

Rainwater collection and storage

I. GENERAL INFORMATION

A. Rainwater system location and specification

(Record information on the rainwater system location and specification. Add "N/A" where information is not applicable.)

Village/town	Community	District	Province	State		
Additional location information: (If using coordinates, state the type and unit e.g. national grid reference coordinates; GPS coordinates.)						
Year of construction	Approximate roof catchment area (and units)	Approximate number of users served by this water supply: (Circle one of the options below.)				
		1-5	6-15	16-50	51-100	100+

B. System functionality

(Circle **Yes** or **No** to indicate whether water is currently available from the rainwater collection system. If **No**, provide details (e.g. faulty or missing component, no/limited water available etc.) and skip to Section II. Record key remedial actions in Section III that are needed to ensure the rainwater system can provide water.)

Is water currently available from the rainwater system?		If No , details (and skip to Section II):
Yes	No	

C. Weather conditions during the 48 hours prior to inspection

(Indicate the predominant temperature and precipitation conditions during the 48 hours prior to inspection by placing a circle around the options below. Where conditions have been changeable, more than one option may be circled. Additional information may be recorded in Section III.)

Temperature	<0° Celsius	0-15° Celsius	15-30° Celsius	>30° Celsius
Precipitation	Snow	Heavy rain	Rain	Dry

D. Water sample information

(Use the table below to record details of any water sample taken during the inspection. Include information for any parameters tested. Add "N/A" where information is not applicable. Additional parameters may be recorded in Section III.)

Sample taken?	Sampling location				Sample no. /code		Other sample information			
No Yes										
Parameter tested	<i>E. coli</i>		OR Thermotolerant (faecal) coliforms		Additional parameter		Additional parameter		Additional parameter	
Result and units	RESULT	UNITS	RESULT	UNITS	RESULT	UNITS	RESULT	UNITS	RESULT	UNITS

E. Water treatment prior to collection

(Answer the question by ticking [✓] the appropriate box and providing further information, where applicable.)

No treatment applied at the storage tank.

Chlorine applied directly to the storage tank. If so, describe (e.g. chlorine dose, frequency):

Other. Describe (e.g. method, frequency):

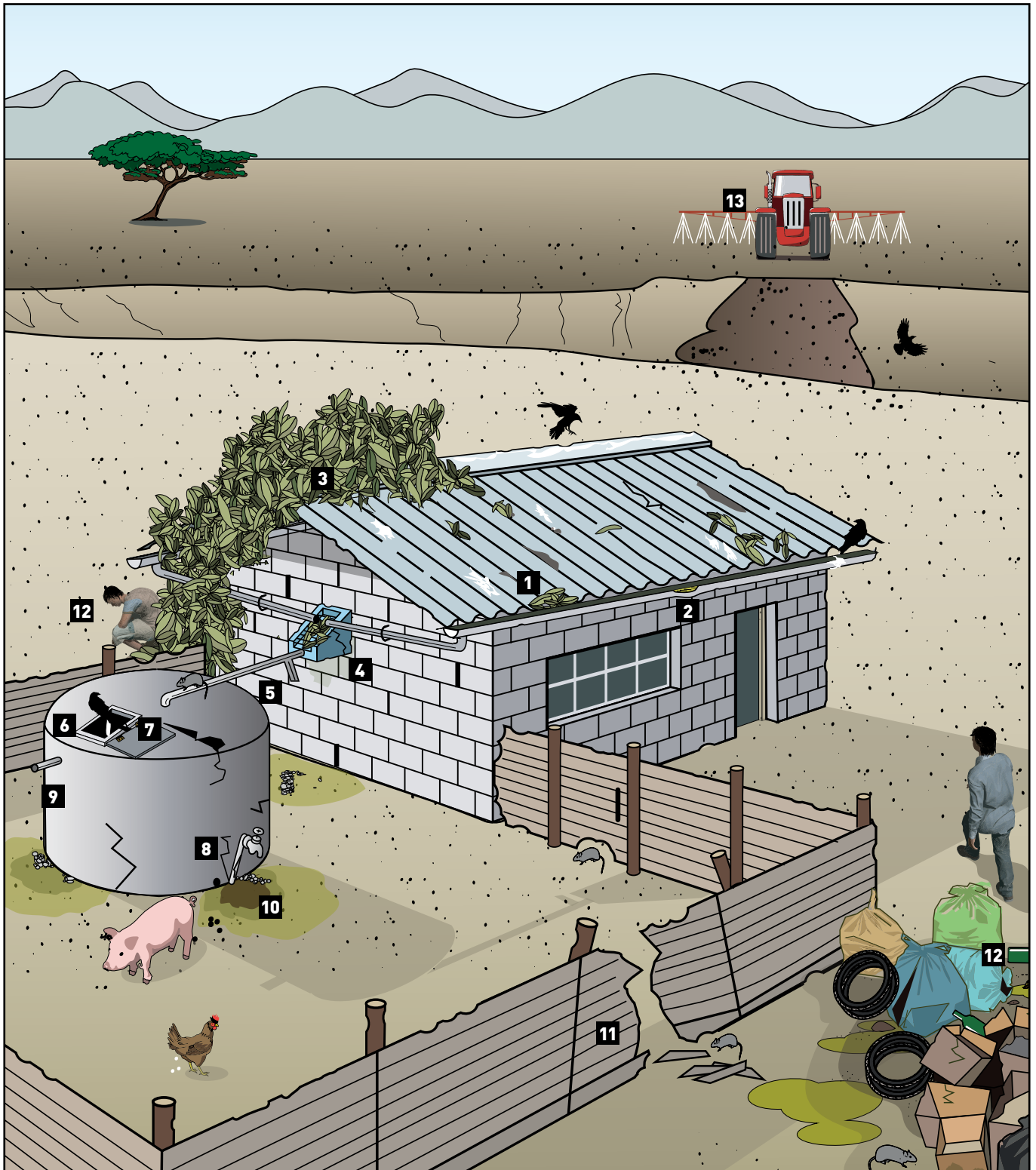
Notes:

- If there are more rainwater collection systems in your community, or if other water sources are used by the community (e.g. springs, boreholes), carry out individual sanitary inspections for these sources as using the relevant sanitary inspection forms.
- If users store water in the household, also carry out sanitary inspections using the form "Household practices".

II. SANITARY INSPECTION

IMPORTANT: Read the following notes before undertaking the sanitary inspection

1. Answer the questions by ticking (✓) the appropriate box. For guidance, refer to the numbered risk factors in the illustration below, which are linked to each question on the next page. Note: these are typical risk factors; consider what additional risk factors may be relevant in your local context. Refer also to the *Technical Fact Sheet* for information on the individual components of the rainwater collection system.
2. If there is no risk present, or a question does not apply to the rainwater collection system being inspected, tick the **NO** box.
3. If a risk is present, tick the **YES** box. For important situations that require attention, record the actions to be taken in the column provided. These notes can be used to develop a detailed improvement plan, outlining what will be done, by whom, by when and what resources are required. For guidance, refer to the *Management Advice Sheet*. Where possible, corrective actions should focus on addressing the most serious risks first. Consider low/no cost improvements that can be made immediately.



Sanitary inspection questions		NO	YES (risk)	What action is needed?
1	<p>Are there any visible contaminants (e.g. vegetative material, animal waste) on the roof or guttering channels?</p> <p>Contaminants on the roof or guttering channels may be washed into the storage tank during rainfall events and constitute a risk to water quality.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
2	<p>Are the roof or guttering channels inadequately sloped, which may result in the ponding of stagnant water?</p> <p>The absence of a downward slope on the roof and/or guttering channels for water to drain towards the storage tank could result in stagnant water, which may subsequently introduce contaminants to the storage tank.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
3	<p>Is there any vegetation or structures overhanging the roof?</p> <p>Overhanging vegetation, balconies or telephone/electrical wires could attract animals that may contaminate the roof catchment area with faecal material. Fallen foliage could also block gutters and filters.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
4	<p>Is a filter box missing or inadequate to prevent debris entering the storage tank?</p> <p>A missing or damaged filter box may allow pieces of debris to enter the storage tank. If the filter box is clogged and/or unclean, this may cause a blockage/overflow, as well as increase the risk of contaminating the storage tank.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
5	<p>Is the first flush system^a missing or inadequate to prevent contaminants entering the storage tank?</p> <p>If the first flush system is missing or damaged, the first flush of rainwater (i.e. typically lesser quality) will enter the storage tank and may constitute a risk to water quality. If the first flush system is clogged and/or unclean, this may cause a blockage/overflow, as well as increasing the risk of contaminating the storage tank.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
6	<p>Does the inside of the storage tank contain any visible signs of contaminants (e.g. animals and/or their waste, sediment accumulation)?</p> <p>The presence of animals or their wastes in the storage tank constitutes a serious risk to water quality. Sediments may contain microbial pathogens and other contaminants (such as metals) that can impact the safety or acceptability of the stored water. (Note – if there is no inspection port, meaning an internal visual inspection of the storage tank is not possible, record this in Section III.)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
7	<p>Is there any point of entry to the storage tank that is inadequately covered or sealed?</p> <p>If the storage tank is inadequately covered or sealed at any point (e.g. cracked tank or damaged or missing inspection port lid), this may allow contaminants (e.g. vermin) to enter the tank. Such openings may also allow light to enter the tank, which can result in algal growth within.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
8	<p>Is the storage tank tap leaking or otherwise defective?</p> <p>A leaking or defective tap may increase the risk to water quality by providing a route for contaminants to enter the storage tank.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

Sanitary inspection questions		NO	YES (risk)	What action is needed?
9	<p>Is the overflow pipe inadequately covered to prevent contaminants entering the storage tank?</p> <p>If the overflow pipe is not covered with a screen (e.g. with a mesh or gauze), or the screen is damaged, vermin may enter the storage tank.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
10	<p>Is there stagnant water in the water collection area?</p> <p>Stagnant water in the water collection area increases the likelihood of contaminants entering the storage tank and/or contaminating collection containers.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
11	<p>Is the fencing or barrier around the storage tank missing or inadequate to prevent animals entering the collection area?</p> <p>If the fencing or barrier around the storage tank is absent, broken, or poorly constructed (e.g. with wide gaps), animals could enter and damage or contaminate the collection area.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
12	<p>Can signs of other sources of pollution be seen within 15 meters^b of the storage tank or water collection area (e.g. animals, rubbish, human settlement, open defecation, fuel storage)?</p> <p>Animal or human faeces on the ground close to the collection area constitute a serious risk to water quality. Presence of other waste (e.g. household, agricultural, industrial etc.) also constitute a risk to water quality.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
13	<p>Is there local activity (e.g. industry or agriculture) that could contaminate the roof?^c</p> <p>Airborne contaminants such as industrial emissions or spray drifts from local agricultural practices (e.g. crop spraying, slurry spreading or burning) may contaminate the roof catchment area.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
Total number of risks identified	 /13		

- a. The first flush system is designed to divert the first portion of contaminated rainwater, so it does not enter the storage tank. For more information, refer to the corresponding *Technical Fact Sheet*.
- b. General guidance only. Depends on local factors including topography and the volume and concentration of contaminants. Refer to [Guidelines for drinking-water quality, 2nd edition: Volume 3 - Surveillance and control of community supplies](#) (WHO, 1997) for guidance on determining minimum safe distances for potentially contaminating activities.
- c. For appropriate setback distances for specific activities, refer to your local environmental authority.

III. ADDITIONAL DETAILS — remarks, observations, recommendations

Submit photographs with the sanitary inspection form as required.

IV. INSPECTION DETAILS

Name of inspector:

Organization of inspector:

Designation/title of inspector:

Signature: Date:

Name of water supply representative:

Signature (if available): Date: