Chapter 13

Programme design

This Chapter is designed to describe each element of programme design. It also describes how these can feed into a programme proposal although different agencies have different models for this.

13.1 Programme summary

It is important that any programme design or proposal contains a summary description of the overall programme. This should contain the:

- background information;
- programme justification; and
- proposed intervention programme.

13.1.1 Background information

Background information should describe the nature of the emergency including relevant history, causes and effects. This description may include natural and man-made phenomena, such as climatic and political data. The purpose of this is to set the background to the current crisis so that the programme can be viewed in relation to the broader context.

13.1.2 Programme justification

The programme justification is an explanation of why humanitarian intervention is required and why the donor should release funds to support this. Any justification should focus on the actual and potential vulnerabilities of the affected population. Therefore, past and current effects should be described and likely future effects predicted.

13.1.3 Proposed intervention programme

A summary of the overall intervention proposed should be clearly stated. This should describe the overall objectives of the programme and the key activities planned. The amount of information contained here will depend on the stage of programme design. For example, the outline (or initial draft) programme design may simply state that communal latrines and solid waste pits are to be provided; while the detailed design may describe the types of latrine and solid waste management system proposed.

13.2 The Logical Framework

The Logical Framework (log-frame) is a useful tool for planning and defines clear objectives (goal and purpose), outputs, inputs and activities. Measurable indicators are those factors which can actually be measured to test the logic and determine the progress of a programme, and the means of verification are how these are determined. The terms used within this framework may differ slightly between organisations but the overall format is the same. A log-frame can also be very useful for planning budgets and for monitoring and evaluation.

Table 13.1 shows a general example of what could be included in a logical framework for an integrated sanitation programme.

Table 13.1. Generalised logical framework			
Narrative summary	*Measurable indicators*	*Means of verification*	*Important assumptions*
Goal: Raise and sustain the well-being of the affected population through cost-effective improved sanitation within first year of emergency	Improved health and well-being of the affected population and a cleaner environment	Health and environmental impact studies	Easy access to affected population; socio-political stability in the affected area
Purpose: To improve and sustain the health and well being of the affected population through improved excreta disposal, solid waste management, medical waste management, wastewater disposal and hygiene practices	Mortality and morbidity rates for sanitation-related diseases, cleaner physical environment in the affected and surrounding area	Mortality and morbidity records from health centres, cemeteries and cremation sites; through interview with affected population, observation of facilities and environment	The demand for appropriate safe excreta disposal, solid waste management, medical waste management, wastewater disposal and hygiene promotion in affected areas continues; and major cause of mortality and morbidity is sanitation-related disease
Output: According to time-scale (short and long term) recommended minimum objectives for all sanitation sectors in place	Quantity, quality and usage of facilities	Observation and monitoring of facilities in the affected area; and repeat assessments	Availability of sufficient funds; availability of personnel, tools, equipment and materials; acceptability of systems to the affected population; all stakeholders including local and national authorities in favour of programme
Activities: 1. Identification, recruitment and training of personnel for both hardware and software aspect of programme	1. Number of personnel trained	1. Personnel records	Permission from host nation for recruitment

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Table 13.1. continued....

Narrative summary	Measurable indicators	Means of verification	Important assumptions
2. Repair and improve-ment of existing sanitation facilities where required	2. Quality, quantity and usage of improved facilities	(2-8) Monitoring and repeat assessments: Observation, focus group discussions, meetings, interviews and pro-gramme records	Availability of space, agreement of host nation and support of affected population
3. Construction of new sanitation facilities that are safe, acceptable and accessible to all members of the affected population to satisfy short-term objectives	3. Quality, quantity and usage of new facilities		Availability of local materials without adverse effect on the local environment
4. Continuation of work to achieve long-term objectives	4. Quality, quantity and usage of new facilities		Socio-cultural aspects considered in design
5. Promotion of facilities through hygiene promotion activities	5. Awareness of hygiene promotion messages among affected population		Hygiene promotion messages are compatible with socio-cultural aspects of affected population
6. Capacity building through training programme	6. Level of participation (especially of women)		Appropriate training provided for local staff
7. Affected population involvement in all aspects of programme	7. Proportion of affected population (individuals and groups) involved at different phases of programme		Expatriate and local staff are able to carry out their tasks in a safe environ-ment
8. Setting up Operation and Maintenance (O&M) teams	8. Level of user-satisfaction; state of facilities		Affected population (especially members of vulnerable groups) are able to use facilities without fear at all times
Inputs:	Tools Construction materials Hygiene promotion materials O&M materials Equipment for solid and medical waste manage-ment Staff salaries	Logistics records for tools and materials Financial records	Resources and finances required are available and can be procured within allotted time-frames

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The problem-tree analysis (12.7) can be used to help develop a logical framework by developing the problem into the purpose, causes into activities and outputs, and effects into measurable indicators.

13.3 Activity plan

Using the log-frame as a basis, a simple activity plan can be developed rapidly by listing the desired programme outputs and all the necessary activities required to achieve these outputs. Table 13.2 shows a completed example.

Table 13.2. Example activity plan	
Planned output	*Necessary activities*
Family latrines for all population	Procure construction materials: tools, sand, gravel, cement, reinforcement, timber; recruit and train construction staff; commence latrine slab construction; commence hygiene promotion programme (see below)
Communal solid waste bins and off-site disposal by landfilling	Procure bins and clothing; identify disposal site; procure wheelbarrows and truck; train workers
Medical waste system with general pit, sharps pit and burner	Procure segregation containers; train staff; procure construction materials: tools, sand, gravel, cement, reinforcement, oil drum; construct sharps pit; construct burner
Cremation service accessible to all	Identify and designate fuel sources; identify cremation sites
Soakpits provided at all waterpoints	Excavate pits; procure gravel and drainage pipes; construct soakpits
Hygiene promotion programme to focus on family latrine programme	Train staff; meet with community leaders; hold focus group meetings; conduct house visits

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13.4 Programme Gantt chart

A Gantt chart (or bar chart) should generally be used to show the order and duration of the programme activities determined in the activity plan. A typical example of a programme Gantt chart for the first month of the above activity plan is shown in Table 13.3. The shaded area indicates the period for each activity.

Table 13.3. Example Gantt Chart				
	Week number			
	1	2	3	4
Procure construction materials: tools, sand, gravel, cement, reinforcement, timber	▓			
Recruit and train construction staff	▓			
Latrine slab construction	▓	▓	▓	▓
Procure bins and protective clothing; identify disposal site; procure wheelbarrows and truck	▓			
Recruit and train solid waste workers		▓		
Procure segregation containers and oil drum	▓			
Train medical and cleaning staff in waste management procedures		▓		
Construct sharps pit and burner		▓	▓	
Identify and designate fuel sources and cremation sites	▓	▓		
Procure gravel and drainage pipes for soak pits	▓	▓		
Excavate and construct soakpits		▓	▓	
Recruitment and training of hygiene promoters		▓	▓	
Hygiene campaign to promote family latrine and safe excreta disposal (meetings and house visits)		▓	▓	▓
Monitoring and supervision of activities	▓	▓	▓	▓

13.5 Personnel

Once the activities have been decided upon it is important to consider the personnel required in order to conduct these activities. Table 13.4 shows an example of a simple human resource plan.

Table 13.4. Example human resource plan			
Job title	**Responsibilities**	**Reporting line**	**Contract details**
Sanitation supervisor	Overall management of sanitation programme	Programme co-ordinator	Six-month contract, International grade 1A
Hygiene promotion co-ordinator	Overall management of hygiene promotion programme	Programme co-ordinator	Six-month contract, International grade 1A
Hygiene promoters	Promoting good hygiene practice through house visits and community meetings; monitoring of sanitation facilities and their use; provision of tools	Hygiene promotion co-ordinator	Two-month contract, National grade 1B
Solid waste workers	Bin emptying and maintenance; transportation to and operation and maintenance of disposal site	Sanitation supervisor	Two-month contract, National grade 1A
Construction workers	Excavation of pits for communal latrines, soakpits and solid waste; management of tools	Sanitation supervisor	Two-month contract, National grade 1A
Latrine slab constructors	Construction of latrine slabs; transportation and monitoring of materials	Sanitation supervisor	Two-month contract, National grade 1A

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13.6 Implementation plan

An implementation plan can be used to combine the activity plan and human resource plan, and so enable additional resources required to be identified. These resources may include equipment (e.g. tools) and materials (e.g. for construction), as well as appropriate facilities and services. Table 13.5 shows a completed example.

Table 13.5. Example implementation plan				
Activities	*Responsibilities*	*Equipment and materials*	*Facilities*	*Services*
Family latrine construction	Sanitation supervisor; latrine slab construc-tors; hygiene promotion team; families	Pick axes; shovels; sand; gravel; cement; reinforcement; timber	Slab construction workshop	Logistics department
Solid waste bin collection	Sanitation supervisor; solid waste workers	Bins; overalls; wheelbarrows; gloves; boots; shovels; truck	Transfer station; changing area	Logistics department
Medical waste management	Sanitation supervisor; medical and cleaning staff	Segregation containers; gloves; overalls; boots; oil drum; tools; sand; gravel; cement; rein-forcement; timber	Handwashing and disinfection facilities, changing area	Logistics department
Cremation service	Sanitation supervisor; families	Firewood/fuel; body cloths; matches	Morgue	Logistics department
Soakpits construction	Sanitation supervisor; construction workers	Pick axes; shovels; sand; gravel; cement; drainage pipes	Transportation for gravel	Logistics department
Hygiene promotion programme	Hygiene promotion co-ordinator; hygiene promoters	Posters; stationary; books; audio-visual aids	Training place; meeting places	Logistics department

13.7 Costs and budget

A detailed budget presenting estimated costs for resources and activities should be prepared; this is necessary for most programmes before they are approved. The budget may also include a contingency line, which is 5-10 per cent of the total budget, to allow for unforeseen needs, however not all donors will accept this. An example of a typical budget outline for a sanitation programme is shown in Table 13.6.

	Table 13.6. Example sanitation budget			
No.	*Description*	*Unit cost*	*No of units*	*Total cost*
	Hygiene promotion			
1	Purchase of promotional materials and audio-visual aids			
2	Construction of meeting places			
3	Hygiene kits			
4	Stationery			
5	Protective clothing			
6	National staff salaries (facilitators, facilities attendants, artist, translators, etc.)			
7	Hygiene promotion co-ordinators (Int.)			
8	Hygiene promotion co-ordinators (Nat.)			
9	Vehicles			
10	Operation and maintenance of vehicles			
11	Workshop and training			
12	Communication equipment			
13	Accommodation			
14	Travelling expenses/subsistence			
	Excreta disposal			
15	Purchase of tools and equipment			
16	Purchase of materials			
17	Construction of temporary latrines (equivalent of contract price)			
18	Construction of permanent latrines (equivalent of contract price)			
19	Repair of exciting facilities			
20	Maintenance and operation of facilities (equivalent of contract price)			
	Solid waste management			
21	Purchase of tools and equipment			
22	Purchase of refuse containers			
23	Off-site disposal of waste (equivalent of contract price)			
24	Collection of waste from public places			
25	Operation and maintenance (equivalent of contract price)			
	Wastewater management			
26	Purchase of tools and equipment			
27	Construction of wastewater system for all hygiene facilities (equivalent of contract price)			
28	Maintenance and operation			
	Staff costs			
29	Engineer (Int.)			

No.	Description	Unit cost	No of units	Total cost
	Table 13.6. continued.....			
22	Purchase of refuse containers			
23	Off-site disposal of waste (equivalent of contract price)			
24	Collection of waste from public places			
25	Operation and maintenance (equivalent of contract price)			
	Wastewater management			
26	Purchase of tools and equipment			
27	Construction of wastewater system for all hygiene facilities (equivalent of contract price)			
28	Maintenance and operation			
	Staff costs			
29	Engineer (Int.)			
30	Engineer (Nat.)			
31	Masons, carpenters, labourers, drivers, translator, etc.			
	General			
32	Vehicles			
33	Operation and maintenance			
34	Communication equipment			
35	Accommodation			
36	Travelling expenses/subsistence			
37	Setting up of workshop			
	Office back up			
38	Rent of office space			
39	Furnishings			
40	Stationary and office supplies			
41	Office running cost			
42	Communication equipment			
43	Office manager, office assistant, translators, security guards, cleaners, etc.			
	Sub total			Sum of total costs (1)
44	**Contingencies**			10% of sub-total (2)
	TOTAL			**(1)+(2)**

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Some donors may require less detailed budgets whilst others are keen on the projected cost per beneficiary.

$$\text{Cost per beneficiary} = \frac{\text{total cost of sanitation programmes}}{\text{total number of beneficiaries}}$$

This can also be broken down into cost per beneficiary for individual sanitation sectors or activities.

13.8 Proposal writing

Proposal writing is an important skill. A proposal is a way of presenting the programme design in order to satisfy the intended donor that the proposed programme has a strong humanitarian objective and has been carefully thought through. The proposal should demonstrate that the programme will address the priority needs of vulnerable people, and will be efficient and cost-effective.

13.8.1 Structure

Proposal structures vary between donors but generally the following information should be included:

- Programme summary
- Logical framework
- Gantt chart
- Human resource plan
- Implementation plan
- Proposed budget

Each of these sections has been described within this Chapter.

13.8.2 Funding criteria

To write successful programme proposals it is essential that the funding criteria of the intended donor are fully understood. Some donors have specific Mission Statements which dictate and limit the types of programme they are prepared to fund. Proposal writers should ensure that they are fully conversant with donor requirements.

References and further reading

Adams, John (1999) *Managing Water Supply and Sanitation in Emergencies*. Oxfam: Oxford.

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