C. Solid waste management

C.1 Family or communal pit disposal (on-site)

Location of assessment:..... .... Date:..... Assessor:..... ....
This table **should** be completed for each of the following as appropriate (underline or circle the relevant):

Domestic/dwelling areas Markets Feeding centres Schools

Data	***Collected data***	***B***	***Range***				***M***	***C***
			10	***7***	***4***	***1***		
Technical appropriateness			inappropriate	Technically basic	appropriate	very appropriate	0.33	
Potential hazard to health			major hazard	Basic protection	minimal hazard	no hazard	0.33	
Sustainability of facilities			None	1 month	6 months	>1 year	0.33	
Ratio of pit volume (per day) to population			None	$6m^3/200$	$6m^3/100$	$6m^3/50$	0.5	
Maximum one-way walking distance to family pit OR			>70m	45m	30m	15m	0.5 OR	
Maximum one-way walking distance to communal pit			>250m	200m	150m	100m	0.5	
% of population with access to appropriate facilities			None	50%	75%	>95%	0.5	
% of population using appropriate facilities correctly			None	50%	75%	>95%	0 5	
							Total	

C.2 *Bin collection and disposal (off-site)*

Location of assessment:..... Date:..... Assessor:.....

This table should be completed for each of the following as appropriate (underline or circle the relevant):
Medical centres *Schools* *Markets* *Feeding centres*

Data	*Collected data*	*B*	*Range*				*M*	*C*
			10	*7*	*4*	*1*		
Technical appropriateness			Inappropriate	technically basic	appropriate	very appropriate	0.33	
Potential health hazard			major hazard	basic protection	minimal hazard	no hazard	0.33	
Sustainability of facilities			None	1 month	6 months	>1 year	0.33	
Ratio of bin volume to population (domestic, school or feeding centre) OR			None	0.5l/ person	1.0l/ person	2.0l/ person	0.2 OR	
Ratio of bin volume to markets stalls			None	2.5l/ stall	5.0l/ stall	10.0l/ stall	0.2	
Maximum one way walking distance to the nearest bin			>70m	45m	30m	15m	0.2	
Ratio of collection vehicle volume (per day) to unit of measure			None	0.2l/ person or 5l/stall	0.4l/ person or 10l/stall	1.0l/ person or 20l/stall	0.2	

continued ....

C.2 *Bin collection and disposal (off-site)*

. . continued

Data	*Collected data*	*B*	*Range*				*M*	*C*
			10	*7*	*4*	*1*		
Distance to final disposal site from nearest habitable building			< 250m	500m	750m	>1km	0.2	
Land available for land filling per day OR			None	0.25m³ /person	0 50m³ /person	0.75m³ /person	0.2 OR	
Ratio of pit volume (per day) to population			None	6m³/200	6m³/100	6m³/50	0.2	
% of population using appropriate collection facilities correctly			None	50%	75%	>95%	0.33	
% of collected solid waste transported correctly			None	50%	75%	>95%	0.33	
% of collected solid waste disposed of correctly			None	50%	75%	>95%	0 33	
							Total	

C.3 *Communal waste collection (without bins) and disposal (off-site)*

Location of assessment:..... .. .. Date:..... ..... Assessor:.....

This table should be completed for each of the following as appropriate (underline or circle the relevant):

Markets *Feeding centres* *Schools*

Data	***Collected data***	***B***	***Range***				***M***	***C***
			10	***7***	***4***	***1***		
Technical appropriateness			inappropriate	technically basic	appropriate	very appropriate	0.33	
Potential health hazard			major hazard	basic protection	minimal hazard	no hazard	0.33	
Sustainability of facilities			None	1 month	6 months	>1 year	0.33	
Ratio of collection vehicle volume (per day) to unit of measure			None	0.2l/ person or 5l/stall	0.4l/ person or 10l/stall	1.0l/ person or 20l/stall	0.33	
Distance to final disposal site from nearest habitable building			<250m	500m	750m	>1km	0.33	
Land available for land filling per day OR			None	0.25m³/person	0.50m³ /person	0.75m³ /person	0.33 OR	
Ratio of pit volume (per day) to population			None	6m³/200	6m³/100	6m³/50	0.33	

continued ....

C.3 Communal waste collection (without bins) and disposal (off-site)

..... continued

Data	*Collected data*	*B*	*Range*				*M*	*C*
			10	*7*	*4*	*1*		
% of population using appropriate collection facilities correctly			None	50%	75%	>95%	0.33	
% of collected solid waste transported correctly			None	50%	75%	>95%	0.33	
% of collected solid waste disposed of correctly			None	50%	75%	>95%	0.33	
							Total	

D. Waste management at medical centres

Location of assessment:..... Date:..... Assessor:.....

Data	*Collected data*	*B*	*Range*				*M*	*C*
			10	*7*	*4*	*1*		
Technical appropriateness			inappropriate	technically basic	appropriate	very appropriate	0.33	
Potential health hazard			major hazard	basic protection	minimal hazard	no hazard	0.33	
Sustainability of facilities			None	1 month	6 months	>1 year	0.33	
No. of beds* per set of segregated containers			None	40 beds/ 1 set	30 beds/ 1 set	20 beds/ 1 set	0.2	
Average one- way distance to containers			>20m	20m	10m	<5m	0.2	
Volume of transport for segregated waste			None	Insufficient	Sufficient	Ideal	0.2	
Original pit volume per bed* AND/OR			None	400l/bed	800l/bed	>1200l/bed	0.2/ 0.1	
Capacity of incinerator			Very insufficient	Insufficient	Sufficient	Ideal	0.2/ 0.1	
Distance of incinerator from nearest habitable building AND/OR			0m	5m	15m	>30m	0.2/ 0.1	

continued ....

D. Waste management at medical centres

.... continued

Data	*Collected data*	*B*	*Range*				*M*	*C*
			10	*7*	*4*	*1*		
Distance of pit from nearest habitable building			<25m	50m	75m	>100m	0.2/ 0.1	
% of waste appropriately collected and sorted			None	50%	75%	>95%	0.33	
% of collected waste safely transported			None	50%	75%	>95%	0.33	
% of collected waste safely disposed			None	50%	75%	>95%	0.33	
							Total	

*Where medical centres have no beds, 2 outpatients can be taken to be equivalent to 1 bed.

E. Disposal of dead bodies

Location of assessment:..... Date:..... Assessor:.....

This table should be completed for each of the following as appropriate (underline or circle the relevant):

E.1 Burial *E.2 Cremation* at *Domestic/dwelling areas* or *Medical centres*

Data	*Collected data*	*B*	*Range*				*M*	*C*
			10	*7*	*4*	*1*		
Technical appropriateness			inappropriate	technically basic	appropriate	very appropriate	0.25	
Social and cultural acceptability			very unacceptable	unacceptable	acceptable	very acceptable	0.25	
Potential health hazard			major hazard	basic protection	minimal hazard	no hazard	0.25	
Sustainability of facilities			None	1 month	6 months	>1 year	0.25	
Sites available for burial OR			None	500m²/ 10,000	1000m²/10,000	1500m²/10,000	0.33OR	
Availability of fuel for cremation			None	basic supply	adequate	plentiful	0.33	
One-way distance to burial/ cremation sites from nearest habitable building			<100m	100m	300m	500m	0.33	
Collection and storage of dead bodies before decomposition			None	50%	75%	100%	0.33	
% of population with access and willing to use designated facilities			None	50%	75%	>95%	1.0	
							Total	

F. Wastewater management

Location of assessment:..... .... Date:..... Assessor:.....

This table should be completed for each of the following as appropriate (underline or circle the relevant):

Domestic/dwelling areas *Markets* *Feeding centres* *Medical centres* *Schools*

Data	**Collected data**	**B**	**Range**				**M**	**C**
			10	**7**	**4**	**1**		
% of facilities technically appropriate to current purpose			None	50%	75%	100%	0 33	
Potential health hazard			major hazard	basic protection	minimal hazard	no hazard	0.33	
% of wastewater facilities which are adequately maintained and managed			None	50%	75%	100%	0.33	
% of facilities with functional wastewater disposal systems			None	50%	75%	100%	1.0	
% of wastewater disposed of in appropriate designated sites			None	50%	75%	>95%	1.0	
							Total	

G. Hygiene promotion

Location of assessment:..... Date:..... Assessor:.....
This table should be completed for each of the following as appropriate (underline or circle the relevant):

Domestic/dwelling areas *Markets* *Feeding centres* *Medical centres* *Schools*

Data	***Collected data***	***B***	***Range***				***M***	***C***
			10	***7***	***4***	***1***		
% of trained facilitators from the same social background			None	50%	75%	100%	0.33	
% of messages accurate, appropriate and complete			None	50%	75%	100%	0.33	
% of messages delivered in a way that is socio-culturally acceptable			None	50%	75%	100%	0.33	
Number of facilitators per thousand people			None	1	2	>2	0.33	
% area covered by campaign			None	50%	75%	100%	0.33	
% of relevant sanitation sectors for which appropriate use is promoted			None	50%	75%	100%	0.33	

continued ....

G. Hygiene promotion

.... continued

Data	*Collected data*	*B*	*Range*				*M*	*C*
			10	*7*	*4*	*1*		
% of population receiving, understanding and remembering promotional messages			None	30%	50%	>75%	0.33	
% of population putting messages into practice			None	30%	50%	>75%	0.33	
% of messages delivered implemented			None	30%	50%	>75%	0.33	
							Total	

16.6 Interpretation of results

16.6.1 Sector results

The 'TOTAL' scores from each completed sector table (B-G) should then be entered in Table 16.2. The sector letters indicate which table results should be entered in each row. These can be recorded for each applicable area, in the columns provided. Where no score is available or sectors are not relevant table boxes should remain blank.

The average value for each row should then be calculated and used to determine the sector average as appropriate. The average value for each column should also be calculated to determine the area average.

From this, the overall situation for each sanitation sector and each physical area can be assessed.

Refer to the Case Study for examples of how these tables can be completed.

Table 16.2. Sector analysis results

Location of assessment:..... Date:..... Assessor:.....

Sector	Area					Average	Sector average	Priority sector(s)
	D A	Mkt	F C	M C	Sch			
B. Excreta disposal								
B.1 Single/ shared								
B.2 Domestic communal								
B.3 Special groups								
B.4 Communal latrines								
C. Solid waste management								
C.1 Pit disposal								
C.2 Bin disposal								
C.3 Communal disposal								
D. Waste management at medical centres								
D.								
E. Disposal of dead bodies								
E.1 Burial								
E.2 Cremation								
F. Wastewater management								
F.								
G. Hygiene promotion								
G.								
Area average							**Site average**	
Priority area(s)								

D A – Dwelling areas; Mkt – Markets; F C – Feeding centres; M C – Medical centres; Sch - Schools

The final assessment results can be displayed more simply in a summary table.

Table 16.3. Assessment summary

Sector	***Score***	***Priority***
Excreta disposal		
Solid waste management		
Waste management at medical centres		
Disposal of dead bodies		
Wastewater management		
Hygiene promotion		
AVERAGE site score		

Each score in Table 16.3 can be compared to the ranges in Table 16.4 below:

Table 16.4. Intervention levels

Score	***Level***	***Situation***	***Priority***
24 – 30	Unacceptable	The recommended minimum immediate objectives have not been achieved and immediate action is needed.	Very high
17 – 24	Immediate acceptable level	Recommended minimum immediate objectives or better are in place but action is needed to achieve the short-term objectives.	High
10 – 17	Short-term acceptable level	Recommended minimum short-term objectives or better are in place but action is needed to achieve the long-term objectives.	Medium
3 – 10	Long-term acceptable level	Recommended minimum long-term objectives or better are in place and no immediate actions are needed.	Low

16.6.2 Priority setting process

The assessment scores obtained can be used to compare sanitation sectors and areas, and to set priorities between them. Figure 16.2 outlines the process:

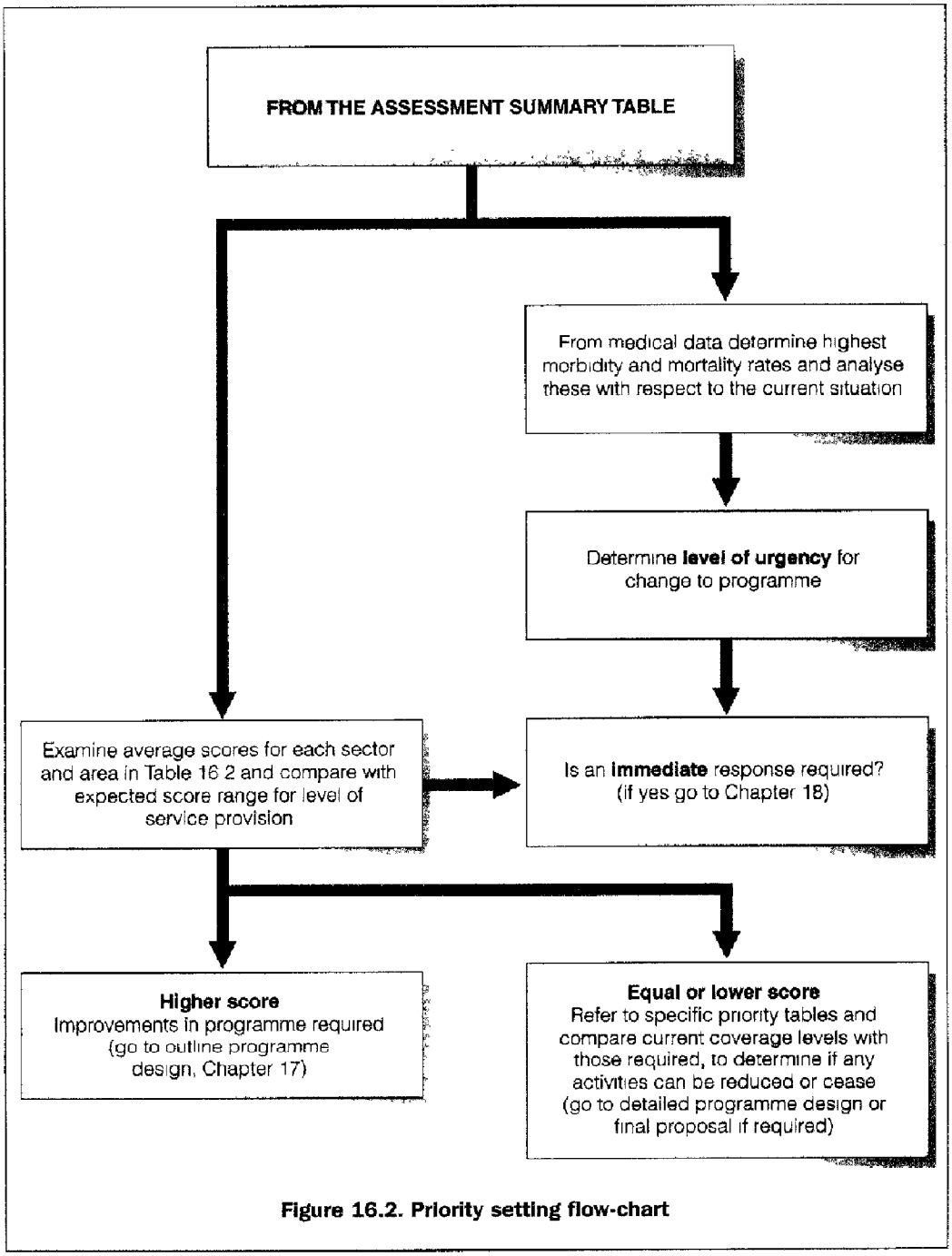

Figure 16.2. Priority setting flow-chart

In deciding on the appropriate priority level it is important to take into account the current situation, for example whether it is a new emergency or a long-term programme, and the mandate of the agency. The appropriate intervention level aimed for is an important factor in determining priorities. For example, if only short-term intervention is required then the scores obtained need only be compared to the short-term acceptable level.

The highest priority is the sector/area for which the score is highest. However, action need only be taken if this score is above the appropriate intervention level score. Priorities may be considered in terms of sector or physical area or both.

16.6.3 Recommendations

Based on this analysis the assessor will be able to make one of the following recommendations for each sanitation sector, area or sub-sector:

- No action is required.
- Action is required but it does not fall within the mandate of the agency.
- Immediate action is required in specific sectors and sub-sectors to ensure minimum levels of service.
- Action is required in specific sectors and sub-sectors to ensure that short-term levels of service are in place.
- Action is required in specific sectors and sub-sectors to ensure that long-term levels of service are in place.

Table 16.5 suggests the levels of intervention appropriate for different common scenarios.

Table 16.5. Recommended intervention levels and scenarios

Scenarios and recommended interventions	***The affected population stay in the affected area immediately after a disaster***	***The affected population go through a transit camp immediately after a disaster***	***The affected population remain in a temporary location for up to six months***	***The affected population move to a new area and are likely to remain there for more than a year***
Immediate action	X	X	X	X
Short-term measure		X	X	
Long-term measure	X			X

Children collecting water, Zambia