface waters
RT brackish water
saline water
seawater

ETHANOL

RT energy

ETHNIC ASPECTS

USE DISADVANTAGED GROUPS
and SOCIOCULTURAL ASPECTS

ETHNOLOGY

USE ANTHROPOLOGY

EUTROPHICATION

RT algae
limnology
nitrates
nutrients
phosphates
water pollution

EVALUATION

NT appraisals
appraisals (rapid)
cost benefit analysis
cost effectiveness

EVALUATION (contd)

evaluation methods
feasibility study
impact assessment
monitoring
project evaluation
RT administration
benefits
community participation
costs
examination
information gathering
policy
problem identification
representation
values

EVALUATION METHODS

BT evaluation
NT case studies
comparative analysis
interviews
questionnaires
state-of-the-art review
surveys

EVAPORATION

BT desalination
water losses
NT reservoir evaporation
RT distillation
evapotranspiration
hydrological cycle
water balance

EVAPORATION RETARDANTS

RT reservoir evaporation
water yield improvement

EVAPOTRANSPIRATION UF TRANSPIRATION

RT evaporation
hydrological cycle

EVAPOTRANSPIRATION BEDS

BT subsurface disposal

**EXAMINATION
UF ANALYSIS**

NT bacteriological examination
biological analysis
chemical examination
comparative analysis
field studies
microbiological analysis
monitoring
testing
RT analytical techniques
evaluation
quality control
sampling
water quality
water quality control

EXCHANGE OF VIEWS

BT dialogue

**EXCRETA (liquid and solid waste
products, human or animal)**

BT organic wastes
NT animal excreta
human excreta
night soil
RT excreta collection
excreta disposal
excreta disposal systems
excreta treatment
excreta use
fecal pollution
fecal-disposal diseases
fecal-oral infections
pathogens
waterwashed diseases

EXCRETA COLLECTION

BT sanitation
NT excreta disposal systems
night soil collection
RT excreta

**EXCRETA DISPOSAL
UF HUMAN EXCRETA DISPOSAL**

BT wastewater disposal
NT dry excreta disposal
off site disposal
on site disposal

EXCRETA DISPOSAL (contd)

removal
wastewater disposal on site
wet excreta disposal
RT animal excreta disposal
behavior
child hygiene
environmental health
excreta
excreta disposal systems
excreta treatment
excreta use
feces
human feces
personal hygiene
sanitation
sewerage
urine

EXCRETA DISPOSAL SYSTEMS

BT excreta collection
NT cesspools
latrines
septic tank systems
sewerage
toilets
RT dry excreta disposal
excreta
excreta disposal
night soil collection
plumbing
public toilets

**EXCRETA RELATED DISEASES
USE FECAL-DISPOSAL DISEASES**

**EXCRETA TREATMENT
UF NIGHT SOIL TREATMENT**

NT decomposition
destruction
RT excreta
excreta disposal
methane fermentation
wastewater treatment

**EXCRETA USE
UF NIGHT SOIL UTILIZATION**

BT solid waste recycling
NT biogas production
composting
land application

EXCRETA USE (contd)

RT agriculture
excreta
excreta disposal
fertilizers
reuse
wastewater reuse

EXPERTS

BT development workers
RT advisers
consultants

EXTENDED AERATION

BT activated sludge
RT aeration

EXTENSION**UF OUTREACH**

BT communication
NT extension agents
health education
RT adult education
audiovisual aids
campaigns
communications media
dialogue
education
face to face communication
information dissemination
mobilization
non formal education
persuasion
transfer of knowledge
upward communication

EXTENSION AGENTS (agency personnel
involved in
community
education and
mobilization)

UF COMMUNITY WORKERS
UF EXTENSION WORKERS

BT extension
personnel
RT teaching personnel

EXTENSION MEDIA**USE COMMUNICATIONS MEDIA**

EXTENSION WORKERS
USE EXTENSION AGENTS

EXTRUSION

RT plastics

EYE INFECTIONS

BT waterwashed diseases
NT conjunctivitis
trachoma

FACE TO FACE COMMUNICATION

BT communications media
RT dialogue
discussion groups
education
extension

FACTIONALISM

BT community power structure
RT community leaders
dominant groups

FACULTATIVE LAGOONS

BT oxidation ponds

FAB- See FE-

FAILURE

See **EQUIPMENT FAILURE**

FALLING BLOCK TARIFFS

BT tariffs

FAMILY PLANNING

NT contraception
RT demography

FARMING
USE AGRICULTURE

FASCIOLA

BT trematodes
RT fascioliasis

FASCIOLIASIS

(or SHEEP LIVER FLUKE)

BT fecal-disposal diseases
helminthic infections
RT aquatic plants
aquatic snails
Fasciola

FASCIOLOPSIASIS

(or GIANT INTESTINAL FLUKE)

BT fecal-disposal diseases
helminthic infections
RT aquatic plants
aquatic snails
Fasciolopsis

FASCIOLOPSIS

BT trematodes
RT fasciolopsiasis

FAUCETS
USE TAPS

FAUNA
USE ANIMAL LIFE

FEASIBILITY STUDY

BT appraisals
evaluation
RT adoption
cost benefit analysis
cost effectiveness
decision making
investments
planning

FECAL BACTERIA (normally present in
faeces; see also
pathogenic bacteria)

BT bacteria
NT Alcaligenes
Bacteroides
Clostridium
fecal coliforms
fecal streptococci
Lactobacillus
Proteus
Pseudomonas
RT bifidobacteria
fecal pollution
indicator bacteria

FECAL COLIFORMS

BT coliforms
fecal bacteria
indicator bacteria
NT Escherichia coli
RT fecal pollution

FECAL POLLUTION

BT pollution
RT excreta
fecal bacteria
fecal coliforms
fecal streptococci
soil pollution
streptococci
wastewater pollution
water pollution

FECAL STREPTOCOCCI

BT fecal bacteria
indicator bacteria
streptococci
RT fecal pollution

FECAL-DISPOSAL DISEASES (promoted by
poor excreta
disposal)

UF EXCRETA RELATED DISEASES

BT infectious diseases
water related diseases
NT clonorchiasis
cysticercosis
diphyllobothriasis
fascioliasis

FECAL-DISPOSAL DISEASES (contd)

fasciolopsiasis
 fecal-oral infections
 fecal-percutaneous infections
 opisthorchiasis
 paragonimiasis
 schistosomiasis
 taeniasis
 RT bacterial infections
 excreta
 Gnathostoma
 helminthic infections
 pathogens
 viral infections

FECAL-ORAL INFECTIONS (may be
 waterborne or
 waterwashed)
 (these may also
 be regarded as
 fecal-disposal
 diseases)

UF WATERBORNE DISEASES

BT fecal-disposal diseases
 NT ascariasis
 balantidiasis
 cholera
 colonic ulceration
 diarrheal diseases
 enterobiasis
 infectious hepatitis
 leptospirosis
 liver abscess
 malabsorption
 melioidosis
 paratyphoid
 poliomyelitis
 salmonellosis
 shigellosis
 trichuriasis
 typhoid
 yersiniosis
 RT bacteria
 bacterial infections
 enteric infections
 enteroviruses
 excreta
 pathogens
 viral infections

FECAL-PERCUTANEOUS INFECTIONS

BT fecal-disposal diseases
 NT hookworm infections
 strongyloidiasis

FECES

BT animal excreta
 human excreta
 NT human feces
 RT excreta disposal

FEEDING STUFF

USE ANIMAL FEED

FEES

USE CHARGES

FELT NEEDS

BT needs
 RT acceptance
 adoption
 attitudes
 community decision making
 community participation
 consultation
 priority setting
 sociocultural aspects

FERMENTATION

BT decomposition
 wastewater treatment
 NT anaerobic digestion
 methane fermentation
 RT anaerobic treatment

FERRIC CHLORIDE

BT iron salts
 RT alum
 coagulation/flocculation

FERRIC SULFATE

BT iron salts
 RT coagulation/flocculation

FERROCEMENT

BT construction materials

FERROUS SULFATE
UF COPPERAS

BT iron salts
RT alum
chlorinated copperas
coagulation/flocculation

FERTILIZERS
(including FERTILIZATION)

NT nitrogen compounds
RT agriculture
composting
excreta use
plant nutrients
wastewater reuse

FEVERS (ENTERIC)
See PARATYPHOID and TYPHOID

FIBERGLASS

BT construction materials

FIELD EVALUATION
USE FIELD STUDIES

FIELD STUDIES
UF FIELD EVALUATION

BT examination
testing
RT laboratory testing
surveys
water quality control

FILARIAE

BT helminths
RT elephantiasis
filariasis

FILARIASIS

BT helminthic infections
NT bancroftian filariasis
elephantiasis
RT Culex
filariae
mosquitoes

FILTER BACKWASHING
USE BACKWASHING

FILTER MEDIA

RT biological filtration
deep bed filtration
dual media filtration
filtration
multilayer filtration
multimedia filtration
size graded filtration

FILTER UNDERDRAINS

BT underdrainage
RT filtration

FILTERABILITY

BT physical quality
RT filtration

FILTRATION (including FILTERS)

BT clarification
physical treatment
NT cartridge filters
constant rate filtration
declining rate filtration
deep bed filtration
diatomite filtration
direct filtration
granular bed filtration
membrane filters
multimedia filtration
pressure filtration
sand filtration
size graded filtration
upflow filtration
vacuum filtration
RT biological filtration
disinfection
filter media
filter underdrains
filterability
suspended solids removal

FILTRATION GALLERIES
UF GHANATS

BT galleries

FINANCIAL AID

BT development aid
investment
RT economic aid
financing

FINANCING

NT community financial
contributions
funding agencies
government financing
RT administration
cost benefit analysis
costs
economics
financial aid
investments
revenue collection
tariffs
wage administration

FIRE FIGHTING

BT water use
RT hydrants

FISH

BT aquatic hosts
NT carp
catfish
tilapia
RT fish culture
fishponds
heterophyiasis
insectivores
metagonimiasis
nutrition
water quality monitoring
waterbased diseases

FISH CULTURE

UF FISH HARVESTING
UF PISCICULTURE

BT aquaculture
NT fish farms
fishponds

FISH CULTURE (contd)

RT carp
catfish
fish
fish feed
tilapia

FISH DISEASES

BT diseases

FISH FARMS

BT fish culture

FISH FEED

RT animal feed
fish culture

FISH HARVESTING

USE FISH CULTURE

FISH TAPEWORM

See DIPHYLLOBOTHRIASIS and CESTODES

FISHPONDS

BT fish culture
ponds
RT fish
oxidation ponds
wastewater reuse
wastewater treatment

FISSURE SPRINGS

BT springwater

FITTINGS

USE SPECIAL CASTINGS

FIXED CHARGES

BT charges

FIXTURES**UF PLUMBING FIXTURES**

RT plumbing

FLAMMABLE WASTES

BT hazardous wastes

FLIES

BT insects

NT Glossina
mosquitoes
Musca
SimuliumRT fly control
helminthic infections
water related insect vector
disease**FLOAT VALVES**

BT valves

FLOCCULATING AGENTS**USE COAGULATION/FLOCCULATION****FLOCCULATION** (agglomeration process
following coagulation)
(this term is, however,
often used to denote the
combined coagulation/
flocculation process)**USE COAGULATION/FLOCCULATION****FLOCCULATORS**

BT tanks

FLOOD CONTROL(including **FLOOD PREVENTION**)BT hydraulic engineering
RT flow control**FLOODS (including FLOODING)**BT disasters
RT emergency operation
site conditions
stormwater**FLORA****USE PLANT LIFE****FLOTATION**BT physical treatment
wastewater treatmentNT air flotation
foam fractionation
froth flotationRT oil removal
sedimentation
suspended solids removal**FLOW**NT streamflow
RT flow measurement**FLOW AUGMENTATION****USE LOW FLOW AUGMENTATION****FLOW CONTROL**NT low flow augmentation
RT dams
flood control
flow regulating reservoirs
valves
weirs**FLOW LIMITING DEVICES**NT flow reducing valves
RT orifices
wastage control devices
water conservation**FLOW MEASUREMENT**(including **FLOW RATE** and **FLOWMETERS**)NT Parshall flumes
variable gap flowmeters
venturi devices
water metering
RT equipment
flow
orifices
weirs

FLOW REDUCING VALVES

BT flow limiting devices
valves
RT flow reduction
water conservation

FLOW REDUCTION

(including FLOW RESTRICTION)

BT water conservation
RT flow reducing valves

FLOW REGULATING RESERVOIRS

BT reservoirs
RT flow control

FLUKES

USE TREMATODES

FLUMES

BT conduits
NT Parshall flumes
RT venturi devices

FLUORIDATION

BT health aspects
water treatment
RT defluoridation
dental health
fluorides

FLUORIDE REMOVAL

BT water treatment
RT fluorides

FLUORIDES

RT defluoridation
dental health
fluoridation
fluoride removal
fluorosis

FLUOROSIS

BT water related diseases
RT chemical quality
dental health
fluorides

FLUSH TOILETS

UF WATER SEAL TOILETS

BT toilets
NT dual flush toilets
low flush toilets
oil flush toilets
self flushing toilets
sullage flush latrines
RT sewerage
toilet flushing

FLY CONTROL

BT insect control
RT flies

FOAM FRACTIONATION

BT flotation

FOOD

USE NUTRITION

FOOD FOR WORK

BT labor
RT community participation
equity
self help labor

FOOD HYGIENE

UF RESTAURANT HYGIENE

BT household hygiene
RT dishwashing

FOOD INDUSTRY

BT water use
RT hygiene
sanitation

FOOD PREPARATION

BT domestic use
RT cooking
dishwashing
hygiene
sanitation

**FOOT OPERATED TAPS
UF PEDAL VALVES**

BT taps

FORCE MAINS

BT pressure pipes

FORCE PUMPS

UF PLUNGER PUMPS
UF RAM PUMPS

BT reciprocating pumps
RT pressure

**FORECASTING
USE PREDICTION****FOREMEN**

BT personnel

FOREST MANAGEMENT

UF AFFORESTATION
UF DEFORESTATION
UF REFORESTATION
UF SILVICULTURE

BT management
RT desertification
environmental degradation
environmental protection
overgrazing
socioeconomic impact
soil erosion
source protection
water resources
wood fuel demand

FORMAL CONSULTATION

BT consultation

FORMAL EDUCATION (primary, secondary,
further, and higher
education)

BT education
NT schools
RT adult education
non formal education
teaching personnel
training

FORMAL LEADERS (mayors, village
council presidents,
chiefs, headmen, etc)

BT community leaders
RT dominant groups
informal leaders

FREE AVAILABLE CHLORINE

BT chlorine

FROTH FLOTATION

BT flotation

FRUIT AND VEGETABLE PROCESSING
See **FOOD INDUSTRY****FUEL**

RT energy
wood fuel demand

FUNDING AGENCIES

BT financing
RT investments

FUNGAL INFECTIONS

BT waterwashed diseases
NT cutaneous fungal infections

FUNGI

BT microorganisms
NT Trichophyton
RT cutaneous fungal infections
pathogens

FUNGICIDES

BT pesticides

FURROW IRRIGATION

BT irrigation

GAINS

See **BENEFITS**

GALLERIES

NT filtration galleries
infiltration galleries
RT drainage

GALVANIZED IRON

BT construction materials
iron
pipe materials

**GAMBIAN SLEEPING SICKNESS
USE TRYPANOSOMIASIS**

GARBAGE (solid organic wastes from
domestic or commercial
premises, particularly food
wastes)

UF KITCHEN WASTES (solid)

BT organic waste
refuse

GARBAGE DISPOSAL

BT refuse disposal
NT burial
garbage grinding
incineration
landfills
RT garbage use
sanitation

GARBAGE GRINDING

BT garbage disposal
RT comminution

GARBAGE USE

BT solid waste recycling
NT composting
scrap feeding
RT garbage disposal

GARDEN WATERING

BT irrigation
water use
NT kitchen garden watering
RT plot irrigation

GAS PRODUCTION

See **BIOGAS PRODUCTION**

GASTRODISCOIDES

BT helminths
RT gastrodiscoidiasis

GASTRODISCOIDIASIS

BT helminthic infections
RT aquatic snails
Gastrodiscoides

GASTROENTERITIS

BT gastrointestinal diseases
NT shigellosis
viral gastroenteritis
RT diarrheal diseases
enteric infections
enteritis
Escherichia coli
(enteropathogenic strains)
rotaviruses

GASTROINTESTINAL DISEASES

NT enteric infections
gastroenteritis

GATE VALVES

BT valves

GEOGRAPHICAL FACTORS

RT demography

GEOHYDROLOGY

USE **HYDROGEOLOGY**

GEOLOGY

RT hydrogeology
site conditions

GEOPHYSICAL PROSPECTING

BT prospecting
RT hydrogeological prospecting

GEOHERMAL ENERGY

BT energy

GHANATS

USE **FILTRATION GALLERIES**

GHATS

RT water transmission

GIANT INTESTINAL FLUKE

See **FASCIOLOPSIASIS** and **TREMATODES**

GIARDIA

including **GIARDIA INTESTINALIS**)
UF **LAMBLLIA INTESTINALIS**

BT protozoa
RT diarrheal diseases
giardiasis
malabsorption

GIARDIASIS

BT diarrheal diseases
protozoal infections
RT *Giardia*

GLASS REINFORCED PLASTICS

BT plastics

GLOSSINA

UF **RIVERINE TSETSE FLY**
UF **TSETSE FLY**

BT flies
RT trypanosomiasis

GNATHOSTOMA

BT larva migrans
RT fecal-disposal diseases

GOALS (rough or vague objectives)

BT objectives
RT targets

GOBAR GAS

USE **BIOGAS**

GOVERNMENT FINANCING

BT financing

GOVERNMENT ORGANIZATIONS

BT organizations
RT non governmental organizations

GRANULAR BED FILTRATION

BT filtration
RT backwashing

GRASS CARP

See **CARP**

GRAVITY FLOW**GRAVITY SUPPLY**

BT water supply

GRAVITY TRANSMISSION

BT water transmission

GRAZING

NT overgrazing
RT livestock

GREY WATER

USE SULLAGE

GRID SYSTEMS

BT water distribution

GRIT REMOVAL

BT physical treatment
RT intake works
sedimentation

GROUND CATCHMENT

BT rainwater harvesting

GROUNDWATER

BT water resources
water sources
RT aquifers
groundwater basins
groundwater exploration
groundwater pollution
groundwater recharge
groundwater withdrawal
infiltration galleries
springwater
surface waters
water table
well drilling
wells

GROUNDWATER BASINS

BT catchment areas
RT groundwater

GROUNDWATER EXPLORATION

RT aerial photography
dowsing
groundwater
groundwater survey
prospecting

**GROUNDWATER HYDROLOGY
USE HYDROGEOLOGY****GROUNDWATER POLLUTION**

BT water pollution
RT groundwater
groundwater protection
landfills
soil pollution

GROUNDWATER PROTECTION

RT groundwater pollution
spring protection

GROUNDWATER RECHARGE

BT recharge
RT artificial recharge
groundwater
natural recharge

**GROUNDWATER RESERVOIRS
USE AQUIFERS****GROUNDWATER SURVEY**

BT surveys
RT groundwater exploration

GROUNDWATER WITHDRAWAL

BT water collection systems
RT adits
boreholes
groundwater
infiltration galleries
wells

GROWTH KINETICS

GUIDELINES

NT quality guidelines
RT standards

GUINEA WORM
USE **DRACUNCULUS**

GUINEA WORM INFECTION
USE **DRACONTIASIS**

HABITAT

RT environment

HABITS
USE **BEHAVIOR**

HAIL

BT precipitation (atmospheric)
RT rainwater
snow

HAMLETS
USE **VILLAGES**

HAND DIGGING

BT well digging
NT caisson sinking technique
RT hand dug wells

HAND DUG WELLS

BT dug wells
RT hand digging

HAND PUMPS
See **HANDPUMPS**

HAND TOOLS

RT manual drilling

HAND WASHING

BT personal cleansing practices
washing (of skin)
RT bathing practices
soap

HANDBOOKS

RT manuals
training

HANDCARTS

RT cart removal

HANDPUMPS

BT reciprocating pumps
NT bucket pumps
chain pumps
RT boreholes
castings
dug wells
human power
tube wells
wells

HARBOURS

HARDNESS

UF WATER HARDNESS

BT chemical quality
health aspects
RT lime
softening

HARVESTING OF ALGAE
See **ALGAE HARVESTING**

HARVESTING OF FISH
See **FISH CULTURE**

HARVESTING OF WATER
See **RAINWATER HARVESTING**

HAZARDOUS WASTES

BT industrial waste
NT flammable wastes
radioactive wastes
toxic wastes
RT health hazards

HEAD (of water)

RT water pressure

HEAD CARRYING

BT water carrying

HEAD LICE

USE LICE

HEADWORKS

UF DIVERSION WORKS

NT intake works
RT pumps

HEALTH

UF HUMAN HEALTH

NT child health
public health
RT diseases
health aspects
health care
health education
hygiene

HEALTH ASPECTS

NT asbestos
carcinogens
defluoridation
fluoridation
hardness
health benefits
health hazards
health impact
heavy metals
toxic substances
RT chemical quality
environmental health
health
health beliefs

HEALTH ASPECTS (contd)

hygiene
indigenous beliefs
personal hygiene
toxicity
water quality
water related diseases

HEALTH ASSISTANTS

BT health personnel

HEALTH BELIEFS

BT beliefs
RT health aspects
indigenous beliefs

HEALTH BENEFITS

BT benefits
health aspects
health impact

HEALTH CARE

UF MEDICAL CARE

NT preventive medicine
primary health care
RT disease control
doctors
health
health education
health personnel
immunization
medical personnel
sanitation

HEALTH CRITERIA

BT criteria

HEALTH EDUCATION

UF HYGIENE EDUCATION
UF SANITATION EDUCATION

BT education
extension
RT attitudes
audiovisual aids
behavior
child hygiene

HEALTH EDUCATION (contd)
communications media
dialogue
health
health care
health personnel
household hygiene
information dissemination
non formal education
personal hygiene
primary health care
sanitation
training
transfer of knowledge
use (of facilities)
water committees

HEALTH HAZARDS

BT health aspects
health impact
RT hazardous wastes

HEALTH IMPACT (positive or negative effects)

BT health aspects
impact
NT health benefits
health hazards
RT child hygiene
personal hygiene

HEALTH INSPECTORS

BT health personnel

**HEALTH PERSONNEL
UF HEALTH WORKERS**

BT personnel
NT community health workers
health assistants
health inspectors
RT health care
health education
medical personnel

**HEALTH PRACTICES
USE PERSONAL HYGIENE**

**HEALTH WORKERS
USE HEALTH PERSONNEL**

HEAT

RT temperature

HEAT TREATMENT

BT sludge treatment
NT pasteurization
RT disinfection

HEAVY METALS

BT health aspects
metals
NT barium
cadmium
chromium
copper
iron
lead
mercury
nickel
zinc

HELICAL ROTOR PUMPS

BT rotary pumps

**HELMINTHIASES
USE HELMINTHIC INFECTIONS**

**HELMINTHIC INFECTIONS
UF HELMINTHIASES**

BT parasitic infections
vector borne diseases
water related insect vector
diseases
waterbased diseases
NT ascariasis
clonorchiasis
cysticercosis
diphyllobothriasis
dracontiasis
enterobiasis
fascioliasis
fasciolopsiasis
filariasis
gastrodiscoidiasis

HELMINTHIC INFECTIONS (contd)

heterophyiasis
hookworm infections
hymenolepiasis
metagonimiasis
onchocerciasis
opisthorchiasis
paragonimiasis
schistosomiasis
strongyloidiasis
taeniasis
trichuriasis
RT aquatic snails
Cyclops
fecal-disposal diseases
flies
helminths
mosquitoes

HELMINTHS**UF WORMS**

BT parasites
pathogens
NT cestodes
filariae
Gastrodiscoides
nematodes
trematodes
RT diseases
helminthic infections

HEMORRHAGIC DENGUE**USE DENGUE****HEMORRHAGIC DISEASES**

BT arboviral infections

HEPATITIS

See **INFECTIOUS HEPATITIS**

HEPATITIS VIRUS A

BT viruses
RT infectious hepatitis

HERBICIDES**UF WEEDKILLERS**

BT pesticides
weed control

HETEROPHYES

BT trematodes
RT heterophyiasis

HETEROPHYIASIS

BT helminthic infections
RT aquatic snails
fish
Heterophyes

HIGH DENSITY POLYETHYLENE (HD PE)

BT pipe materials
polyethylene

HIGH RATE AEROBIC LAGOONS**UF ALGAE PONDS**

BT aerobic lagoons

HIGH RATE FILTRATION*

BT biological filtration
*(refers to wastewater
treatment; for water
treatment use
RAPID FILTRATION)

HOLISTIC APPROACH**UF INTEGRATED APPROACH**

RT interdisciplinary approach
multidisciplinary approach

HOMESTEAD SETTLEMENT PATTERN**USE SCATTERED COMMUNITIES****HOOKWORM INFECTIONS**

BT fecal-percutaneous infections
helminthic infections
NT ancylostomiasis
larva migrans
Necator infection
RT hookworms

HOOKWORMS

BT nematodes
NT Ancylostoma
Necator
RT hookworm infections

HORIZONTAL DRILLING

BT well drilling
RT adits
boreholes
drilled wells
Ranney system

HORIZONTAL WELLS

UF PUSH WELLS

BT wells
RT boreholes
drilled wells

HOT CLIMATE

UF TROPICAL AREAS

BT climate
RT arid zones

HOURLY VARIATIONS

BT variations
RT daily variations
diurnal variations
seasonal variations

HOUSE CONNECTIONS

BT service connections
water distribution
RT meters
pipes
public standpipe
taps
yard connections

HOUSE FLIES

USE MUSCA

HOUSE RESERVOIRS

UF ROOF TANKS

BT reservoirs
storage tanks
water storage

HOUSEBUILDING

BT water use
NT brickmaking

HOUSEHOLD APPLIANCES

UF DOMESTIC APPLIANCES

HOUSEHOLD HYGIENE

UF DOMESTIC HYGIENE

BT hygiene
NT cleaning
food hygiene
pest control
washing (in general sense)
RT access to water
child hygiene
clothes washing
cooking
disease control
dishwashing
disinfection
domestic use
health education
housing
personal hygiene
sanitation
soap
sociocultural aspects
water collection journey
water quality
water quantity
water storage
waterwashed diseases

HOUSEHOLD WASTEWATER

USE SULLAGE

HOUSING

RT communities
household hygiene
living conditions
plumbing

HUMAN EXCRETA
UF HUMAN WASTES

BT excreta
NT human feces
urine

HUMAN EXCRETA DISPOSAL
USE **EXCRETA DISPOSAL**

HUMAN FECES

BT feces
human excreta
RT excreta disposal

HUMAN HEALTH
USE **HEALTH**

HUMAN POWER

BT energy
RT handpumps

HUMAN RESOURCES
USE **MANPOWER**

HUMAN RIGHTS

RT basic needs
equity
needs
policy

HUMAN SETTLEMENTS
USE **COMMUNITIES**

HUMAN WASTES
USE **HUMAN EXCRETA**

HUMANS
UF PEOPLE

NT adolescents
children
infants
men
women
RT population

HUMIC SUBSTANCES

RT colloidal matter
color

HUMIDITY

RT climate

HUMUS (the end product of the
composting process)

RT composting

HUMUS SLUDGE

BT sludge

HYACINTH
See **WATER HYACINTH**

HYDRANTS

RT fire fighting
irrigation
public standpipe

HYDRAULIC CONNECTIONS

RT public standpipe
water distribution

HYDRAULIC ENGINEERING

BT civil engineering
NT flood control
RT environmental engineering
sanitary engineering
water engineering

HYDRAULIC EQUIPMENT

BT equipment

HYDRAULIC FLOCCULATION

BT orthokinetic flocculation
physical treatment

HYDRAULIC GRADIENT**HYDRAULIC LOAD**

BT loading

HYDRAULIC MIXING

BT mixing

HYDRAULIC RAMS

BT pumps

HYDRAULIC TURBINES

BT turbines
RT prime movers

HYDRAULICS

RT hydrology
water transmission

**HYDROGEN ION CONCENTRATION
USE pH VALUE****HYDROGEN SULFIDE**

BT sulfides

HYDROGEOLOGICAL PROSPECTING

BT prospecting
RT aerial photography
geophysical prospecting
hydrogeology

HYDROGEOLOGY

UF GEOHYDROLOGY
UF GROUNDWATER HYDROLOGY

BT hydrology
RT geology
hydrogeological prospecting
site conditions

HYDROGRAPHIC SURVEY

BT surveys
RT hydrography

HYDROGRAPHY

BT hydrology
RT hydrographic survey

HYDROLOGICAL CYCLE

UF WATER CYCLE

BT hydrology
RT evaporation
evapotranspiration
infiltration
percolation
precipitation (atmospheric)
runoff
streamflow
water balance
water storage

HYDROLOGY

NT hydrogeology
hydrography
hydrological cycle
RT hydraulics
surveys

HYDROLYSIS

RT precipitation (chemical)

HYDROPOWER

BT energy
RT reservoirs

HYDROSTATIC PUMPS

BT pumps

**HYGIENE (preservation of health,
prevention of disease)**

NT child hygiene
household hygiene
personal hygiene

HYGIENE (contd)

sanitation
 RT environmental health
 food industry
 food preparation
 health
 health aspects

HYGIENE EDUCATION

USE **HEALTH EDUCATION**

HYGIENE PRACTICES (child)

See **CHILD HYGIENE**

HYGIENE PRACTICES (domestic)

See **HOUSEHOLD HYGIENE**

HYGIENE PRACTICES (environmental)

See **SANITATION**

HYGIENE PRACTICES (personal)

See **PERSONAL HYGIENE**

HYMENOLEPIASIS (or DWARF TAPEWORM)

BT helminthic infections
 RT Hymenolepis

HYMENOLEPIS

BT cestodes
 RT hymenolepiasis

HYPOCHLORINATION

BT chlorination
 disinfection
 RT chlorine
 hypochlorites

HYPOCHLORITES

NT calcium hypochlorite
 sodium hypochlorite
 RT chlorination
 chlorine
 disinfection
 hypochlorination

HYPOLIMNION

RT epilimnion
 lakes
 limnology
 reservoirs
 stratification (in water
 bodies)
 thermocline

IMHOFF TANKS

BT tanks
 RT digestion tanks
 sedimentation tanks
 sludge digestion

IMMUNIZATION

UF VACCINATION

RT health care

IMPACT (positive or negative
 consequence of a project)

NT benefits
 health impact
 socioeconomic impact
 RT adoption
 impact assessment
 innovations

IMPACT ASSESSMENT

BT evaluation
 NT case studies
 RT impact
 surveys

IMPOUNDING RESERVOIRS

BT reservoirs
 water storage
 RT dams
 irrigation
 lakes
 limnology
 surface waters

INCENTIVES

RT motivation

INCIDENCE

RT infectious diseases
prevalence

INCINERATION

UF BURNING
UF COMBUSTION

BT destruction
disposal
garbage disposal
refuse disposal
sludge disposal
solid waste treatment

INCINERATOR TOILETS

UF BURNING TOILETS

BT toilets
RT smoking-pit latrines

INDICATOR BACTERIA

BT bacteria
NT fecal coliforms
fecal streptococci
RT fecal bacteria

INDIGENOUS BELIEFS

BT beliefs
RT health aspects
health beliefs
sociocultural aspects

INDORE PROCESS

BT composting

INDUCED RECHARGE

USE BANK FILTRATION

INDUSTRIAL POLLUTION

BT pollution
RT environmental health
industrial wastewaters

INDUSTRIAL USE

BT sludge disposal
water use
RT socioeconomic impact

INDUSTRIAL WASTE (solid)

BT solid waste
NT hazardous wastes
RT industry

INDUSTRIAL WASTEWATERS

UF TRADE WASTEWATERS

BT wastewater
RT industrial pollution
industry
municipal wastewater

INDUSTRIAL WATER SUPPLIES

BT water supply
RT industry

INDUSTRIAL WATER TREATMENT

BT water treatment
RT softening

**INDUSTRIALIZED COUNTRIES
USE DEVELOPED COUNTRIES****INDUSTRY**

RT industrial waste
industrial wastewaters
industrial water supplies
technology

INFANTS

UF BABIES

BT humans
 RT child health
 child hygiene
 children

INFECTIOUS DISEASES

UF COMMUNICABLE DISEASES
 UF CONTAGIOUS DISEASES
 UF ENDEMIC DISEASES
 UF EPIDEMIC DISEASES

BT diseases
 NT enteric infections
 fecal-disposal diseases
 microbial infections
 parasitic infections
 water related diseases
 RT carriers (of disease)
 epidemiology
 incidence
 mortality
 pathogens
 prevalence
 transmission of disease

INFECTIOUS HEPATITIS

UF EPIDEMIC HEPATITIS

BT fecal-oral infections
 viral infections
 RT hepatitis virus A
 jaundice

INFILTRATION

BT underground disposal
 wastewater disposal
 wet excreta disposal
 RT hydrological cycle
 infiltration ditches
 infiltration galleries
 infiltration ponds
 percolation
 Ranney system
 seepage

INFILTRATION DITCHES

RT artificial recharge
 infiltration

INFILTRATION GALLERIES

BT galleries
 RT groundwater
 groundwater withdrawal
 infiltration
 rivers
 wells

INFILTRATION PONDS

RT artificial recharge
 infiltration

INFORMAL CONSULTATION

BT consultation

INFORMAL EDUCATION

BT education
 RT training

INFORMAL LEADERS

BT community leaders
 RT disadvantaged groups
 dominant groups
 formal leaders
 representation

INFORMATION DISSEMINATION

BT communication
 RT communications media
 diffusion
 education
 extension
 health education
 transfer of knowledge

INFORMATION EXCHANGE

BT dialogue
 RT consultation

INFORMATION GATHERING

BT upward communication
 NT interviews
 questionnaires

INFORMATION GATHERING (contd)

surveys
RT acceptance
anthropology
appraisals
evaluation
interests
needs
planning
representation
social aspects
sociology

INJECTION

BT underground disposal

INNOVATIONS

UF NEW PRACTICES

RT adoption
benefits
diffusion
impact

INSECT CONTROL

BT pest control
vector control
NT fly control
RT insecticides
insectivores
insects

INSECTICIDES

BT pesticides
RT insect control
insects

INSECTIVORES

RT fish
insect control

INSECTS

BT pests
NT cockroaches
flies

INSECTS (contd)

RT insect control
insecticides
water related insect vector
diseases

INSPECTION

RT preventive maintenance

INSPECTION CHAMBERS

UF MANHOLES

RT sewerage
water distribution systems

INSTALLATION COSTS

BT costs

INSTRUCTION

See **EDUCATION** and **TRAINING**

INSTRUCTIONAL AIDS

USE **AUDIOVISUAL AIDS**

INSTRUCTORS

USE **TEACHING PERSONNEL**

INSTRUMENTATION

NT meters
probes

INTAKE AREAS

USE **CATCHMENT AREAS**

INTAKE WORKS

UF WATER INTAKES

BT headworks
water collection systems
NT lake water intakes
river intakes
submerged intakes
surface water intakes
RT chemical dosing
grit removal

INTEGRATED APPROACH
USE HOLISTIC APPROACH

INTEGRATED RURAL DEVELOPMENT
USE RURAL DEVELOPMENT

INTERCEPTING SEWERS

BT sewers

INTERDISCIPLINARY APPROACH

RT holistic approach
multidisciplinary approach

INTERESTS (of various sections of the
community, preservation of)

NT equity
RT attitudes
awareness
community decision making
community participation
community power structure
disadvantaged groups
information gathering
labor
national power structure
needs
policy
power (social)
representation
social aspects
social process
stratification (of social
groups)
upward communication
values
women

INTERMEDIATE TECHNOLOGY
USE APPROPRIATE TECHNOLOGY

INTERMITTENT FILTERS

BT biological filtration

INTERNAL COMBUSTION

BT energy

INTERNAL COMBUSTION ENGINES

RT prime movers

INTERNATIONAL ASSISTANCE
USE INTERNATIONAL COOPERATION

INTERNATIONAL COOPERATION
UF INTERNATIONAL ASSISTANCE

BT cooperation
RT developing countries
development cooperation
international organizations
technical cooperation

INTERNATIONAL ORGANIZATIONS

BT organizations
RT international cooperation

INTERNATIONAL PLANNING

BT planning
RT national planning

INTERVIEWS

BT evaluation methods
information gathering
RT questionnaires
surveys

INTESTINAL FLUKES
See **TREMATODES**

INTESTINAL PARASITES
USE PARASITES

INTESTINAL TRACT INFECTIONS
USE ENTERIC INFECTIONS

INVESTMENTS

NT community contributions
financial aid
RT capital costs
economics

INVESTMENTS (contd)

feasibility study
financing
funding agencies

IODINE (including IODINATION)

RT disinfection

ION EXCHANGE

BT physical treatment
RT softening
zeolites

IRON

BT heavy metals
NT cast iron
ductile iron
galvanized iron
RT iron removal
steel

IRON BACTERIA

BT bacteria

IRON REMOVAL**UF DEFERRIZATION**

BT water treatment
RT iron
manganese removal

IRON SALTS

NT ferric chloride
ferric sulfate
ferrous sulfate
RT coagulation/flocculation
water treatment

IRRIGATION**UF WATERING (of land)**

BT wastewater reuse
water use
NT drip irrigation
furrow irrigation
garden watering

IRRIGATION (contd)

kitchen garden watering
overhead irrigation
plot irrigation
spray irrigation
subsurface irrigation
RT agriculture
arid zones
bucket water lifting devices
dams
hydrants
impounding reservoirs
irrigation canals
land application
plant life
rainwater harvesting
water resources
water reuse

IRRIGATION CANALS

BT canals
RT irrigation

ISOELECTRIC POINT

RT coagulation/flocculation
stability (colloidal)
zeta potential

JAUNDICE

RT infectious hepatitis

JOB DESCRIPTION

RT personnel

JOB EVALUATION

RT personnel management

JOINTS

BT special castings

KIESELGUHR

RT diatomite filtration

KINETICS

See **GROWTH KINETICS**

KITCHEN GARDEN WATERING

BT domestic use
garden watering
irrigation
RT vegetable growing

KITCHEN WASTES (liquid)
USE **SULLAGE**

KITCHEN WASTES (solid)
USE **GARBAGE**

KNOW-HOW

See **TRANSFER OF KNOW-HOW**

KNOWLEDGE

See **TRANSFER OF KNOWLEDGE**

LABOR

NT division of labor
food for work
self help labor
women's work
RT equity
interests
manpower
socioeconomic impact
voluntary workers

LABORATORY TESTING

BT testing
RT field studies

LACTOBACILLUS

BT fecal bacteria

LAGOONS (WASTEWATER)
See **OXIDATION PONDS**

LAKE WATER INTAKES

BT intake works
RT lakes

LAKES

BT surface waters
NT artificial lakes
RT epilimnion
hypolimnion
impounding reservoirs
lake water intakes
limnology
reservoirs
rivers
stratification (in water
bodies)

LAMBIA INTESTINALIS
USE **GIARDIA**

LAND

NT arable land
RT agriculture
land use
soil

LAND APPLICATION

UF **LAND DISPOSAL**
UF **LAND TREATMENT**

BT disposal
excreta use
sludge disposal
wastewater disposal
wastewater treatment
NT overland flow
rapid infiltration
spray irrigation
RT irrigation
paddy fields
peat bogs
subsurface disposal

LAND DISPOSAL
USE **LAND APPLICATION**

LAND DRAINAGE

BT drainage

LAND TREATMENT

USE LAND APPLICATION

LAND USERT agriculture
arable land
land**LANDFILLS**BT dumping
garbage disposal
refuse disposal
NT sanitary landfills
RT groundwater pollution
refuse dumps
site selection
soil pollution
solid waste**LARVA MIGRANS**BT hookworm infections
RT Ancylostoma
Gnathostoma
larval nematodes
Strongyloides
Toxocara**LARVAL NEMATODES**BT nematodes
RT larva migrans**LATERAL STORAGE**

USE BANK STORAGE

LATERALSBT conduits
sewers
underdrainage
water distribution**LATRINES**

UF PRIVIES

BT excreta disposal systems
NT aquaprivies
borehole latrines
bucket latrines
composting latrines
earth closets
mouldering latrines
overhung latrines
pit latrines
pour flush latrines
sullage flush latrines
trench latrines
vault privies
water seal latrines
RT community blocks
deposition devices
dry excreta disposal
night soil collection
site selection
toilets**LAUNDRIES**NT public laundry facilities
RT clothes washing
laundry wastewater**LAUNDRY WASTEWATER**RT laundries
sullage**LAWS**

USE LEGISLATION

LEACHING**LEACHING FIELDS**

BT subsurface disposal

LEAD

BT heavy metals

LEADERS

USE COMMUNITY LEADERS

LEAK DETECTION

RT leakage
wastage
water distribution

LEAKAGE

BT water losses
RT leak detection
pipes
revenue collection
taps
wastage

LEGAL RIGHTS

BT legislation
RT water rights

LEGISLATION

UF LAWS
UF WATER LAWS

NT legal rights

LEPTOSPIRA

BT spirochetes
RT leptospirosis

LEPTOSPIROSIS

UF WEIL'S DISEASE

BT bacterial infections
fecal-oral infections
RT Leptospira
spirochetes

**LESS DEVELOPED COUNTRIES
USE DEVELOPING COUNTRIES****LICE**

UF BODY LICE
UF HEAD LICE
UF LOUSE

BT arthropods
parasites
RT waterwashed diseases

**LIFE STYLE
USE BEHAVIOR****LIFT PUMPS**

BT reciprocating pumps
RT deep wells

**LIFTING OF WATER
USE WATER LIFTING DEVICES****LIGHT**

NT solar radiation

LIME

UF CALCIUM HYDROXIDE
UF CALCIUM OXIDE

RT coagulation/flocculation
hardness
pH control
softening
stabilization

LIMITING FACTORS

BT constraints

LIMNOLOGY

RT artificial lakes
epilimnion
eutrophication
hypolimnion
impounding reservoirs
lakes
reservoirs
stratification (in water
bodies)
thermocline

LININGS

UF PROTECTIVE LININGS

NT membranes
well lining
RT coatings
reservoirs
well drilling

LIQUID ALUM

BT alum

**LIQUID WASTES
USE WASTEWATER****LITERATURE REVIEW**

RT bibliography
state-of-the-art review

LITHOLOGY

RT site conditions
soil

LIVER ABSCESS

BT fecal-oral infections
protozoal infections
RT Entamoeba histolytica

**LIVER FLUKES
See CLONORCHIASIS and TREMATODES****LIVESTOCK**

BT animal life
RT domestic animals
grazing
livestock watering
overgrazing

**LIVESTOCK WASTES
USE ANIMAL EXCRETA****LIVESTOCK WATERING
UF CATTLE WATERING
UF STOCKWATERING
UF WATERING (OF LIVESTOCK)**

BT water use
NT watering troughs
RT domestic use
equity
livestock
public standpipe

**LIVESTOCK WATERING (contd)
revenue collection
socioeconomic impact
water supply charges****LIVING CONDITIONS**

RT housing

LOADING

NT hydraulic load
pollution load
RT wastewater treatment

LOCAL MANUFACTURE

BT production
RT local materials

LOCAL MATERIALS

BT construction materials
pipe materials
RT appropriate technology
local manufacture
production
repair

**LOCAL POWER STRUCTURE
USE COMMUNITY POWER STRUCTURE****LOCATION
USE SITE SELECTION****LOUSE
USE LICE****LOUSEBORNE RELAPSING FEVERS
UF RELAPSING FEVERS**

BT waterwashed diseases
RT Borrelia
spirochetes

**LOUSEBORNE TYPHUS
USE EPIDEMIC TYPHUS**

LOW COST TECHNOLOGY
USE **APPROPRIATE TECHNOLOGY**

LOW FLOW AUGMENTATION
UF FLOW AUGMENTATION

BT augmentation
flow control
RT streamflow augmentation

LOW FLUSH TOILETS

BT flush toilets
RT dual flush toilets
water conservation

LOW INCOME COMMUNITIES

BT disadvantaged groups
NT peri urban communities
RT ability to pay
low income urban areas
poverty
socioeconomic impact

LOW INCOME URBAN AREAS

BT urban areas
NT shanty towns
slums
squatter settlements
RT disadvantaged groups
low income communities
poverty
urban peripheries

LUNG FLUKES

See **PARAGONIMIASIS** and **TREMATODES**

MACERATION
USE **COMMINUTION**

MACHINERY

(See also **MECHANICAL -**)

BT equipment

MACROPHYTES

BT plant life
NT aquatic plants

MAGNESIUM

MAINS

See **PIPES**

MAINTENANCE

NT preventive maintenance
repair
RT construction
design
equipment
maintenance costs
operation (of facilities)
spare parts
technology

MAINTENANCE COSTS

BT costs
RT maintenance

MALABSORPTION

BT fecal-oral infections
protozoal infections
RT Giardia
malnutrition
nutrition

MALARIA

BT protozoal infections
water related insect vector
diseases
RT Anopheles
Plasmodium

MALNUTRITION

RT malabsorption
nutrition

MAN

USE **HUMANS** or **MEN**

MAN MADE LAKES
USE ARTIFICIAL LAKES

MANAGEMENT

UF OPERATION CONTROL
UF SUPERVISION

NT construction management
decision making
forest management
personnel management
water resources management
RT administration
efficiency
organizational structure
planning
policy
priority setting
problem identification
public relations
technology
water committees

MANAGEMENT ACCOUNTING

BT accounting
RT costs

MANAGERS

BT personnel
NT program managers
project managers

MANGANESE REMOVAL

BT water treatment
RT iron removal

MANHOLES

USE INSPECTION CHAMBERS

MANPOWER (the economically active
population)

UF HUMAN RESOURCES

NT community workers
development workers
personnel
voluntary workers

MANPOWER (contd)

RT economic aid
labor
manpower classification
manpower development

MANPOWER CLASSIFICATION

RT manpower

MANPOWER DEVELOPMENT

NT career development
RT manpower
training

MANUAL DRILLING

BT well drilling
NT pot drilling
scaffold drilling
RT hand tools

MANUAL REMOVAL

BT desludging
night soil collection
removal
transport
RT cartage
dry excreta disposal off site

MANUALS

RT courses
handbooks
training

MANUFACTURE
USE PRODUCTION

MANURE
USE ANIMAL EXCRETA

MARICULTURE

BT aquaculture

MARINE WATER
USE SEAWATER

MARKETS

RT animal excreta
sanitation

MASONRY

BT construction materials

MASS MEDIA

BT communications media
NT broadcasting media
printed media
RT persuasion

MATERIALS

NT construction materials
pipe materials
RT economic aid

MATHEMATICAL MODELS

BT models
RT computer models

MATURATION PONDS

BT oxidation ponds

MECHANICAL AERATION

BT aeration
RT aerators

MECHANICAL BUCKET LATRINES

BT bucket latrines

MECHANICAL DESIGN

BT design

MECHANICAL DIGGING

BT well digging

MECHANICAL DRILLING

BT well drilling

MECHANICAL FLOCCULATION

BT coagulation/flocculation
physical treatment
RT stirring

MECHANICAL MIXING

BT mixing
RT stirring

MECHANICAL REMOVAL

BT night soil collection
desludging
removal
RT dry excreta disposal off
site

**MECHANICAL TREATMENT
USE PHYSICAL TREATMENT**

MEDIA

See **COMMUNICATIONS MEDIA**
or **FILTER MEDIA**
or **MASS MEDIA**
or **PRINTED MEDIA**

**MEDICAL CARE
USE HEALTH CARE**

MEDICAL PERSONNEL

BT personnel
NT doctors
RT health care
health personnel

MELIOIDOSIS

BT bacterial infections

MELIOIDOSIS (contd)

fecal-oral infections
RT *Pseudomonas pseudomallei*

MEMBRANE FILTERS

BT bacteriological examination
filtration

MEMBRANES

BT linings
RT reverse osmosis

MEN

BT humans
RT women

MERCURY

BT heavy metals

MESOPHILIC

BT temperature

METABOLISM**METAGONIMIASIS**

BT helminthic infections
RT aquatic snails
fish
Metagonimus

METAGONIMUS

BT trematodes
RT metagonimiasis

METALS

NT heavy metals
silver
trace metals
RT castings
construction materials
steel

METERS

BT instrumentation
special castings
RT house connections
pipes
taps
water distribution
water metering

METHANE

RT anaerobic digestion
biogas
energy
methane fermentation
sludge digestion

METHANE FERMENTATION

BT anaerobic digestion
fermentation
RT biogas production
excreta treatment
methane

**METHANE PRODUCTION
(or METHANOGENESIS)**

BT biogas production

METHEMOGLOBINEMIA

BT water related diseases
RT nitrates
nitrites

MICROBIAL INFECTIONS

BT infectious diseases
water related diseases
NT bacterial infections
viral infections

MICROBIOLOGICAL ANALYSIS

BT examination
NT bacteriological examination
RT biological analysis
microbiology
microorganisms

MICROBIOLOGICAL QUALITY

BT water quality
NT bacteriological quality
virological quality

MICROBIOLOGY

RT microbiological analysis

MICROORGANISMS

NT algae
bacteria
fungi
pathogens
protozoa
viruses
RT microbiological analysis

MICROPOLLUTION

BT pollution
RT trace contaminants
trace elements
trace metals

MICROSCREENS

USE MICROTRAINING

MICROTRAINING

(including MICROTRAINERS)
UF MICROSCREENS

BT strainers
RT screens
suspended solids removal

MIDDENS

BT mound systems

MIGRANT WORKERS

RT migration

MIGRATION

UF POPULATION REORGANIZATION

NT population resettlement
rural-urban migration
seasonal migration
RT demography
migrant workers
nomadic communities
population
social aspects
socioeconomic impact

MINIMUM ESSENTIAL NEEDS

USE BASIC NEEDS

MIST SHOWER

BT atomization
showering

MISUSE (OF FACILITIES)

BT behavior
sociocultural aspects
NT unintentional misuse
wilful misuse
RT damage
problem identification
use (of facilities)
vandalism

MITES

BT arthropods
parasites
NT Sarcoptes scabei
RT scabies

MIXING

NT hydraulic mixing
mechanical mixing
rapid mixing
RT mixing tanks
stirring

MIXING TANKS

BT tanks
RT mixing

MOBILIZATION
UF COMMUNITY ORGANIZATION

BT communication
RT awareness
campaigns
communities
community action
community contributions
community development
community participation
education
extension
negotiation
self help labor
self sufficiency
water committees

MODELS

NT computer models
mathematical models
RT prediction

MODULES

RT package plants

MOLLUSCICIDES

BT pesticides
snail control

MONITORING
UF SUPERVISION

BT evaluation
examination
NT water quality monitoring
RT analytical techniques
testing
water analysis
water quality

MORBIDITY

RT demography
diseases
public health

MORTALITY
UF DEATH

RT demography
diseases
infectious diseases
pathogens
public health
water related diseases

MORTAR

BT construction materials
NT cement mortar

MOSQUITOES

BT flies
NT Aedes
Anopheles
Culex
RT filariasis
helminthic infections
Rift Valley Fever
viral infections
water related insect vector
diseases
West Nile fever

MOST PROBABLE NUMBER (MPN) METHOD
USE MULTIPLE TUBE METHOD

MOTIVATION

RT attitudes
incentives

MOTORIZED PUMPS

BT pumps
RT motors

MOTORS

NT diesel engines
electric motors
prime movers
RT motorized pumps
pumps

MOULDERING LATRINES

BT dry excreta disposal on site
latrines
NT Vietnamese double vault
RT composting latrines

MOUND SYSTEMS

NT middens
RT aquaprivies
seepage pits
septic tank systems

MULTIDISCIPLINARY APPROACH

RT holistic approach
interdisciplinary approach

MULTILATERAL AID

BT development aid

MULTILAYER FILTRATION

BT deepbed filtration
RT dual media filtration
filter media
multimedia filtration

MULTIMEDIA FILTRATION

BT filtration
NT dual media filtration
RT filter media
multilayer filtration
size graded filtration

**MULTIPLE TRAY AERATORS
UF TRAY AERATORS**

BT aerators

MULTIPLE TUBE METHOD

UF MOST PROBABLE NUMBER (MPN) METHOD

BT bacteriological examination

MUNICIPAL WASTEWATER

BT wastewater
RT industrial wastewaters
sewage

MUSCA

UF HOUSE FLIES

BT flies

NANNOPLANKTON

BT plankton
RT phytoplankton
zooplankton

NATIONAL PLANNING

BT planning
RT international planning

NATIONAL POWER STRUCTURE

BT power (social)
RT community power structure
disadvantaged groups
dominant groups
interests
social structure
stratification (of social
groups)

**NATURAL PURIFICATION
USE SELF PURIFICATION****NATURAL RECHARGE**

BT recharge
RT groundwater recharge
seepage

NATURAL RESOURCES

NT water resources

NECATOR

BT hookworms
RT Necator infection

NECATOR INFECTION

BT hookworm infections
RT Necator

NEEDS**UF REQUIREMENTS**

NT essential needs
felt needs
RT equity
human rights
information gathering
interests
priority setting
social aspects

**NEGOTIATION (between water authority
and community)**

BT social process
RT community decision making
community financial
contributions
community participation
consultation
decision making
mobilization
policy
representation
upward communication
water committees
willingness to pay

NEMATODES**UF ROUNDWORMS**

BT helminths
NT Ascaris
Dracunculus
Enterobius
hookworms
larval nematodes
Onchocerca
Strongyloides
Trichuris

**NETWORKS (OF PIPES)
USE RETICULATION****NEUTRALIZATION**

BT chemical treatment
RT pH control

**NEW PRACTICES
USE INNOVATIONS****NICKEL**

BT heavy metals

**NIGHT SOIL (human feces and urine
collected without
dilution in large
volumes of water)**

BT excreta
RT night soil collection
sewage
solid waste

**NIGHT SOIL COLLECTION
UF CONSERVANCY SYSTEMS**

BT excreta collection
NT cartage
dipper and bucket system
manual removal
mechanical removal
RT bucket latrines
collection charges
excreta disposal systems
latrines
night soil
tank trucks
vacuum trucks
vault privies

**NIGHT SOIL TREATMENT
USE EXCRETA TREATMENT****NIGHT SOIL UTILIZATION
USE EXCRETA USE**

NITRATES

BT chemical quality
nitrogen compounds
RT denitrification
eutrophication
methemoglobinemia
nitrification
nitrites

NITRIFICATION

BT wastewater treatment
RT ammonia
nitrates
nitrites
nitrogen compounds
protein

NITRITES

BT nitrogen compounds
RT methemoglobinemia
nitrates
nitrification

NITROGEN COMPOUNDS

BT fertilizers
NT ammonia
nitrates
nitrites
RT carbon/nitrogen ratio
denitrification
nitrification

**NITROGEN REMOVAL
USE DENITRIFICATION****NOMADIC COMMUNITIES**

BT rural communities
RT migration

NON FORMAL EDUCATION

BT education
RT adult education
audiovisual aids
awareness
dialogue
extension

NON FORMAL EDUCATION (contd)

formal education
health education
training

NON GOVERNMENTAL ORGANIZATIONS

BT organizations
NT voluntary agencies
RT government organizations

NON PIPED DISTRIBUTION

BT water distribution
RT water carriers
water carrying
water vendors

**NON WATER CARRIED EXCRETA DISPOSAL
SYSTEMS****USE DRY EXCRETA DISPOSAL****NORWALK AGENT**

BT viruses
RT diarrheal diseases

NOZZLES

RT atomization

NUTRIENTS

NT plant nutrients
RT agriculture
eutrophication

NUTRITION**UF FOOD**

RT fish
malabsorption
malnutrition

OBJECTIVES

NT goals
targets
RT planning

OCCUPATIONAL HEALTH

BT public health
RT personnel

OCEAN DISPOSAL

USE **SEA DISPOSAL**

OCEAN WATER

USE **SEAWATER**

ODOR

UF SMELL

BT organoleptic quality
RT color
odor control
taste

ODOR CONTROL

BT water treatment
RT activated carbon treatment
odor
taste control

OFF SITE DISPOSAL

BT excreta disposal
refuse disposal
wastewater disposal
NT cartage
dry excreta disposal off site
sewerage
RT on site disposal

OFF SITE TREATMENT

See **WASTEWATER TREATMENT**

OIL FLUSH TOILETS

BT flush toilets

OIL REMOVAL

BT water treatment
RT flotation

ON SITE DISPOSAL

BT excreta disposal
refuse disposal
wastewater disposal
NT dry excreta disposal on site
subsurface disposal
wastewater disposal on site
RT off site disposal

ON SITE PRODUCTION

BT production

ONCHOCERCA

BT nematodes
RT onchocerciasis

ONCHOCERCIASIS

UF RIVER BLINDNESS

BT helminthic infections
RT Onchocerca
Simulium

ONE PIPE SYSTEM

BT water supply systems
RT water conservation

OPEN CHANNEL DRAINAGE

BT drainage
RT storm drainage

OPEN CONDUITS

BT conduits

OPEN DRAINS

BT drains

OPEN WELLS

BT wells
RT dug wells

OPERATING COSTS

BT costs
RT operation (of facilities)

OPERATION (OF FACILITIES)

BT sanitation
water supply
NT emergency operation
RT maintenance
operating costs
operators
process control
technology
water operators

**OPERATION CONTROL
USE MANAGEMENT****OPERATORS**

BT personnel
NT water operators
RT operation (of facilities)

OPINIONS

USE ATTITUDES

OPISTHORCHIASIS

(or CAT LIVER FLUKE)

BT fecal-disposal diseases
helminthic infections
RT aquatic snails
Opisthorchis

OPISTHORCHIS

BT trematodes
RT opisthorchiasis

OPTIMIZATION

RT design
planning

ORGANIC CARBON

RT carbon/nitrogen ratio
organic matter

ORGANIC COMPOUNDS**ORGANIC MATTER**

RT organic carbon

ORGANIC WASTE

BT solid waste
wastewater
NT excreta
garbage
sewage

ORGANISMS

USE ANIMAL LIFE,
MICROORGANISMS, and
PLANT LIFE

ORGANIZATIONAL STRUCTURE

(if of community
USE COMMUNITY POWER STRUCTURE)

NT social structure
RT management
policy

ORGANIZATIONS

NT government organizations
international organizations
non governmental organizations

ORGANOLEPTIC QUALITY

UF AESTHETIC QUALITY

BT water quality
NT color
odor
taste
turbidity
visual quality
RT perception

ORIFICES

RT flow limiting devices
flow measurement

ORTHOKINETIC FLOCCULATION

BT coagulation/flocculation
NT hydraulic flocculation

OUTFALLS

BT sewerage
sewers

OUTREACH

USE **EXTENSION**

OVERFLOW PIPES

BT pipes

OVERGRAZING

BT grazing
RT desertification
forest management
livestock

OVERHEAD IRRIGATION

BT irrigation

OVERHUNG LATRINES

BT dry excreta disposal on site
latrines

OVERLAND FLOW

(or **OVERLAND RUNOFF**)

BT land application

OX CARRYING (of water)

BT animal carrying
water carrying

OXIDATION DITCHES

BT biological treatment
ditches
RT activated sludge

OXIDATION DITCHES (contd)

aerated lagoons
aeration
cage rotors

OXIDATION PONDS

UF SEWAGE LAGOONS
UF STABILIZATION PONDS
UF WASTE STABILIZATION PONDS
UF WASTEWATER LAGOONS

BT biological treatment
wastewater treatment
NT aerated lagoons
aerobic lagoons
anaerobic lagoons
facultative lagoons
maturation ponds
RT fishponds
ponds

OXIDATION-REDUCTION POTENTIAL

UF REDOX POTENTIAL

OXYGEN

NT dissolved oxygen
RT oxygenation

OXYGEN DEFICIENCY**OXYGEN DEMAND**

BT chemical quality
wastewater strength
NT biochemical oxygen demand
chemical oxygen demand

OXYGENATION

BT aeration
RT oxygen

OXYURIASIS

USE **ENTEROBIASIS**

OZONATION

BT disinfection
RT ozone

OZONE

RT disinfection
ozonation

PACKAGE PLANTS

RT modules
wastewater treatment
water treatment plant

PADDY FIELDS

RT land application

PARAGONIMIASIS (or LUNG FLUKES)

BT fecal-disposal diseases
helminthic infections
RT aquatic crustaceans
aquatic snails
crabs
Paragonimus

PARAGONIMUS

BT trematodes
RT paragonimiasis

PARALYSIS

RT poliomyelitis

PARASITES**UF INTESTINAL PARASITES**

BT pathogens
pests
NT helminths
lice
mites
protozoa
RT arthropods
diseases

PARASITIC DIARRHEAS

BT diarrheal diseases

PARASITIC INFECTIONS

BT infectious diseases
water related diseases
NT helminthic infections
protozoal infections

PARASITIC WORMS

See **HELMINTHS**

PARATYPHOID

BT bacterial infections
enteric infections
fecal-oral infections
salmonellosis
RT Salmonella paratyphi
typhoid

PARSHALL FLUMES**UF VENTURI FLUMES**

BT flow measurement
flumes
venturi devices

PARTICIPATION

See **COMMUNITY PARTICIPATION**

PARTICLE SIZE DISTRIBUTION

BT physical quality
RT size distribution

PASTEURIZATION

BT heat treatment

PATHOGENIC BACTERIA

BT bacteria
pathogens
NT Enterobacteriaceae
Escherichia coli
(enteropathogenic strains)
Pseudomonas pseudomallei
Salmonella
Shigella
streptococci
Vibrio
Yersinia

PATHOGENIC BACTERIA (contd)

RT bacterial infections
 bactericides
 spirochetes

PATHOGENS

BT microorganisms
 NT helminths
 parasites
 pathogenic bacteria
 Rickettsia
 viruses
 RT bacteria
 diseases
 excreta
 fecal-disposal diseases
 fecal-oral infections
 fungi
 infectious diseases
 mortality
 protozoa
 streptococci
 water pollution
 water related diseases
 water related insect vector
 diseases

PAYMENT

NT community financial
 contributions
 RT ability to pay
 charges
 disadvantaged groups
 equity
 socioeconomic impact
 tariffs
 willingness to pay

PEAK VALUES

RT variations

PEAT BOGS

RT land application

PEDAL VALVES

USE FOOT OPERATED TAPS

PEDESTAL SEATS

BT deposition devices
 RT squatting plates

PENSTOCKS

RT sluice gates
 valves

PEOPLE

USE HUMANS or SOCIAL ASPECTS

PERCEPTION

BT sociocultural aspects
 RT attitudes
 beliefs
 organoleptic quality
 psychology
 taboos
 values

PERCOLATING FILTERS

USE BIOLOGICAL FILTRATION

PERCOLATION

RT hydrological cycle
 infiltration
 seepage

PERCUSSION DRILLING

BT well drilling

PERFORMANCE

USE EFFICIENCY

PERFORMANCE RATIO

RT efficiency

PERI URBAN AREAS

USE URBAN PERIPHERIES

PERI URBAN COMMUNITIES

BT low income communities
urban communities
RT urban peripheries

PERISTALTIC PUMPS

BT pumps

PERMANGANATE VALUE

BT chemical oxygen demand
RT dichromate value

**PERSONAL CLEANSING PRACTICES (after
defecation)**

BT domestic use
personal hygiene
toilet hygiene
NT anal cleansing
hand washing
RT sanitation

PERSONAL HYGIENE

UF BODY CARE
UF HEALTH PRACTICES

BT behavior
hygiene
NT personal cleansing practices
toilet hygiene
washing (of skin)
RT child hygiene
community blocks
excreta disposal
health aspects
health education
health impact
household hygiene
sanitation
soap
waterwashed diseases

**PERSONNEL (those involved in a
project or enterprise)**

BT manpower
NT administrators
construction workers
engineering personnel
extension agents

PERSONNEL (contd)

foremen
health personnel
managers
medical personnel
operators
plumbers
promoters
sanitary inspectors
scientific personnel
supervisors
teaching personnel
technical personnel
water supply personnel
RT community workers
development workers
job description
occupational health
personnel management
personnel selection
recruitment
training
voluntary workers
wage administration

PERSONNEL MANAGEMENT

BT management
RT career development
job evaluation
personnel

PERSONNEL SELECTION

BT selection
RT personnel
recruitment

PERSUASION

BT communication
RT acceptance
adoption
attitudes
communications media
demonstrations
dialogue
extension
mass media
psychology
sociocultural aspects
use (of facilities)

PEST CONTROL

BT household hygiene
sanitation
NT insect control
pesticides
rodent control
vector control
RT pests

PESTICIDES

BT pest control
NT algicides
bactericides
fungicides
herbicides
insecticides
molluscicides

PESTS

NT insects
parasites
rodents
RT pest control

pH CONTROL

BT stabilization
RT lime
neutralization
pH value

pH VALUE**UF HYDROGEN ION CONCENTRATION**

BT chemical quality
RT acidity
alkalinity
pH control

PHOSPHATES

RT eutrophication
phosphorus

PHOSPHORUS

RT phosphates
phosphorus binding
phosphorus removal

PHOSPHORUS BINDING

RT phosphorus

PHOSPHORUS REMOVAL

RT aluminized red mud solids
coagulation/flocculation
phosphorus

PHOTOGRAPHY

NT aerial photography

PHOTOSYNTHESIS

RT biomass
energy

PHREATOPHYTE SURVEY

BT surveys
RT aerial photography
phreatophytes

PHREATOPHYTES

BT plant life
RT phreatophyte survey

PHYSICAL QUALITY

BT water quality
NT conductivity
filterability
particle size distribution
temperature
turbidity

PHYSICAL TREATMENT**UF MECHANICAL TREATMENT**

BT solid waste treatment
wastewater treatment
water treatment
NT absorption
adsorption
comminution
compaction
filtration
flotation

PHYSICAL TREATMENT (contd)

grit removal
hydraulic flocculation
ion exchange
mechanical flocculation
pulverization
reverse osmosis
sedimentation
RT clarification

PHYTOPLANKTON

BT plankton
NT algae
RT nanoplankton

PIG MANURE

USE ANIMAL EXCRETA

PILOT PLANT

RT pilot studies
small scale

PILOT PROJECTS

USE DEMONSTRATION PROJECTS

PILOT STUDIES

RT pilot plant
research

PINWORM INFECTION

USE ENTEROBIOSIS

PIPE DIAMETER

RT pipes

PIPE FAILURE

NT bursts

PIPE FITTINGS

BT special castings
RT pipe joints
pipelines
pipes

PIPE JOINTS

RT pipe fittings
pipes

PIPE MATERIALS

BT materials
NT asbestos cement
bamboo
cast iron
ductile iron
galvanized iron
high density polyethylene
local materials
plastics
steel
RT construction materials
pipelines
pipes
transmission lines

PIPED WATER

BT water distribution
water supply

PIPELINE ACCESSORIES

USE SPECIAL CASTINGS

PIPELINES

BT conduits
RT air escape
aqueducts
break pressure tanks
pipe fittings
pipe materials
pipes
sewerage
special castings
surge tanks
valves
water distribution
water transmission

PIPES

UF WATER MAINS

NT distribution mains
drainage pipes
overflow pipes
plastics pipes

PIPES (contd)

pressure pipes
 service pipes
 sewers
 RT castings
 coatings
 conduits
 house connections
 leakage
 meters
 pipe diameter
 pipe fittings
 pipe joints
 pipe materials
 pipelines
 piping system
 plumbing
 pressure
 reticulation
 special castings
 water hammer
 water losses

PIPING SYSTEM

RT pipes
 reticulation
 water distribution

PISCICULTURE

USE FISH CULTURE

PISTON PUMPS

USE DIRECT ACTING PUMPS

PIT LATRINES

UF PIT PRIVIES

BT dry excreta disposal on site
 latrines
 NT smoking-pit latrines
 ventilated improved pit
 latrines
 RT borehole latrines
 cesspools
 shallow trench latrines
 trench latrines
 water seal latrines

PIT PRIVIES

USE PIT LATRINES

PLANKTON

NT nannoplankton
 phytoplankton
 zooplankton

PLANNING

BT social process
 NT community decision making
 international planning
 national planning
 program planning
 sector planning
 RT consultation
 decision making
 feasibility study
 information gathering
 management
 objectives
 optimization
 policy
 priority setting
 programs

PLANT LIFE

UF FLORA
 UF VEGETATION

NT macrophytes
 phreatophytes
 weeds
 RT crop production
 irrigation

PLANT NUTRIENTS

BT nutrients
 RT fertilizers

PLASMODIUM

BT protozoa
 RT malaria

PLASTICS

BT construction materials
 pipe materials
 NT ABS (acrylonitrile/butadiene/
 styrene)
 glass reinforced plastics
 polyethylene

PLASTICS (contd)

polyvinylchloride
RT extrusion
plastics pipes
plastics taps

PLASTICS PIPES

BT pipes
RT plastics

PLASTICS TAPS

BT taps
RT plastics

PLATE SETTLERS

BT sedimentation tanks
NT tilted plate separators

PLATFORMS

USE APRONS

PLOT IRRIGATION

BT irrigation
RT garden watering

PLUMBERS

BT personnel
RT plumbing

PLUMBING

RT back siphonage
construction
cross connections
drains
excreta disposal systems
fixtures
housing
pipes
plumbers
plumbing code
sanitary engineering
water supply systems

PLUMBING CODE

RT plumbing

PLUMBING FIXTURES
USE FIXTURES**PLUNGER PUMPS**

USE FORCE PUMPS

POISONS

USE TOXIC SUBSTANCES

POLICY

BT social process
NT development policy
economic policy
RT administration
community participation
decision making
equity
evaluation
human rights
interests
management
negotiation
organizational structure
planning
priority setting
problem identification
programs

POLIOMYELITIS

BT fecal-oral infections
viral infections
RT paralysis
polioviruses

POLIOVIRUSES

BT enteroviruses
RT poliomyelitis

POLLUTANTS

UF CONTAMINANTS

RT pollution

POLLUTION**UF ENVIRONMENTAL POLLUTION**

BT environmental degradation
 NT contamination
 fecal pollution
 industrial pollution
 micropollution
 soil pollution
 wastewater pollution
 water pollution
 RT ecology
 environmental health
 pollutants
 pollution control
 saline water intrusion
 sanitation

POLLUTION CONTROL

BT environmental protection
 NT decontamination
 water pollution control
 RT environmental engineering
 pollution

POLLUTION LOAD

BT loading

POLLUTION OF WATER**USE WATER POLLUTION****POLYELECTROLYTES**

BT chemicals
 RT coagulation/flocculation

POLYETHYLENE

BT plastics
 NT high density polyethylene
 RT polyvinylchloride

POLYVINYLCHLORIDE**UF PVC**

BT plastics
 RT polyethylene

PONDS

BT surface waters
 NT fishponds
 village ponds
 RT oxidation ponds
 reservoirs

POPULATION

RT demography
 humans
 migration
 population increase
 population resettlement
 social aspects

POPULATION GROWTH**USE POPULATION INCREASE****POPULATION INCREASE****UF POPULATION GROWTH**

RT birthrate
 demography
 population
 prediction
 urbanization

POPULATION REORGANIZATION**USE MIGRATION or
POPULATION RESETTLEMENT****POPULATION RESETTLEMENT (government
directed
migration)**

UF RELOCATION
 UF SEDENTARIZATION
 UF VILLAGIZATION

BT migration
 NT settlement schemes
 RT population
 rural-urban migration

PORK TAPEWORM

See **CESTODES** and **TAENIASIS**

POT CHLORINATION

BT chlorination

POT DRILLING

BT manual drilling

POTABLE WATER

USE **DRINKING WATER**

POULTRY MANURE

USE **ANIMAL EXCRETA**

POUR FLUSH LATRINES

BT latrines
wastewater disposal on site

POVERTY

UF DEPRIVATION

RT disadvantaged groups
low income communities
low income urban areas
social aspects

POWER (social)

BT social process
social structure
NT community power structure
national power structure
RT community decision making
dominant groups
interests
stratification (of social
groups)

POWER SOURCES

USE **ENERGY**

POWER STRUCTURE

See **COMMUNITY POWER STRUCTURE** or
NATIONAL POWER STRUCTURE

PRECIPITATION (ATMOSPHERIC)

NT hail
rainwater
snow
RT climate
condensation
hydrological cycle
water balance

PRECIPITATION (CHEMICAL)

BT chemical treatment
RT hydrolysis
solubility
stability (chemical)

PREDICTION

UF FORECASTING

RT models
population increase

PRELIMINARY TREATMENT

USE **PRETREATMENT**

PRESSURE

RT force pumps
pipes
pressure surges

PRESSURE FILTRATION

BT filtration

PRESSURE PIPES

BT pipes
NT force mains

PRESSURE RELIEF

NT air escape
break pressure tanks

PRESSURE SURGES

RT pressure
water hammer

PRETREATMENT

UF **PRELIMINARY TREATMENT**

BT wastewater treatment
water treatment

PREVALENCE

RT incidence
infectious diseases

PREVENTIVE MAINTENANCE

BT maintenance
RT inspection
repair
water operators

PREVENTIVE MEDICINE

BT health care

PRICE OF WATER

USE WATER SUPPLY CHARGES

PRIMARY EFFLUENT

BT effluent

PRIMARY HEALTH CARE

BT health care
RT health education

PRIMARY SLUDGE

BT sludge

PRIMARY TREATMENT

BT wastewater treatment

PRIME MOVERS

BT motors
RT diesel engines
hydraulic turbines
internal combustion engines

**PRINTED MEDIA (newspapers, posters,
leaflets, etc.)**

BT mass media
RT broadcasting media

PRIORITY SETTING

UF URGENCY ASSESSMENT

RT felt needs
management
needs
planning
policy
problem identification
programs

PRIVIES

USE LATRINES

PROBES

BT instrumentation

PROBLEM IDENTIFICATION

RT acceptance
adoption
attitudes
constraints
decision making
evaluation
management
misuse (of facilities)
policy
priority setting
social aspects
sociocultural aspects
use (of facilities)

PROCESS CONTROL

RT administration
operation (of facilities)

PROCESS DESIGN

BT design
RT design criteria

PRODUCTION

UF MANUFACTURE

NT local manufacture
on site production
RT local materials

PRODUCTIVITY

RT biomass

PROGRAM MANAGERS

BT managers

PROGRAM PLANNING

BT planning
RT administration

PROGRAMS

NT demonstration projects
development programs
RT planning
policy
priority setting

PROJECT EVALUATION

BT evaluation
RT projects

PROJECT MANAGERS

BT managers

PROJECTS

NT demonstration projects
RT project evaluation

PROMOTERS

BT personnel
RT community health workers
community participation

PROSPECTING**UF WATER PROSPECTING**

NT geophysical prospecting
hydrogeological prospecting
RT groundwater exploration
surveys

PROTECTION

NT covering
sealing

**PROTECTIVE COATINGS
USE COATINGS****PROTECTIVE LININGS
USE LININGS****PROTEIN**

RT nitrification

PROTEUS

BT fecal bacteria

PROTOZOA

BT microorganisms
parasites
NT Balantidium
Entamoeba
Giardia
Plasmodium
Trypanosoma
RT diseases
pathogens
protozoal infections

PROTOZOAL INFECTIONS

BT parasitic infections
NT amebiasis
balantidiasis
colonic ulceration
giardiasis
liver abscess
malabsorption
malaria
trypanosomiasis
RT diarrheal diseases
protozoa

PSEUDOMONAS

BT fecal bacteria

PSEUDOMONAS PSEUDOMALLEI

BT pathogenic bacteria
RT melioidosis

PSYCHOLOGY

BT social sciences
RT attitudes
perception
persuasion

PUBLIC ACCEPTANCE
USE **ACCEPTANCE**

PUBLIC ATTITUDES
USE **ATTITUDES**

PUBLIC BATHING FACILITIES

BT bathing facilities
NT public showers
RT community blocks
swimming pools

PUBLIC HEALTH
UF **COMMUNITY HEALTH**

BT health
NT environmental health
occupational health
RT child health
demography
morbidity
mortality

PUBLIC HEALTH ENGINEERING
USE **ENVIRONMENTAL ENGINEERING**
or (in some countries)
SANITARY ENGINEERING

PUBLIC HYDRANT
USE **PUBLIC STANDPIPE**

PUBLIC LAUNDRY FACILITIES

BT laundries
RT community blocks

PUBLIC OPINION
USE **ATTITUDES**

PUBLIC RELATIONS

RT management

PUBLIC SHOWERS

BT public bathing facilities
showering
RT community blocks

PUBLIC STANDPIPE

UF **COMMUNAL WATER POINT**
UF **PUBLIC HYDRANT**
UF **STANDPIPES**
UF **STANDPOSTS**

BT service connections
water distribution
NT public tap
RT aprons
community blocks
house connections
hydrants
hydraulic connections
livestock watering
public standpipe systems
revenue collection
self closing taps
taps
yard connections

PUBLIC STANDPIPE SYSTEMS

BT water supply systems
RT public standpipe
rural water supply systems

PUBLIC TAP

BT public standpipe

PUBLIC TOILETS

UF **COMFORT STATIONS**
UF **COMMUNAL LATRINES**

BT toilets
RT community blocks
excreta disposal systems

PULVERIZATION

BT physical treatment
solid waste treatment

PUMPED SUPPLY

BT water distribution
water supply
RT pumps

PUMPED TRANSMISSION

BT water transmission
RT pumps

PUMPHOUSES

USE PUMPING STATIONS

PUMPING STATIONS

UF PUMPHOUSES

NT booster stations
dry wells
RT pumps
water distribution

PUMPS

BT water lifting devices
NT animal powered pumps
booster pumps
hydraulic rams
hydrostatic pumps
motorized pumps
peristaltic pumps
rotary pumps
suction pumps
water wheels
wind powered pumps
RT air lifts
diesel engines
electric motors
headworks
motors
pumped supply
pumped transmission
pumping stations
water transmission
windmills

PURIFICATION PLANT

See WASTEWATER TREATMENT or
WATER TREATMENT PLANT

PUSH BUTTON TAPS

BT taps

PUSH WELLS

USE HORIZONTAL WELLS

PUTRESCIBILITY

RT biodegradation
stability (biochemical)

PVC

USE POLYVINYLCHLORIDE

QANAT

BT wells

QUALITY CONTROL

NT analytical quality control
water quality control
RT examination
quality guidelines

QUALITY GUIDELINES

BT guidelines
NT water quality guidelines
RT quality control
water quality

QUEUING

BT water collection time

QUESTIONNAIRES

BT evaluation methods
information gathering
surveys
RT case studies
interviews

RADIO
USE **BROADCASTING MEDIA**

RADIOACTIVE WASTES

BT hazardous wastes

RADIOACTIVITY

RT radiological quality

RADIOLOGICAL QUALITY

BT water quality
RT radioactivity

RAIN
USE **RAINWATER**

RAINFALL (a fall of rainwater)

RT rainwater
rainwater harvesting
runoff
stormwater
water balance

RAINWATER
UF **RAIN**

BT precipitation (atmospheric)
water resources
water sources
RT catchment areas
hail
rainfall
rainwater harvesting
rainwater storage
runoff
snow
storm drainage
stormwater

RAINWATER HARVESTING
UF **WATER HARVESTING**

NT ground catchment
roof catchment
RT catchment areas
irrigation
rainfall

RAINWATER HARVESTING (contd)
rainwater
rainwater storage
water conservation
water yield improvement

RAINWATER STORAGE

BT water storage
RT cisterns
rainwater
rainwater harvesting

RAISING OF WATER
USE **WATER LIFTING DEVICES**

RAM PUMPS
USE **FORCE PUMPS**

RANNEY SYSTEM

BT well drilling
RT horizontal drilling
infiltration

RAPID FILTRATION*
(including **RAPID FILTERS**)

BT deep bed filtration
sand filtration
RT slow sand filtration
*(refers to water treatment;
for wastewater treatment
use **HIGH RATE FILTRATION**)

RAPID INFILTRATION

BT land application

RAPID MIXING

BT mixing

RATS

BT rodents

RAW SLUDGE

UF undigested sludge

BT sludge

RT digested sludge
sludge disposal**RAW WATER (untreated)**

BT water

RT raw water quality
water sources**RAW WATER QUALITY**

BT water quality

RT raw water
water resources**REAERATION**

USE AERATION

REAGENTS

USE CHEMICALS

REASONABLE ACCESS

BT access to water

RECEIVING WATERS

RT surface water disposal

RECHARGENT artificial recharge
groundwater recharge
natural recharge

RT aquifers

RECHARGE WELLS

BT wells

RT artificial recharge

RECIPIENT COUNTRY VOLUNTARY AGENCIES

BT voluntary agencies

RT voluntary workers

RECIPROCATING PUMPS

BT suction pumps

NT diaphragm pumps
direct acting pumps
force pumps
hand pumps
lift pumps**RECLAIMED WATER**

BT water sources

RT water reclamation

RECLAMATION (of waste materials
or energy)

USE RECOVERY

RECLAMATION (of water)

USE WATER RECLAMATION

RECOMMENDATIONS (formal recommendations
from an individual
expert or a group of
experts)RECOVERY (of waste materials or
energy)

UF RECLAMATION

RT recycling
reuse

RECOVERY OF WATER

USE WATER RECLAMATION

RECRUITMENTRT personnel
personnel selection**RECTANGULAR WEIRS**

BT weirs

RECYCLING (recovery, return, and reuse)

NT sludge use
solid waste recycling

RECYCLING (contd)

wastewater recycling
water reuse
RT recovery
renovation
reuse
wastewater reuse

RED MUD

USE **ALUMINIZED RED MUD SOLIDS**

REDOX POTENTIAL

USE **OXIDATION-REDUCTION POTENTIAL**

REDUCTION**REED ODORLESS EARTH CLOSET**

BT earth closets

REFORESTATION

USE **FOREST MANAGEMENT**

REFUGEE CAMPS

USE **CAMPS**

REFUSE (all kinds of solid waste
from domestic or commercial
premises)

UF RUBBISH

BT solid waste
NT garbage
trash

REFUSE COLLECTION

NT cartage
RT collection charges
refuse collection vehicles
refuse disposal

REFUSE COLLECTION VEHICLES

BT vehicles
RT refuse collection

REFUSE DISPOSAL

BT sanitary engineering
NT burial
garbage disposal
incineration
landfills
off site disposal
on site disposal
refuse dumps
sanitary landfills
RT dry excreta disposal
environmental health
refuse collection
sanitation
sludge disposal
solid waste treatment

REFUSE DUMPS

BT dumping
refuse disposal
RT landfills

REINFORCED CONCRETE

BT concrete

RELAPSING FEVERS

USE **LOUSEBORNE RELAPSING FEVERS**

RELIGIOUS BELIEFS

BT beliefs

RELOCATION

USE **POPULATION RESETTLEMENT**

REMOTE CONTROL**REMOTE SENSING**

BT surveys
NT aerial photography

REMOVAL

BT excreta disposal
NT cartage
manual removal

REMOVAL (contd)
mechanical removal
RT desludging

RENOVATION

BT wastewater treatment
RT recycling
tertiary treatment
wastewater recycling
water reuse

REOVIRUSES

BT viruses

REPAIR

BT maintenance
RT equipment
local materials
preventive maintenance
water operators

REPRESENTATION

BT consultation
upward communication
RT community decision making
community leaders
community meetings
community participation
disadvantaged groups
discussion groups
equity
evaluation
informal leaders
information gathering
interests
negotiation
water committees
women

REQUEST (for a project, by a
community)

REQUIREMENTS
USE NEEDS

RESEARCH

RT case studies
comparative analysis
demonstration projects
pilot studies
studies
surveys
technology
testing

RESERVOIR EVAPORATION

BT evaporation
RT evaporation retardants
reservoirs

RESERVOIR YIELD

BT water yield
RT reservoirs

RESERVOIRS (natural or artificial
space used for storage,
regulation, or control
of water)

NT cisterns
flow regulating reservoirs
house reservoirs
impounding reservoirs
sand dams
service reservoirs
RT artificial lakes
dams
drawdown
epilimnion
equalization basins
hydropower
hypolimnion
lakes
limnology
linings
ponds
reservoir evaporation
reservoir yield
storage
stratification (in water
bodies)
surface waters
tanks
water losses
water storage
wells

RESIDENTIAL WATER
USE WATER SUPPLY

RESIDUAL CHLORINE
USE CHLORINE RESIDUAL

RESISTANCE TO CHANGE

BT sociocultural aspects
RT beliefs
social change
taboos

RESTAURANT HYGIENE
USE FOOD HYGIENE

RETICULATION OF NETWORKS (OF PIPES)

NT sewerage
water distribution
water supply systems
RT pipes
piping system
service connections
special castings

REUSE

RT excreta use
recovery
recycling
solid waste recycling
wastewater reuse
water reuse

REVENUE COLLECTION

BT water costs
RT charges
costs
financing
leakage
livestock watering
public standpipe
taxes
water consumption
water distribution
water metering

REVERSE OSMOSIS

BT desalination
physical treatment
RT membranes

RHODESIAN SLEEPING SICKNESS
USE TRYPANOSOMIASIS

RICKETTSIA
(including RICKETTSIA PROWAZEKII)

BT pathogens
RT epidemic typhus

RICKETTSIAL TYPHUS
USE EPIDEMIC TYPHUS

RIFT VALLEY FEVER

BT water related insect vector
diseases
RT mosquitoes

RIGHTS
See HUMAN RIGHTS,
LEGAL RIGHTS or
WATER RIGHTS

RINGS

BT special castings

RINGWORM
USE TINEA

RISING BLOCK TARIFFS

BT tariffs

RIVER BASINS

BT basins (topographical)
catchment areas
RT rivers

RIVER BLINDNESS
USE ONCHOCERCIASIS

RIVER INTAKES

BT intake works
RT rivers

RIVER POLLUTION

BT surface water pollution

RIVERINE TSETSE FLY
USE **GLOSSINA**

RIVERS

BT surface waters
water resources
RT bank storage
infiltration galleries
lakes
river basins
river intakes
streams
water sources

RODENT CONTROL

BT pest control
vector control
RT rodents

RODENTS

BT pests
NT rats
RT rodent control

ROOF CATCHMENT

BT rainwater harvesting

ROOF TANKS
USE **HOUSE RESERVOIRS**

ROTARY DRILLING

BT well drilling

ROTARY PUMPS

BT pumps
NT centrifugal pumps
helical rotor pumps

ROTATING BIOLOGICAL CONTACTORS

BT biological treatment
NT biological disks
biological drums

ROTAVIRUSES

BT viruses
RT diarrheal diseases
gastroenteritis

ROTOR SPEED

RT rotors

ROTORS

NT cage rotors
RT aerators
rotor speed
windmills

ROUNDWORM INFECTION
USE **ASCARIASIS**

ROUNDWORMS
USE **NEMATODES**

ROUTING

RT aerial photography
water transmission

RUBBISH
USE **REFUSE**

RUNOFF (the part of rainfall which reaches surface waters both as direct runoff and as subsurface runoff)

UF STORMWATER RUNOFF

NT subsurface runoff
surface runoff
RT catchment areas
hydrological cycle
rainfall
rainwater
streams
surface waters
water balance

RURAL AREAS

RT agriculture
rural communities
villages

RURAL COMMUNITIES

BT communities
NT nomadic communities
scattered communities
villages
RT community participation
rural areas
rural development
small communities
social aspects

RURAL DEVELOPMENT

UF INTEGRATED RURAL DEVELOPMENT

BT development
RT community development
rural communities

RURAL MIGRATION

USE RURAL-URBAN MIGRATION
if to urban areas;
otherwise **MIGRATION**

RURAL/URBAN MIGRATION

UF RURAL MIGRATION
if to urban areas

BT migration
RT population resettlement
urbanization

RURAL WATER SUPPLY SYSTEMS

BT water supply systems
RT public standpipe systems
small community water supply systems
water supply

RURBAN WATER SUPPLY PROGRAMS (where possible define the size or type of community)

BT water supply

RUSHES

BT aquatic plants
NT bulrushes

SAFE WATER SUPPLY (uncontaminated water)

BT water supply
RT water contamination

SALINE WATER

UF SALT WATER

NT brackish water
RT chlorides
desalination
estuaries
saline water intrusion
salinity
salts
seawater

SALINE WATER INTRUSION

RT pollution
saline water
seawater

SALINITY

RT brackish water
chlorides
conductivity

SALINITY (contd)

desalination
 saline water
 salts
 seawater
 sodium chloride
 total dissolved solids

SALMONELLA

BT pathogenic bacteria
 NT Salmonella paratyphi
 Salmonella typhi
 RT bacterial enteritis
 salmonellosis

SALMONELLA PARATYPHI

BT Salmonella
 RT paratyphoid

SALMONELLA TYPHI

BT Salmonella
 RT typhoid

SALMONELLOSES

BT bacterial infections
 fecal-oral infections
 NT bacterial enteritis
 paratyphoid
 typhoid
 RT diarrheal diseases
 Salmonella

SALT WATER

USE SALINE WATER

SALTS

RT desalination
 saline water
 salinity

SAMPLING

NT water samples
 RT examination
 water quality

SAND DAMS

BT reservoirs

SAND FILTER TRENCHES

RT sand filtration
 trenching

SAND FILTRATION

(including SAND FILTERS)

BT deep bed filtration
 filtration
 NT rapid filtration
 slow sand filtration
 RT sand filter trenches
 underdrainage

SANDY SOIL

BT soil

SANITARY ENGINEERING

UF PUBLIC HEALTH ENGINEERING
 (in some countries)

BT environmental engineering
 NT refuse disposal
 sewerage
 wastewater disposal
 wastewater treatment
 RT civil engineering
 environmental health
 hydraulic engineering
 plumbing
 sanitation
 water engineering

SANITARY INSPECTORS

UF ENVIRONMENTAL HEALTH PERSONNEL

BT personnel
 RT environmental health
 sanitation

SANITARY LANDFILLS

UF CONTROLLED TIPS

BT landfills
 refuse disposal

SANITATION (the establishment of
environmental conditions
favorable to health)

UF ENVIRONMENTAL HYGIENE
UF ENVIRONMENTAL SANITATION

BT hygiene
NT community blocks
excreta collection
operation (of facilities)
pest control
water pollution control
RT animal excreta disposal
child hygiene
disease control
environment
environmental engineering
environmental health
excreta disposal
food industry
food preparation
garbage disposal
health care
health education
household hygiene
markets
personal cleansing practices
personal hygiene
pollution
refuse disposal
sanitary engineering
sanitary inspectors
sanitation charges
sewerage
slaughterhouses
sludge disposal
slum upgrading
taboos
vector control
wastewater disposal
water supply

SANITATION CHARGES

BT charges
NT collection charges
sewerage charges
RT sanitation

SANITATION EDUCATION
USE HEALTH EDUCATION

SARCOPTES SCABEI

BT mites
RT scabies

SCABIES

BT skin infections
RT mites
Sarcoptes scabiei

SCAFFOLD DRILLING

BT manual drilling

SCATTERED COMMUNITIES

UF HOMESTEAD SETTLEMENT PATTERN

BT rural communities
RT small communities
villages

SCHISTOSOMA

BT trematodes
RT schistosomiasis

SCHISTOSOMIASIS (or BLOOD FLUKES)

UF BILHARZIASIS

BT fecal-disposal diseases
helminthic infections
RT aquatic snails
Schistosoma

SCHOOLS

BT formal education
RT educational attendance
teaching personnel

SCIENTIFIC PERSONNEL

BT personnel

SCRAP FEEDING

BT garbage use

SCREENS

NT bar screens
well screens
RT microstraining
strainers

SEA DISPOSAL

UF OCEAN DISPOSAL

BT disposal
sludge disposal
wastewater disposal**SEALING**BT protection
RT covering**SEASONAL MIGRATION**

BT migration

SEASONAL VARIATIONSBT variations
RT daily variations
diurnal variations
hourly variations**SEAWATER**UF MARINE WATER
UF OCEAN WATERBT water sources
RT desalination
estuaries
saline water
saline water intrusion
salinity
surface waters**SEAWEEDES**BT algae
aquatic plants**SECONDARY EFFLUENT**

BT effluent

SECONDARY SLUDGE

BT sludge

SECONDARY TREATMENT

BT wastewater treatment

SECTOR PLANNING

BT planning

SEDENTARIZATION (of nomadic people)
USE POPULATION RESETTLEMENT**SEDIMENTATION**

UF SETTLING

BT clarification
physical treatment
RT desilting
detention tanks
flotation
grit removal
sedimentation tanks
sediments
suspended solids removal**SEDIMENTATION TANKS (or BASINS)**UF SETTLEMENT TANKS
UF SETTLING TANKS (or BASINS)BT tanks
NT detritus tanks
plate settlers
septic tank systems
tube settlers
RT desludging
Imhoff tanks
sedimentation**SEDIMENTS**

UF DEPOSITS

RT sedimentation

SEEPAGERT infiltration
natural recharge
percolation
seepage beds
seepage pits

SEEPAGE BEDS

BT subsurface disposal
RT seepage

SEEPAGE PITS**UF ABSORPTION TRENCHES**

BT subsurface disposal
RT mound systems
seepage
septic tank systems

SELECTION**UF CHOICE**

BT decision making
NT personnel selection
site selection
source selection
RT alternatives
selection criteria

SELECTION CRITERIA

BT criteria
RT selection

SELENIUM**SELF CLEANSING GRADIENTS**

RT sewers

SELF CLOSING TAPS

BT taps
wastage control devices
RT public standpipe

SELF FLUSHING TOILETS

BT flush toilets

SELF HELP

USE **COMMUNITY ACTION** or
SELF HELP LABOR

SELF HELP LABOR (in projects with
external agencies
such as water
authorities)

UF COMMUNITY EFFORT (in relation
to a water
authority
project)

BT community contributions
labor

NT volunteers

RT community action
community financial
contributions
food for work
mobilization
self reliance

SELF PURIFICATION**UF NATURAL PURIFICATION**

RT aeration
assimilative capacity
wastewater treatment
water pollution

SELF RELIANCE

BT community participation
NT community autonomy
endogenous development
self sufficiency
RT community action
community development
development policy
self help labor

SELF SUFFICIENCY (maximum use of
local material
and expertise)

BT self reliance
RT community autonomy
community development
mobilization

SEPTIC TANK EFFLUENT

BT effluent
RT subsurface disposal

SEPTIC TANK SYSTEMS

BT excreta disposal systems
sedimentation tanks
tanks
wastewater disposal on site
wastewater treatment
RT aquaprivies
desludging
mound systems
seepage pits

SEPTIC TILES

BT subsurface disposal

SERVICE CONNECTION CHARGES

UF CONNECTION CHARGES

BT charges

SERVICE CONNECTIONS

BT water distribution
NT house connections
public standpipe
yard connections
RT reticulation

SERVICE PIPES

BT pipes
water distribution

SERVICE RESERVOIRS

UF CLEAR WATER RESERVOIRS
UF DISTRIBUTION RESERVOIRS
UF ELEVATED RESERVOIRS
UF WATER TOWERS

BT reservoirs
water distribution
water storage

SETTLEMENT (of people, active process)
USE POPULATION RESETTLEMENT

SETTLEMENT SCHEMES (resettlement in
new agricultural
areas)

BT population resettlement

SETTLEMENT TANKS

USE SEDIMENTATION TANKS

SETTLEMENTS (of people, localities)
USE COMMUNITIES

SETTLING

USE SEDIMENTATION

SETTLING TANKS (or BASINS)

USE SEDIMENTATION TANKS

SEWAGE (this term should be used only
for domestic sewage; otherwise
see WASTEWATER)

BT organic waste
wastewater
RT municipal wastewater
night soil
sullage
wastewater treatment

SEWAGE EFFLUENT (partially or
(completely treated
sewage)

BT effluent

SEWAGE LAGOONS

USE OXIDATION PONDS

SEWAGE SLUDGE

USE SLUDGE

SEWAGE TREATMENT

USE WASTEWATER TREATMENT

SEWERAGE

UF SEWERAGE SYSTEMS
UF WASTEWATER DISPOSAL OFF SITE
UF WATER CARRIED EXCRETA DISPOSAL
SYSTEMS

BT excreta disposal systems
off site disposal
reticulation
sanitary engineering
wastewater collection
wastewater disposal
wastewater transport

SEWERAGE (contd)

wet excreta disposal
NT outfalls
vacuum sewer system
RT drainage
excreta disposal
flush toilets
inspection chambers
pipelines
sanitation
sewerage charges
sewers
special castings
wastewater
wastewater treatment
water closets

SEWERAGE CHARGES

BT sanitation charges
RT sewerage

SEWERAGE SYSTEMS

USE **SEWERAGE**

SEWERS

BT pipes
NT collecting sewers
intercepting sewers
laterals
outfalls
RT self cleansing gradients
sewerage

SHALLOW TRENCH LATRINES

BT trench latrines
RT pit latrines

SHALLOW WELLS

BT wells
NT dug wells
RT boreholes
deep wells
tube wells
well drilling

SHANTY TOWNS

BT low income urban areas

SHANTY TOWNS (contd)

RT disadvantaged groups
slums

SHARP CRESTED WEIRS

BT weirs

SHEEP LIVER FLUKE

See **FASCIOLIASIS** and **TREMATODES**

SHELLFISH

NT shrimps

SHIGELLA

BT pathogenic bacteria
RT diarrheal diseases
shigellosis

SHIGELLOSIS

UF **BACILLARY DYSENTERY**

BT bacterial infections
dysentery
fecal-oral infections
gastroenteritis
RT Shigella

SHOWERING

BT bathing practices
washing (of skin)
NT mist shower
public showers

SHRIMPS

BT shellfish
NT brine shrimp

SIGHT

USE **VISUAL QUALITY**

SILTING

RT desilting

SILVER

BT metals
RT disinfection

SILVER CARP
See **CARP**

SILVICULTURE
USE **FOREST MANAGEMENT**

SIMULIUM
UF **BLACKFLIES**

BT flies
RT onchocerciasis

SITE CONDITIONS

RT flooding
geology
hydrogeology
lithology
topography

SITE SELECTION
UF **LOCATION**

BT selection
RT landfills
latrines

SIZE DISTRIBUTION

RT particle size distribution

SIZE GRADED FILTRATION

BT filtration
RT dual media filtration
filter media
multimedia filtration

SKILLS

RT training

SKIN INFECTIONS

BT waterwashed diseases
NT cutaneous fungal infections
scabies
skin sepsis
ulcers
yaws

SKIN SEPSIS
UF **BACTERIAL SKIN SEPSIS**

BT bacterial infections
skin infections
RT spirochetes

SLAUGHTERHOUSES

RT animal excreta
sanitation

SLEEPING SICKNESS
USE **TRYPANOSOMIASIS**

SLOW SAND FILTRATION

BT sand filtration
RT rapid filtration

SLUDGE
UF **SEWAGE SLUDGE**

NT activated sludge
digested sludge
humus sludge
primary sludge
raw sludge
secondary sludge
RT sludge disposal
sludge treatment
solid waste
wastewater

SLUDGE CONDITIONING

BT conditioning
sludge treatment
RT sludge dewatering

SLUDGE DEWATERING**UF DEWATERING OF SLUDGE**

BT sludge treatment
 NT centrifuges
 sludge drying beds
 vacuum filtration
 RT sludge conditioning

SLUDGE DIGESTION

BT digestion
 sludge treatment
 NT aerobic digestion
 anaerobic digestion
 RT biogas production
 digested sludge
 digestion tanks
 Imhoff tanks
 methane
 sludge disposal
 sludge lagoons

SLUDGE DISPOSAL

NT incineration
 industrial use
 land application
 sea disposal
 RT digested sludge
 environmental health
 raw sludge
 refuse disposal
 sanitation
 sludge
 sludge digestion
 sludge treatment

SLUDGE DRYING BEDS

BT sludge dewatering
 RT underdrainage

SLUDGE GAS**USE BIOGAS****SLUDGE LAGOONS (for digestion and thickening of sludge)**

RT sludge digestion
 sludge thickening

SLUDGE THICKENING

RT sludge lagoons
 thickening tanks

SLUDGE TREATMENT

NT heat treatment
 sludge conditioning
 sludge dewatering
 sludge digestion
 RT activated sludge
 sludge
 sludge disposal
 solid waste disposal
 wastewater treatment

SLUDGE USE

BT recycling
 NT composting
 RT agriculture
 solid waste recycling
 wastewater recycling
 wastewater reuse

SLUICE GATES

RT penstocks
 valves

SLUM UPGRADING

BT social development
 RT environmental health
 sanitation
 slums

SLUMS

BT low income urban areas
 RT disadvantaged groups
 shanty towns
 slum upgrading
 squatter settlements
 urban peripheries

SMALL COMMUNITIES

BT communities
 NT villages

SMALL COMMUNITIES (contd)

RT community participation
 rural communities
 scattered communities

SMALL COMMUNITY WATER SUPPLY SYSTEMS

BT water distribution
 water supply systems
 RT rural water supply systems

SMALL SCALE

RT appropriate technology
 demonstration projects
 pilot plant

SMELL

USE ODOR

SMOKING-PIT LATRINES

BT pit latrines
 RT incinerator toilets

SNAIL CONTROL

BT vector control
 NT molluscicides

SNAILS

USE AQUATIC SNAILS

SNOW

BT precipitation (atmospheric)
 RT hail
 rainwater

SOAKAWAYS

BT underground disposal
 wastewater disposal on site

SOAP

RT bathing practices
 hand washing
 household hygiene

SOAP (contd)

personal hygiene
 washing (of skin)

SOCIAL ANTHROPOLOGY

USE ANTHROPOLOGY

SOCIAL ASPECTS

UF PEOPLE
 UF SOCIOECONOMIC ASPECTS
 UF SOCIOLOGICAL ASPECTS
 UF TRADITIONS

NT acceptance
 adoption
 attitudes
 behavior
 sociocultural aspects
 RT communication
 communities
 community participation
 information gathering
 interests
 migration
 needs
 population
 poverty
 problem identification
 rural communities
 social change
 social process
 social sciences
 social structure
 willingness to pay
 women

SOCIAL ATTITUDES

USE ATTITUDES

SOCIAL CHANGE

UF CHANGES if social
 UF CULTURAL CHANGE

NT development
 RT acceptance
 adoption
 attitudes
 behavior
 resistance to change
 social aspects
 social sciences
 sociocultural aspects

SOCIAL DEVELOPMENT

BT development
 NT slum upgrading
 RT community development
 economic development
 social sciences
 urbanization

SOCIAL IMPACT

USE **SOCIOECONOMIC IMPACT**

SOCIAL PROCESS

NT community participation
 consultation
 decision making
 negotiation
 planning
 policy
 power (social)
 RT dialogue
 interests
 social aspects
 social structure
 upward communication

SOCIAL SCIENCES

NT anthropology
 demography
 economics
 psychology
 sociology
 RT communities
 social aspects
 social change
 social development

SOCIAL STRUCTURE

BT organizational structure
 NT caste
 power (social)
 stratification (of social groups)
 RT communities
 community decision making
 community power structure
 national power structure
 social aspects
 social process

SOCIOCULTURAL ASPECTS

UF ANTHROPOLOGICAL ASPECTS
 UF CULTURAL ASPECTS
 UF ETHNIC ASPECTS

BT social aspects
 NT beliefs
 customs
 misuse (of facilities)
 perception
 resistance to change
 taboos
 use (of facilities)
 values
 RT acceptance
 adoption
 attitudes
 behavior
 caste
 demography
 felt needs
 household hygiene
 indigenous beliefs
 persuasion
 problem identification
 social change

SOCIOECONOMIC ASPECTS

USE **SOCIAL ASPECTS**

SOCIOECONOMIC IMPACT

UF ECONOMIC IMPACT
 UF SOCIAL IMPACT

BT benefits
 economics
 impact
 RT access to water
 brewing
 brickmaking
 charges
 costs
 educational attendance
 environmental protection
 forest management
 industrial use
 labor
 livestock watering
 low income communities
 migration
 payment
 water collection time

SOCIOLOGICAL ASPECTS
USE **SOCIAL ASPECTS**

SOCIOLOGY

BT social sciences
RT anthropology
information gathering

SODA ASH
USE **SODIUM CARBONATE**

SODIUM ADSORPTION RATIO

BT chemical quality

SODIUM CARBONATE
UF **SODA ASH**

RT softening

SODIUM CHLORIDE

BT chlorides
RT salinity

SODIUM HEXAMETAPHOSPHATE
USE **CALGON**

SODIUM HYPOCHLORITE

BT hypochlorites
RT disinfection

SODIUM SULFITE

RT dechlorination

SODIUM THIOSULFATE

RT dechlorination

SOFTENING

UF **WATER SOFTENING**

BT water treatment
RT calgon
hardness

SOFTENING (contd)

industrial water treatment
ion exchange
lime
sodium carbonate

SOIL

NT sandy soil
RT agriculture
clays
land
lithology
soil erosion
soil pollution

SOIL EROSION

RT forest management
soil

SOIL POLLUTION

BT pollution
RT fecal pollution
groundwater pollution
landfills
soil
wastewater pollution

SOLAR CELLS

BT solar energy

SOLAR DISTILLATION

BT distillation
RT solar stills

SOLAR ENERGY

BT energy
NT solar cells

SOLAR RADIATION

UF **SUNLIGHT**

BT light

SOLAR STILLS

BT distillation
RT solar distillation

SOLID WASTE

NT agricultural waste
detritus
industrial waste
organic waste
refuse
RT landfills
night soil
sludge
solid waste recycling
solid waste treatment

SOLID WASTE RECYCLING

BT recycling
NT biogas production
composting
excreta use
garbage use
RT reuse
sludge use
solid waste

SOLID WASTE TREATMENT

NT anaerobic digestion
comminution
compaction
composting
incineration
physical treatment
pulverization
RT refuse disposal
sludge treatment
solid waste

SOLIDS CONTENT

USE DISSOLVED SOLIDS and
SUSPENDED SOLIDS

SOLUBILITY

RT dissolved oxygen
dissolved solids
precipitation (chemical)
stability (chemical)

SOURCE PROTECTION

BT environmental protection
RT forest management

SOURCE SELECTION

BT selection
RT water resources
water supply

SPARE PARTS

RT equipment
maintenance

SPECIAL CASTINGS

UF FITTINGS
UF PIPELINE ACCESSORIES

BT castings
NT joints
meters
pipe fittings
rings
taps
RT pipelines
pipes
reticulation
sewerage
water distribution

SPIROCHETES

BT bacteria
NT Borrelia
Leptospira
Treponema
RT leptospirosis
louseborne relapsing fevers
pathogenic bacteria
skin sepsis
ulcers

SPRAY AERATORS

BT aerators

SPRAY IRRIGATION

UF SPRINKLING IRRIGATION

BT irrigation
land application

SPRAY TAPS

BT taps

SPRING LOADED FAUCETS

BT taps

SPRING PROTECTION

BT water resources conservation
RT covering
groundwater protection
springwater
water pollution control
water resources management

SPRINGS

See **SPRINGWATER**

SPRINGWATER (natural emission of groundwater)

BT water resources
water sources
NT artesian springs
fissure springs
thermal springs
RT aquifers
groundwater
spring protection
springwater tapping
wells

SPRINGWATER TAPPING

BT water collection systems
RT springwater

SPRINKLING IRRIGATION USE **SPRAY IRRIGATION**

SQUATTER SETTLEMENTS (where permanent settlement is opposed by government and/or landowner)

BT low income urban areas
RT camps
disadvantaged groups
slums

SQUATTING PLATES

BT deposition devices
RT pedestal seats

STABILITY (BIOCHEMICAL)

RT putrescibility
stabilization

STABILITY (CHEMICAL)

RT cathodic protection
equilibrium
precipitation (chemical)
solubility
stabilization

STABILITY (COLLOIDAL)

RT coagulation/flocculation
colloidal matter
isoelectric point
zeta potential

STABILIZATION

BT wastewater treatment
water treatment
NT equalization
pH control
RT alkalinity
lime
stability (biochemical)
stability (chemical)

STABILIZATION PONDS USE **OXIDATION PONDS**

STANDARDS

NT design standards
emission standards
water quality standards
RT criteria
guidelines

STANDPIPES USE **PUBLIC STANDPIPE**

STANDPOSTS
USE **PUBLIC STANDPIPE**

STATE-OF-THE-ART REVIEW

BT evaluation methods
RT bibliography
literature review

STATISTICS

RT demography

STEEL

BT construction materials
pipe materials
RT cast iron
ductile iron
iron
metals

STEP WELLS

BT wells

STIRRING

RT mechanical flocculation
mechanical mixing
mixing

STOCKWATERING
USE **LIVESTOCK WATERING**

STOP VALVES

BT valves

STORAGE

See also **DETENTION**

NT underground storage
water storage
RT reservoirs
storage capacity

STORAGE CAPACITY

RT storage

STORAGE RESERVOIRS
if for surface water
USE **IMPOUNDING RESERVOIRS**
if for treated water
USE **SERVICE RESERVOIRS**

STORAGE TANKS

BT tanks
water storage
NT equalization basins
house reservoirs
RT detention tanks

STORM DRAINAGE
(including **STORM DRAINS**)

BT drainage
RT open channel drainage
rainwater
stormwater

STORMWATER (water draining from an
area during and after a
fall of rain)

RT floods
rainfall
rainwater
storm drainage

STORMWATER RUNOFF
USE **RUNOFF**

STRAINERS

NT microstraining
RT screens

STRATIFICATION (in water bodies)
UF **THERMAL STRATIFICATION**

RT epilimnion
hypolimnion
lakes
limnology
reservoirs
thermocline

STRATIFICATION (of social groups)

BT social structure
RT community power structure
disadvantaged groups
dominant groups
interests
national power structure
power (social)

STREAM POLLUTION

BT surface water pollution

STREAMFLOW

BT flow
RT hydrological cycle
streamflow augmentation
streams

STREAMFLOW AUGMENTATION

BT augmentation
RT low flow augmentation
streamflow

STREAMS

BT surface waters
water resources
RT rivers
runoff
streamflow
water sources

STREPTOCOCCI

UF ENTEROCOCCI

BT pathogenic bacteria
NT fecal streptococci
RT fecal pollution
pathogens

STRONGYLOIDES

BT nematodes
RT larva migrans
strongyloidiasis

STRONGYLOIDIASIS

UF THREADWORM

BT fecal-percutaneous infections
helminthic infections
RT Strongyloides

STUDIES

RT research
NT baseline studies

STUDY GROUPS

USE DISCUSSION GROUPS

SUBMERGED INTAKES

BT intake works
NT valve tower

SUBSURFACE DISPOSAL

BT on site disposal
underground disposal
NT drainfields
evapotranspiration beds
leaching fields
seepage beds
seepage pits
septic tiles
tile drainage
RT land application
septic tank effluent

SUBSURFACE IRRIGATION

BT irrigation

SUBSURFACE RUNOFF

BT runoff
RT surface runoff

SUCTION PUMPS

BT pumps
NT reciprocating pumps

SULFIDES

NT hydrogen sulfide

SULFUR BACTERIA

BT bacteria

SULFUR DIOXIDE

RT dechlorination

**SULLAGE (wastewater from sinks and
baths)**

UF DISHWATER
UF GREY WATER
UF HOUSEHOLD WASTEWATER
UF KITCHEN WASTES (liquid)
UF WASHWATER

BT wastewater
RT bathing practices
dishwashing
laundry wastewater
sewage
washing (in general sense)
water reuse

SULLAGE FLUSH LATRINES

BT flush toilets
latrines
wastewater disposal on site

SUNLIGHT

USE SOLAR RADIATION

SUPERNATANT LIQUOR**SUPERVISION**

USE MANAGEMENT or MONITORING

SUPERVISORS

BT personnel

SUPPLY

USE WATER SUPPLY

SURFACE RUNOFF

UF DIRECT RUNOFF

BT runoff
RT subsurface runoff

**SURFACE WATER CATCHMENTS
USE CATCHMENT AREAS****SURFACE WATER DISPOSAL (of wastes)**

BT disposal
wastewater disposal
RT emission standards
receiving waters

SURFACE WATER DRAINS

BT drains

SURFACE WATER INTAKES

BT intake works
water collection systems

SURFACE WATER POLLUTION

BT water pollution
NT river pollution
stream pollution

SURFACE WATERS

BT water resources
water sources
NT canals
estuaries
lakes
ponds
rivers
streams
RT groundwater
impounding reservoirs
reservoirs
runoff
seawater

SURGE TANKS

BT tanks
RT pipelines

SURVEYS

BT evaluation methods
information gathering
NT aerial photography
groundwater survey
hydrographic survey
phreatophyte survey
questionnaires
remote sensing
topographic survey
RT case studies
field studies
hydrology
impact assessment
interviews
prospecting
research
water quality
water sources

SURVIVAL TIME

RT die off

SUSPENDED SOLIDS

BT chemical quality
RT suspended solids removal
turbidity

SUSPENDED SOLIDS REMOVAL

BT wastewater treatment
water treatment
RT clarification
coagulation/flocculation
filtration
flotation
microstraining
sedimentation
suspended solids

SWIMMING POOLS

RT bathing water
public bathing facilities

SWINE MANURE
USE ANIMAL EXCRETA

**SYNTHETIC DETERGENTS
USE DETERGENTS****SYSTEMS ANALYSIS**

NT cost benefit analysis

TABOOS (including **TABOO SUBJECTS**
(those which it is considered
undignified to mention openly)
and **TABOO PRACTICES**
(those considered wrong by a
social group))

BT sociocultural aspects
RT acceptance
adoption
attitudes
behavior
beliefs
perception
resistance to change
sanitation
use (of facilities)

TAENIA

BT cestodes
RT cysticercosis
taeniasis

TAENIASIS

(or **BEEF** and **PORK TAPEWORMS**)

BT fecal-disposal diseases
helminthic infections
RT cysticercosis
Taenia

TANK TRUCK

BT vehicles
RT night soil collection
truck removal

TANKER TRANSPORT

BT transport
RT water transmission

TANKS

UF BASINS (VESSELS)

NT aeration tanks
 break pressure tanks
 cisterns
 detention tanks
 detritus tanks
 digestion tanks
 equalization basins
 flocculators
 Imhoff tanks
 mixing tanks
 sedimentation tanks
 septic tank systems
 storage tanks
 surge tanks
 RT baffles
 reservoirs
 wastewater treatment
 water storage
 water treatment plant

TAPEWORMS

USE CESTODES

TAPLOPAH

BT wood

TAPPING (of springwater)See **SPRINGWATER TAPPING****TAPS**

UF FAUCETS

BT special castings
 NT foot operated taps
 plastics taps
 push button taps
 self closing taps
 spray taps
 spring loaded faucets
 RT house connections
 leakage
 meters
 public standpipe
 valves
 wastage
 yard connections

TARGETS (quantified objectives with dates for achievement)

BT objectives
 RT goals

TARIFF STRUCTURE

RT tariffs

TARIFFS

NT falling block tariffs
 rising block tariffs
 RT charges
 financing
 payment
 tariff structure

TASTE

UF WATER TASTE

BT organoleptic quality
 RT color
 odor
 taste control

TASTE CONTROL

BT water treatment
 RT odor control
 taste

TAXES

RT revenue collection

TEACHINGSee **EDUCATION and TRAINING****TEACHING AIDS**USE **AUDIOVISUAL AIDS****TEACHING PERSONNEL**

UF DEMONSTRATORS
 UF INSTRUCTORS
 UF TRAINERS

BT personnel
 RT curricula

TEACHING PERSONNEL (contd)

education
extension agents
formal education
schools
training

TECHNICAL ASPECTS

See **TECHNOLOGY**

TECHNICAL ASSISTANCE

BT development aid
RT technology

**TECHNICAL COOPERATION (among
developing
countries)**

BT cooperation
RT development cooperation
international cooperation

TECHNICAL DEVELOPMENT

BT development
RT technology

TECHNICAL PERSONNEL

BT personnel

TECHNOLOGY

NT appropriate technology
RT construction
design
design standards
engineering
industry
maintenance
management
operation (of facilities)
research
technical assistance
technical development
technology transfer
training

TECHNOLOGY TRANSFER

RT technology

TEENAGERS

USE **ADOLESCENTS**

TELEVISION

USE **BROADCASTING MEDIA**

TEMPERATURE

BT physical quality
RT climate
heat
mesophilic
thermophilic

TERTIARY EFFLUENT

BT effluent

TERTIARY TREATMENT

BT wastewater treatment
RT renovation

TESTING

BT examination
NT field studies
laboratory testing
RT demonstration projects
monitoring
research
water analysis

THERMAL SPRINGS

BT springwater

THERMAL STRATIFICATION

USE **STRATIFICATION (in water
bodies)**

THERMOCLINE

RT epilimnion
hypolimnion

THERMOCLINE (contd)
limnology
stratification (in water
bodies)

THERMOPHILIC
RT temperature

THICKENING (of sludge)
See **SLUDGE THICKENING**

THICKENING TANKS
RT sludge thickening

THREADWORM
USE **STRONGYLOIDIASIS**

TILAPIA
BT fish
RT fish culture

TILE DRAINAGE
BT drainage
subsurface disposal

TILTED PLATE SEPARATORS
BT plate settlers

TIMBER
USE **WOOD**

TIME GAINS (of local population)
(the time potentially
saved by improving
access to water)
RT educational attendance
water collection journey
water collection time

TINEA
UF RINGWORM
BT cutaneous fungal infections
RT Trichophyton

TODDLERS
USE **CHILDREN**

TOGAVIRUS
BT viruses
RT dengue
yellow fever

TOILET BOWL WASHING
BT washing (in general sense)
toilet hygiene
NT toilet flushing

TOILET FLUSHING
BT domestic use
toilet bowl washing
RT flush toilets

TOILET HYGIENE
BT personal hygiene
NT personal cleansing practices
toilet bowl washing

TOILETS
BT excreta disposal systems
NT chemical toilets
flush toilets
incinerator toilets
public toilets
two cycle toilets
urinals
vacuum toilets
water closets
waterless toilets
RT latrines

TOPOGRAPHIC SURVEY
BT surveys

TOPOGRAPHIC SURVEY (contd)

RT aerial photography
topography

TOPOGRAPHY

RT site conditions
topographic survey

TOTAL DISSOLVED SOLIDS

BT dissolved solids
RT conductivity
salinity

TOWNS

USE URBAN AREAS

TOXIC SUBSTANCES

UF POISONS
UF TOXINS

BT health aspects
RT toxicity

TOXIC WASTES

BT hazardous wastes

TOXICITY

BT chemical quality
RT health aspects
toxic substances

TOXINS

USE TOXIC SUBSTANCES

TOXOCARA

RT fecal-disposal diseases
larva migrans

TRACE CONTAMINANTS

NT trace elements
trace metals
RT micropollution

TRACE ELEMENTS

BT trace contaminants
NT trace metals
RT micropollution

TRACE METALS

BT metals
trace contaminants
trace elements
RT micropollution

TRACHOMA

BT eye infections
viral infections
RT Chlamydia trachomatis

TRADE WASTEWATERS

USE INDUSTRIAL WASTEWATERS

TRADITIONS

USE SOCIAL ASPECTS

TRAINEES

RT training

TRAINERS

USE TEACHING PERSONNEL

TRAINING

BT communication
NT curricula
transfer of know-how
transfer of knowledge
RT audiovisual aids
communications media
education
formal education
handbooks
health education
informal education
manpower development
manuals
non formal education
personnel
skills
teaching personnel

TRAINING (contd)
technology
trainees
training centres
vocational guidance

TRAINING CENTRES

RT training

TRANSFER OF KNOW-HOW

BT training

TRANSFER OF KNOWLEDGE

BT education
training
RT communications media
dialogue
extension
health education
information dissemination

TRANSMISSION LINES

BT water transmission
NT conduits
RT break pressure tanks
pipe materials

TRANSMISSION OF DISEASE

RT infectious diseases

TRANSMISSION OF WATER

See **WATER TRANSMISSION**

TRANSPIRATION

USE **EVAPOTRANSPIRATION**

TRANSPORT

NT cartage
manual removal
tanker transport
wastewater transport
water transmission
RT vehicles

TRASH (dry solid waste from domestic
or commercial premises, as
opposed to garbage)

BT refuse

TRAY AERATORS

USE **MULTIPLE TRAY AERATORS**

TREATMENT (specify the type of
treatment)

TREATMENT COSTS

BT costs

TREATMENT PLANT

BT equipment
NT water treatment plant
RT wastewater treatment

TREMATODES

UF **FLUKES**

BT helminths
NT Clonorchis
Fasciola
Fasciolopsis
Heterophyes
Metagonimus
Opisthorchis
Paragonimus
Schistosoma

TRENCH LATRINES

BT dry excreta disposal on site
latrines
NT shallow trench latrines
RT borehole latrines
pit latrines
trenching

TRENCHING

BT underground disposal
RT ditches
sand filter trenches
trench latrines

TREPONEMA

BT spirochetes
RT yaws

TRICHOPHYTON

BT fungi
RT tinea

TRICHURIASIS

UF WHIPWORM INFECTION

BT fecal-oral infections
helminthic infections
RT Trichuris

TRICHURIS

BT nematodes
RT trichuriasis

TRICKLING FILTERS

USE BIOLOGICAL FILTRATION

TRIBALOMETHANES

RT chlorination

TROPICAL AREAS

USE HOT CLIMATE

TRUCK REMOVAL

BT cartage
RT cart removal
tank trucks
vacuum trucks

TRYPANOSOMA

BT protozoa
RT trypanosomiasis

TRYPANOSOMIASIS

UF GAMBIAN SLEEPING SICKNESS
UF RHODESIAN SLEEPING SICKNESS
UF SLEEPING SICKNESS

BT protozoal infections

TRYPANOSOMIASIS (contd)

water related insect vector
diseases

RT Glossina
Trypanosoma

TSETSE FLY

USE GLOSSINA

TUBE SETTLERS

BT sedimentation tanks

TUBE WELLS

BT wells
NT deep wells
RT handpumps
shallow wells
well casings
well drilling

TUNNELS

BT conduits

TURBIDITY

BT organoleptic quality
physical quality
RT color
suspended solids

TURBIDITY REMOVAL

BT water treatment

TURBINES

NT hydraulic turbines

TWO CYCLE TOILETS

BT toilets

TWO WAY COMMUNICATION

USE DIALOGUE or
UPWARD COMMUNICATION

TYPHOID

BT bacterial infections
fecal-oral infections
salmonellosis
RT paratyphoid
Salmonella typhi

TYPHUS (classical or louseborne)
USE EPIDEMIC TYPHUS

ULCERS

BT skin infections
RT spirochetes

ULTRAVIOLET IRRADIATION

BT disinfection

UNDERDEVELOPED COUNTRIES
USE DEVELOPING COUNTRIES

UNDERDRAINAGE

(including UNDERDRAINS)

BT drainage
NT filter underdrains
laterals
RT sand filtration
sludge drying beds

UNDERGROUND DISPOSAL

BT disposal
wastewater disposal
NT burial
infiltration
injection
soakaways
subsurface disposal
trenching

UNDERGROUND STORAGE

BT storage
water storage

UNDIGESTED SLUDGE
USE RAW SLUDGE

UNICELLULAR ALGAE

BT algae
RT diatoms

UNINTENTIONAL MISUSE

BT misuse (of facilities)
RT wilful misuse

UNSEWERED SYSTEMS

See DRY EXCRETA DISPOSAL and
WASTEWATER DISPOSAL ON SITE

UPFLOW FILTRATION

(including UPFLOW FILTERS)

BT filtration

UPGRADING**UPTAKE**

RT bioaccumulation

UPWARD COMMUNICATION

UF TWO WAY COMMUNICATION, if upward

BT communication
NT information gathering
representation
RT community meetings
community participation
consultation
dialogue
extension
interests
negotiation
social process
water committees

URBAN AREAS

UF CITIES

UF TOWNS

UF URBAN SETTLEMENTS

NT low income urban areas
urban peripheries

URBAN AREAS (contd)

RT urban communities
urbanization
villages

URBAN COMMUNITIES

BT communities
NT peri urban communities
RT urban areas

URBAN PERIPHERIES (or FRINGE AREAS)

UF PERI URBAN AREAS

BT urban areas
RT low income urban areas
peri urban communities
slums

URBAN SETTLEMENTS

USE URBAN AREAS

URBANIZATION

RT population increase
rural-urban migration
social development
urban areas

URGENCY ASSESSMENT

USE PRIORITY SETTING

URINALS

BT toilets

URINE

BT animal excreta
human excreta
RT excreta disposal

USE

UF UTILIZATION

USE (OF FACILITIES) (whether provided
or self installed)

BT behavior
sociocultural aspects
RT acceptance
adoption
attitudes
education
health education
misuse (of facilities)
persuasion
problem identification
taboos

USE (OF WASTE)

See **RECYCLING** or specify the type
of waste

USE (OF WATER)

See **WATER USE** and **WATER REUSE**

USER CHARGES

BT charges
RT consumers
costs

USER CHOICE

USE **COMMUNITY DECISION MAKING**

USERS

RT consumers

USERS' ASSOCIATIONS

USE **WATER COMMITTEES**

UTILIZATION

USE **USE**

V NOTCH WEIRS

BT weirs

VACCINATION

USE **IMMUNIZATION**

VACUUM FILTRATION
(including **VACUUM FILTERS**)

BT filtration
sludge dewatering

VACUUM SEWER SYSTEM

BT sewerage

VACUUM TOILETS

BT toilets

VACUUM TRUCKS

BT vehicles
RT night soil collection
truck removal

VALUES

BT sociocultural aspects
RT attitudes
beliefs
benefits
evaluation
interests
perception

VALVE TOWER

BT submerged intakes

VALVES

NT butterfly valves
float valves
flow reducing valves
gate valves
stop valves
RT air escape
coatings
flow control
penstocks
pipelines
sluice gates
taps
water distribution

VANDALISM

BT wilful damage
RT misuse (of facilities)

VARIABLE GAP FLOWMETERS

BT flow measurement

VARIATIONS
UF CHANGES

NT daily variations
diurnal variations
hourly variations
seasonal variations
RT behavior
peak values

VAULT PRIVIES (having a pit lined
with watertight
material)

BT dry excreta disposal off site
latrines
NT Vietnamese double vault
RT composting latrines
night soil collection

VECTOR BORNE DISEASES

NT helminthic infections
water related insect vector
diseases
RT vector control

VECTOR CONTROL

BT environmental protection
pest control
NT insect control
rodent control
snail control
RT sanitation
vector borne diseases
viruses

VEGETABLE GROWING

BT crop production
RT kitchen garden watering

VEGETATION
USE PLANT LIFE

VEHICLES

NT refuse collection vehicles
tank trucks
vacuum trucks
RT cartage
transport

VENDORS

USE WATER VENDORS

VENTILATED IMPROVED PIT LATRINES

BT pit latrines

VENTILATORS

VENTURI DEVICES (flumes, meters, or
tubes)

BT flow measurement
NT Parshall flumes
RT flumes

VENTURI FLUMES

USE PARSHALL FLUMES

VIBRIO (including **VIBRIO CHOLERAE**)

BT pathogenic bacteria
RT cholera
diarrheal diseases

VIETNAMESE DOUBLE VAULT

UF DOUBLE SEPTIC BINS

BT composting latrines
mouldering latrines
vault privies

VILLAGE ASSEMBLIES

USE COMMUNITY MEETINGS

VILLAGE COMMUNITIES

USE VILLAGES

VILLAGE PONDS

BT ponds
RT water sources

VILLAGE TECHNOLOGY

USE APPROPRIATE TECHNOLOGY

VILLAGES*

UF HAMLETS

UF VILLAGE COMMUNITIES

BT rural communities
small communities
RT community participation
rural areas
scattered communities
urban areas

*(in some countries the term
VILLAGES is used to designate
administrative units comprising
more than one concentrated
settlement or an area of
scattered population. This
usage is confusing and should
be avoided. Use as appropriate
RURAL AREAS or **RURAL**
COMMUNITIES or **SCATTERED**
COMMUNITIES

VILLAGIZATION

USE POPULATION RESETTLEMENT

VIRAL DIARRHEAS

BT diarrheal diseases

VIRAL GASTROENTERITIS

BT gastroenteritis
viral infections

VIRAL INFECTIONS

BT microbial infections
NT arboviral infections
dengue
infectious hepatitis
poliomyelitis
trachoma
viral gastroenteritis
yellow fever

VIRAL INFECTIONS (contd)

RT bacterial infections
 Culex
 enteric infections
 fecal-disposal diseases
 fecal-oral infections
 mosquitoes
 viruses

VIROLOGICAL QUALITY

BT microbiological quality
 RT viruses

VIRUSES

BT microorganisms
 pathogens
 NT adenoviruses
 arboviruses
 enteroviruses
 hepatitis virus A
 Norwalk agent
 reoviruses
 rotaviruses
 togavirus
 RT diseases
 vector control
 viral infections
 virological quality
 water related insect vector
 diseases

VISUAL QUALITY

UF APPEARANCE
 UF SIGHT

BT organoleptic quality
 NT color

VOCATIONAL GUIDANCE

RT career development
 training

VOLUME

RT capacity

VOLUME OF WATER

USE WATER QUANTITY

VOLUNTARY AGENCIES

UF VOLUNTARY ORGANIZATIONS

BT non governmental organizations
 NT donor country voluntary
 agencies
 recipient country voluntary
 agencies
 voluntary workers

VOLUNTARY ORGANIZATIONS
 USE VOLUNTARY AGENCIES

VOLUNTARY WORKERS (volunteers from outside community)

BT manpower
 voluntary agencies
 RT donor country voluntary
 agencies
 labor
 personnel
 recipient country voluntary
 agencies
 volunteers

VOLUNTEERS (community members working without remuneration)

BT self help labor
 water operators
 RT voluntary workers

WAGE ADMINISTRATION

RT financing
 personnel

WASHING (in general sense)

BT domestic use
 household hygiene
 NT clothes washing
 dishwashing
 toilet bowl washing
 washing (of skin)
 RT cleaning
 community blocks
 sullage

WASHING (of skin)

- BT personal hygiene washing (in general sense)
- NT bathing practices
 - hand washing
 - showering
- RT bathing facilities
 - bathing water
 - child hygiene
 - community blocks
 - soap

WASHWATER
USE **SULLAGE**

WASTAGE

- UF WASTE OF WATER
- UF WATER WASTAGE

- NT water losses
- RT leak detection
 - leakage
 - taps
 - wastage control devices
 - water conservation
 - water consumption
 - water distribution

WASTAGE CONTROL DEVICES

- NT self closing taps
- RT flow limiting devices
 - wastage
 - water conservation

WASTE

- See **EXCRETA,**
GARBAGE,
SEWAGE,
SLUDGE,
SOLID WASTE, and
WASTEWATER

WASTE ASSIMILATIVE CAPACITY
USE **ASSIMILATIVE CAPACITY**

WASTE DISPOSAL

- See **DISPOSAL** (and also the individual types of waste)

WASTE OF WATER
USE **WASTAGE**

WASTE STABILIZATION PONDS
USE **OXIDATION PONDS**

WASTEWATER (any liquid waste)*
UF EFFLUENT (untreated)
UF LIQUID WASTES

- NT agricultural wastewater
- industrial wastewaters
- municipal wastewater
- organic waste
- sewage
- sullage
- RT effluent (partially or completely treated)
 - sewerage
 - sludge
 - wastewater collection
 - wastewater disposal
 - wastewater reuse
 - wastewater treatment
 - water

*(the term **WASTEWATER** includes **DOMESTIC SEWAGE** and is often used with that specific meaning; where possible the type of wastewater should therefore be specified).

WASTEWATER COLLECTION

- NT sewerage
- RT wastewater

WASTEWATER DISPOSAL

- BT sanitary engineering
- NT excreta disposal
 - infiltration
 - land application
 - off site disposal
 - on site disposal
 - sea disposal
 - sewerage
 - surface water disposal
 - underground disposal
 - wastewater disposal on site
 - wet excreta disposal

WASTEWATER DISPOSAL (contd)
RT environmental health
sanitation
wastewater
wastewater reuse
wastewater treatment

**WASTEWATER DISPOSAL OFF SITE
USE SEWERAGE**

WASTEWATER DISPOSAL ON SITE

BT excreta disposal
on site disposal
wastewater disposal
wet excreta disposal
NT pour flush latrines
septic tank systems
soakaways
sullage flush latrines

**WASTEWATER LAGOONS
USE OXIDATION PONDS**

WASTEWATER POLLUTION

BT pollution
RT fecal pollution
soil pollution
water pollution

WASTEWATER RECYCLING

BT recycling
wastewater reuse
RT renovation
sludge use
water reuse

WASTEWATER REUSE

NT aquaculture
irrigation
wastewater recycling
RT agriculture
algae harvesting
biogas production
domestic use
excreta use
fertilizers
fishponds
recycling

WASTEWATER REUSE (contd)
reuse
sludge use
wastewater
wastewater disposal
wastewater treatment
water reuse
water use

WASTEWATER STRENGTH

NT oxygen demand
RT biochemical oxygen demand
chemical oxygen demand

WASTEWATER TRANSPORT

BT transport
NT sewerage

**WASTEWATER TREATMENT
(including WASTEWATER TREATMENT
PLANT)**

UF SEWAGE TREATMENT
UF WET EXCRETA TREATMENT

BT sanitary engineering
NT aeration
biological treatment
chemical treatment
clarification
color removal
composting
denitrification
desalination
disinfection
fermentation
flotation
land application
nitrification
oxidation ponds
physical treatment
pretreatment
primary treatment
renovation
secondary treatment
septic tank systems
stabilization
suspended solids removal
tertiary treatment
RT alum
aquaculture
aquatic plants
excreta treatment
fishponds

WASTEWATER TREATMENT (contd)

loading
package plants
self purification
sewage
sewerage
sludge treatment
tanks
treatment plant
wastewater
wastewater disposal
wastewater reuse
water treatment

WASTEWATER USE

See **WASTEWATER REUSE**

WATER

NT raw water
RT wastewater

WATER ABSTRACTION

USE **WATER COLLECTION SYSTEMS**

WATER ACCESSIBILITY

USE **ACCESS TO WATER**

WATER ANALYSIS

NT bacteriological examination
biological analysis
chemical examination
RT analytical quality control
analytical techniques
monitoring
testing
water quality

WATER ASSISTANTS

BT water supply personnel

WATER AUTHORITIES**WATER BALANCE**

RT evaporation
hydrological cycle

WATER BALANCE (contd)

precipitation (atmospheric)
runoff

WATER CARRIED EXCRETA DISPOSAL SYSTEMS

USE **SEWERAGE**

WATER CARRIERS

NT water vendors
RT children
non piped distribution
water carrying
women

WATER CARRYING

NT animal carrying
head carrying
ox carrying
RT non piped distribution
water carriers
water collection journey
water collection time
water vendors
women's work

WATER CHARGES

USE **WATER SUPPLY CHARGES**

WATER CLARIFICATION

USE **CLARIFICATION**

WATER CLOSETS

BT toilets
RT sewerage

WATER COLLECTION JOURNEY

RT household hygiene
time gains
water carrying
water collection time

WATER COLLECTION SYSTEMS

UF WATER ABSTRACTION
UF WATER DRAWING
UF WITHDRAWAL

NT groundwater withdrawal
intake works
springwater tapping
surface water intakes
RT water lifting devices
water sources

WATER COLLECTION TIME

NT queueing
RT socioeconomic impact
time gains
water carrying
water collection journey

WATER COMMITTEES

UF COMMUNITY WATER COMMITTEES
UF USERS' ASSOCIATIONS

RT community decision making
community development
community participation
community workers
consultation
discussion groups
health education
management
mobilization
negotiation
representation
upward communication
water operators

WATER COMPOSITION

USE WATER QUALITY

WATER CONDUITS

USE CONDUITS

WATER CONSERVATION

UF WATER SAVING

NT flow reduction
water resources conservation
RT atomization
dual flush toilets
flow limiting devices
flow reducing valves

WATER CONSERVATION (contd)

low flush toilets
one pipe system
rainwater harvesting
wastage
wastage control devices
water losses
water rationing
water shortage
water use

**WATER CONSUMPTION (including water
used, wasted, and
lost)**

UF WATER USAGE

BT consumption
RT revenue collection
wastage
water demand
water losses
water quantity
water supply charges
water use

WATER CONTAMINATION

RT safe water supply
water pollution

WATER CONVEYANCE

USE WATER TRANSMISSION

WATER COSTS

BT costs
NT revenue collection
RT water supply charges

WATER CYCLE

USE HYDROLOGICAL CYCLE

**WATER DEMAND (for a particular
purpose)**

RT water consumption
water supply charges
water use

WATER DISTRIBUTION
(including **WATER DISTRIBUTION SYSTEMS**)

UF DISTRIBUTION SYSTEMS

BT reticulation
NT branched systems
dual water supply systems
grid systems
house connections
laterals
non piped distribution
piped water
public standpipe
pumped supply
service connections
service pipes
service reservoirs
small community water supply systems
yard connections
RT booster pumps
booster stations
cross connections
distribution mains
hydraulic connections
inspection chambers
leak detection
meters
pipelines
piping system
pumping stations
revenue collection
special castings
valves
wastage
water losses
water metering
water supply
water transmission

WATER DRAWING
USE **WATER COLLECTION SYSTEMS**

WATER ENGINEERING

RT civil engineering
hydraulic engineering
sanitary engineering

WATER HAMMER

RT pipes
pressure surges

WATER HARDNESS
USE **HARDNESS**

WATER HARVESTING
USE **RAINWATER HARVESTING**

WATER HYACINTH
UF **EICHHORNIA**

BT aquatic plants

WATER INTAKES
USE **INTAKE WORKS**

WATER LAWS
USE **LEGISLATION**

WATER LEVEL INDICATORS

WATER LIFTING DEVICES
UF **LIFTING OF WATER**
UF **RAISING OF WATER**
UF **WATER RAISING DEVICES**

BT equipment
NT air lifts
bucket water lifting devices
pumps
RT water collection systems

WATER LOSSES

BT wastage
NT evaporation
leakage
RT pipes
reservoirs
water conservation
water consumption
water distribution
water use

WATER MAINS
USE **PIPES**

WATER METERING
(including **WATER METERS**)

BT flow measurement

WATER METERING (contd)

RT equipment
meters
revenue collection
water distribution
water use

WATER OPERATORS

UF COMMUNITY WATER OPERATORS

BT community workers
operators
water supply personnel
NT volunteers
RT operation (of facilities)
preventive maintenance
repair
water committees

WATER POLLUTION

UF POLLUTION OF WATER

BT pollution
NT groundwater pollution
surface water pollution
RT eutrophication
fecal pollution
pathogens
saline water intrusion
self purification
wastewater pollution
water contamination
water pollution control
water quality

WATER POLLUTION CONTROL

BT pollution control
sanitation
RT spring protection
water pollution
water quality control
water resources conservation

WATER PRESSURE

RT head (of water)

WATER PRICES

USE WATER SUPPLY CHARGES

WATER PROPERTIES

USE WATER QUALITY

WATER PROSPECTING

USE PROSPECTING

WATER PURIFICATION

USE WATER TREATMENT

WATER QUALITY

UF WATER COMPOSITION

UF WATER PROPERTIES

NT biological quality
chemical quality
drinking water quality
microbiological quality
organoleptic quality
physical quality
radiological quality
raw water quality
RT examination
health aspects
household hygiene
monitoring
quality guidelines
sampling
surveys
water analysis
water pollution
water quality control
water quality guidelines
water quality standards
water related diseases

WATER QUALITY CONTROL

BT quality control
RT examination
field studies
water pollution control
water quality
water quality monitoring

WATER QUALITY GUIDELINES

BT quality guidelines
NT drinking water quality
guidelines
RT water quality
water quality standards

WATER QUALITY MONITORING

BT monitoring
RT fish
water quality control

WATER QUALITY STANDARDS

BT standards
RT water quality
water quality guidelines

WATER QUANTITY

UF VOLUME OF WATER

RT access to water
household hygiene
water consumption
water resources
waterwashed diseases

WATER RAISING DEVICES

USE WATER LIFTING DEVICES

WATER RATES

USE WATER SUPPLY CHARGES

WATER RATIONING

RT water conservation

WATER RECLAMATION

UF RECOVERY OF WATER

RT reclaimed water
water reuse

WATER RELATED DISEASES

BT diseases
infectious diseases
NT cardiovascular diseases
diarrheal diseases
fecal-disposal diseases
fluorosis
methemoglobinemia
microbial infections
parasitic infections
water related insect vector
diseases
waterbased diseases

WATER RELATED DISEASES (contd)

waterwashed diseases
RT dental health
enteric infections
environmental health
health aspects
mortality
pathogens
water quality

WATER RELATED INSECT VECTOR DISEASES

(spread by insects which breed in
water or bite near water)

BT vector borne diseases
water related diseases
NT arboviral infections
dengue
helminthic infections
malaria
Rift Valley fever
trypanosomiasis
West Nile fever
yellow fever
RT cockroaches
flies
insects
mosquitoes
pathogens
viruses

WATER RESOURCES

BT natural resources
NT groundwater
rainwater
rivers
springwater
streams
surface waters
RT forest management
irrigation
raw water quality
source selection
water quantity
water resources conservation
water resources development
water resources management

WATER RESOURCES CONSERVATION

BT water conservation
NT spring protection
RT water pollution control
water resources

WATER RESOURCES DEVELOPMENT

BT development
RT water resources

WATER RESOURCES MANAGEMENT

BT management
NT augmentation
RT spring protection
water resources

WATER REUSE

BT recycling
RT domestic use
irrigation
renovation
reuse
sullage
wastewater recycling
wastewater reuse
water reclamation
water use

WATER RIGHTS

RT legal rights

WATER SAMPLES

BT sampling

WATER SAVING

USE WATER CONSERVATION

WATER SEAL LATRINES

BT latrines
RT pit latrines

WATER SEAL TOILETS

USE FLUSH TOILETS

WATER SHORTAGE

RT drought
water conservation

**WATER SOFTENING
USE SOFTENING****WATER SOURCES (sources of water
supply)**

NT clouds
demineralized water
groundwater
rainwater
reclaimed water
seawater
springwater
surface waters
RT dams
raw water
rivers
streams
surveys
village ponds
water collection systems
water supply
wells

WATER STORAGE

BT storage
NT bank storage
cisterns
clay jars
house reservoirs
impounding reservoirs
rainwater storage
service reservoirs
storage tanks
underground storage
RT dams
household hygiene
hydrological cycle
reservoirs
tanks
waterwashed diseases
wells

WATER SUPPLY

UF COMMUNITY WATER SUPPLIES
UF RESIDENTIAL WATER
UF SUPPLY

NT drinking water supply
gravity supply
industrial water supplies
operation (of facilities)
piped water
pumped supply

WATER SUPPLY (contd)

Rurban water supply programs
 safe water supply
 RT community blocks
 environmental health
 rural water supply systems
 sanitation
 source selection
 water distribution
 water sources
 water supply systems
 water use

WATER SUPPLY CHARGES

UF PRICE OF WATER
 UF WATER CHARGES
 UF WATER PRICES
 UF WATER RATES

BT charges
 RT livestock watering
 water consumption
 water costs
 water demand
 water use

WATER SUPPLY PERSONNEL

BT personnel
 NT water assistants
 water operators

WATER SUPPLY SYSTEMS

BT reticulation
 NT dual water supply systems
 one pipe system
 public standpipe systems
 rural water supply systems
 small community water supply systems
 RT plumbing
 water supply

WATER TABLE

RT aquifers
 groundwater

**WATER TASTE
 USE TASTE****WATER TOWERS**

USE SERVICE RESERVOIRS

WATER TRANSFER

USE WATER TRANSMISSION

WATER TRANSMISSION

UF WATER CONVEYANCE
 UF WATER TRANSFER
 UF WATER TRANSPORT

BT transport
 NT gravity transmission
 pumped transmission
 transmission lines
 RT ghats
 hydraulics
 pipelines
 pumps
 routing
 tanker transport
 water distribution

WATER TRANSPORT

USE WATER TRANSMISSION

WATER TREATMENT

UF WATER PURIFICATION

NT aeration
 chemical treatment
 clarification
 color removal
 corrosion control
 defluoridation
 desalination
 disinfection
 fluoridation
 fluoride removal
 industrial water treatment
 iron removal
 manganese removal
 odor control
 oil removal
 physical treatment
 pretreatment
 softening
 stabilization
 suspended solids removal
 taste control
 turbidity removal

WATER TREATMENT (contd)

RT alum
 iron salts
 wastewater treatment
 water treatment plant
 zeolites

WATER TREATMENT PLANT

UF WATER WORKS

BT treatment plant
 RT package plants
 tanks
 water treatment

WATER USAGE

USE WATER CONSUMPTION

WATER USE

NT aquaculture
 brewing
 brickmaking
 domestic use
 firefighting
 food industry
 garden watering
 housebuilding
 industrial use
 irrigation
 livestock watering
 RT wastewater reuse
 water conservation
 water consumption
 water demand
 water losses
 water metering
 water reuse
 water supply
 water supply charges

WATER USERS' COOPERATIVES

BT cooperatives

WATER VENDORS

UF VENDORS

BT water carriers
 RT non piped distribution
 water carrying

WATER WASTAGE

USE WASTAGE

WATER WHEELS

BT pumps

WATER WORKS

USE WATER TREATMENT PLANT

WATER YIELD

NT reservoir yield
 well yield
 RT water yield improvement

WATER YIELD IMPROVEMENT

RT augmentation
 evaporation retardants
 rainwater harvesting
 water yield

WATERBASED DISEASES (pathogen spends
 part of life cycle
 in intermediate
 aquatic host(s))

BT water related diseases
 NT helminthic infections
 RT aquatic crustaceans
 aquatic hosts
 aquatic snails
 fish

WATERBORNE DISEASES (pathogen
 transmitted
 when water
 is drunk)

USE FECAL-ORAL INFECTIONS

WATERFALL AERATORS

BT aerators

WATERING (of land)

USE IRRIGATION

WATERING (of livestock)
USE **LIVESTOCK WATERING**

WATERING TROUGHS

BT livestock watering

WATERLESS TOILETS

BT toilets

WATERSHED AREAS

USE **CATCHMENT AREAS**

WATERWASHED DISEASES (which depend
on the quantity
of water
available for
hygiene purposes
(for those which
can also be
waterborne see
**FECAL-ORAL
INFECTIONS**))

BT water related diseases

NT epidemic typhus
eye infections
fungal infections
louseborne relapsing fevers
skin infections

RT cooking
excreta
household hygiene
lice
personal hygiene
water quantity
water storage

WEAKER SECTIONS (of population)
USE **DISADVANTAGED GROUPS**

WEED CONTROL

NT algae control
herbicides

WEEDKILLERS
USE **HERBICIDES**

WEEDS

BT plant life

WEEDS (aquatic)
USE **AQUATIC PLANTS**

WEIL'S DISEASE
USE **LEPTOSPIROSIS**

WEIRS

NT broad crested weirs
rectangular weirs
sharp crested weirs
V notch weirs
RT flow control
flow measurement

WELL BORING

BT well sinking
NT well drilling
RT bore bits
boreholes

WELL CAPACITY

RT well construction
wells

WELL CASINGS

BT casings
RT tubewells
well construction
wells

WELL CONSTRUCTION

NT well driving
well jetting
well sinking
RT well capacity
well casings
well lining
well sealing
well washing

WELL COVERS

BT covering
RT wells

WELL DIGGING

BT well sinking
NT hand digging
mechanical digging
RT dug wells
well drilling

WELL DRILLING

BT well boring
NT horizontal drilling
manual drilling
mechanical drilling
percussion drilling
Ranney system
rotary drilling
RT deep wells
drilled wells
drilling fluids
drilling rig
groundwater
linings
shallow wells
tube wells
well digging
wells

WELL DRIVING

BT well construction
RT driven wells

WELL JETTING

BT well construction

WELL LINING

BT linings
RT dug wells
well construction
wells

WELL SCREENS

BT screens
RT wells

WELL SEALING

RT well construction

WELL SINKING

BT well construction
NT well boring
well digging

WELL WASHING

RT well construction

WELL YIELD

BT water yield
RT wells

WELLS**UF COMMUNAL WELLS**

NT artesian wells
drilled wells
driven wells
horizontal wells
open wells
qanat
recharge wells
shallow wells
step wells
tube wells
RT adits
aprons
bucket water lifting devices
drawdown
groundwater
groundwater withdrawal
handpumps
infiltration galleries
reservoirs
springwater
water sources
water storage
well capacity
well casings
well construction
well covers
well drilling
well lining
well screens
well yield

WEST NILE FEVER

BT water related insect vector diseases
 RT mosquitoes

WET AIR OXIDATION

NT Zimmermann process

WET EXCRETA DISPOSAL

BT excreta disposal wastewater disposal
 NT infiltration sewerage wastewater disposal on site
 RT dry excreta disposal

**WET EXCRETA TREATMENT
 USE WASTEWATER TREATMENT****WHEELBARROWS**

RT cartage

**WHIPWORM INFECTION
 USE TRICHURIASIS****WILFUL DAMAGE**

BT damage
 NT vandalism
 RT wilful misuse

WILFUL MISUSE

BT misuse (of facilities)
 RT unintentional misuse wilful damage

WILLINGNESS TO PAY

RT ability to pay
 acceptance
 charges
 community decision making
 community financial contributions

WILLINGNESS TO PAY (contd)

community participation
 negotiation
 payment
 social aspects

WIND POWER

BT energy
 RT wind powered pumps
 wind wheels
 windmills

WIND POWERED PUMPS

BT pumps
 NT wind wheels
 RT wind power

WIND WHEELS

BT wind powered pumps
 RT wind power
 windmills

WINDMILLS

RT pumps
 rotors
 wind power
 wind wheels

**WITHDRAWAL
 USE WATER COLLECTION SYSTEMS****WOMEN**

BT humans
 RT child hygiene
 disadvantaged groups
 education of women
 equity
 interests
 men
 representation
 social aspects
 water carriers
 women's work

**WOMEN'S ROLE
 USE WOMEN'S WORK**

WOMEN'S WORK
UF WOMEN'S ROLE

BT labor
RT division of labor
water carrying
women

WOOD
UF TIMBER

BT construction materials
NT taplopan
RT wood fuel demand

WOOD FUEL DEMAND

RT forest management
fuel
wood

WORKERS

See **COMMUNITY WORKERS** or
PERSONNEL or
VOLUNTARY WORKERS

WORMS

USE **HELMINTHS**

YARD CONNECTIONS

BT service connections
water distribution
RT house connections
public standpipe
taps

YAWS

BT skin infections
RT Treponema

YELLOW FEVER

BT viral infections
water related insect vector
diseases
RT Aedes
togavirus

YERSINIA

BT pathogenic bacteria
RT yersiniosis

YERSINIOSIS

BT bacterial infections
fecal-oral infections
RT Yersinia

ZEOLITES

RT ion exchange
water treatment

ZETA POTENTIAL

RT coagulation/flocculation
isoelectric point
stability (colloidal)

ZIMMERMANN PROCESS

BT wet air oxidation

ZINC

BT heavy metals

ZOOPLANKTON

BT plankton
RT nannoplankton

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