Cambodia
Country Overview

1. Background

Cambodia is among the most vulnerable countries to the impact of climate change; it ranks 14th in the Climate Risk Index for the period of 2000-2019[1]. Cambodia is regularly affected by climate hazards including floods, droughts, windstorms, and seawater intrusion[2], which impact the WASH sector both on the quality and quantity of water and the physical infrastructure of water supply, sanitation, and hygiene systems. Climate change has a critical implication for the people, especially the rural poor who are strongly dependent on natural resources that are projected to be highly impacted by climate change.

Climate change directly impacts water resources and water services for all economic, social, and environmental functions that water supports. People's access to safe water, sanitation, and hygiene solutions, still far from sufficient in Cambodia, can be significantly affected by extreme events such as floods and droughts, as well as growing water scarcity. Water is the medium through which climate change is translated to other sectors such as health, nutrition, protection, and education. At present more than 25%[3] of rural people still rely on natural water bodies, which are prone to contamination and severely affected by climate change, for drinking water. Reduced water quality and availability for domestic use would have enormous impacts on human health. Safely managed water, sanitation, and hygiene (WASH) services are an essential part of preventing and protecting human health during infectious disease outbreaks, including the current COVID-19 pandemic.

2. Stakeholders

MRD recognizes that enhancing climate resilience of WASH in Cambodia requires working across other major sectors including WASH, health and nutrition, water resource management, disaster risk management, and environment/climate change, etc. Experiences show that there has been stronger coordination for emergency response but overall coordination on enhancing climate resilience of WASH remains inadequate. The key stakeholders include the NCSD (National Council for Sustainable Development), GSSD (General Secretariat of the National Council for Sustainable Development), the TWG-CC (Technical Working Group in Climate Change) that covers all relevant Ministries including, among others, Ministry of Environment, Ministry of Water Resources Management (MOWRAM), Ministry of Rural Development, Ministry

[1] Global climate risk index 2021 (https://reliefweb.int/sites/reliefweb.int/files/resources/Global%20Climate%20Risk%20Index%202021_1_0.pdf)
[2] Updated Nationally Determined Contribution (NDC, 2020)
[3] Cambodia Socio Economic Survey 2019/2020

of Health and key development partners; National Committee for Disaster Management (NCDM); academics and civil society organizations.

3. Climate and WASH policy analysis

The policy framework governing the WASH sector in Cambodia is quite strong in increasing inclusion of climate change and climate resilience in more recent regulations. There is an urgent need for concerted efforts to translate these policies into actions including the development of results-based plans and the government's capacity both at the national and sub-national levels. Cambodia has developed a set of policies and strategies that guide subnational climate-resilient investment at the sub-national level, but procedures and mechanisms to translate these into effective local climate finance and climate action would need to be further unpacked, sketched out, and tested[4]

The policies/strategies relevant to WASH and climate change and disaster risk management, are presented below. The National Water Supply and Sanitation Sector Policy (2003) and the Water Supply and Sanitation Regulatory Law (draft) involve other ministries, especially the Ministry of Industry, Science, Technology and Innovation (MISTI), while the rest are mandated by the Ministry of Rural Development (MRD).

i. Cambodia Climate Change Strategic Plan 2014-2023
ii. National Climate Change M&E Framework, 2016
iii. MRD's Strategic Plan of Rural Development for Climate Change Adaptation in Cambodia
iv. Rural Water Supply, Sanitation and Hygiene Strategy 2010–2025
v. Rural Development Policy, 2019-2023
vi. National Water Supply and Sanitation Sector Policy, RGC (2003), stipulating universal coverage by 2025.
vii. Emergency Preparedness and Response Plan on Rural Water Supply, Sanitation and Hygiene (WASH) 2019-2023, MRD
viii. The National Guiding Principles on Sanitation in Challenging Environments for Rural Households, MRD July 2019
ix. The National FSM Guidelines for Rural Households March 2020
x. The National Guidelines for Rural Drinking Water Quality January 2021
xi. The Rural Water Supply, Sanitation and Hygiene National Action Plan 2019-2023
xii. The Water Supply and Sanitation Regulatory Law of the Kingdom of Cambodia (still at the draft stage)
xiii. 2nd National Strategy for Food Security and Nutrition, 2019 – 2023.

[4] National and Sub-National Schemes for mainstreaming climate resilience at province, district and commune level, NDCC, 2018

3.1. WASH integration into national climate policy

Cambodia is a State Party to the Paris Agreement and submitted its Intended Nationally Determined Contribution (INDC) to the UNFCCC on February 6, 2017 and has recently updated and submitted its first NDC on December 31, 2020[5].

The updated NDC 2020 focuses on the energy, waste, industry, transport, agriculture, building, and the Forestry and Other Land Use (FOLU) sectors. Water, sanitation, and hygiene are not reflected in the NDC as a stand-alone sector; however, WASH is included across different sectors in the NDC including human health, infrastructure, livelihoods, poverty, biodiversity, water resources, and policy and planning. NDC 2020 has identified 32 mitigation activities across different sectors as described above plus one FOLU mitigation activity, but none of which are related to WASH. However, out of the 58 priority adaptation actions highlighted in NDC 2020, 9 actions have been found to be linked to WASH as described in the below table.

From the NDC commitments, it is seen that climate-resilient WASH is more on the adaptation side in the national key priorities, yet not many actions are on the mitigation side. Water supply has been included in some of the key national climate priorities but not a stand-alone sector, and notably that there were no sanitation specific actions included in the key national priorities, which can be explained by the nature of the cross-cutting area of sanitation itself across different sectors including health and school settings.

3.2. Climate integration in WASH policy and strategic planning

Climate change has been included in a number of WASH policy and strategic planning including in MRD's National Action Plan for Rural WASH 2019-2023 and MRD's Climate Change Action Plan 2014-2018 (the new version MRD CCAP 2021-2023 is being finalized). Some actions in efforts to increase the resilience in rural WASH services mentioned in NAP II and CCAP 2014-2018 are highlighted in the table below. Many of the actions are focused more on the adaptation side rather than the mitigation side, which is the area gap to fill now and in future policy, strategy, and guideline formulation.

WASH Component	Priorities for Adaptation
Combined drinking water, sanitation, and hygiene	• Develop adaptation options and guidelines to improve climate change resilience of rural infrastructure (CCAP 2014-2018, Action No. 2). • Build awareness and capacity at the national and sub-national level for mainstreaming climate change into rural development planning processes (CCAP 2014-2018, Action No. 3). • Carry out risk assessment and management for the improvement of water supply and sanitation (WATSAN) in the Tonle Sap Great Lake provinces (CCAP 2014-2018, Action No. 5) • Build capacity on climate-proofing rural infrastructure design, construction, and maintenance for civil engineers (250) at national and sub-national level (CCAP 2014-2018, Action No. 6) • Raise awareness of climate change for Village Development Committees (VDCs) (CCAP 2014-2018, Action No. 7) • Pilot community-based climate change adaptation for VDCs in the Cambodia Mekong Delta (Takeo, Svay Rieng, Prey Veng) (CCAP 2014-2018, Action No. 8)

[5] Link to Cambodia's NDC submission: https://www4.unfccc.int/sites/NDCStaging/Pages/Party.aspx?party=KHM

WASH Component	Priorities for Adaptation
Drinking water	• Establish new and/or rehabilitated community water supply facilities that are resilient to shocks and hazards (NAP II Output II-Activity A). • Develop and implement rural WSPs that are climate-resilient (NAP II Output II-Activity B). • Improve water supply facilities in rural schools and health centers to meet national standards and are appropriate to corresponding to climatic risks, in cooperation with MoH and MoEYS (NAP II Output II-Activity C). • Map rural vulnerable infrastructure (road, water supply facilities) in provinces with high risk of climate change (CCAP 2014-2018, Action No. 1).
Sanitation and hygiene	• Promote structured engagement between the market and community-based sanitation approaches, with particular focus on marginalized groups and communities in challenging environments (NAP II Output III-Activity B). • Improve sanitation and hygiene facilities in rural schools and health centers to meet national standards, in cooperation with MoH and MoEYS (NAP II Output III-Activity C).

4. Climate risks to WASH

A thorough and complete climate risk assessment to WASH has not been conducted until recently in 2022 when UNICEF has conducted a climate risk assessment for rural WASH following the guidance and technical briefs in GWP-UNICEF Strategic Framework on WASH Climate Resilience[6]. The result of climate risk assessment is also incorporated into this country overview. Though the formal product of climate risk assessment to WASH has not been documented, there are also WASH risk assessments conducted as parts of the development of WASH policies, guidelines, and strategies as indicated below.

i. MRD's strategic plan of rural development for climate change adaptation (2012),

ii. the ADB-funded Third Rural Water Supply and Sanitation Services – Sector Development Program (2019),

iii. UNICEF's flood risk mapping to identify areas at high risk of floods for targeting and planning for climate-resilient sanitation interventions.

iv. Water Aid support: The analyses aim at providing evidence in making the case for effective action by the government and the WASH sector partners. More efforts are needed to enable broader stakeholders to provide inputs on hazard and vulnerability assessments, identify adaptation options, or disseminate knowledge to local and national levels.

4.1. Climate hazard assessment

According to different national climate documents including NDC 2020, National communications 2016, NAPAs 2006, CCCSP 2014-2023, droughts, floods, seawater intrusion, and windstorms are considered the main climate hazards in Cambodia and also the national key priority climate hazards, where floods, droughts, and seawater intrusion are found to be linked to WASH affecting

[6] UNICEF-GWP Strategic Framework for Climate Resilience (https://www.gwp.org/en/WashClimateResilience/#:~:text=The%20Strategic%20Framework%20consists%20of,community%20resilience%20to%20climate%20change)

both quality and quantity of water supply and the physical infrastructure of WASH facilities. Floods and droughts are the most common climate hazards happened in the country with several studies and data related to those events; however, seawater intrusion is still a gap in the country with limited information, studies, and data to understand more about seawater intrusion hazards including the exposure and vulnerabilities linking to this particular hazards.

4.2. WASH exposure to climate hazards

Climate hazards such as droughts and floods are affecting WASH services in Cambodia in different ways including on people's access to WASH services, behaviour change and the physical infrastructure of WASH facilities. Those exposed are the population living in low-lying areas along the Mekong River and Tonle Sap Lake; those living in the challenging environment[7] including disadvantaged groups living in floating villages and poor households who have limited/no access to WASH services or poor WASH facilities that are often damaged during floods.

4.3. Climate WASH vulnerability and capacity assessments

Based on the assessment of key vulnerability issues, MRD has identified the key capacity gaps in relation to rural WASH sector for each of the six components of the vulnerability and capacity including social, financial, physical, environmental and human. At this stage, the gaps are quite significant as incorporation of climate change and disaster risks consideration into WASH is still limited to externally funded projects the RWSSH sector.

5. Potential climate-resilient wash solutions

The WASH and climate risk assessments, including those supported by UNICEF, Water Aid, and other partners include the identification of climate-resilient WASH solutions. The recent MTR[8] of the CCCP indicated that some progress on climate-proofing infrastructure has been achieved on wells, irrigation channels and networks, and roads. More concerted efforts have been identified as urgent needs including strengthening DRM, especially at HH level, to ensure that HHs are both informed before any climate hazards and know how to prepare to mitigate negative impacts. The priorities for adaptation and opportunities for mitigation have been identified through discussions within the sector.

6. Financing for climate-resilient WASH responses

Cambodia has benefited from climate financing schemes, including in sectors beyond WASH. Finance and resources that are required to effectively implement agreed climate-resilient solutions[9].

i. The total cost for implementing MRD's National Action Plan II 2019-2023 (NAP II) for rural WASH is estimated to be approximately 281M USD with 3M USD for output I on enabling

[7] Challenging environment is defined in NAP II as challenging geographical and environmental conditions, such as regions prone to flooding, ground water contamination, hard rock areas, floating villages
[8] Mid-Term Review of Cambodia Climate Change Strategic Plan 2014-2023 (Jul 2019)
[9] cambodia climate change financing framework ccff full report-en.pdf

actions, 201M USD for output II on water supply including climate-resilient water supply, 76M USD for output III on sanitation including climate-resilient sanitation and 0.44M USD for output IV on hygiene behavior change.

ii. The cost for WASH related actions in NDC 2020 (Action No. 25, 29, 30, 48, 53, 54, 55, 56, 58, 23, 24) is estimated approximately 500M USD.

Coordination action and steps taken towards financing for climate-resilient WASH responses.

i. The costed NAP II RWSSH which includes climate resilience WASH facilities provides a platform for coordinated actions towards financing for climate WASH responses

ii. MRD's Strategic Plan of Rural Development for Climate Change Adaptation in Cambodia presents 4 Key Result Areas indicating actions and budget requirements including $ 5 million for DRWS (KRA no 4) and unspecified amounts for KRAs related to rural health care (KRA 2: sanitation and hygiene) and capacity development (KRA1)

iii. The TWG-RWSSH is a mechanism to coordinate financing for climate change resilient WASH responses. So far mainly related to information sharing.

iv. MRD is also a member of the TWG-Climate Change which is mandated to ensure coordination and efficiency on climate change. Regular information on climate public expenditure has been disseminated to the public. However, as noted in the recent MTR of CCCSP, there are some issues in terms of alignment of CCCSP and CCFF with CCAP

v. Collaboration needs to extend beyond WASH sector to other key sectors such as water resource management, agriculture, nutrition, energy…etc. to identify linkage of WASH to climate adaptation joint funding opportunities such as GCF funding for which MoE is the RGC accredited entity and also GEF funding for which MoE/NCSD is the political and operational focal point.

7. Summary of discussions and action towards WASH and climate country integration

1) Implementation of Rural Development Policy 2019-2023 with the goal of rural areas in Cambodia as destined locations for harmonious social, economic, and cultural well-being, and good quality of life, resilient to negative impacts of climate change. Access to improved rural water supply and healthcare, covering sanitation and hygiene, is one of the four results under this goal.

2) Implementation of MRD's Strategic Plan of Rural Development for Climate Change Adaptation in Cambodia Appointment of, climate change focal points and climate change working group at line-ministry level, including MRD.

3) Acceleration of access to climate finance for climate resilient WASH actions identified in Cambodia's Nationally Determined Contribution (2020) on climate change – with the commitment coming from MRD and MoE, and supported by UNICEF"

4) National and sub-national schemes for mainstreaming climate resilience at province, district, and commune level. Potential actions that have been identified:

   i. Awareness Raising and Capacity Building of SNAs on understanding the climate vulnerability of domestic water use and the mitigation measure

   ii. Piloting an improved system for the operation, maintenance, and monitoring of wells & boreholes by SNAs, to improve water quality and climate resilience.

   iii. Development of guidelines on disaster preparedness for HHs followed by dissemination and awareness campaign

   iv. Joint development of Water Data Center, and ensure that it integrates data not only on WRM, but also on water usage in all sectors (including for domestic use)

   v. Improvement of MRD's MIS and MoWRAM's Water Data Center to account for gender, income, land tenure, and other factors of marginalization in the collection and analysis of data, to support decision making, policy, and regulation

   vi. Improvement of the complementarity of piped and bottled water supply, not only to increase the access of rural households to water in sufficient quantity and quality but also to ensure the increased climate resilience of this access

   vii. Capacity building of women working in DRM at SNA level, to increase gender mainstreaming in DRM and DRR, improve knowledge sharing and peer-to-peer learning. A network of Women DRR Champions could be created, similar to what has been initiated by ActionAid.

   viii. Strengthen collaboration between SNAs and PWOs, with a particular emphasis on the coordination between PDISTI, PDoWRAM, FWUCs, and PWOs.

8. Specific steps and action points

i. Continuing the response to the COVID-19 outbreak which is a multisectoral response under the leadership of Ministries of Health (MoH) in countries. The WASH interventions, particularly in improving access to water supply and promoting handwashing with soap as a key hygiene practice, contribute to the government strategies defined to control and cut the transmission of the disease.

ii. Participation in monitoring of the updated National Determined Contribution (NDC)

iii. Convene RWSSH stakeholders to agree on the development of a sectoral RWSSH National Adaptation Plan.

iv. Align environmental and climate change plans and policies with those of water supply & sanitation, and vice versa, to guide programmes and interventions towards building more resilient services

v. Developing a national guideline on incorporating climate change and disaster risks into RWSSH improvement programs.

vi. RWSSH Sector Participation in the monitoring/ review of Cambodia Climate Change Strategic Plan 2014-2023 including implementation of recommended actions based on the MTR 2019.

vii. Reviewing the status of the RWSSH-NAP 2 indicators relating to climate change resilience, the effectiveness of relevant efforts, and recommendations for the NAP 3

viii. Integrating Climate Resilience into the upcoming RWSSH NAP 3

ix. Strengthen the coordination of WASH with other sectors on mitigation and adaptation activities for opportunities for joint funding from potential donors including GCF, Adaptation Fund, and GEF.

x. Increase WASH involvement and participation in climate communities in the country including through the existing NDC coordination architecture through CC TWG and NDC Partnership.

Preparations (from a WASH perspective) for country participation in global level processes, such as COP 26, SWA high-level meetings, as well as supporting efforts to access climate finance.

1) Cambodia on December 30, 2021, submitted its Carbon Long-Term Development Strategy (LTS4CN) to the Secretariat of the UN Framework Convention on Climate Change (UNFCCC). The strategy aimed to provide a roadmap based on comprehensive analysis and scenarios related to key economic sectors as well as priority mitigation activities to achieve future carbon-neutral development. The strategy included an analysis of the balance between greenhouse gas reduction, economic growth, social justice, and climate resilience.