

Climate Resilient WASH Monitoring

WHO/UNICEF JMP and GLAAS review

List of objectives and shortlisted candidate indicators, version 5.2

05 November 2025

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Key:

Candidates prioritised for development as indicators for global monitoring	Other candidates with potential for further development
Water, sanitation and hygiene	Water, sanitation and hygiene
Water	Water
Sanitation	Sanitation
Hygiene	Hygiene

Code: Each indicator in the version 5.2 shortlist has an updated unique reference number in the form AA_BBCCD where:

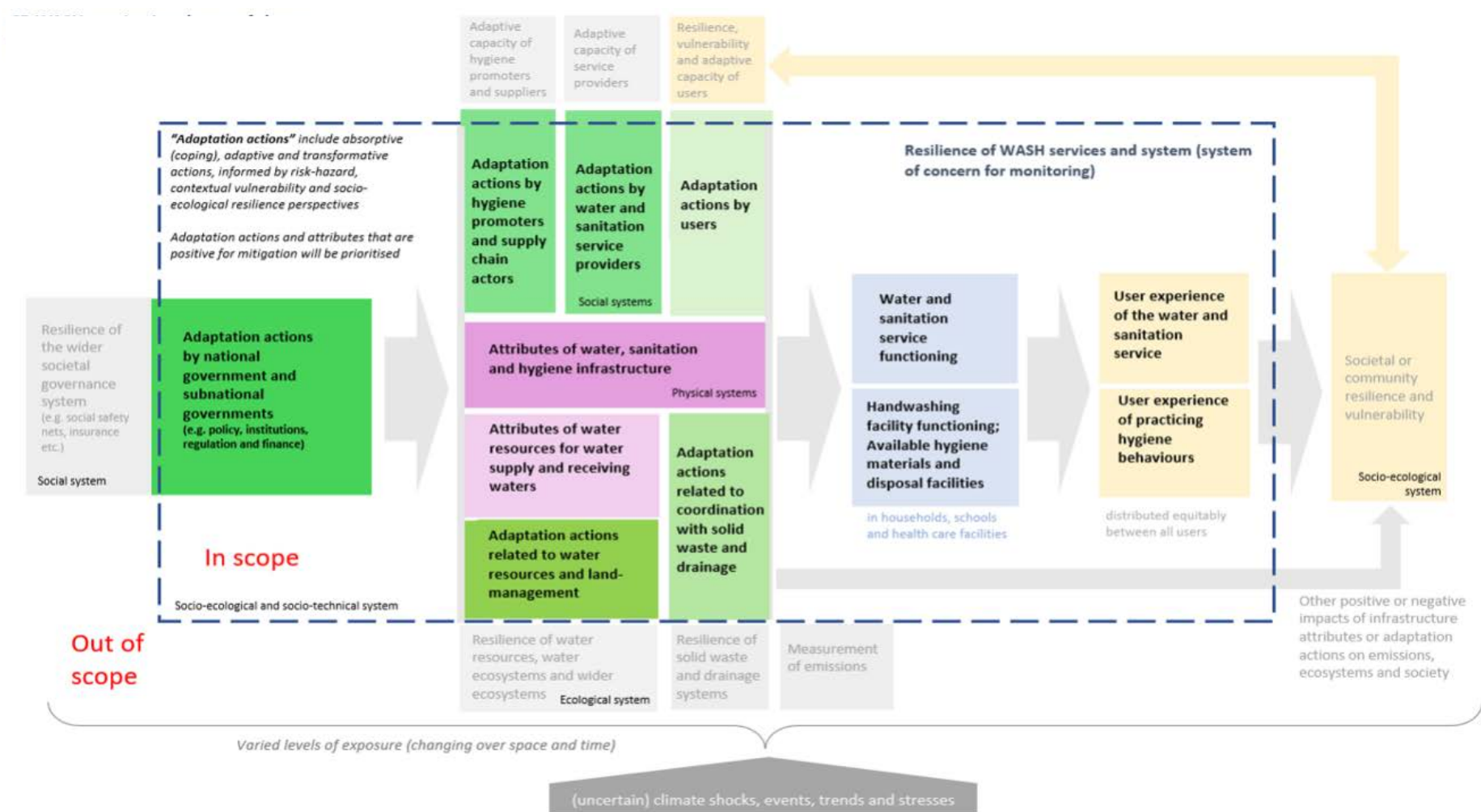
AA = version number (in this case 52)

BB = framework component number (from 01 to 22)

CC = sequential reference for indicators within framework component**

G = Prioritised for development as indicators for global monitoring

****Framework components relate to the overarching conceptual framework used in this project. This is shown overleaf and the background document is here: [Link](#)**



1: Adaptation actions by national and subnational government – *policy*

Objective	Indicator
52_0101G	WASH policy and planning incorporates current and future climate risk WASH sector policy and plans which integrate climate adaptation measures for households and institutions which (i) identify current and future climate risks to WASH, (ii) identify at risk populations, (iii) include costed climate adaptation measures and (iv) mandate 'build-back-better' principles for post climate-event recovery (a) are in place (b) align with national adaptation plans (c) are regularly revised using updated climate projections
52_0102G	Management is appropriate to ensure and advance climate resilience WASH Sector policy mandates the use of risk-based management plans that take into account current and future climate for (a) water supply (b) sanitation and wastewater
52_0103G	National climate resilience planning incorporates climate resilient WASH National adaptation plans include (a) targeted WASH objectives for households and institutions (b) a strategy for WASH adaptation for households and institutions (c) a costed strategy for WASH adaptation for households and institutions
52_0104	Access to a minimum service level is maintained Regulation mandates that sufficient quantities of domestic water supply be provided as a priority before allocations to other water uses are made
52_0105G	Climate Resilient WASH strategy is equitable Sector strategies include measures to ensure climate resilient WASH investments are focused on populations vulnerable to [and disproportionately affected by] climate change
52_0106G	Emissions from WASH are minimized National mitigation plans include (a) a national protocol for measuring and reporting emissions from WASH; (b) an estimate of the contribution of WASH to NDCs; (c) a strategy for mitigating emissions from WASH; (d) a costed strategy for mitigating emissions from WASH

Objective		Indicator
52_0107	WASH policy and planning incorporates current and future climate risk	Proportion of population for whom (a) maps of areas at risk from climate hazards have been produced; (b) risk maps have been formally incorporated into WASH climate adaptation plans; and (c) maps have been updated within the last X years.

2: Adaptation actions by national and subnational government – *institutions*

Objective		Indicator
52_0201G	Data are available for CR WASH planning	Climate data and seasonal forecasts for WASH service delivery are: (a) downscaled to a scale relevant for WASH service delivery; (b) accessible to WASH sector stakeholders; (c) include content directly relevant to the delivery of WASH services; (d) reviewed and updated regularly; and (e) used to inform updates to WASH policies and plans.
52_0202G	Early warning systems in place that support actions to reduce impact of climate events	Multi-hazard early warning systems are: (a) accessible to WASH sector stakeholders; (b) includes information directly relevant to the delivery of WASH services; (c) are reviewed and updated regularly; and (d) are used to inform updates to WASH policies and plans.
52_0203G	National WASH monitoring systems collect information on the impacts of climate on WASH services	WASH monitoring systems collect data on the impact of climate on WASH services in households/ schools/ health care facilities disaggregated by service levels, geography, and population subgroups
52_0204	Coherence and cooperation between agencies to deliver CRWASH	Multisectoral coordination mechanisms for climate adaptation processes (a) include the WASH sector (b) include solid waste, drainage, water resources stakeholders AND (a) are subject to an MOU (b) are subject to defined roles and responsibilities

Objective		Indicator
52_0205	Workforce is adequate for CR WASH Systems	Capacity development plans for climate-resilient WASH service delivery are (a) included in National Adaptation Plans (NAPs); (b) included and costed within the NAPs; (c) a budget is formally allocated for implementation; and (d) expenditure is actually made on the planned activities
52_0206	Workforce is adequate for CR WASH Systems	NL013 - Sufficient human resources are in place to design, implement, and monitor adaptation plans for the WASH sector

3: Adaptation actions by national and subnational government – *regulation*

Objective		Indicator
52_0301G	Design and construction standards and guidance exist for CR WASH	Standards and regulations that take into account current and future climate are available to support the design and construction of resilient infrastructure for • water supply • sanitation and wastewater
52_0302G	Operation and maintenance standards and guidance exist for CR WASH	Standards and regulations that take into account current and future climate are available to support the operation and maintenance of resilient infrastructure for • water supply • sanitation and wastewater
52_0303G	Operation and maintenance standards and guidance exist for CR WASH	Standards and guidance exist for restoration of services during and following a climate event for • water supply • sanitation and wastewater

4: Adaptation actions by national and subnational government – *finance*

	Objective	Indicator
52_0401G	Sufficient budget allocation for WASH climate adaptation	Ratio of total annual budget available (all sources) to total annual costs identified for WASH climate adaption
52_0402	Sufficient budget allocation/ expenditure for WASH climate adaptation	Financial incentives for water efficiency by service providers
52_0403G	Utilisation for WASH climate adaptation	Ratio of total expenditure (all sources) to total annual costs identified for WASH climate adaption
52_0404	Sufficient budget allocation for WASH climate adaptation	Funds are allocated to support technical capacity of regulatory bodies on climate resilience of WASH
52_0405	Accessible finance available to support rapid recovery following a climate event	Value and-availability of emergency cash transfers for WASH response and recovery following climate events

5: Adaptation actions by hygiene promoters and supply chain actors

	Objective	Indicator
52_0501	Emergency response protocols/plans/back-ups in place ^[SEP]	Hygiene materials, equipment and resources are stockpiled and prepositioned to ensure rapid distribution when needed before, during and following a climate event
52_0502	Support to households provided to undertake actions for climate resilience/ recovery	Proportion of population at risk of climate related shock receiving education/messaging on hygiene behaviour, practice, and materials (in local language) relevant to climate events in the last 12 months
52_0503G	Support to households provided to undertake actions for climate resilience/ recovery	Proportion of population covered by well-defined, event-specific preparedness plans which include hygiene measures: (a) education/messaging on hygiene behaviour (b) stockpiling, (c) storing, and distribution of hygiene products

6: Adaptation actions by water supply service providers

	Objective	Indicator
52_0601	Proactive plans and actions in place to prepare for the effects of climate events	Proportion of population/ schools/ healthcare facilities served by water service providers that monitor and report on climate impacts
52_0602G	Management is appropriate to ensure and advance climate resilience	Proportion of population/ schools/ healthcare facilities served by water service providers that implement risk management plans which consider current and future climate (for example climate-resilient water safety plans)
52_0603	Redundancy is provided to reduce impacts of climate change	Proportion of the population/ schools/ healthcare facilities served by service providers with multiple or diverse water sources
52_0604G	Operation and maintenance standards for climate resilient WASH are implemented	Proportion of population/ schools/ healthcare facilities served by water supply services that conform to national regulations and standards for operations and maintenance that take into account current and future climate
52_0605	WASH planning incorporates current and future climate risk	Proportion of service providers that have climate resilience investment plans for Water supply Sanitation and wastewater
52_0606	Water use efficiency improves	Water use efficiency programmes include measures to improve efficiency of water use for domestic water supply and sanitation
52_0607	Emergency response protocols/plans/back-ups in place	Proportion of population/ schools/ healthcare facilities provided with alternative water service that meets minimum national standards when their primary water supply is disrupted due to a climate event.
52_0608	Emergency response protocols/plans/back-ups in place	Proportion of households served by] water treatment facilities where service provider has a quick-restart plan in place for use following climate event
52_0609	Sufficient quality and quantity of workforce exists for CR WASH	Proportion of population served by water service providers that have received training that includes climate risk assessment and risk management in the last X years

7: Adaptation actions by sanitation providers

	Objective	Indicator
52_0701	Proactive plans and actions in place to prepare for the effects of climate events	Proportion of population/ schools/ healthcare facilities served by sanitation service providers that monitor and report climate impacts
52_0702G	Management is appropriate to ensure and advance climate resilience	Proportion of population/ schools/ healthcare facilities served by sanitation service providers that implement risk management plans which consider climate variability and climate projections (for example flood and drought preparedness plans)
52_0703G	Operation and maintenance standards for climate resilient WASH are implemented	Proportion of population / schools/ healthcare facilities served by sanitation services that conform to national regulations and standards for operations and maintenance that take into account current and future climate
52_0704	Management is appropriate to ensure and advance climate resilience	Proportion of sanitation service providers that have protocols and procedures in place for safe, appropriate and timely emptying of pits and tanks on receipt of early warning relating to a climate event
52_0705	Emergency response protocols/plans/back-ups in place	Proportion of the population/ schools/ healthcare facilities served by sanitation service providers who provide multiple or diverse sanitation options for use in emergencies.
52_0706	Emergency response protocols/plans/back-ups in place	Proportion of sanitation service providers with construction materials, equipment and resources available to ensure robust re-construction and repair of sanitation infrastructure to maintain sanitation service delivery.
52_0707	Emergency response protocols/plans/back-ups in place	Proportion of sanitation service providers with well-defined, event-specific action plans ready for execution on receiving early warnings

8, 9 and 10: Adaptation actions by users

Objective		Indicator
52_0801	Users respond to climate events by taking actions to secure water quantity and quality	Proportion of the population that have invested in improvements in their water supply system in the past X years in response to climate information or hazards
52_0802	Users prepare themselves for climate events by securing household water storage	Proportion of population/ schools/ healthcare facilities with adequate water storage container on site that is secured against climate hazards
52_0901	Users provide themselves with redundancy to offset effects of service interruption/system failure	Proportion of population that have built or upgraded to climate-resilient toilets/latrines before a climate event
52_0902	Users build back better following a climate event	Proportion of population that have taken action to upgrade latrines following a climate event
52_1001	Users prepare for climate events by stockpiling essential hygiene items	Proportion of population that report that they have sufficient soap and MHM products in the house to support future household hygiene needs for up to X/4 weeks

11: Adaptation actions related to water resources and land management

	Objective	Indicator
52_1101G	Coherence and cooperation between agencies to deliver climate resilient WASH	Investment and operational plans for WRM are referenced in investment and operational plans for (a) Water supply (b) Sanitation and wastewater
52_1102G	Coherence and cooperation between agencies to deliver climate resilient WASH	Proportion of population in catchments where water resource management plans address climate risks to (a) Water supply (b) Sanitation and wastewater
52_1103	Early warning systems in place that support actions to reduce impact of climate events	Proportion of population covered by multi-hazard warning systems that include early warning for providers of domestic water and sanitation services.
52_1104	Climate related risk is managed in the catchment	Environmental regulations set appropriate limits on discharge quality from WWTPs that achieve appropriate water quality standards taking account current and future climate scenarios

12: Adaptation actions related to coordination with SWM and Drainage

	Objective	Indicator
52_1201	Coherence and cooperation between agencies to deliver climate resilient WASH	Sanitation investment and operational plans reference solid waste investment and operational plans
52_1202G	Coherence and cooperation between agencies to deliver climate resilient WASH	Investment and operational plans for (a) water supply (b) sanitation and wastewater reference drainage investment and operational plan
52_1203	Users receive messages that inform adaptation actions	Sanitation behaviour change campaigns include interventions to reduce risk of solid waste entering the sanitation system and causing climate-related failures.
52_1204	Operation and management is appropriate to ensure and advance climate resilience	Standard operating procedures for sanitation workers include interventions to reduce risk of solid waste entering the sanitation system and causing climate-related failures.

13: Attributes of water resources for water supply and receiving waters

	Objective	Indicator
52_1301G	Water Quality is Maintained	Proportion of raw water intakes/boreholes which meet design quality standards, disaggregated by groundwater/ surface water
52_1302G	Water Quality is Maintained	Number of incidents of water quality non-compliance downstream of a wastewater treatment plant
52_1303G	Water Quantity is Maintained	Proportion of raw water intakes/boreholes which meet design production rates, disaggregated by groundwater/ surface water

14: Attributes of water supply infrastructure

	Objective	Indicator
52_1401G	Construction and design standards for climate resilient WASH are implemented	Proportion of population/ schools/ healthcare facilities served by water supplies that conform to national regulations and standards for design and construction that take into account current and future climate (a) Water supply source (b) Water treatment (c) Storage and distribution
52_1402	Construction and design standards for climate resilient WASH are implemented	Proportion of population served by water source/collection point where infrastructure conforms to national regulations and standards for design and construction that take into account current and future climate
52_1403	Construction and design standards for climate resilient WASH are implemented	Proportion of population served by treatment facilities where infrastructure conforms to national regulations and standards for design and construction that take into account current and future climate
52_1404	Construction and design standards for climate resilient WASH are implemented	Proportion of population served by distribution network where critical infrastructure conforms to national regulations and standards for design and construction that take into account current and future climate
52_1405	Assets and systems have reduced sensitivity to climate shocks and stresses	Proportion of population served by water supply system with backup power supply disaggregated by settings

15: Attributes of sanitation infrastructure

Objective		Indicator
52_1501G	Construction and design standards for climate resilient WASH are implemented	Proportion of population/ schools/ healthcare facilities served by sanitation services that conform to national regulations and standards for design and construction that take into account current and future climate (a) Capture and containment (b) Conveyance (c) Treatment
52_1502	Construction and design standards for climate resilient WASH are implemented	Proportion of population/ schools/ healthcare facilities served by latrines and containments that conform to national regulations and standards for design and construction that take into account current and future climate
52_1503	Construction and design standards for climate resilient WASH are implemented	Proportion, by length of sewers that conform to national regulations and standards for design and construction that take into account current and future climate.
52_1504	Construction and design standards for climate resilient WASH are implemented	Proportion of WW/FS treatment facilities that conform to national regulations and standards for design and construction that take into account current and future climate.

16: Attributes of hygiene infrastructure

Objective		Indicator
52_1601G	Construction and design standards for climate resilient WASH are implemented	Proportion of schools where hygiene services conform to national regulations and standards for design and construction that take into account current and future climate (a) Hand hygiene (b) Menstrual hygiene
52_1602G	Construction and design standards for climate resilient WASH are implemented	Proportion of healthcare facilities where hygiene services conform to national regulations and standards for design and construction that take into account current and future climate (a) Hand hygiene (b) Menstrual hygiene

17: Water supply service functioning

	Objective	Indicator
52_1701G	Access to a minimum service level is maintained	Proportion of population/ schools/ healthcare facilities whose domestic water supply infrastructure is damaged due to a climate event
52_1702	Access to a minimum service level is maintained	Number of disruptions to a basic drinking water service before, during, and following a climate event (Modified UNDESA SENDAI indicator)
52_1703G	Access to a minimum service level is maintained	Proportion of population/ schools/ healthcare facilities reporting at least 1 period of disruption to water supply services in the last Y due to a climate event
52_1704G	Access to safely managed water supply is maintained	Proportion of population / schools/ healthcare facilities within nationally determined climate hazard zones using basic/safely managed drinking water services
52_1705	Water quality is maintained	Proportion of the population/ schools/ healthcare facilities served by water supplies that meet national drinking water standards before during and following climate events
52_1706	Sufficient water quantity is supplied	Proportion of population using groundwater-based water supplies where production falls below design minimum yield for [x days] per year
52_1707	Water quality is maintained	Number of water treatment facilities out of service before, during, and following a climate event.
52_1708	Time for services to be restored is minimised	Water supply services are restored to [defined level of service] within [X time step] to [Y% of the population] after a climate-change induced hazard event disaggregated by settings and by service levels.

18: Sanitation service functioning

	Objective	Indicator
52_1801G	Access to a minimum service level is maintained	Proportion of population/ schools/ healthcare facilities whose sanitation infrastructure is damaged due to a climate event
52_1802	Access to a minimum service level is maintained	Number of disruptions to a basic sanitation service before, during, and following a climate event (UNDESA SENDAI indicator) disaggregated by settings and by service levels.
52_1803G	Access to a minimum service level is maintained	Proportion of population / schools/ healthcare facilities reporting at least 1 period of disruption to sanitation services in the last Y due to a climate event
52_1804	Access to a minimum service level is maintained	Proportion of population/ schools/ healthcare facilities where sanitation facility have flooded or sewer connection backflowed in the last year
52_1805G	Access to safely managed sanitation is maintained	Proportion of population/ schools/ healthcare facilities within nationally determined climate hazard zones using basic/safely managed sanitation services
52_1806	Sewer system continues to provide a minimum service	Number of households/ schools / healthcare facilities reporting sewer backflows in the past year per number of sewer connections
52_1807	Road based FSM continues to provide a minimum service	Number of FS service providers reporting interruption to operations for a period of at least 7 days during the past year
52_1808	FS and WW treatment continues to provide a minimum service	Proportion of FS/WW treatment facilities not operating for a period of at least 7 days in the past year.

19: Hygiene service functioning

	Objective	Indicator
52_1901G	Access to a minimum service level is maintained	Proportion of population/ schools/ healthcare facilities reporting at least 1 period of disruption to access to a handwashing facility at home in the last Y due to a climate event.
52_1902G	Access to a minimum service level is maintained	Proportion of population/ schools/ healthcare facilities reporting at least 1 period of disruption to access to a soap and water for hygiene practices at home in the last Y due to a climate event
52_1903G	Access to a minimum service level is maintained	Proportion of women, girls, and menstruators reporting at least 1 period of disruption in access to safe, secure, and private facilities to practice MHM in the last Y due to a climate event disaggregated by settings.
52_1904G	Access to a minimum service level is maintained	Proportion of women, girls, and menstruators reporting at least 1 period of disruption in access to MHM products when needed in the last Y due to a climate event disaggregated by settings.
52_1905G	Access to basic hygiene facilities is maintained	Proportion of population/ schools/ healthcare facilities with access to soap and water at a handwashing facility within nationally determined climate hazard zones.
52_1906L	Safe, secure, and preferred MHM facilities available during and following a climate event	Proportion of women, girls, and menstruators reporting a break in access to safe, secure, and private facilities to wash and dry MHM products/cloths for at least one menstrual cycle due to a climate event disaggregated by settings.

20: User experience of water supply

	Objective	Indicator
52_2001G	Users are protected from distress related to water service disruptions	Proportion of population reporting that they worried about not having enough water for all household needs due to a climate event
52_2002	Users are protected from distress related to water service disruptions	Proportion of population who felt safe accessing water supplies during and following a climate event
52_2003	Access to water supply is maintained	Proportion of population whose water supply services were unavailable during and following a climate event who were able to access alternative water supply facility
52_2004	User complaints/ requests for assistance are dealt with in a timely manner	Total complaints per 1000 customers before, during, and following a climate event (a) received by drinking water service providers or regulators (b) received and analysed by drinking water service providers or regulators (c) received, analysed and acted upon by drinking water service providers or regulators
52_2005G	Access to a minimum service level is maintained	Proportion of population/ schools/ healthcare facilities who report easy access to alternative water supply facilities that meet minimum national/local standards of service when needed during a period of disruption due a climate event
52_2006	Financial impacts on users are minimised	Additional time spent collecting, treating and managing water supply before, during, and following a climate event disaggregated by gender
52_2007	User complaints/ requests for assistance are dealt with in a timely manner	Time lapsed in redressal of customer complaints before, during, and following a climate event

21: User experience of sanitation

	Objective	Indicator
52_2101G	Users are protected from distress related to sanitation service interruptions	Proportion of population who felt safe at the sanitation locations they used most before, during, and following a climate event in the [last Y]
52_2102	Access to sanitation is maintained	Proportion of population whose sanitation services were unavailable during or following a climate event who were able to access alternative sanitation facility
52_2103G	User complaints/ requests for assistance are dealt with in a timely manner	Total complaints per 1000 customers before, during, and following a climate event (a) received by sanitation service providers or regulators (b) received and analysed by sanitation service providers or regulators (c) received, analysed and acted upon by sanitation service providers or regulators
52_2104G	Access to a minimum service level is maintained	Proportion of population/ schools/ healthcare facilities who report easy access to alternative sanitation facilities that meet minimum national/local standards of service when needed during a period of disruption due a climate event
52_2105	Financial impacts on users are minimised	Value of financial losses due to damaged WASH infrastructure (centralised/system and household level)

22: User experience of practicing hygiene behaviours

	Objective	Indicator
52_2201	Users are protected from distress related to practicing hygiene	Proportion of population reporting that they worried about meeting hygiene needs before, during, and following climate events
52_2202	Users are protected from distress related to practicing hygiene	Proportion of women, girls, and menstruators who reported that they felt safe while practicing menstrual hygiene management before, during, and following a climate event in the [last Y]
52_2203G	Access to hygiene materials is maintained	Proportion of women, girls, and menstruators that report having enough MHM materials to change as often as wanted before, during, and following climate events
52_2204	Users are protected from uncertainty related to managing menstrual hygiene	Proportion of women, girls, and menstruators who reported easy access to affordable menstrual materials due to market disruptions before, during, and following a climate event
52_2205G	Access to a minimum service level is maintained	Proportion of population that report having enough soap and water to practice hand hygiene behaviours as often as they wanted before, during, and following climate events