

Tool 1.1 – Hotspot Identification

Table T 1.1 A: Hotspot identification – preparation and guidance

Preparation	Key informants: – SWM service provider – Local authorities – Planners – Camp managers – WASH promoters Data collection: – Hotspot identification: – Transect walks (see the Compendium of Hygiene Promotion in Emergencies – Transect walks (Gensch, R.,2022)) – Interviews with key informants – Observations at critical points – Hazard mapping: – Obtain the map used by local authorities for planning or sectoring – Google Maps / Google Earth – GIS software
Guidance for the assessment	Typical critical locations to visit and observe: – Transfer stations – Recovery facilities – Collection points – Banks/shores of water bodies – Drains & ditches – Empty land plots – Backyards – Disposal sites (controlled and uncontrolled) – Other: _____ Key areas to be identified and mapped: – Areas with and without waste collection services – Areas where floods have occurred in the past

Table 1.1 B: Hotspot identification form – waste dumping and accumulation

General information	– Draw the location on the map OR write down its GPS coordinates ☐ Identification number: _____ ☐ X: _____ ☐ Y: _____ – Which one of these locations does this hotspot best fit to: ☐ Transfer stations ☐ Recovery facilities ☐ Collection points ☐ Banks/shores of water bodies ☐ Drains & ditches* ☐ Empty land plots ☐ Backyards ☐ Disposal sites (controlled or uncontrolled) ☐ Other: _____ <i>* For waste accumulation in drains, please make sure to fill out the clogging and flooding risk part of the questionnaire</i> – What is the approximate amount of accumulated waste? [indications: record as height, length, width of the pile, in meters] – Is this location regularly receiving waste? ☐ Daily ☐ Weekly ☐ Monthly ☐ One-time event – When was the last time that this location was cleaned, and the waste accumulated was removed? ☐ Last week ☐ Last month ☐ Last year ☐ Never
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Exposure and vulnerability evaluation	– Is it in the direct vicinity of people or close to vulnerable environments? ☐ Residential areas ☐ Areas with vulnerable people (e.g. schools, hospitals, etc.) ☐ Close to critical infrastructure (roads, energy supply, food distribution services, health service, etc.) ☐ Drainage system ☐ Water resources (stream, river, pond, lake, sea, ocean) ☐ Agricultural land ☐ Other: _____ – What visible risks do you notice from this hotspot? ☐ Risk of injuries for children playing/working in the waste ☐ Risk of injuries for people close to the waste ☐ Risk of drain clogging* ☐ Risk of exposure to pests, rodents and/or diseases ☐ Visible leachate or waste itself contaminating water sources ☐ Risk of instability of the waste pile ☐ Risk of disrupting the road mobility/ infrastructure ☐ Risk of disrupting other economic activity (e.g. food sales) ☐ Other: _____ <i>* For waste accumulation in drains, please make sure to fill out the clogging and flooding risk part of the questionnaire</i> – Is there evidence of open burning at the site? ☐ Yes (ashes, black marks, fires, smoke) ☐ No
Clogging and flooding risk	– How would you rate the risk of clogging during the next rainfall event: ☐ Drain is very full, high probability of clogging during rainfall ☐ Drain is half full, medium probability of clogging during rainfall ☐ Sparse waste in the drain; low probability of clogging during rainfall – What kind of potential impact could a flood have in this area? ☐ Potential flooding in nearby residential areas ☐ Potential damage to key infrastructure (hospital, food centre, etc.) ☐ Potential blocking of roads ☐ Other: _____ – How frequently is the drain cleaned? ☐ Weekly ☐ Monthly ☐ Annually ☐ Never ☐ Other: _____

Risk assessment	– Based on the hazard’s probable impact on people and environmental pollution, considering the exposure and vulnerability, how would you rate the risk of this hotspot: ☐ 1: very low ☐ 2: low ☐ 3: average ☐ 4: high ☐ 5: very high The following descriptions of the risk levels can be used as indicative risk levels. When appropriate, adapt the definitions to your context. Very low (1): A small waste dump located far away from people and/or vulnerable environments. Low (2): A medium-sized waste dump located far from people and/or vulnerable environments, with a limited likelihood of direct impact. Average (3): A larger waste dump far away, <i>or</i> a small waste dump close to people and/or vulnerable environments. High (4): A large waste dump close to people and/or vulnerable environments, <i>or</i> waste accumulation in drains that could eventually cause flooding with further impacts. Very high (5): A large waste dump right next to people and/or vulnerable environments, or waste accumulation in drains that is very likely to cause flooding with further impacts.
Causes	– Who dumps waste in that location and why? ☐ Individuals. Select the likely cause(s) below ☐ Absence of collection service ☐ Inefficient/ inadequate collection service (e.g. irregular, inadequate schedule, etc.) ☐ Behavioural aspect (e.g. reluctance to use the service) ☐ Lack of regulation or enforcement of the regulation ☐ Other: _____ ☐ Formal and informal waste collectors. Select the likely cause(s) below: ☐ Waste collection issue ☐ Inefficient/inadequate service due to logistics issues ☐ Lack of collection equipment to cover all areas reliably ☐ Behavioural aspect (e.g. lack of training) ☐ Waste disposal issue ☐ No disposal site available ☐ Disposal site too difficult or too far to access ☐ Lack of regulation or enforcement of the regulation ☐ Other: _____ ☐ Informal waste recyclers are disrupting waste collection. Select the likely cause(s) below: ☐ Waste is spread to find recyclables or any valuable materials (bags are opened, waste is taken out of containers and spread) ☐ Other: _____

Table 1.1 C: Hotspot identification form – waste burning

General information	– Draw the location on the map OR write down its GPS coordinates ☐ Identification number: _____ ☐ X: _____ ☐ Y: _____ – What type of waste is burnt and the approximate amount (in kg or volume)? ☐ Mixed waste, amount: _____ ☐ Mostly dry organics (branches, leaves), amount: _____ ☐ Mostly plastic, amount: _____ ☐ Presence of electronic devices, amount: _____ ☐ Other: _____ – At which frequency is waste being burnt at this location? ☐ Every day ☐ A few days a week ☐ A few days a month ☐ Other: _____
Exposure and vulnerability evaluation	– Is it in the direct vicinity of people or close to vulnerable environments? ☐ Residential areas ☐ Areas with vulnerable people (e.g. schools, hospitals, etc.) ☐ Critical infrastructure (roads, energy supply, food distribution services, health services, etc.) ☐ Drainage system ☐ Water resources ☐ Agricultural land ☐ Other: _____ – What visible risks do you notice from this waste hotspot? ☐ Risk of fire propagation to the vicinity ☐ Risk of injury/accident to people around the site ☐ Release of toxic fumes from burning ☐ Other: _____

Risk assessment	– Based on the hazard’s probable impact on people and environmental pollution, considering the exposure and vulnerability, how would you rate the risk of this hotspot: ☐ 1: very low ☐ 2: low ☐ 3: average ☐ 4: high ☐ 5: very high Very low (1): — Low (2): — Average (3): Open burning further away from people. High (4): Open burning near people in sparsely populated areas Very high (5): Open burning directly near people in densely populated areas <i>or</i> high risk of fire propagation
Causes	– Who burns waste in that location and why? ☐ Individuals. Select the likely cause(s) below: ☐ Absence of collection service ☐ Inefficient/ inadequate collection service (e.g. irregular, inadequate schedule, etc.) ☐ Behavioural aspect (e.g. reluctance to use) ☐ Lack of regulation or enforcement of the regulation ☐ Other: _____ ☐ Formal and informal waste collectors. Select the likely cause(s) below: ☐ Waste collection issue ☐ Inefficient/inadequate service due to logistics issues ☐ Behavioural aspect (e.g. lack of training) ☐ Waste disposal issue ☐ No disposal site available ☐ Disposal site too difficult to access ☐ Lack of regulation or enforcement of the regulation ☐ Other: _____ ☐ Informal waste recyclers. Select the likely cause(s) below: ☐ To recover high-value materials (metals) ☐ To reduce the waste mass ☐ Other: _____