

PH1A: Define drinking water quality standards

REGULATORY FUNCTION: PUBLIC HEALTH		PH1A																																																		
<p>OBJECTIVE PH1</p> <p>There are rules ensuring public health standards for safe drinking water and sanitation</p>	<p>ACTION CARD PH1A</p> <h2>DEFINE DRINKING WATER QUALITY STANDARDS</h2>																																																			
<p>COST: Low FREQUENCY: One time</p> <p>TARGET GROUPS: Regulators, ministries of health, service operators</p>																																																				
<p>DESCRIPTION</p> <p>In some cases, public health regulators transpose and update health-based limits or minimum requirements for drinking water quality, with reference values assigned to different water quality parameters. In other cases, regulators have the role of enforcing them. Often, countries look to the ‘WHO guidelines for drinking water quality’ as a reference guide, containing specific sheets that detail known public health implications of contaminants in water, and make recommendations for maximum permissible thresholds. Regulators are obliged to strictly follow these guidelines when agreeing water quality parameters with operators.</p>																																																				
<p>EXPECTED OUTCOMES</p> <ul style="list-style-type: none"> National regulators convert public health norms and standards into drinking water quality standards. Service operators are legally bound by drinking water standards when providing drinking water services. Consumer health is adequately protected. 																																																				
<p>EXAMPLE: KENYA</p> <p>In Kenya, standards are developed by the Kenya Bureau of Standards (KEBS). The role of the Water and Sanitation Regulatory Board (WASREB) is to enforce the following basic requirements for drinking water, that it is: free from pathogenic (disease causing) organisms; contains no chemicals that have adverse or long-term effects on human health; is fairly clear (i.e. low turbidity, little colour); is not saline (salty); contains no compounds that cause an offensive taste or smell; and does not causing an encrustation of the water supply system nor stains clothes washed in it.</p>																																																				
<p>Schedule 5 Microbiological limits for drinking water and containerized drinking water (Source: Adopted from KS 05-459: Part 1: 1996)</p>																																																				
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SL .NO	SUBSTANCE OR CHARACTERISTIC	UNIT	DRINKING WATER	BOTTLED DRINKING WATER	METHODS OF TEST
(i)	Color	True color units	15+	15+	KS 05 – 459
(ii)	Taste and odor		Shall not be offensive to consumers	Shall not be offensive to consumers	KS 05 – 459
(iii)	Suspended matter		Nil	Nil	KS 05 – 459
(iv)	Turbidity	NTU, max	5	1	KS 05 – 459
(v)	Total dissolved solids	mg/1, max	1,500	1,500	KS 05 – 459
(vi)	Hardness as CaCo3	mg/1, max	500	500	KS 05 – 459
(vii)	Aluminum as A1	mg/1, max	0.1	0.1	KS 05 – 459
(viii)	Chloride as Cl-	mg/1, max	250	250	KS 05 – 459
(ix)	Copper as Cu	mg/1, max	0.1	0.1	KS 05 – 459

LINKS

WASREB Water Quality Guidelines: [https://wasreb.go.ke/downloads/Water Quality & Effluent Monitoring Guidelines.pdf](https://wasreb.go.ke/downloads/Water_Quality_&_Effluent_Monitoring_Guidelines.pdf)

WHO Guidelines for Drinking Water Quality: https://www.who.int/water_sanitation_health/publications/drinking-water-quality-guidelines-4-including-1st-addendum/en/

INTERNAL CAPACITIES NEEDED AND THE ROLE OF PARTNERS

Establishing drinking water quality standards requires a blend of technical and legal expertise, including an understanding of the current level of water treatment, laboratory testing capacity, and the ambient water quality status of water sources. Development partners could provide technical support ministries of health to translate recommended maximum permissible thresholds from the WHO guidelines to suit local contexts. Regulators can also benefit from such training, by building internal monitoring capacity for actions that they commonly perform on behalf of ministries of health.