

Annex V. Waste needs assessment - early recovery phase

This may be the second assessment of the disaster waste situation. There is a need of details enough for making a Disaster Waste Management Plan for the Recovery of the area affected. It is important to have a good overview of the waste management situation, as well as presenting detail enough for planning.

<p>Remember:</p>	<p>This may be the second assessment of the disaster waste situation. There is a need of details enough for making a Disaster Waste Management Plan for the Recovery of the area affected. It is important to have a good overview of the waste management situation, as well as presenting detail enough for planning.</p>
<p>Take photos of:</p>	<p>IDP camps and waste collection system</p> <p>Regular waste collection systems, where possible</p> <p>Overview pictures showing the conditions of the buildings and especially typical damaged buildings</p> <p>Temporary and informal dumpsites as well as formal ones</p> <p>Access roads to dump sites</p> <p>Health care waste management if available</p> <p>Hazardous waste management if available</p> <p>Damage infrastructure if present</p>
<p>In your photos remember the following:</p>	<p>Include a person, a car or something well known in the picture in order to give perspective of size</p> <p>Mark all photos with GPS coordinates and photographer</p>
<p>Take GPS coordinates of at least:</p>	<p>Waste Management sites</p> <p>Damaged infrastructure</p> <p>Damaged industries</p>

Pages 31-39 are forms to be reproduced and used one by one for each facility assessed.

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Do people stay in the disaster area?				Comments
Estimate percentage			%	
IDP camps				
How many IDP camps are established?			Nos	
Estimate percentage of population staying in the camps			%	
How is waste management arranged?				
Collection				Bins___ Street pile___ Others - what___
Treatment				Dumpsites___ Open burning___ Others - what___
Is all waste collected?				If not, why and with which consequences
Estimate the amount of waste generated in the IDP camps				
Estimate the composition of the IDP waste	Volume		%	Biodegradables___ Plastic___ Metal___ Glass___ Paper___ Inert___
When this is filled in go to separate sheet on IDP camps				
Condition of buildings (may be changed since emergency phase)				Comments
What are the conditions of the buildings?				
Estimate total destruction as percentage			%	
Estimate intact percentage			%	
Which is the main construction material used in the disaster area?				Concrete___ Bricks___ Board___ Tins___
Estimate the total amount of rubble and debris from buildings			m ³	Square metres covered x height
	Alternative		m ³	Calculations based on enclosed guidance for rubble amounts from different kinds of buildings
Conditions of other infrastructure.	Yes	No		Comments
Roads and streets functioning?				If not, describe damage and debris potential in separate sheet
Water distribution functioning?				
Waste water collection and drainage functioning?				
Land line telecommunications functioning?				
Mobile telephones functioning?				
Internet functioning?				
Electricity distribution functioning?				
When this is filled in go to separate sheet on infrastructure				

Continued...

Annex V. Waste needs assessment - early recovery phase, continued				
Hospitals and healthcare centres	Yes	No		Comments
Do hospitals and clinics function?				
Is the waste taken care of?				
Is there any information about infectious waste?				
Is there any information about other clinical waste?				
Are there any temporary clinics/hospitals?				
How many beds do they contain?				
Is there any information about waste collection from the temporary hospitals/clinics?				
Any arrangements for infectious waste?				
For planning go to separate healthcare waste sheet				
Industries and other commercial activities	Yes	No		Comments
What kind of industries were located in the disaster area?				Details to be given on a separate page
Are they intact?				
Is there any information about input chemicals?				Details to be given on a separate page
Is there any indication of hazardous waste				Details to be given on a separate page
Municipal solid waste management	Yes	No		Comments
To what extent has it recovered and regained function?			%	
Are the vehicles intact?			Nos	Describe the problems
Are the employee alive and still in the area?				
Is there fuel available for the vehicles?				
Is the dumpsite intact?				
Are access roads to the dumpsite intact?				
Are there any temporary dumpsites?				
If so, where are they located?				
Are there any other waste treatment plants in the area?				If yes, describe
For planning go to separate healthcare waste sheet				

Continued...

Annex V. Waste needs assessment - early recovery phase, continued

IDP camps

Name and location of the IDP camp:

Waste collection methods				Bins___ Street pile___ Others - what _____
Waste collection efficiency		%		Handcarts___ Ox-carts___ Open trucks___ Compactors___
Waste to recycling				
Metal		%	of available	Name of provider, who does the collection, trade and processing
Plastics		%	of available	Name of provider
Glass		%	of available	Name of provider
Paper		%	of available	Name of provider
Biodegradables		%	of available	Name of provider
Waste disposal				
Established dumpsite/landfills(s)		Tons/ day	Since then?	
Temporary dumpsite/landfills(s)		Tons/ day	Since then?	
Unauthorized dumpsite/ landfills(s)		Tons/ day	Since then?	Location, size, obvious environmental impact
	Yes	No		
Composting/biogas production				Estimate m ³ treated
Hazardous waste	Yes	No		
Separate collection?				
Treatment?				

Continued...

Annex V. Waste needs assessment - early recovery phase, continued

Healthcare waste assessment

			Notes
Name of the hospital/clinic/field hospital			
Location			
Waste generation		Tons/day	
Waste composition			
Is the waste taken care of?			
Segregation?		Tons/day	
Collection?		Tons/day	
Treatment?		Tons/day	
Infectious waste			
Segregation?		Kg/day	
Collection?		Kg/day	
Treatment?		Kg/day	
Other healthcare risk waste			
Segregation?			
Collection?			
Treatment?			
Is there a need of assistance regarding infectious waste?			Comment
Is there a need of assistance regarding other healthcare waste?			Comment

Continued...

Annex V. Waste needs assessment - early recovery phase, continued

Infrastructure debris assessment			Notes
Roads			
Tar road debris	Tons		Recyclable?
Mud road debris	Tons		Recyclable?
Additional comments			Coordinates, etc.
Streets			
Tar street debris	Tons		Recyclable?
Mud street debris	Tons		Recyclable?
Additional comments			Coordinates, etc.
Water distribution system			
Debris from water works	Tons		
Chemicals in water works	Tons		
Debris from water distribution system			
Plastic pipes	Metres		
Ceramic pipes	Metres		
Iron pipes	Metres		
Additional comments			Coordinates, etc.
Wastewater collection system			
Debris from waste water treatment plants (WWTP)	Tons		
Chemicals in the WWTP	Tons		
Debris from waste water collection system			
Plastic pipes	Metres		
Ceramic pipes	Metres		
Iron pipes	Metres		
Additional comments			Coordinates, etc.
Other drainage systems			
Debris from broken drains	Tons		
Waste clogging the drains	Tons		
Additional comments			Coordinates, etc.
Landline telecommunication			
Poles	Nos		
Dig down cable	Metres		
Open hanging cable	Metres		
Additional comments			Coordinates, etc.
Mobile telecommunication			
Antenna masts	Nos		
Electronic waste on downed masts	Tons		
Others	Tons		Specify
Additional comments			Coordinates, etc.
Internet			
Dig down cable	Metres		
Open hanging cable	Metres		
Additional comments			Coordinates, etc.
Electricity grid			
Poles			If not already calculated in landline telecommunication section, above
Dig down cable			
Open hanging cable			
Transformers			Electronic waste, transformer oil
Additional comments			Coordinates, etc.

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Annex V. Waste needs assessment - early recovery phase, continued

Industrial waste assessment

This form is to map the most immediate facts about the industries, where quality is put ahead of quantity. The information will serve as indications for waste prioritization, and will later be supplemented if needed. Be aware that there might be fluids stored in tanks or oil drums, and that such liquids normally are regarded as potentially hazardous waste until more is known.

Even sludges found in different places in the plant may be regarded as potentially hazardous waste.

Rubble from collapsed industries may, if nothing more is known, be understood as potentially contaminated with hazardous material such as asbestos and chemicals which could affect human health and the environment.

	List	Comments
Name of the plant/equivalent		
Used raw material		
Used energy sources		
Products		
<i>Normal flow of waste</i>		
Amount		
Composition		
Hazardous waste		
Treatment	If there is a special dumpsite for the industrial waste it must be assessed!	
Disaster waste		
Amount	If nothing else: high, medium or low	
Composition		
Hazardous waste		
Name of the plant/equivalent		
Used raw material		
Used energy sources		
Products		
<i>Normal flow of waste</i>		
Amount	I	
Composition		
Hazardous waste		
Treatment	If there is a special dumpsite for the industrial waste it must be assessed!	
Disaster waste		
Amount	If nothing else: high, medium or low	
Composition		
Hazardous waste		

Continued...

Annex V. Waste needs assessment - early recovery phase, continued

Conclusions: waste management needs

	Comments
IDP camps	
Waste collection	
Waste treatment	
Building rubble and debris	
Waste collection	
Waste treatment	
Infrastructure	
Road and street rubble	
Water distribution rubble	
Waste water collection and drainage	
Rubble	
Treatment chemicals	
Landline telecom	
Mobile telecome	
Internet infrastructure	
Electricity distribution grid	
Healthcare waste	
Genral healthcare waste	
Wsste collection	
Waste treatment	
Healthcare risk waste	
Waste collection	
Waste treatment	
Industries and other commercial activities	
Waste collection	
Waste treatment	
Municipal solid waste management	
Waste collection	
Waste treatment	
Other waste treatment plants in the area	