

UNICEF Uzbekistan SBC Climate Resilient WaSH Strategy.

Part 1. SBC CR WaSH Strategy.

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List of Abbreviations.	
CCA	Climate Change Adaptation
CLTS	Community Led Total Sanitation.
CR WaSH	Climate Resilient Water, Sanitation and Hygiene Promotion.
ECDC	Early Childhood Development Centre.
HCF	Health Care Facility.
IEC	Information, Education and Communication.
IPCC	International Panel on Climate Change.
IWRM	integrated water resources management
MEAL	Monitoring Evaluation Advocacy and Learning.
MICH	Mother, Infant and Child Health.
MHHM	Menstrual Health and Hygiene Management.
PHAST	Participatory Hygiene and sanitation Transformation.
PHP	Public Health Promotion.
PLA	Participatory Learning and Action.
SBC	Social and Behaviour Change.
SEM	Social Ecological Model.
SLT	Social Learning Theory.
SLTS	School Led Total Sanitation.
WiS	WaSH In Schools.

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Definitions of Mitigation, Adaptation & Resilience from UNICEF and the IPCC	
Adaptation:	The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects.
Mitigation:	A human intervention to reduce the sources, or enhance the sinks, of greenhouse gases. The IPCC indicates that mitigation can be achieved by limiting or preventing greenhouse gas emissions and by enhancing activities that remove these gases from the atmosphere. Greenhouse gases can come from a range of sources and climate mitigation can be applied across all sectors and activities. These include energy, transport, construction, buildings, industry, waste management, agriculture, forestry, and other forms of land management.
Climate Resilient WaSH	<p>Resilience can be defined as the ability of people and systems to anticipate, adapt to and recover from the negative effects of shocks and stresses (including natural disasters and climate change) in a manner that reduces vulnerability, protects livelihoods, accelerates and sustains recovery, and supports economic and social development, while preserving cultural integrity.</p> <p>Climate resilient development involves measures and activities that will deliver benefits under all potential future climate scenarios and can cope with uncertainties over future conditions. It is also important that national systems are also sufficiently strong to facilitate and sustain such developments.</p> <p>It differs from business-as-usual development in actively considering and addressing potential existing and future climate risks.</p>

Introduction and Overview of the SBC CR WaSH Strategy.

The SBC CR WaSH Strategy is divided into 3 distinct but mutually reinforcing parts.

Part 1. UNICEF Uzbekistan SBC Climate Resilient WaSH Strategy;

Part 1 provides an overview of the Climate Emergency related challenges that will affect future WaSH programs in Uzbekistan, the institutional framework and policy context, including references to relevant SDGs, national strategies and plans, within which UNICEF Uzbekistan SBC CR WaSH programs will be working.

The associated Strategic Framework and Theory of Change is intended to guide practitioners to understand the logic of program design as a cyclical process (see Part 2. Section 1.5) within which research, evidence and learning from “the field” will be used to inform stakeholders, leadership groups, policy makers and technicians at all levels of the Socio Ecological Model, of the challenges faced and opportunities available within WaSH programs in the context of the evolving Climate Emergency.

Such a research and evidence based process is intended to support the active participation of WaSH stakeholders, in an ongoing problem/solution analysis of the challenges faced by the sector within the context of the Climate Emergency and the governance systems and program responses required to meet these.

Crucially, the processes involved are intended to identify and test effective Climate Resilient WaSH strategies, as well as potential or existing barriers to, or drivers of, their widespread adoption, through a MEAL strategic approach (see Part 2. Section 1.5) that promotes learning from programs at a project level, to inform future national level policy response and technical design.

As such, whilst WaSH programs are initially identified with the context of Republic of Karakalpakstan (ROK), it is the intention of the strategy that learning will be used to inform the roll out of the approach within the sector and across Uzbekistan as a whole.

The Social and Behaviour Change Approach (see box below and Part 3 Annex 0 for a fuller explanation of the SBC approach) is identified as being innovative within the context of Uzbekistan and is significantly different from its IEC and BCC precedents, acknowledging the limitations of approaches that focus upon the individual, to one that highlights the significant influence of broader social, cultural and political factors upon public health promotion.

What is social and behaviour change? (UNICEF)

Social and behaviour change (SBC) aims to empower individuals and communities, and lower structural barriers that hinder people from adopting positive practices and societies from becoming more equitable, inclusive, cohesive and peaceful.

Drawing on various disciplines (from sociology and psychology to communication science and behavioural economics), SBC encompasses any set of strategies and interventions that influences the drivers of change and supports local action towards better societies. It helps development practitioners and policymakers design more effective programmes for reducing poverty and inequity.

And it blends scientific knowledge with community insights, most importantly, to expand people’s control over the decisions that affect their lives.

SBC is a deliberate and iterative process of public and private dialogue, debate, and negotiation that focuses on the community as the unit of change. It aims to change behaviours on a large scale, eliminate harmful social and cultural practices, and change social norms and structural inequalities.

It is the systematic application of interactive, theory-based, and research-driven communication processes and strategies to address tipping points for change at individual, community, and social levels, that characterises and distinguishes SBC strategies from both its IEC and BCC precedents.

Thus SBC is a transformative process of social engagement, reflection, and practice that works on various dimensions:

- An individual’s behaviour and practices,
- Collective action by networks,
- Social and cultural structures,
- An enabling environment.

The strategy identifies the challenges of adopting such a significantly different approach, whilst also identifying opportunities within program design, to mitigate and benefit from these.

Equally, because of the currently limited research available to the UNICEF WaSH program, the strategic approach, detailed in Part 2 (see below), is intended to further inform the SBC strategic design by identifying:

- Effective Climate Resilient WaSH “hard and software” program responses relevant to the Uzbekistan context.
- Barriers and facilitators to their implementation.
- Key stakeholders at all levels of the Socio Ecological Model.
- A process of reflective learning within the implementation of the SBC approach in Uzbekistan through a MEAL strategy that intentionally and actively uses field-based actions to inform national level program & policy design.

MHHM Promotion within the SBC CR WaSH Strategy.

Menstrual health and hygiene is an integral part of the UNICEF Uzbekistan WASH program, including both integrated and dedicated program activities and approaches.

Gender inequality, discriminatory social norms, cultural taboos, and a lack of basic services like toilets and sanitary products, can all cause menstrual health and hygiene needs to go unmet.

Poor Menstrual Health and Hygiene also affects attendance in school, at HCFs, at work and participation in broader community life, further marginalising and disempowering women and girls.

Within the context of the SBC CR WaSH Strategy, MHHM is viewed as being included within the “WaSH” acronym. However, as detailed within the dedicated section below (Page 11), work within the SBC paradigm that supports CR MHHM specifically, whilst using the SBC methodology detailed within this strategy, will need to ensure that it is nuanced to meet the specific challenges of this sub sector.

Part 2. SBC Climate Resilient WaSH Strategy, Implementation Plan.

Part 2 of the SBC Climate Resilient WaSH Strategy is intended to offer a practical “toolkit” for the roll out of the strategy for field-based teams and includes 2 sections.

- **Section 1. SBC Climate Resilient WaSH implementation modalities.** Explores the rationale of the approach used linked to our understanding of:
 - The role of gender sensitivity and Climate Vulnerability within the SBC CR WaSH Program design.
 - The use of appropriate PHP paradigms in SBC CR WaSH strategy design.
 - The role of Models of Health Behaviour Change within the SBC approach to CR WaSH.
 - The importance of community participation within the SBC approach to CR WaSH.
 - The Associated development of a multi-level Monitoring, Evaluation, Learning and Advocacy Strategy.
 - Identified WaSH interventions with a Climate Resiliency focus.
- **Section 2. The SBC Climate Resilient WaSH Project Cycle, Potential Stages, Steps & Associated Activities.**

This section provides a detailed guide through each of the 6 Stages and associated Steps within the SBC Climate Resilient WaSH process at School/HCF/Household/community levels. Each Stage includes:

- A summary of the Stage.
- The various “Steps” included to complete that Stage.
- An explanation and justification of the processes included.
- A breakdown of possible tools to be used with each “Step” of each “Stage”.

An overview of the SBC CR WaSH Project cycle.		
Stage.	Process	Description.
0	Initial Preparations	Initial preparations necessary for the SBC CR WaSH team to ensure they can successfully initiate the SBC CR WaSH program.
1	Getting to know the community.	Using a Rapid CR WaSH Community Assessment to learn more broadly about the communities we are working with, whilst introducing them to the SBC CR WaSH teams and the participatory approaches involved. Development of an agreed plan for future programming activities, notably at Stages 2 & 3.
2	Participatory Community CR WaSH Assessments.	Participatory Community CR WaSH Situation Analysis to identify areas of concern and mobilise communities in to action.
3	Selecting and Planning Solutions.	Selecting and planning solutions within the framework of a school, Household, HCF or Community Action Plan.
4	Putting Plans into Action.	Implementing the action plans, problem solving, coordinating activities with other stakeholders, maintaining motivation and monitoring progress.
4.1	CR WaSH IEC Toolkit.	A series of CR WaSH focussed IEC materials will be developed to support improved understanding of CR WaSH issues to facilitate CR WaSH behaviour change by WaSH stakeholders.
4.2	CR WaSH Hardware Solutions Toolkit.	A series of CR WaSH focussed technical solutions will be identified by WaSH technicians and the community to trialed and assessed to support improved adaptation and mitigation practice by WaSH stakeholders.
5	Monitoring and Evaluating.	Monitoring and evaluating progress towards stated aims and objectives whilst assessing any needs for alterations in program direction.

Part 3. SBC CR WaSH Strategy Annexes.

Part 3 of the SBC CR WaSH Strategy contains a series of annexes intended to support implementing teams and other stakeholders to further understand the SBC paradigm and it’s distinctive approach compared to other PHP approaches such as IEC; SBC research methodologies and potential M/E indicators; As well as global examples of CR WaSH program design, implementation and M/E indicators. These include:

Part 3. SBC CR WaSH Strategy Annexes.	
Annex Number.	Title.
0	An Introduction to and Overview of The Social and Behaviour Change Approach.
1	Multi-Level CR WaSH M & E Indicators
2	Description of PHP Paradigms.
3	Overview of key psychosocial theories used within the SBC CR WaSH Strategy.
4	Global Examples of SBC CR WaSH Programs

5	Applying a CR Lense to assess WaSH Systems.
6	Example SBC Data Collection Chart.
7	Examples of SBC M and E Indicators.

Key Areas of Strategy Document.

1. Summary of Situation Analysis.

Climate Risk Profile for Uzbekistan. (USAID Climate Risk Profile for Uzbekistan 2020.)

The Climate Emergency will have a significant impact on the WaSH sector specifically and associated core areas of UNICEF Uzbekistan programs more generally. As such the SBC WaSH Strategy holds a “climate emergency” lens within its program analysis/design that is reflected within our strategic approach. One of the central objectives of the SBC WaSH Strategy is that it builds “Climate Resilience” into its programs, the communities and services it is working with and acts as a model for associated sectors within UNICEF and associated Uzbek ministries, to do the same.

Overview of Climate Projections for Uzbekistan.			
2.0 – 5.4C increase in annual mean temperature by 2085.	Increased frequency & severity of drought.	Changing precipitation patterns.	More frequent & intense heavy rain events.
Key Climate Impacts.			
Agriculture. Reduced crop yields. Lower livestock productivity. Decreased food security.	Water. Decreased water availability. Decreased river flows and runoff. Increased salinisation & mineralisation.	Tourism. Damaged tourism sites. Reduced draw for eco-tourism. Damaged access to tourism sites.	
Ecosystems. Decreased biodiversity. Shifting species distribution. Increased desertification.	Human Health. Increased heat related illnesses. Increased water borne & infectious diseases.	Infrastructure. Increased deterioration & damage. Increased strain & demand, esp. for energy & water.	

WATER RESOURCES.

Climate Stressors & Climate Risks.	
Water Resources.	
Stressors.	Risks.
Increased temperatures. Changes in precipitation patterns. Increased drought.	Increased glacial and snow cover melt
	Long-term decreased river flows and runoff
	Decreased water available for irrigation
	Increased salinization and mineralization of water resources
	Decreased availability of drinking water
	Reduced hydropower productivity

Given the prevalence of desert terrain and arid climate in Uzbekistan, water is one of the country’s most precious resources. Uzbekistan is highly dependent upon its water resources, both for hydropower generation (which accounts for 13.6 percent of the country’s domestic electricity production) and for farm irrigation, which consumes up to 90 percent of the country’s total water withdrawals.

Glacial melt dynamics and seasonal snow melt from the mountainous regions provide most of the freshwater resources, largely channelled through the Aral Sea basin, which includes the Amu Darya and Syr Darya river basins, various smaller rivers, and underground waters. The long-term viability of the Aral Sea as a source of water for Uzbekistan is a critical challenge for the country, a consequence of intensive water use, particularly for irrigation, contributing to a significant reduction in total area and increased salinization. This issue will likely be exacerbated by climate stressors across Uzbekistan as well as the upper watersheds beyond the country’s borders that feed the Aral Sea basin.

Projections forecast reductions in overall precipitation, annual snow cover, and glacial mass, signifying a likely decrease in the long-term average runoff of the major rivers throughout the territory. While Uzbekistan is expected

to experience a small increase in precipitation during the winter months, the decreases in other months, particularly in the summer, will likely lead to either stable or slightly decreasing total annual precipitation.

Combined with increasing temperatures, including in the spring, there will likely be a decline in annual snow accumulation that will contribute to decreased snow melt and river flows. Likewise, current projections suggest the glaciers in the upper watersheds of the Amu Darya river basin will follow the global trend of a general recession in size. Due to higher average temperatures, the low-elevation glaciers are likely to recede, and seasonal glacier melt may be depleted over time.

The growing water deficit along with increased year-to-year variability will likely have cascading, adverse effects on multiple other sectors, including agriculture (which requires water for irrigation) and human health (due to shortages in drinking water). Both large and small hydropower stations are expected to experience decreased productivity due to reduced streamflow, particularly during summer and autumn months.

HUMAN HEALTH.

Climate Stressors & Climate Risks. Human Health.	
Stressors.	Risks.
Increased temperatures. Increased heat waves and other extreme weather events Changes in precipitation patterns	Increased incidence of waterborne disease.
	Higher prevalence of heat-related medical conditions.
	Favourable conditions for infectious diseases.
	Increased dust storms and higher risk of respiratory disease.

Since the early 2000s, Uzbekistan has implemented sweeping reforms to modernize its public healthcare system, transitioning from a centralized government financed system to a combination of public and out of pocket payments. While these reforms have coincided with marked improvements in certain health indicators (e.g., decline in overall child and maternal mortality rates), the country still faces significant public health challenges.

More than 30 per cent of Uzbekistan’s households lack quality drinking water, leaving them vulnerable to bacterial and microbial diseases which spread more widely during warmer weather. Incidence of bacterial dysentery already increases three-fold in summer months, and incidence is expected to increase as temperatures rise. In addition, decreased streamflow and water volumes could lead to an increased concentration of pathogens in water sources, further compounding the risk of disease.

Health complications related to more frequent and severe heat waves also pose an increased risk for Uzbekistan, particularly for vulnerable populations including the elderly and those suffering from hypertension and cardiovascular disease, which is already the leading cause of death in the country.

Reduced rainfall and rising temperatures also contribute to aridity and desertification, which are likely to increase the occurrence of dust storms. Over 5.5 million people in Uzbekistan have already become increasingly affected by dust storms, which constitute a major health concern for children and those at risk of respiratory diseases.

Shifting climatic patterns are also expected to exacerbate the incidence of communicable diseases, which poses an especially high risk for women, children, and the elderly. Although the country has undertaken successful measures to eradicate malaria (once one of the most widespread diseases in Uzbekistan), warmer temperatures that are more favourable to the mosquitoes that transmit malaria create the possibility of a resurgence.

POLICY CONTEXT

Uzbekistan has taken deliberate steps to incorporate climate change considerations into their national strategies, plans, and governmental decrees. The country has also submitted three National Communications to the United Nations Framework Convention on Climate Change (UNFCCC) and their Intended Nationally Determined Contribution. However, Uzbekistan still lacks a comprehensive, nationwide framework for climate change adaptation. Legislative actions have mainly consisted of decrees issued by the president and members of the Cabinet of Ministers, regarding

climate change mitigation measures for individual sectors (e.g., energy, water, agriculture). As of 2016, Uzbekistan was in the process of developing a National Adaptation Plan.

The State Program for the development of the Aral Sea region for 2017-2021 aimed at improving the living conditions and quality of life of the population of the region was adopted. In addition, the Program of Integrated Socio-Economic Development of Karakalpakstan for 2020-2023 was approved. In 2018, the International Innovation Center of Priaralie under the President of the Republic was established.

Against this background, Uzbekistan advocates cooperation in the field of water resources on the basis of sovereign equality, territorial integrity, mutual benefit and good faith in the spirit of good neighbourliness and cooperation. Tashkent considers it necessary to develop mechanisms for joint management of the region's transboundary water resources that would balance the interests of the Central Asian countries. At the same time, water resources in the basins of transboundary watercourses should be managed without prejudice to the ability of future generations to meet their own needs.

Uzbekistan has become an active participant in the global environmental policy by joining and ratifying a number of international conventions and relevant protocols in the field of environmental protection. An important event was Uzbekistan's accession (2017) to the UN Paris Climate Agreement, under which commitments were made to reduce greenhouse gas emissions into the atmosphere by 10% by 2030 compared to 2010. To achieve this goal, a National Low Carbon Development Strategy is currently being developed, and Uzbekistan is also working on achieving carbon neutrality by 2050.

Uzbekistan is making active efforts to mitigate the devastating consequences of the Aral Sea ecological disaster.

Established in 2018 at the initiative of the President of Uzbekistan, the UN Multi-partner Trust Fund on Human Security for the Aral Sea Region provides a single platform for cooperation at the national and international levels to address the environmental and socio-economic needs of communities living in the Aral Sea region, as well as to accelerate efforts to achieve the global Sustainable Development Goals.

On October 24-25, 2019, a high-level International Conference "Aral Sea region - a zone of ecological innovations and technologies" was held in Nukus under the auspices of the UN. At the proposal of the President of Uzbekistan Shavkat Mirziyoyev, on May 18, 2021, the UN General Assembly unanimously adopted a special resolution on declaring the Aral Sea region a zone of environmental innovation and technology.

The initiative of the head of Uzbekistan was positively received by the international community. The Aral Sea region became the first region to be granted such a significant status by the General Assembly.

At the SCO summit in Bishkek (June 14, 2019), Shavkat Mirziyoyev proposed to adopt the SCO Green Belt program in order to introduce resource-saving and environmentally friendly technologies in the countries of the organization. At the 14th ECO summit (March 4, 2021), the head of Uzbekistan took the initiative to develop and approve a medium-term strategy aimed at ensuring energy sustainability.

At the Third Consultative Meeting of Heads of State of Central Asia, held on August 6, 2021 in Turkmenistan, the President of Uzbekistan advocated the development of a regional program "Green Agenda" for Central Asia, which will contribute to the adaptation of the region's countries to climate change. The main directions of the program could be gradual decarbonization of the economy, rational use of water resources, introduction of energy-efficient technologies into the economy, and increasing the share of renewable energy generation.

INSTITUTIONAL FRAMEWORK

Efforts to address climate change in Uzbekistan are largely dispersed throughout sector-specific entities. For example, the main government ministries responsible for implementing Uzbekistan's obligations under the UNFCCC include: Center of Hydrometeorological Service (Uzhydromet) at the Ministry of Ecology, Environmental Protection and Climate Change, Ministry of Economy and Finance, Ministry of Water Resources, Ministry of Agriculture, and the Ministry of Health. The Ministry of Ecology, Environmental Protection and Climate Change also plays a key role in ecological

education and human health initiatives and is responsible for coordinating climate change initiatives across the country.

NATIONAL STRATEGIES AND PLANS.

- Third National Communication of the Republic of Uzbekistan to the UNFCCC (2016)
- Intended Nationally Determined Contribution (2017)
- Program of Measures for Reduction in Energy Consumption, Introduction Energy Saving Technologies in Economy Sectors and Social Sphere for 2015-2019 (2015)
- Program of Actions for Environmental Protection of the Republic of Uzbekistan for 2013-2017 (2013)
- Program for Further Development of Agricultural Production for 2015-2019 (2015)
- Program for Further Irrigated Lands Improvement and Rational Use of Water Resources for 2013-2017 (2013).

Prioritising SBC CR WaSH Program Initiatives within most highly affected areas to inform future national program design.

The Republic of Karakalpakstan (ROK), has been identified by UNICEF as a priority area to initiate and model SBC Climate Resilient WaSH Approaches in Uzbekistan as a region which is experiencing the most significant impact from climate change and environmental degradation. As such SBC CR WaSH activities will be initiated within ROK, but will be used to inform future CR WaSH program design and approaches at a national level, (see Part 2. Section 1.5).

The catastrophic shrinking of the Aral Sea, has triggered a range of human, socio-economic and environmental issues for the local population of 1.9 million. The poverty rate in Karakalpakstan stands as the highest in Uzbekistan at 19.7 per cent, compared to the national rate of 14.1 per cent. The average unemployment rate is 7.9%, and youth unemployment is 12.5% .

The drainage of the Aral Sea since the 1960s has resulted in land degradation and desertification of vast areas of Karakalpakstan. Despite the national WaSH achievements identified above, 37% of the overall population of Karakalpakstan, and almost 50% of the rural population, do not have access to centralized drinking water. More than 75 million tons of dust and poisonous salts ascend annually from the new desert “Aralkum”, at concentrations exceeding 2.7 times the normal rate, a situation that has been described as” an ecological and socio-economic disaster”.

Changes in the quality of the water and air, exacerbated by poverty and low social capital, have had a particularly disastrous impact on health. Anemia and respiratory diseases are attributed to exposure to dust and air pollution. The incidence rate of anemia among children in Karakalpakstan is 8818.6 cases per 100,000 people, compared to a national average of 6844.3 per 100,000. Anemia among pregnant women is almost 2 times the national average. At 106.3 cases per 100,000 people, the incidence of tuberculosis is 50% higher than the country average.

Moreover, the shrinking of the Aral Sea due to human activities and climate change has led to severe ecological and humanitarian consequences. This climate emergency has resulted in increased desertification, loss of biodiversity, and adverse health effects for local communities, posing additional risks to schools in the region.

Access to clean water has become limited as water sources have become contaminated and salinized. Dust and sandstorms, more frequent due to the ecological devastation, affect air quality and create challenges to WaSH services in schools, HCFs and communities.

Preliminary data from a sociological survey to identify behavioural factors and their role in creating risk of contact-transmitted enterobiasis and hymenolepiasis invasion showed significant shortcomings in the sanitary conditions available in schools and the personal hygiene skills among students and some parents. According to MOPE, only 36% of schools in Karakalpakstan have access to running water, 2% of schools have indoor toilets and only 20% are connected to sewage systems. This dire situation necessitates urgent measures to ensure the availability of WaSH facilities that could withstand the challenging climatic conditions.

WaSH services in HCFs fall short of WHO and national standards. The availability of WaSH services, especially in primary-care settings where they are often absent, supports core universal health care aspects of quality, equity and

dignity for all people. Basic WaSH services in HCFs are fundamental to providing quality care and for ensuring that primary health commitments, as detailed in the Astana Declaration, are achieved.

Inadequate WaSH in health care facilities has been linked to the spread of antimicrobial-resistant infections, placing patients and staff at risk of serious infections that are hard to treat. Improving hand hygiene in hospital could reduce health care associated infection significantly.

According to UNICEF's WaSH in Health Care Facilities assessment conducted in 2020, 36% of district-level health care facilities (HCFs) in RoK meet the standards of basic water services, and 64% of district HCFs had limited water services. The basic water services at the PHC level meet standards in 37% of facilities. Eight per cent had limited water services, and 60% did not have basic water services at all. The hot running water situation does not meet the target in 53% of PHC facilities in RoK. Sanitation services at the PHC level are in the worst situation compared to other health facility services. Seven per cent of HCFs meet basic sanitation services at the PHC level.

- **Problem Statement and Research Needs.**

The evolving Climate Emergency is the biggest threat to the achievement of the Sustainable Development Goals (SDGs) —which includes SDG2, focussing upon nutrition and food security, SDG3 on health and SDG 5, focussing upon gender equality. This is also true for WaSH (SDG 6), with ambitious targets for universal access to drinking water and sanitation (targets 6.1 and 6.2, respectively) by 2030. Achieving sustainable universal access under the influence of climate change will be a defining challenge for the SDG period. The SDGs also call for a focus on higher levels of service associated with much higher quantities of water, which will create further challenges.

In addition to the targets on drinking water and sanitation services, SDG 6 also includes targets to improve water quality (6.3), improve water-use efficiency (6.4), implement integrated water resources management (IWRM) (6.5), and restore water ecosystems (6.6). All of these will be impacted by climate change and in turn have important influences on the resilience of drinking water and sanitation services.

Despite increased public and governmental awareness of the current impact and growing risks of the Climate Emergency and significant efforts to begin addressing these risks at a governmental level in Uzbekistan, there is significant lack of understanding of how climate related vulnerabilities can be addressed across the WaSH and associated sectors at all governmental and social levels and across both the public and private sectors.

Such a lack of knowledge, understanding and limited examples of effective practice of how to increase resilience to climate change, acts as a barrier to climate vulnerability and mitigation analysis for decision-making and prevents systems of governance at all social levels to adequately prepare for and resource effective adaptation and mitigation strategies. It is therefore essential to identify, trial and disseminate examples of Climate Resilient programs that are cost effective, sustainable, practical and replicable at scale. This is especially true for the WaSH sector across Uzbekistan, but most notably within the Republic of Karakalpakstan.

In addition, traditional systems of Public Health Promotion are based within ineffective “Information” or “Education” paradigms and decision making within state and social structures in Uzbekistan can be described as predominately being hierarchical. However, our increased understanding of effective PHP and behaviour change at societal, community and individual levels requires a far more participatory approach and a greater understanding of the vulnerabilities, barriers, opportunities and influencers that can support increased social and individual efficacy and thus resilience to the climate emergency.

As a direct response to the impact upon the Climate Emergency in Uzbekistan and following a global mandate to prioritise Climate Resilience within all of its WaSH programs, UNICEF Uzbekistan will design and trial an approach to build Climate Resilience across the WaSH sector in one Mahala that includes schools, health care facilities and communities using the Social and Behavioural Change approach, which is of itself novel in Uzbekistan.

SBC is an evidence-based, theory-driven, researched, planned and interactive process, requiring a solid understanding of community characteristics, human behaviors and social norms, to design Climate Resilience throughout WaSH systems and across the sector and which will be core areas of research within the program.

The SBC process to Climate Resilient WaSH programming is informed by formative research to learn more about each target audience at different social levels within the socio ecological model, their motivations and barriers, to identify strategies that will support behavioural and technical changes and adapted structural and social norms.

These insights will guide the methodical development, design and implementation of effective climate resilient WaSH strategies tailored for the right audience at the right time and includes advocacy, behavior change communication, and mobilization of groups, communities and society.

The SBC approach is designed in partnership with affected communities, practitioners and other key stakeholders, alongside other noncommunication and “hardware” interventions, as part of an overall Climate Resilient Public Health Promotion strategy to building a Climate Resilient WaSH sector.

By taking a climate lens in our analysis of WaSH systems, practitioners and stakeholders will be asked take steps to understand how climate change will affect its ability to manage and protect population WaSH and associated public health services; evaluate the effectiveness of interventions and systems under diverse climatic conditions; and identify opportunities to enhance institutional capacity.

As such, the approach will be identifying new, climate resilient “hardware solutions” and associated behaviours as well as challenging social norms of professional approach within the WaSH sector and in decision making across society. This will of itself be a challenge and will require stakeholders to adopt new approaches to sectoral problem - solution analysis and program design.

The program will thus require as a central component, a multi-level MEAL strategy so that learning of both process and outcome can be used to inform the design of WaSH “hardware” and behaviour change at a systemic and national level, including both policy and practice, whilst consolidating work already being done within the country to improve resilience and sustainability by adding a climate lens when developing new or adapting existing WaSH activities.

MHHM Promotion within the SBC CR WaSH Strategy.

Menstrual health and hygiene is an integral part of the UNICEF Uzbekistan WASH program. Gender inequality, discriminatory social norms, cultural taboos, and a lack of basic services like toilets and sanitary products, can all cause menstrual health and hygiene needs to go unmet. Poor Menstrual Health and Hygiene also affects attendance in school, at HCFs, at work and participation in broader community life, further marginalising and disempowering women and girls.

Climate disasters, extreme weather events, increasing temperatures and associated population displacement are increasing and their impact upon menstrual health promotion needs to be understood for a holistic and adequate response for women and girls to be sustained. Climate change and disasters often create or exacerbate pre-existing MHHM problems in low/middle-income countries such as Uzbekistan, especially in rural populations and emergency contexts, as resources are limited, and populations are less equipped for adequate responses.

Climate change and climate disasters reduce access to clean water, hygiene facilities, MHHM programs and proper menstrual products for women and girls to manage menstrual hygiene effectively.

Menstruation management in emergency settings is particularly challenging for women and girls, as there is an increase in displacement and inadequate menstrual hygiene management supplies and resources in these settings. Environmental changes threaten the health and social opportunities of women and girls. Importantly, although unsustainable MHPs (Menstrual Hygiene Products) might harm the environment (see below), climate change could simultaneously worsen inadequate, inaccessible, and unsafe MHHM.

During & after extreme weather & climate events with associated loss of income, access to MHPs, private spaces, disposal methods, & clean water, sanitation, & hygiene facilities is often disrupted, & ongoing MHHM initiatives might be suspended due to the prioritisation of food & shelter provision in household, community, or disaster relief responses.

Similar challenges around menstrual health arise during climate-induced migration, which is expected to increase over the coming decades. Thus, the climate crisis and menstrual injustice are closely linked.

Several themes emerge from the current literature available to CR MHHM, relevant to Uzbekistan, notably:

- Women and girls' negative menstrual experiences are exacerbated after experiencing climate change events,
- Climate factors affect menstrual product use and uptake,
- Climate disasters suspend menstrual health promotion initiatives,
- Climate change is exacerbating water challenges creating negative menstrual health outcomes,
- More sustainable menstrual health interventions could be implemented in climate emergency settings.
- The environmental impacts of different Menstrual Hygiene Products (MHPs).
- The dearth of research into the links between climate change and effective MHHM promotion.

Future SBC CR WaSH research needs to include more quantitative and qualitative studies aiming to understand the experiences of women and girls in climate affected and emergency settings. Exploring the taboos and health implications of this issue is imperative to prevent climate change from creating more disparities for women and girls.

Improving and understanding the current state of menstrual health and climate change in Uzbekistan is also essential to improve national population health and gender equality.

Overall, most information related to the intersection of climate change and menstrual health globally is through studies researching women's health at climate disaster relief camps or facing climate migration. As such an increase in MHHM and Climate Change research within the specific context of Uzbekistan, is a priority.

Within the context of the SBC approach, further CR MHHM research should be undertaken in collaboration with community-led initiatives, grassroots organisations, and populations most affected by menstrual inequity, linked to an analysis of the associated socio cultural and policy enabling environment, to identify root causes, barriers, bottle necks and opportunities for improved practice across the SEM, (illustrated within the SBC CR WaSH Strategic Framework and associated ToC), designed using appropriate psycho social theories/models, (illustrated within "Annex 3. An Overview of Key Models and Approaches Used Within the SBC Climate Resilient Strategy and Implementation Plan"), with an associated MEAL strategy (illustrated within section 1.5 of the SBC CR WaSH Strategy Part 2, Implementation Plan).

Such research efforts should explore the comparative ecological impacts of different MHPs; contextual factors that influence access, uptake, and disposal of sustainable MHPs across settings and populations; associations between climate change, climate action, and menstrual inequity; and climate action for menstrual equity through inclusive community-based solutions for environmentally friendly MHHM.

WaSH teams will need to develop and share an understanding of the environmental impacts of single use menstrual products (SUMPs), (See Parnian Khorsand et al. 2023), such as pads or tampons, compared to more environmentally friendly, reusable menstrual products (RMPs), such as menstrual cups or WaSHable cloths. The SUMP lifecycle, from production to disposal, is environmentally detrimental. SUMPs are often non-recyclable and non-biodegradable. Consequently, improper disposal can result in SUMPs polluting communities, sewage systems, landfills, and water bodies before breaking down into microplastics.

However, the environmental implications of SUMPs are not widely known and many of the environmentally harmful chemicals used in SUMP production are also carcinogenic, allergenic, or endocrine disrupting. When improperly disposed of, MHPs can create unsanitary working conditions for waste pickers and cleaning workers. These disposal challenges are exacerbated when people do not have access to safe disposal methods or clean water for hygiene management and WaSHing reusable products (which is often the case in low-resource settings, during humanitarian crises, or for people experiencing climate related displacement).

However, SUMPs can be less costly than RMPs in the short term, with the initial costs of RMPs being unaffordable to some populations. Additionally, many RMPs require the user to have privacy, more intimately touch their genitals than for SUMPs, and have access to safe water, sanitation and hygiene conditions.

In some socioeconomic and cultural contexts, individuals might not have the ability to choose, access, or safely use RMPs. Nevertheless, when people have access to safe water, sanitation, and hygiene services and disposal methods, use of RMPs in the long term can benefit menstrual health, equity, and the environment. These benefits include reducing skin irritation and diseases (eg, candidiasis); overall household spend on MHHM after the initial RMP purchase, which can subsequently reduce period poverty; MHP distribution challenges, (because RMPs are not needed in the same quantity and frequency as SUMPs); and the environmental footprint of MHPs.

WaSH teams will need to understand the perspectives and preferences of women and girls in the diverse communities they are working in, to effectively co design locally appropriate CR MHHM strategies that can inform leadership groups and be replicated by communities across Uzbekistan (see SBC Climate Resilient WaSH Strategic Framework and ToC).

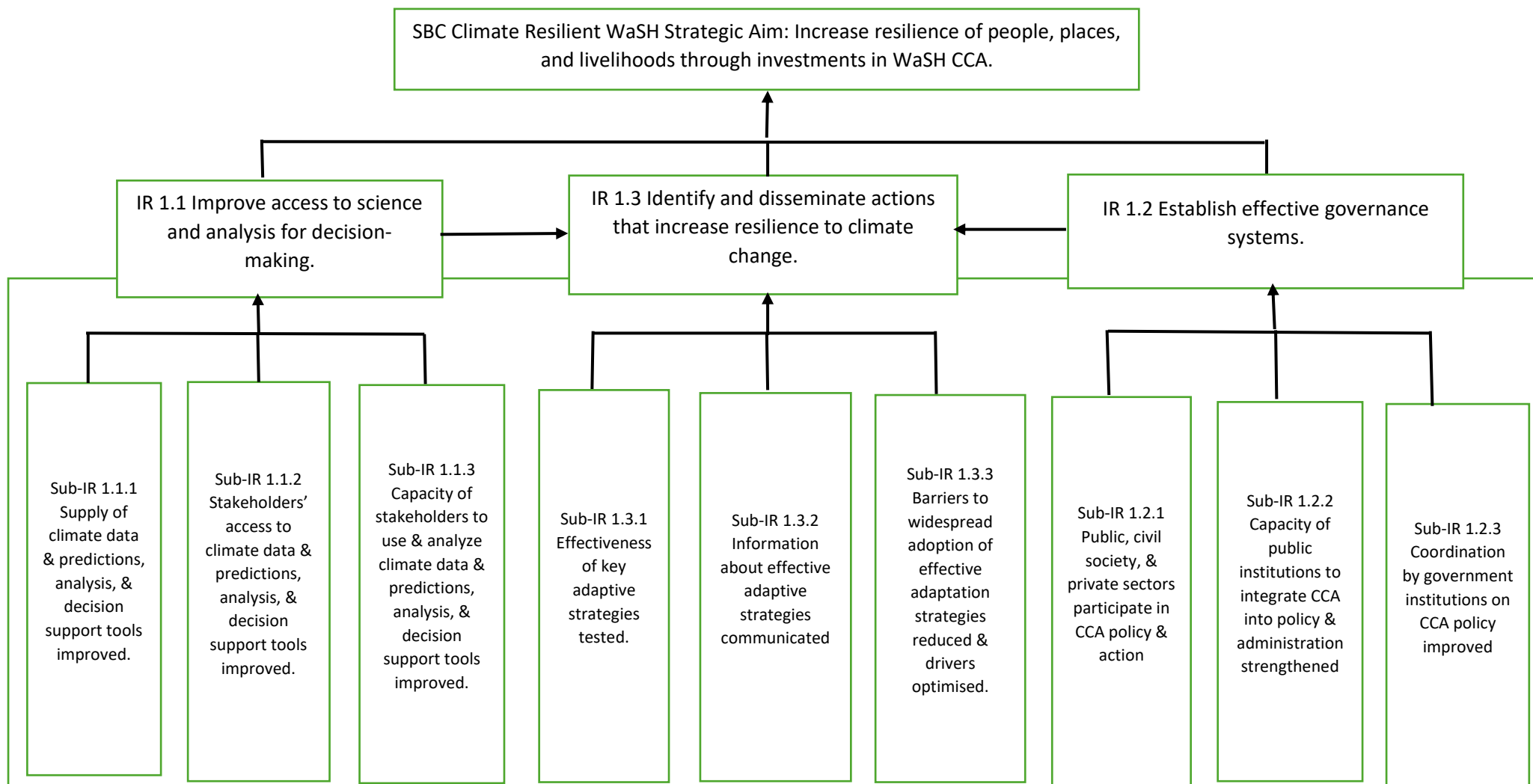
By recognising the human and planetary health perspectives of the Climate Emergency on menstruation and promoting the active participation of women and girls to inform a targeted MHHM MEAL strategy across the WaSH/MHHM SEM, the SBC CR WaSH strategy and implementation plan can, not only reduce menstrual inequities, but also support women and girls as active participants in society and as actors of change in climate mitigation and adaptation, in ways that promotes both menstrual equity & local, transferable solutions for environmentally friendly MHHM.

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Desired Change & Theory of Change.

SBC Climate Resilient WaSH Strategic Framework.



SBC CR WaSH Strategy Theory of Change.

The overall causal logic of the SBC Climate Resilient WASH Strategy Results Framework (RF) is that,

IF:

1. Supply of relevant WASH climate data and predictions, analysis, and decision support tools is improved;
2. WASH (and associated) stakeholders' access to WASH climate data and predictions, analysis, and decision support tools is improved; and
3. WASH related institutions have improved capacity to use and analyze climate data and predictions, analysis, and decision support tools;

THEN: access to science and analysis for decision-making will be improved;

AND IF:

1. Participation of WASH Stakeholders (public, civil society, and private sectors) in climate change adaptation policy and action is increased;
2. Capacity of WASH public institutions to integrate climate change adaptation into policy and administration is strengthened; and
3. Coordination by government WASH institutions on climate change adaptation policy is improved;

THEN: effective governance systems for climate change adaptation and increased resilience within the WASH sector will be established;

AND IF:

1. The effectiveness of key adaptive CR WASH strategies is tested;
2. Information about effective adaptive CR WASH strategies is communicated; and
3. Barriers to widespread adoption of effective adaptation strategies within the WASH sector are reduced;

THEN: actions that increase resilience to climate change within the WASH sector will be identified and disseminated.

AND THEN: the resilience of people, places, and livelihoods related to the WASH and aligned sectors to climate change will increase.

SBC CR WASH Strategy Framework Strategic Aim Narrative:

Increase Resilience of People, Places, and Livelihoods through Investments in WASH CCA.

The aim of UNICEF Uzbekistan's SBC CR WASH Strategy, is to increase partner resilience by helping them anticipate potential climate change impacts and increase the capacity of their economic, political, and social systems to respond within the WASH Sector specifically and associated sectors (Health, Education, Food Security, Agriculture) more generally and to use this process to promote new social norms, professional practices and hardware design that meet the challenges of the Climate Emergency.

The three intermediate results (IRs) of UNICEF Uzbekistan SBC CR WASH strategy activities are to:

- Improve access to science and analysis for decision-making (IR 1.1);
- Establish effective governance systems (IR 1.2);
- Identify and take actions that increase resilience to climate change (IR 1.3).

Implied throughout the strategic framework is increased awareness and understanding of climate change vulnerability, risk, and opportunities as they relate to WASH and associated sectors (such as Health, Education, Food Security, Agriculture etc), which emphasises the need for a multi sectoral approach and action plan. Increased awareness and understanding are an integral starting point for achieving any of the IRs and sub-IRs and should be incorporated into activities that support this process whenever appropriate.

For example, improving access to science and analysis related to climate change is only meaningful if leadership groups, opinion formers/leader and stakeholders across the Socio Ecological Model understand the climate change risks and vulnerabilities they face. Using the Health Belief Model to guide research requirements and program design, such analysis may spur them to seek greater scientific understanding or help them identify what further analyses are needed. Similarly, actions to increase resilience to climate change may only be taken if stakeholders understand their severity of and are motivated by their susceptibility to the vulnerabilities and risks that they must respond to.

This requires that we adapt our analysis, approach and language to meet the audience we are working with, understand the drivers and barriers to adaptation and how social influentials, community dynamics and structural barriers or drivers can be mobilised within each specific context to build individual, social and sectoral efficacy at all levels of their specific Socio Ecological Model.

IR 1.1: IMPROVE ACCESS TO SCIENCE AND ANALYSIS FOR DECISION-MAKING.

IR 1.1 Addresses the need for "decision-makers" (key influentials) and stakeholders (those affected by the Climate Emergency) at all levels of the SEM, to have access to and use, science, technology, innovation, and the best available information, including traditional knowledge and experience, that is most relevant to them and in formats that is most appropriate to them, to design effective adaptation strategies that build positive attitude, interest and intent and that such key influentials and stakeholders are able to translate this knowledge in to action efficacy at their relevant societal levels.

Three obstacles may exist to achieve this result:

1. High-quality climate data and predictions, analysis, and decision support tools frequently do not exist;
2. If they do exist, they often are not accessible to relevant stakeholders;
3. If they are available, stakeholders often do not know how to use them to inform their decision making.

Sub IR 1.1.1: Supply of WASH Climate Data and Predictions, Analysis and Decision Support Tools Improved.

It is essential to ensure that high-quality climate data and predictions, analysis, and decision support tools exist, are used and shared at national, subnational and local areas in the Republic of Karakalpakstan (ROK) and throughout Uzbekistan and the Central Asia region. It is critical that the information and tools developed are aligned with the time horizons of the outcome or decision a partner/stakeholder requires for a specific project or for broader policy development, within the SEM. As such this will be different for Mahala projects focussing upon i.e. the use of

household or school rainwater harvesting systems for the next rainy season, than it will be to support government leaders planning major water infrastructure projects using projections of 30 – 50 years.

Expanding and improving analyses on climate change vulnerability, which includes social and economic information as well as scientific information is also critical to support decision-making, thus potentially supporting vulnerable families to make newly informed household economic decisions on i.e. crop types to mitigate risks of food insecurity and child malnutrition or for governments to ensure access to local markets of drought resilient seeds.

Sub IR 1.1.2: Stakeholders’ Access to WASH Climate Data and Predictions, Analysis, and Decision Support Tools Improved.

Improving the supply of quality climate information and tools is a critical component of IR 1.1. However, to be useful, climate data and predictions, analysis, and decision support tools must not only be aligned with the relevant time horizon, but also be accessible to decision-makers and stakeholders at the appropriate levels of the SEM, timely, in a user-friendly format, at a relevant geographic scale, grounded in science and analysis, easily understood by the intended audience and compatible with local cultural contexts.

Incorporating feedback systems from stakeholders on their specific needs will also help UNICEF and governmental stakeholders, tailor and improve the effectiveness of their efforts to improve access over time and ensure accountability.

Sub IR 1.1.3: Capacity of Stakeholders to Use and Analyze WASH Climate Data and Predictions, Analysis, And Decision Support Tools Improved.

There is a need to improve opinion leaders, decision makers and other stakeholders’ capacity to understand, work with and use new or improved climate-related information at different levels of the SEM. A UNICEF project could, for example, build capacity to generate seasonal forecasts of CE associated infectious disease or condition such as reduced water quality, and then teach health officials to use these forecasts to inform their long-term prevention and treatment plans.

Improved capacity of national and sub national level decision makers to analyze and use climate information, such as projected climate change impacts on future water supply could help them to make more robust and sustainable policy choices related to water infrastructure development.

IR 1.2 Establish Effective Climate Resilient WASH Governance Systems.

IR 1.2 addresses the need for comprehensive and effective legal, regulatory, and policy frameworks for climate change adaptation, and for strong institutions that are capable of implementing and enforcing such frameworks at the appropriate scale. “Climate change adaptation policy frameworks” should include laws, regulations, and policies in WASH and any associated sectors where climate stresses are relevant; including national or subnational adaptation plans (NAPS) under the UN Framework for Climate Change.

Sub-IR 1.2.1: Public, Civil Society, and Private Sectors Participate in WASH Climate Change Adaptation Policy and Action.

This area of “effective governance” focusses upon increasing stakeholders’ capacity to participate and opportunities for participation in the climate change adaptation policy planning and implementation process at all levels of the SEM. “Participate” can mean different levels of involvement, ranging from consultation to full engagement, however effective participation should be active and meaningful and focus upon those most vulnerable to the impacts of the Climate Emergency. Examples might include testifying in public meetings, drafting or commenting on laws, or advocating for policy adoption and enforcement, at different levels of the SEM.

“Action” should include activities that relate to public policy and administration. Increased meaningful participation of decisionmakers and stakeholders at all levels of the SEM, helps create a demand for integration of climate change into local Community Adaptation Plans and broader public policy such as NAPS.

Emphasis should be actively placed upon the meaningful participation of key, but traditionally marginalised groups, such as women, children, and the socially & economically marginalised. The impacts of such an emphasis should also be included within the analysis provided in IR 1.3 Identify and Take Actions That Increase Climate Resilience across the WASH Sector.

Sub-IR 1.2.2: Capacity of Public Institutions to Integrate WASH Climate Change Adaptation into Policy and Administration Strengthened

Effective governance must also ensure that public institutions obtain and sustain sufficient capacity to integrate climate change adaptation into policy and administration including when public institutions administer and manage on-the-ground WASH programs. National and local strategies, plans, and policies intended to build partner government capacity should be supported with frequent participatory evaluation, stakeholder reflection and user feedback included to strengthen capacity, social efficacy and ensure effectiveness.

Sub-IR 1.2.3: Coordination by Government WASH Institutions on Climate Change Adaptation Policy Improved.

A key input into effective governance is functional coordination among (or within) government institutions, which include ministries, agencies or departments at the local, regional, and national levels. Coordination between national, regional and local levels of government similarly contribute to effective governance. This sub-IR can include coordination of adaptation planning and programs as well as policy. For example, it might support Mahala leadership bodies to form a coalition to collaborate on adaptation planning for watersheds that cut across different municipalities. At the national level, UNICEF could support the creation or operation of high-level committees (within their own organisation, Climate Emergency Inter Agency “Clusters” or at governmental national or subnational levels) that bring together multiple sectors, agencies or ministries on a regular basis to discuss adaptation priorities.

IR 1.3 Identify and Take Actions That Increase Climate Resilience across the WASH Sector.

IR 1.3 focuses on obtaining and providing information about approaches, practices, and tools that are expected to reduce climate change vulnerability at different levels of the SEM as well as ensuring that learning and experiences are shared as part of the processes involved within the “Diffusion of Innovations”, achievement of “tipping points” and changes in social norms. As such identifying “Innovators” and potential “Early adopters” is key to success. It is important to note that testing, communicating, and overcoming obstacles to adaptive strategies is a cyclical process, requiring recurrent testing, communication and dissemination, a process that can be supported through the use of the diverse components of Social Learning Theory to support individual and social efficacy and action efficacy at all levels of the SEM.

As reflected in the RF, IRs 1.1 and 1.2 feed into IR 1.3. Access to science and analysis (IR 1.1) is needed to identify effective strategies, and good governance practices (IR 1.2) are needed for them to be adopted. Activities under IR 1.3 will support site-specific, on-the-ground activities through which it will be possible to identify the most effective strategies to increase resilience to the climate emergency within the WASH (and associated) sector.

Sub-IR 1.3.1: Effectiveness of Key Adaptation WASH Strategies Tested.

As climate change adaptation is an emerging field, the first step towards achieving IR 1.3 is to learn which adaptive strategies are effective with respect to varying adaptation needs and local circumstances. “Strategies” can refer to new or established technologies, management practices, or behaviour changes, such as promoting “waterless toilets” or grey/rainwater harvesting. Many examples of CCA within the WASH sector are developed locally without evaluation of their broader application. Piloting an existing adaptive strategy and testing its efficacy can be a way of building support for its adoption among key decision makers or early adopters in a new location or among a new population.

Sub-IR 1.3.2: Information about Effective WASH Adaptive Strategies Communicated.

Once the effectiveness of a WaSH adaptation strategy is tested and established, information about it must be shared with relevant stakeholders. This sub-IR includes the need to share both best practices and lessons learned from WaSH adaptation projects that are more, or less successful. Information is broadly defined to include pre-conditions, timelines, costs, key inputs, barriers encountered and how to overcome them. Communication strategies that build

social efficacy, based within the Social Learning Theory, may involve identifying locally achievable incremental technical or behavioural changes, social marketing, developing curricula, conducting demonstration projects, or arranging professional or community exchanges. They may involve working through multiple institutions such as government, media, educational/religious/health institutions, and extension services and should be informed by analysis of the target communities.

Sub-IR 1.3.3: Barriers to Widespread Adoption of Effective Adaptive WASH Strategies Reduced and Drivers Mobilised.

The final component of IR 1.3 is to identify and reduce the barriers and mobilise potential drivers to wider adoption of effective adaptive WASH strategies. Barriers or drivers can be cultural, physical, political, economic, or legal. At this stage, stakeholders will be aware of effective adaptive strategies, but barriers or drivers – such as in/sufficient access to necessary investment capital or policies that generate the wrong/right incentives, – can prevent or support successful implementation of adaptive measures. Identification of barriers or drivers is implied; in order for barriers to be reduced and drivers to be optimised, they first need to be identified.

Integrating Climate Change Mitigation and Adaptation To Strengthen National WASH Systems.

Understanding the Severity and Impacts of Climate Change on WASH Systems.

The impact of the Climate Emergency is already being seen in “real time” in Uzbekistan (shown in the situation analysis above) and globally. It is possible to prepare for climate change now by building climate resilient WaSH systems. This includes key actions that should be part of any cross-cutting whole WaSH sector approach such as promoting and capacitating effective and iterative risk management across all SEM levels, fostering multi-sectoral engagement, and identifying actions and investments over the short- and long term to increase system resilience.

Observed climate impacts on WaSH can be categorized in the following ways:

- **Direct impacts** from increased frequency and severity of extreme weather events, including floods or droughts, reduced access to and quality of drinking or agricultural water or inundation of sanitation infrastructure.
- **Ecosystem mediated impacts**, such as through air pollution, shifting temperature or precipitation patterns that can alter prevalence and distribution of vector-, water- or food borne diseases and/or impact health outcomes related to food security and nutrition.
- **Socially mediated effects** that occur via impacts on social and human systems, like increased poverty, migration or conflict which can impact the ability to access WASH services or negatively influence positive WASH behaviours, such as WASH systems management, or hand WaSHing.

As such we should consider that there are at least four fundamental requirements for providing safe and quality WaSH services in the context of climate change. These are:

- (i) Having adequate number of skilled workers and climate resilient communities in safe and decent living and working conditions, empowered and informed to protect and respond to identified environmental challenges;
- (ii) Sustainable and safe management of water, sanitation and hygiene (WASH) services.
- (iii) Sustainable energy services;
- (iv) Appropriate infrastructure, technologies, products and processes, including all the operations that allow for the efficient functioning of individual WaSH facilities and WaSH systems as a whole. (For a review of CR of diverse WaSH technologies See: WHO. Vision 2030 The resilience of water supply and sanitation in the face of climate change technical report. Guy Howard & Jamie Bartram 2010.)

An analysis of these fundamental requirements will inform our further analysis of climate emergency vulnerability and thus our priorities in designing resilience within the WaSH sector.

2. SBC Strategy.

- **Audience Segmentation.**

Previous work to support Climate Resilient WaSH programs have been conducted in three target districts within The Republic of Karakalpakstan, identified as a region prioritised due to the impact of the Climate Emergency in Uzbekistan and within school and Health Care Facilities.

In schools, this has included hygiene promotion campaigns and the distribution of posters and leaflets, targeting 750 parents, 1,076 teachers, and 1,000 students to raise awareness about the importance of WASH and nutrition practices covering all 82 schools in Muynak, Kungrad and Bozataw districts of the ROK

Indoor and outdoor flush sanitation facilities were constructed with proper heating systems for schoolteachers (male, female) and school children (boys, girls) with hygiene rooms for adolescent girls to address the needs on menstrual health and hygiene management (MHH) in schools and for healthcare workers and referring community members in healthcare facilities with designs supporting access for children with disabilities.

Furthermore, age-appropriate hand hygiene facilities have been installed at the entrances, each floor and chemistry classes of schools and within the medical procedure rooms of healthcare facilities.

As support to the school feeding program implemented by Government, UNICEF renovated school canteens with access to hand hygiene facilities as well as the renovation of gym and shower rooms.

Additionally new water storage systems were installed to mitigate the impact of water scarcity. Improvements in the water distribution network were made to ensure equitable access to clean water by installation of water pumps and reverse osmosis systems. In rural settings without centralized water pipeline system, underground water is accessed using bore holes with adequate water treatment facilities. Three step tanks were constructed for sewage water treatment. Solar water heaters and solar panels have been installed to avoid power shortage and reduce costs for electricity both in schools and healthcare facilities.

Along with the WASH facilities, UNICEF has constructed healthcare waste management facilities in three district hospitals and equipped it with an environment-friendly frictional heat machine with an integrated shredder to treat infectious medical waste and consumables. This machine does not create hazardous carcinogenic toxins associated with burning medical waste.

Future Climate Resilient WASH Programs will again be based in the Republic of Karakalpakstan and prioritise a mahalla with the greatest need for WASH services.

Strategies to identify the mahalla include:

- Targeting remote communities, particularly those facing increased climate-related challenges, to bridge the accessibility gap and provide sustainable and climate-resilient WASH solutions.
- Prioritising communities lacking access to basic water services in poor-performing districts.
- Addressing drought-affected areas with sustainable water solutions to mitigate the impacts of water scarcity exacerbated by climate change.

Target beneficiaries

- 3,000 people out of which:
 - 347 children under-five
 - 771 women of reproductive age, including 112 adolescent girls aged 15-19
 - 83 pregnant and breastfeeding women
 - 10 health managers and healthcare providers

Further community based research using the “Diffusion of Innovation” theory, will be conducted as part of ongoing program design to prioritise those communities most ready to be included within the climate resilient focus as “innovators” and who are willing to provide the community resources required to model and mentor to subsequent

secondary Malhalas (early adopters), as part of the evolution of the advocacy and learning strategy that is central to the program approach. The use of the socio ecological model and participatory vulnerability and risk reduction analysis will further inform audience segmentation.

- **Types of desired behaviours.**
 - **Barrier Analysis.**

The Social and Behavioural Change approach is novel both for UNICEF and for national partners and will require time and experience to establish good professional practice. Current PHP practices within the WaSH and Health sectors are predominantly and traditionally based within the “Medical/Informational” and “Education” paradigms, and “leadership lead”. The SBC approach emphasises greater and more active community participation and acknowledges the expertise of local communities in their understanding of their living conditions in defining the public health strategies of behaviour and hardware change which may be most applicable to them. Such a change in emphasis of “leadership” roles, will also require a change in approach and attitude by health and WaSH professionals.

The development of social efficacy and community mobilisation within the SBC approach will also demand significant time, with consequent impact upon budgets and timeframes. More traditional approaches to WaSH programs emphasise “hardware” solutions and health education. Donors, UNICEF program managers, government and community stakeholders will need to be supported to understand the very different processes, time frames and budget requirements for an approach that requires significant community consultation and where monitoring arrangements move beyond “numbers of latrines” or “handWaSHing stations constructed” or “awareness sessions” facilitated.

The multi-level Advocacy and Learning, and Participatory M/E strategy, which is a core part of the Implementation Framework, supporting improved social efficacy and a whole system learning process, is also a novel approach for stakeholders. Traditional M/E process are frequently “extractive”, undertaken by “external experts” to provide reports to donors or program managers. The SBC CR WaSH strategy, multi-level MEAL approach is based within “Social Learning Theory” and the “Diffusion of Innovations” theory. Using the Social Learning Theory, it is designed to build individual, social and action efficacy throughout the WaSH system, most notably at a community and household level, but equally with technical and policy decision makers throughout the WaSH system, including with donors.

The use of “Diffusion of Innovations” theory will help us design our approaches and “targets” to extend the learning from our program design and practice, through planned “community conversations” at all levels of the WaSH system, notably with key influentials and decision makers. By identifying “innovators” and potential “early adopters”, i.e. those more likely to engage with our programs, our strategic approach will use leadership groups and key influentials to model and influence others, so that we are able to achieve “tipping points” and associated changes in social norms, throughout our Socio Ecological Model.

However, this approach, which will be key to the exchange of learning and innovation as illustrated within our implementation framework, is both physically and conceptually novel to WaSH stakeholders, including within UNICEF and requires another change in knowledge, attitude and practice, by program implementers, to be successful.

Insufficient National Action. Whilst significant advances have been made to address the Climate Emergency by the National Government, the policy environment has been described as “Climate blind”, which is to say that addressing the climate impacts upon the WaSH sector is included as an integrated and unspecified demand upon systems improvement.

The impact of the Climate Emergency within the Republic of Karakalpakstan is already significantly advanced and as such there will be “no easy technical fix”.

A fuller barrier analysis at all levels of the Socio Ecological Model is required and will be part of the Climate Resilient WaSH Strategy program design. However, UNICEF and associated stakeholders will require the tools, attitudes and skills to fully engage with the process effectively and to be able to undertake and record qualitative research, which will inform deeper barrier analysis.

- **Facilitators.**

UNICEF globally has transitioned to prioritise Climate Resilient Programming, notably within the WASH sector and there is increasing support at a global and regional level, illustrated by the publication of “UNICEF Strategic Framework for Climate Resilient WASH Program Strategy 2020” for which online training is available, with examples of good practice available from several programs in Africa.

UNICEF globally has also transitioned to prioritise the SBC approach especially within the WaSH sector and examples of work in the WaSH sector are available, notably in Africa and the ASEAN region.

The Government of Uzbekistan has identified the Climate Emergency as a national priority and has developed a National Adaptation Plan. In 2022 it endorsed the Declaration on Children, Youth, and Climate Action, underlining its commitment to safeguarding the rights and welfare of young people amidst climate change.

UNICEF has collaborated with the Ministry of Ecology, Environmental Protection, and Climate Change to develop the National Strategy for Promoting Sustainable Development Culture and Engaging Children and Youth in Climate Action, fostering children and youth's active engagement in climate policy shaping. This approach not only acknowledges their significance but also highlights WASH as a key priority intervention.

UNICEF has already successfully undertaken initial work in the Republic of Karakalpakstan and has strong professional and institutional relationships with stakeholders in the region.

The impact of the Climate Emergency upon the population of Republic of Karakalpakstan is acknowledged by the national government and viewed as a priority by the local population. The region is seeking innovative approaches to address the crises within the WaSH sector and to identify new minimum standards across sectors, including WaSH.

Responding to the Climate and Environmental Emergency Within the Republic of Karakalpakstan is a priority within the region.

According to the survey “Needs of the Population in the Aral Sea Region UNDP, Institute of Social Research Under the Cabinet of Ministers of the Republic of Uzbekistan 2017”:

Addressing the ecological situation is viewed as “a threat to life”.

“46.9% of the respondents are not satisfied with the environment situation, which is a real threat to the life of the population. The level of dissatisfaction with ecology reaches 53.2% in Muynak, 64.3% in Takhtakupyr, and 48.6% in Nukus districts. The reasons for such high dissatisfaction with the state of environmental protection are soil salinity (70.6%), air pollution (18.7%), water pollution (9.5%), and drought (6.7%). The residents of Muynak district suffer most from water (17.3%) and air (23.5%) pollution and drought (12.3%).

In order to improve the environmental situation, it is advisable to carry out systematic work on environmental education (19.6%), install modern equipment for water treatment (15.3%), and recycle industrial waste on the ground. In general, the main factors of ensuring environmental security are resolving complex strategic tasks for sustainable provision of drinking water as well as increasing yields by improving the land and water potential.”

The Climate and Environmental Emergency is viewed as a significant Social Security Risks:

“The second position in the rating of (social and security) risks is taken by the ecological situation (46.9%). The main reasons for this situation are soil salinity (70.6%), air pollution (12.7%), water pollution (9.5%), and drought (6.7%). The sixth position is dissatisfaction with the provision of drinking water (33.9%). The main causes of this risk are poor (salty) water (42.6%), irregular water supply (30.4%), and large distance to water sources (21.4%)”.

Food security as a result of the impact of deteriorating land and water sources is highlighted as a priority.

Food security arising from the de-grouped structure of the crop areas, deteriorating state of the irrigated lands and water resources, insufficient adaptation of the agricultural production to the consequences of the ecological crisis, and high level of food imports;

In a “General Ranking” within survey areas, water and environmental degradation also reflected strong community priorities.

According to the results of the survey in 8 surveyed areas, the potential social risks of high tension (where dissatisfaction level is over 30%) are arrayed in the following order: #1) employment, #2) ecology, #3) transport infrastructure, #4) medicines, #5) pre-school education, and #6) drinking water.

The report recommendations highlighted the following:

In the field of food security:

- Ensuring sustainable development of agriculture with a focus on expanding the production of food crops adapted to the environmental conditions and land and water resources (with simultaneous reduction of cotton production);
- Establishing a well-developed scientific and experimental regional base in the areas of specialization;
- Wide introduction of new innovative technologies and achievements in water use and land quality improvement

In the field of environmental security:

- Regular monitoring and updating the population on the quality of drinking water, the state of soil and air basin;
- Construction of small solid and liquid household waste processing plants, desalination stations and pasture wells;
- Development of proactive measures to reduce the negative impact of climate change, drought periods and frequent dust storms;
- Expansion of the scope of works on innovative reconstruction of the collector-and-drainage system.

Priority Institutional Management Responses included the following:

- Development of a regional regulatory framework that takes into account the specifics (construction standards and rules, zonal infrastructure design, research base for sustainable development of rural areas) and minimum social standards;
- The region can become a testing ground for the implementation of innovative local initiatives and projects to address the most complex social and economic problems (integrated drinking water supply management system, the latest resource-saving technologies, development of water infrastructure and alternative energy sources, advanced information technologies in education, healthcare, agriculture, ecology, etc.)

- **SBC Climate Resilient WASH Strategic Objectives.**

Combined with SBC Climate Resilient WaSH Strategic Framework, UNICEF SBC CR WaSH Program will work:

1. To ensure that WASH infrastructure, services and behaviours are sustainable, safe and resilient to climate-related risks. This goes hand-in-hand with the sustainable use, protection and management of surface and groundwater resources, and resilient waste management.

2. To ensure that climate resilient WASH programmes contribute to building community resilience to help “whole communities” adapt to the impacts of climate change. To achieve this, inequalities in service provision that disproportionately expose vulnerable groups to climate threats, or restrict their capacity to respond effectively, need to be addressed first. Further WASH contributions to community resilience can be achieved through capacity development and by fostering income generation, as well as food, energy and ecosystem resilience.

3. To work towards a low-carbon WASH sector by improving water and energy efficiency and ensuring, where possible, the use of renewable energy for water and sanitation operations to lower greenhouse gas (GHG) emissions, and energy generation from waste.

Future UNICEF SBC CR WASH Program Developments.

Addressing the multifaceted nature of WASH in Uzbekistan requires a comprehensive and cross-sectoral approach. All of UNICEF Uzbekistan's work is underpinned by robust evidence and emphasising participatory monitoring. Key focus areas for future CR WaSH Program initiatives include:

- Small-scale gender-responsive and inclusive WASH infrastructure renovations in mahallas, including in HCFs, schools, and the community, with climate-resilient design principles.
- Improving the capacity of district local government (khokimiyat) administration and mahallas to plan, budget, and allocate for data-driven climate-resilient WASH interventions through community-driven programming, including evidence-based development and monitoring of action plans.
- Improving the capacity of teachers, health and WASH workers to provide quality integrated WASH and nutrition counselling and services while promoting healthy WASH and climate-resilient practices.
- Implementing integrated nutrition and WASH interventions in schools through the WASH three-star approach, integrating climate resilience components.
- Addressing harmful social and gender norms, attitudes and practices to improve WASH outcomes—focusing on AGYW participation.

The Programme:

The programme will focus on one mahalla, to trial and learn from work to improve climate-resilient multisectoral WaSH services, focusing on vulnerable areas and communities with specific needs.

UNICEF will work towards three main results:

One mahalla has improved Climate Resilient WASH services.

One mahalla in Uzbekistan will experience a transformative improvement in their WASH services through this comprehensive programme focussing upon improved Climate Resilience. The cornerstone of this initiative is the provision of safe drinking water services to a community. This involves the construction and rehabilitation of climate-resilient and sustainable water supply systems and facilities, ensuring that the mahalla has access to safe drinking water. Furthermore, the programme includes the strategic renovation of the mahalla's water network, bolstering emergency response capabilities and overall community resilience.

Moreover, the programme extends its impact to schools and healthcare facilities serving the mahalla. It aims to establish inclusive and climate-resilient WASH services in schools, adopting UNICEF's WASH three-star approach and incorporating nutrition interventions to ensure the holistic well-being of students.

Similarly, a primary healthcare facility within this community will receive climate-resilient and inclusive WASH infrastructure and healthcare waste management systems. In addition to infrastructure development, healthcare workers will benefit from capacity-building initiatives focused on the impact of the Climate Emergency upon infection prevention and control.

One mahalla has improved monitoring and implementation of climate-resilient integrated WASH interventions.

The programme encompasses a multifaceted approach to bolstering the resilience and overall well-being of one mahalla in Uzbekistan. Firstly, it emphasises the importance of community mobilisation and vulnerability analysis. Through community-based vulnerability assessments, UNICEF will identify risks and develop community solutions for sustainable WASH systems. Concurrently, UNICEF will implement capacity-building initiatives, empowering the mahalla committee with the knowledge and skills required for the sustainable operation, maintenance, and management of Climate Resilient water and sanitation supply systems.

Additionally, UNICEF is committed to enhancing sanitation and hygiene services by engaging communities in the Community-Led Total Sanitation (CLTS) process adapted to meet the Climate Emergency. Here, communities play a central role in decision-making and collectively drive efforts to improve sanitation and hygiene conditions. This participatory approach empowers communities and supports the sustainability of these critical services.

Furthermore, climate resilience building is at the core of UNICEF's strategy. The Mahala will be equipped to adapt to and recover from the impact of climate change. This entails conducting comprehensive community-based risk analyses and identifying resilient solutions that can withstand the challenges posed by climate change. UNICEF will promote climate preparedness measures, such as climate information dissemination, early warning systems, and community-based adaptation initiatives, to strengthen the resilience of WASH infrastructure and services in the face of climate change impacts.

Children, parents, and caregivers have improved CR WASH practices.

The programme is dedicated to fostering enhanced Climate Resilient WASH practices among children, parents, and caregivers, underpinned by a commitment to sustainable behaviour change and the establishment of new social norms. A primary focus lies in promoting safe water handling and rigorous handWaSHing practices, recognising the pivotal role these habits play in public health and well-being. Moreover, UNICEF will place particular emphasis on engaging adolescents, with a specific focus on Adolescent Girls and Young Women (AGYW). Their active participation will be encouraged, and social mobilisation initiatives will be launched to address the stigma surrounding menstrual health.

Expected Results:

- 3,000 people have improved access to safe drinking water for one mahalla.
- one mahalla has access to safe drinking water
- 3,000 people reached with the promotion of hygiene practices and behaviour change.
- 3,000 people, including 290 students, have improved access to WASH services in schools and healthcare facilities.
- one mahalla has strengthened community capacity for sustainable WASH management.

Target beneficiaries

- 3,000 people out of which:
 - 347 children under-five
 - 771 women of reproductive age, including 112 adolescent girls aged 15-19
 - 83 pregnant and breastfeeding women
 - 10 health managers and healthcare providers

- **Strategic Approach and Positioning.**

A Vision for Designing Climate Resilient SBC WASH Programs with a Focus on Community Based Adaptation to Inform the Whole WASH System.

Our recent experience of the COVID – 19 emergency and previous pandemics such as HIV/AIDS, have shown that integrated, systems-based approaches for strengthening public health systems are now more critical than ever. Public health systems generally and WaSH systems in particular, are resilient when they are able to adjust resources, policy and focus to varying degrees to respond to long-standing and emerging challenges. Such resilience must be built for an effective response to the ongoing and expected future impact of the Climate Emergency upon the WaSH sector specifically related to other associated public health demands.

This can be achieved by focusing on the means of addressing climate vulnerabilities within the WaSH system and then taking an integrated, whole of society approach, with special attention on the local context when developing WaSH system programs. This means engaging traditional, public and private WaSH sector and public health stakeholders, as well as other aligned sectors such as Health, Education, Agriculture/Food Security, and Environment; while ensuring representation from faith-based organizations, communities and other local organizations, up to and including the household and individual levels.

Capacity development at the local level.

The local level is very important for climate resilient development as climate change impacts are manifested locally, vulnerability and adaptive capacity are determined by local conditions, and adaptation activities need an understanding of local priorities and capacity needs. Adaptation strategies may require new or modified technologies and behaviours and these, in turn, require helping communities and local institutions (local government and other) to develop certain types of new knowledge, abilities or skills.

Capacity at local and decentralised levels needs to be strengthened accordingly and support activities could include: presenting climate change information in a way that can be easily understood by non-specialists; organising and disseminating information so that it can be selectively used at different institutional levels; and strengthening local government WASH planning processes.

The role of multi-level advocacy and sharing of lessons learnt (See Part 2. 1.5).

Learning and Advocacy is a key component to achieve climate resilient WASH through the SBC approach.

Learning and advocacy across and between stakeholder at all levels of the SEM, is at the core of the approach. Improved understanding of the impacts of vulnerabilities to, and adaptation and mitigation possibilities to the climate emergency will require improved Climate Change knowledge and understanding by all stakeholders and thus new IEC tools and mechanisms. However, the approach will move beyond “Information” and “Education” to actively focus upon improved community resilience and efficacy through community mobilisation and multi-level advocacy approaches.

Review experiences and share lessons learned.

Joint learning among all categories of stakeholders has the potential to speed up and scale-up reliable and affordable solutions and responses to climate risks. Sharing lessons among relevant stakeholder groups and forming learning alliances facilitates progress in the implementation of measures. This may include groups at the community and local level, or those at the regional, national, and international levels to share in-country experiences. Documenting these findings and producing and disseminating ‘good practice’ guidance will be useful for the sub/national WASH sector and beyond.

Learning from an initial Climate Resilient WaSH project based within one “most affected Mahala” will be used to model an integrated SBC approach that analyses and responds to climate vulnerability. Such learning, shared across leadership groups within a multi-level MEAL strategy, will be adapted to further design and implement a “whole Malhala approach” to Climate Resilient WaSH Programs, and used to inform a multi sectoral Climate Resilient program design.

UNICEF Uzbekistan will support WaSH (and associated) stakeholders at all levels of the SEM, to monitor, anticipate, manage and adapt to the public health risks associated with the impact of climate change within the WaSH sector and associated sectors, supporting them to re/design more responsive services with better public health outcomes, especially in vulnerable populations. Specifically, this will include:

- Climate Resilient WaSH in Schools Programs based within the 3 Star Approach.
- Climate Resilient Health Care Facility Program Design.
- Climate Resilient Community WaSH Services.

3. Draft Implementation Plan.

See SBC CR WaSH & MHHM Strategy Part 2. Implementation Plan Document.

4. Draft Evaluation Plan.

Measurement.

In order to monitor climate resilience, data is needed at the national, subnational and local levels. Standard WaSH system monitoring and evaluation (M&E) is not typically designed to track climate resilience and does not necessarily incorporate or act on information regarding environmental shifts, including climate change or other hazards, that have implications for public health and WaSH system performance.

Monitoring the impacts of adaptation on WaSH system performance is challenging. Climate impacts are variable to the smallest geographic scale and temporally; and impacts are multi-layered meaning that there will be several interacting upstream and downstream impacts making it difficult to bound. Therefore, standard indicators alone related to climate and WaSH and those effecting aligned sectors such as health and food security will not sufficiently capture the changing risks, effectiveness of mitigation and adaptation strategies, and overall systems performance and resilience.

Measures should not be limited to capturing quantitative evidence. In addition to traditional WaSH indicators, indicators that monitor baselines for WaSH risk of climate change are needed. This includes indicators that determine different degrees of vulnerability, and may be related to water access, health (e.g. priority climate related diseases), environment (e.g. climatic variables, urban vs rural), socioeconomics (e.g. poverty, demographics and occupation), and current level of interventions and public health and agricultural systems capacity and performance (e.g. availability and accessibility of water services, responsiveness etc). These indicators should be integrated with the sub/national and local information systems and be shared among relevant sectors and stakeholders.

Qualitative metrics are strongly advised as these measures can better capture social dimensions and perceptions related to climate emergency WASH system change and as such participatory monitoring and evaluation processes will be used within the CR WASH project cycle. Staff across all levels of the WaSH and public health system should be resourced and trained to input into and utilize data for local-level decision-making and future planning.

Examples of potential M/E indicators are provided in Annex 1 with descriptions of additional SBC specific provided in Annex 7. Additional community-based M/E indicators, that prioritise “Participatory M/E” will be designed with communities as part of the CR WaSH program approach.

5. PARTNERSHIPS:

UNICEF recognises that the complexities of CR WASH issues require multifaceted partnerships to drive meaningful change. We ensure that our CR WASH programming is comprehensive and sustainable by engaging with government institutions, communities, academia, NGOs, local foundations, and international development partners. These partnerships, grounded in a shared commitment to improving access to CR WASH services for children, strengthen our collective impact and advance the well-being of women and children in Uzbekistan.

5.1. Government Collaboration: UNICEF works closely with key government ministries, including the Ministry of Health and the Ministry of Pre-School and School Education. These collaborations are pivotal in aligning our efforts with national policies and strategies. We support these ministries in advancing WASH-related goals, ensuring that our interventions are integrated into the broader development agenda. Additional collaborating Ministries within UNICEF programming include the Ministry of Economy and Finance and the Ministry of Ecology, Environmental Protection, and Climate Change.

5.2. Academia and Non-Governmental Organizations (NGOs): UNICEF understands the significance of engaging with academic institutions and NGOs. These partnerships foster research, knowledge sharing, and on-the-ground implementation. They provide valuable insights, resources, and expertise to enhance the quality and effectiveness of our WASH programs.

5.3. Local Education Group (LEG): As a member of the Local Education Group, UNICEF actively supports the coordination of WASH investments within the Education Sector. This collaborative platform enables us to work in

synergy with other stakeholders to comprehensively upgrade WASH standards and address WASH-related challenges in schools.

5.4. Development Partners and International Financial Institutions (IFIs): UNICEF maintains strong ties with development partners, IFIs, and other NGOs through the Health Development Partners Group. These partnerships are instrumental in harmonising efforts and investments for WASH within the Health Sector, ensuring that resources are optimally utilised and effectively targeting the most vulnerable populations.

5.5 Collaboration with UN Agencies: UNICEF partners with other UN agencies operating in Uzbekistan. Our work contributes towards the United Nations Sustainable Development Cooperation Framework (UNSDCF) 2021-2025, where WASH is a thematic priority. These joint initiatives underscore our commitment to addressing WASH challenges within the context of the Sustainable Development Goals.

6. Building UNICEF Uzbekistan’s Capacity in SBC and CR WaSH Program Design and Development.

Climate-resilient WASH programming within the SBC approach will require increased capacity and new skills for successful implementation.

Technical skills, in order to:

- Understand climate risks in different contexts and to support the development of a climate rationale as a basis for WASH programmes.
- Consider strategies for WASH programming that better adapt community sanitation approaches to climate risks, for sustained behaviour change.
- Address water efficiency, conservation and reuse, as well as urban water planning, utility operations, etc.
- Scale up solar technology.
- Comply with national/UNICEF’s Environmental and Social Standards.
- Link with and support SDG 6 targets other than 6.1 and 6.2 (for example, in areas such as waste management, water demand management, water security, integrated water resources management, and the water-food-energy environment nexus).
- Successfully undertake the SBC approach a clear understanding of the use of psychosocial theory within program design and participatory facilitation skills will be required.

Financing skills, in order to:

- Understand the quickly changing and evolving climate financing architecture.
- Identify and successfully obtain climate funding opportunities for UNICEF programming.
- Support governments and the WASH sector to access to new climate funding streams.

Sources of Capacity building:

There is a growing pool of professionals with expertise and experience working on SBC and climate-related issues in WaSH and other areas of human development. Given the inter-sectoral nature of many of the approaches to SBC and climate resilient WASH and the range of contexts within which UNICEF works, the UNICEF Uzbekistan teams are encouraged to:

- Identify opportunities within the UNICEF Uzbekistan national program cycle such as new Situation Analysis, development of a new Country Programme, or completing a Strategic Moment of Reflection or Mid-Term Review to map program opportunities and requirements to further advance the shift towards an SBC approach to Climate Resilient WASH program design, including within associated sectoral programs.
- Identify support available through core UNICEF documents such as “UNICEF Guidance Note: How UNICEF Regional and Country Offices Can Shift to Climate Resilient WaSH Programming” Chapter 5.
- Seek available support from Global and Regional UNICEF Offices, including the Eastern and Southern Africa Regional Office, which has already advanced in SBC and CR WASH program development.

- Bring in SBC and climate resilient WASH expertise as and when short and long-term positions open up. This is a proven way to quickly increase expertise on SBC and climate resilient WASH in humanitarian agency teams.
- Establish new partnerships with organisations skilled in addressing climate change issues and join consortia for climate related programmes (see 5 Partnership). Partnerships create two-way learning opportunities for us and others to learn from each other about how to strengthen people’s resilience.
- For all existing partners, assess the level of expertise on SBC and climate resilient WASH and provide basic training on both the SBC and climate-resilient approaches to WASH and aligned sectors as part of regular capacity building activities.
- Throughout this document and in appendix, references to further resources are provided for teams to build on their knowledge of how to strengthen their understanding and implementation of the SBC and climate resilient design processes, notably within the WASH sector, but equally relevant, within other aligned sectors.

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