Ministry of Rural Development

National Action Plan
Rural Water Supply, Sanitation and Hygiene
2019–2023

January 2019

Preface

The Rural Water Supply, Sanitation and Hygiene (RWSSH) sector envisions "*Everyone in rural communities has sustained access to safe water supply and sanitation services, and lives in a hygienic environment by 2025*", as specified in the National Water and Sanitation Policy 2003. The Royal Government of Cambodia (RGC), under the leadership of Samdech Akka Moha Sena Padei Techo HUN SEN, Prime Minister of the Kingdom of Cambodia, is strongly committed to this vision.

The sector developed the RWSSH National Strategic Plan (NSP) 2014–2025 as its key guiding document, while the RWSSH National Action Plan (NAP) 2014–2018 put the sector on a path to achieve the vision for 2025.

The first NAP period has seen remarkable achievements. Rural sanitation coverage increased by 30.3 per cent from the baseline of 40.9 per cent[1]. By 2017, it was 71.2[2], enabling an additional estimated 4 million people, or 909,090 households, to gain access to improved sanitation. Rural water supply increased at the more modest rate of 12.1 per cent, from 46.6 per cent[3] to 58.7 per cent in 2017, giving approximately 1.59 million people or 361,364 households access to improved water supply. However, challenges remain; the distribution of services is unequal, as evidenced by significantly lower levels of access to services in remote communes and provinces, poor households and people who live in challenging environments.

This second NAP RWSSH (NAP II), for the period 2019–2023, seeks to enable the rural population of Cambodia to have increased access to and use of equitable, sustainable and safe drinking water, sanitation and hygiene facilities. The focus on equality will be strengthened through, among other things, specific actions targeted at poor households and people living in challenging environments.

Aiming to reach 90 per cent of the rural population with access to equitable, safe and affordable drinking water, sanitation and hygiene services, NAP II seeks to bring the sector closer to the vision of universal access. It will contribute to the achievements of the Cambodia Sustainable Development Goals, particularly Goal 6 "*Ensure availability and sustainable management of water and sanitation for all*", as well as related goals on education, health, gender equality and climate change.

The NAP RWSSH 2019–2023 was developed under the overall coordination of the Ministry of Rural Development with active participation of many stakeholders from different levels. I wish to express my gratitude to all of them. I call on all partner ministries and line agencies, RWSSH provincial working groups, development partners, non-governmental organizations and all stakeholders to continue to support the implementation, monitoring and evaluation of the national and provincial action plans.

Phnom Penh, 2 January 2019

Minister

[1] Cambodia Socio Economic Survey (CSES) 2013.
[2] Cambodia Socio Economic Survey (CSES) 2017.
[3] Cambodia Socio Economic Survey (CSES) 2013.

Acronyms and abbreviations

BCC	Behaviour Change Communication
CDP	Capacity Development Plan
CLTS	Community-Led Total Sanitation
CSES	Cambodia Socio Economic Survey
D&D	Decentralization and Deconcentration
DORD	District Office of Rural Development
DRHC	Department of Rural Health Care
DRWS	Department of Rural Water Supply
EMIS	Education Management Information System
ID Poor	Identification of Poor Households
MIS	Management Information System
MoH	Ministry of Health
MoEYS	Ministry of Education, Youth and Sport
MRD	Ministry of Rural Development
NAP	National Action Plan
NGO	Non-Government Organization
NSP	National Strategic Plan (for RWSSH) 2014–2025
ODF	Open Defecation Free
PAP	Provincial Action Plan
PDRD	Provincial Department of Rural Development
PWG	Provincial Working Group
PWG-S	Secretariat of PWG
RGC	Royal Government of Cambodia
RuSH	Rural Sanitation and Hygiene
RWSSH	Rural Water Supply, Sanitation and Hygiene
SDG	Sustainable Development Goal
SWG	Sub-Working Group
TWG	Technical Working Group
TWG-S	Secretariat of the TWG
UNICEF	United Nations Children's Fund
WASH	Water, Sanitation and Hygiene
WSP	Water Safety Plan
WHO	World Health Organization

Definitions

Drinking water services	
Safe drinking water	Free from pathogens and elevated levels of toxic substances at all times
Safely managed drinking water services	Drinking water from an improved water source which is located on premises, available when needed and free of faecal and priority chemical contamination
Basic drinking water services	Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing
Limited water services	Drinking water from an improved source where collection time exceeds 30 minutes for a round trip, including queuing
Improved water sources	Sources that have the potential to deliver safe water due to the nature of their design and construction. Improved sources include: piped water, bore holes or tube wells, protected dug wells, protected springs, rainwater, and packaged or delivered water.
Unimproved water sources	Includes unprotected dug wells or springs and surface water (e.g. lake, river, stream, pond, canal, irrigation ditch).
Basic drinking water services for schools	Drinking water from an improved source is available at the school
Basic water services for health care facilities	The main source of water is an improved source, located on the premises, from which water is available. On premises: water is accessed within buildings, or within the facility's grounds.
Operation and maintenance	Operation refers to the day-to-day running of a water supply or sanitation system under normal or emergency conditions. Maintenance involves: a) scheduled or planned activities under normal operating conditions to maintain operational systems, equipment and assets essential to users (for water supply this includes catchment, raw water storage, abstraction, treatment, distribution); and b) unscheduled activities during unforeseen or emergency situations to bring the system back to normal operating conditions.
Water safety plan (WSP)	A systematic risk assessment and risk prevention approach encompassing all steps in the water supply system, from catchment through to consumer. Simplified risk assessments with a stronger focus on risks related to transport and storage are more appropriate for community-managed systems.
Sanitation services	
Sanitation services	Refers to the management of excreta from the facilities used by individuals, through emptying and transport of excreta for treatment and eventual discharge or reuse
Improved sanitation facilities	Facilities designed to hygienically separate excreta from human contact. Improved facilities include: flush/pour, flush to piped sewer system, septic tanks or pit latrines; ventilated improved pit latrines, composting toilets or pit latrines with slabs.
Basic sanitation services	Use of improved facilities which are not shared with other households
Safely managed sanitation services	Private improved facility where faecal waste is safely disposed of on site or transported and treated off site, plus a hand-washing facility with water and soap

Unimproved sanitation facilities	Includes pit latrines without a slab or platform, hanging latrines and bucket latrines
Limited sanitation service	Improved facility shared with other households
Basic sanitation services for schools	Improved sanitation facilities at a school that are single-sex and usable (available, functional and private)
Basic sanitation service for health care facilities	Improved and usable sanitation facilities, with at least one toilet dedicated for staff, at least one sex-separated toilet with menstrual hygiene facilities, and at least one toilet accessible for users with limited mobility
OBA	A type of results-based financing in which aid is given to the implementer/local government/sanitation provider or to a household upon achievement of a pre-defined output or result. A consumer rebate (fixed amount refunded towards expenses borne by an actor) is a typical example of OBA at the household level.
Market-based sanitation	The development of a private sector sanitation market in which the user makes a full or partial monetary contribution (with savings and/or cash equivalents) toward the purchase, construction, upgrade and/or maintenance of a toilet. This definition builds on the definitions of 'sanitation marketing', i.e. strengthening supply by building the capacity of the private sector, by layering a monetary payment by a user.
Hygiene services	
Hygiene	Refers to the conditions and practices that help maintain health and prevent the spread of disease, including hand washing, menstrual hygiene management and food hygiene
Basic hygiene	Availability of a hand-washing facility on the premises with soap and water *Note: Hand-washing facilities may be fixed or mobile and include a sink with tap water, buckets with taps, tippy-taps, and jugs or basins designated for hand washing. Soap includes bar soap, liquid soap, powder detergent and soapy water, but does not include ash, soil, sand or other hand-washing agents.*
No hygiene service	No hand-washing facility on premises
Limited hygiene service	Availability of a hand-washing facility on premises without soap and water
Basic hygiene service for schools	Functional hand-washing facilities with water and soap available at schools
Basic hand hygiene service for health care facilities	Functional hand hygiene facilities available at one or more points of care and within five metres of toilets. *A hand hygiene facility is any device that enables staff and patients to clean their hands effectively using running water and soap, such as a sink with tap, water tank with tap, bucket with tap or other similar device. Alcohol-based hand-rub dispensers are also hand hygiene facilities, whether fixed or portable*.
Cross-cutting terms	
Affordable	Payment for services does not present a barrier to access or prevent people meeting other basic human needs
Equitable	Implies progressive reduction and elimination of inequalities between population sub-groups
Challenging environment	Challenging geographical and environmental conditions, such as regions prone to flooding, ground water contamination, hard rock areas, floating villages
Programme budgeting	Output-based budget system (output and outcome) – transformation of the budget system from previously input and centralized-based system

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Executive summary

This second National Action Plan (NAP II) for Rural Water Supply, Sanitation and Hygiene (RWSSH) was prepared by the Royal Government of Cambodia (RGC) to provide a framework for accelerating RWSSH improvement. It seeks to guide the government and partner agencies in the planning, development and management of the delivery of sustainable RWSSH services in line with the National Water and Sanitation Policy 2003 and the RWSSH National Strategic Plan 2014–2025.

The expected outcome of NAP II is: *By 2023, rural populations have increased access to and use of equitable, sustainable and safe drinking water, sanitation and hygiene,* which is in line with the sector vision and Cambodia Sustainable Development Goal 6. NAP II will form an integral part of the 2019–2023 Rural Development Strategic Plan, concurrently being developed by the Ministry of Rural Development (MRD) under the strategic direction of the Rectangular Strategy IV.

NAP II was developed in a collaborative manner under the leadership of MRD. The provincial action plans (PAPs II), based on the expected results of NAP II, have been prepared under the leadership of the provincial working group (PWG) RWSSH in the 25 provinces, with technical support from national facilitation teams and national consultants. The NAP II and PAPs II build on the results and lessons learned from implementing the NAP and PAPs 2014–2018.

A target of 90 per cent coverage to be attained by 2023 was specified for access to basic water supply, sanitation and hygiene services. This means an increase of 31.3 per cent for water supply, 18.8 per cent for sanitation and 12.9 per cent for hygiene from their respective baselines. This also means the need to reach an additional 797,839 households with basic water supply, 511,924 households with basic sanitation and 380,000 households with basic hygiene services. More modest targets of 33 per cent and 35 per cent have been agreed for safely managed water supply and sanitation services, respectively.

NAP II seeks to achieve the above-mentioned outcomes through four outputs:

I) MRD, Provincial Departments of Rural Development (PDRDs), PWGs and local authorities have strengthened capacity to plan and coordinate, to advocate for more budget allocation, and to monitor the RWSSH programme, including in institutions (schools and health care facilities) and during emergencies.

II) Rural populations, including people living in challenging environments and arsenic-affected areas, have increased equitable and sustainable access to safely managed drinking water services.

III) Rural populations, including people living in challenging environments, have increased equitable and sustainable access to safely managed sanitation services.

IV) Rural populations improve their hygiene behaviours and practices related to safe drinking water, sanitation and hand washing.

MRD is the agency responsible for implementing NAP II and is accountable for delivering the expected results. The technical working group (TWG)-RWSSH will oversee the process from the management perspective, including coordination of RWSSH programmes, to avoid redundancies and duplication of effort, and to track progress through quarterly and annual reviews, and oversight of monitoring efforts. PDRDs and PWGs will play similar roles at the sub-national level in relation to PAPs.

I. Introduction

1.1 Background of the sector

The Royal Government of Cambodia (RGC) established the National Policy on Water and Sanitation in 2003. RGC's vision for the sector is that by 2025, every rural citizen has sustained access to a safe water supply, improved sanitation services and the ability to live in a hygienic environment.

The National Strategy on Rural Water Supply Sanitation and Hygiene (RWSSH) 2011–2025, subsequently launched as the National Strategic Plan (NSP) RWSSH 2014–2025, seeks to support the RGC to fulfil its vision. The NSP outlines five strategic objectives: (i) improve water supply services; (ii) improve sanitation; (iii) hygiene behaviour change; (iv) institutional arrangements; and (v) financing. A National Water Supply and Sanitation Sector Financing Strategy, with a slightly different scenario for rural areas (reaching 100 per cent by 2028), was developed concurrently with the national strategy.

The technical working group (TWG) RWSSH was established in 2007 to ensure effective coordination of the RGC's response to rural water and sanitation challenges. The TWG is chaired by MRD and co-chaired by a development partner agency on a rotational basis. Its members are senior representatives of relevant ministries and key development partners.

The first phase of NSP implementation was guided by the 2014–2018 National Action Plan (NAP I), which was aligned with the 2014–2018 National Strategic Development Plan (NSDP III). Provincial action plans RWSSH 2014–2018 (PAPs I) were developed in each of the 25 provinces to provide more specific guidance for implementation at the sub-national level. Provincial working groups (PWG) RWSSH were established during the 2014–2018 period to oversee the implementation of PAPs in each province.

The progress of NAP I and PAPs I implementation was reported to the TWG-RWSSH on an on-going basis, and a comprehensive review was conducted during the first semester of 2018. Rural sanitation improvement saw impressive progress: the target of 60 per cent coverage by 2018 was passed, and coverage reached 71.2 per cent in 2017[4]. Rural open defecation rates were reduced by 31.5 per cent[5], earning Cambodia recognition as one of the most successful countries in accelerating the elimination of this harmful practice. Reports from the 25 provinces indicate that, on average, 66 per cent of households have access to improved latrines. Rural water supply improvements saw more modest progress during the NAP I period.

Despite these achievements the sector faces a number of challenges including from the WASH related impacts of climate change. Flood and drought events can cause disruption of and damage to WASH infrastructure including community piped-water systems, water sources (wells and ponds), latrines and other facilities: the drought in 2016 affected an estimated 2.5 million people[6], while floods in 2013 affected 38,516 wells[7] posing other WASH-related health risks resulting from reduced access to WASH services. To adapt to these risks, innovation and partnerships on climate-resilient sanitation and water supply will also be taken into consideration in the NAP II.

[4] Cambodia Socio Economic Survey (CSES) 2017.
[5] Cambodia Socio Economic Survey (CSES) 2013 and 2017.
[6] National Committee for Disaster Management (NCDM) report
[7] Cambodia 2013 Post-Flood Early Recovery Needs Assessment Report

1.2 Development priorities being addressed

The strategic goal of the government, *Inclusive and Sustainable Development*, as stipulated in Rectangle 4 of the Rectangular Strategy Phase IV, is to focus attention on: 1) promoting the agriculture sector and rural development; 2) sustainable management of natural resources and culture; 3) strengthening urbanization management; and 4) ensuring environmental sustainability and readiness to respond to climate change. Access to clean water and sanitation is specified as one of the priorities for the promotion of rural development, particularly under side 4 of the Rectangle 4 to further promoting the development and implementation of integrated water resource management plan in order to expand water supply in response to demand, minimize the risks caused by flood and drought, as well as to ensure long-term water security.

Despite progress, insufficient water, sanitation and hygiene coverage remains a major contributing factor to persistently high child mortality in Cambodia8. Overall, 13 per cent of all children under the age of 5 had diarrhoea and 2 per cent had diarrhoea with traces of blood9. The high rate of stunting among children under 5 years (32 per cent stunted and 9 per cent severely stunted[10]), also indicates the importance of addressing poor water, sanitation and hygiene (WASH), along with relevant nutrition- and health-related issues, in a more comprehensive and integrated way.

Improving access to WASH facilities in schools can improve the health, attendance and welfare of students and teachers, and can therefore contribute to better educational outcomes. WASH in schools is particularly important for girls and young women, as is providing privacy for menstrual hygiene management. School students are well placed to start learning about safe water and sanitation through the school curriculum. Students and their families can then begin to understand the links between water, health and nutrition[11]. Access to safe water, appropriate toilets that ensure accessibility for children with disabilities, and hand-washing facilities in schools remains a challenge. Overall, less than 50 per cent of rural schools have access to these facilities[12].

WASH facilities in health care centres are essential for improving quality within the context of universal health coverage. Only 36 per cent[13] of health centres have access to basic sanitation facilities. While access to basic water supply reached 90 per cent[14], almost 50 per cent lacked safe drinking water, mainly for clients, and there is a shortage of water during the dry season[15].

1.3 Process of NAP II development

MRD began leading a collaboration to develop the 2019–2023 RWSSH NAP and PAPs in the second half of 2018, immediately after the completion of the review of the NAP I and PAPs I. Sector partners were actively engaged throughout the government-led process, which also sought to provide opportunities for capacity development at the national and sub-national level. The process involved wide consultation with stakeholders from national to commune levels, including development partners and national and international non-government organizations (NGOs).

The following are the major steps followed in NAP II development:

- Development of the Results Framework of NAP II

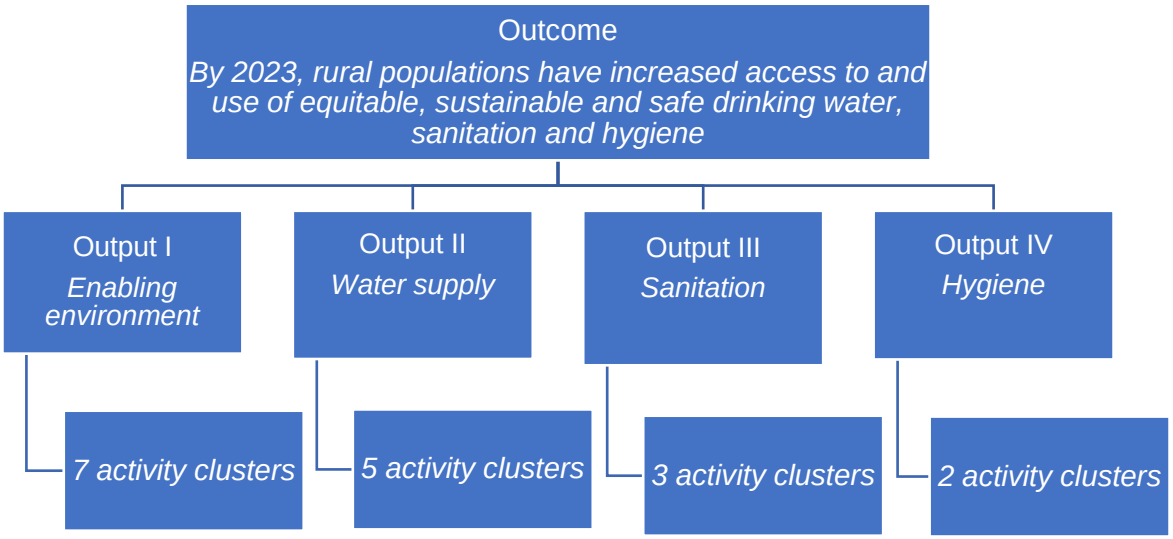
[8] UNICEF Updated Situation Analysis of Women and Children in Cambodia, 2017.
[9] Ibid.
[10] ibid.
[11] SDG 6, Synthesis Report on Water and Sanitation, 2018.
[12] Washdata.org, based on EMIS 2016/2017.
[13] Ministry of Health (2016) Third Health Strategic Plan 2016–2020.
[14] Ibid.
[15] Assessment conducted by the National Institute of Public Health, with support from WaterAid, WHO and UNICEF, 2015.

- Preparation of the PAPs II in each of the 25 provinces under the leadership of PWGs, with technical support from national teams and national consultants
- National consultation workshop
- Consolidation of the PAPs II and finalization of NAP II
- Final review by TWG-RWSSH

1.4 Structure of NAP II

Building on the results and lessons learned, including the climate risk impacts, from implementing NAP I, NAP II and PAPs II are presented in a more concise manner. The structure of the NAP II document has followed a guide provided by the Council of Ministers and, to the extent relevant, also the Guidelines for Sectoral Strategic Development Plans issued by the Ministry of Planning in September 2018. Figure 1 shows the key components of the NAP.

Figure 1: Structure of NAP II – RWSSH



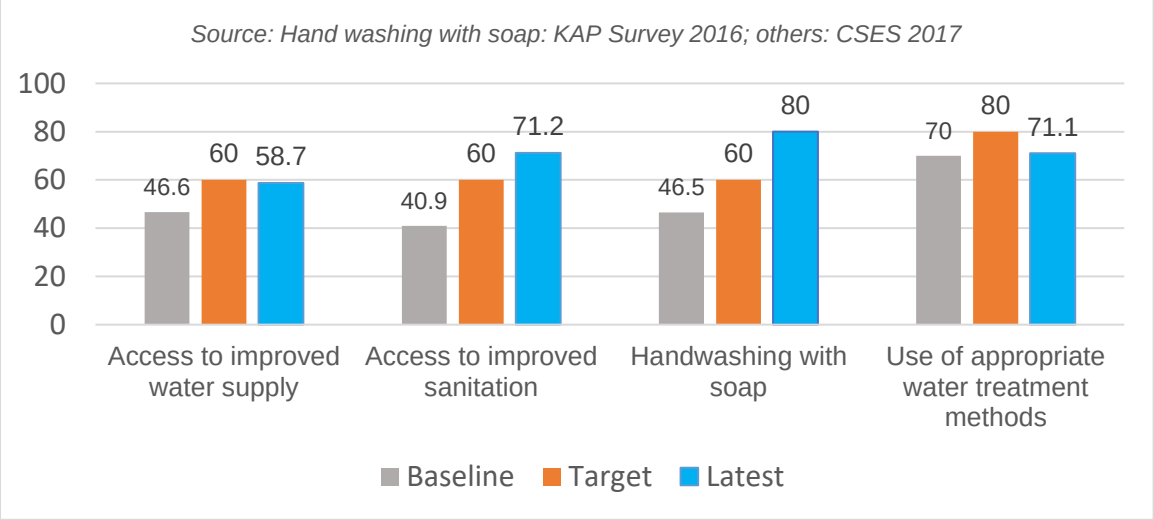
2. Situation analysis

2.1 Current status of the sector

Throughout the 2014–2018 period of NAP I, the sector saw significant progress, as well as challenges. There was accelerated progress in rural sanitation improvements, surpassing the target of 60 per cent access to improved sanitation by 11.2 per cent in 2017[16]. Open defecation reduced by 31.5 per cent, and a total of 1,789 villages, 67 communes and two districts attained open-defecation-free (ODF) status[17].

Rural water supply has increased by 12.1 per cent since 2013, but there is still a gap of 1.3 per cent from the target of 60 per cent by 2018[18]. The target for hand washing with soap[19] was met, but the target for treatment of drinking water was not (see Figure 2).

Figure 2: Status of outcome indicators 2014–2018



The review of NAP I highlighted the following achievements:

- Emerging leadership at the sub-national level through the establishment of the RWSSH PWGs to oversee the implementation of the PAPs 2014–2018
- Significant improvement in the enabling environment for sanitation that has, among other things, encouraged various innovative approaches to promoting sanitation and hygiene
- Stronger participation of private service providers through sanitation marketing initiatives is widely recognized as a key contributing factor to the increase in sanitation coverage
- Establishment of the RWSSH Management Information System (MIS)
- Establishment of technical coordination platforms, such as sub-working groups for rural sanitation and hygiene (RuSH), water supply, sanitation in challenging environments, and WASH and nutrition for improved coordination and harmonization.

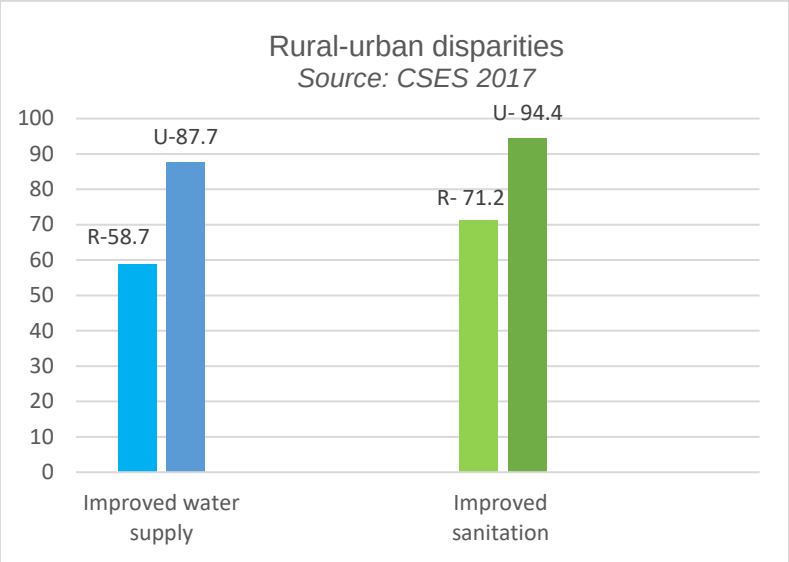
[16] Cambodia Socio Economic Survey (CSES) 2017.
[17] RWSSH MIS, 2018.
[18] Ibid.
[19] MRD (2016) Knowledge, Attitudes and Practices (KAP) survey.

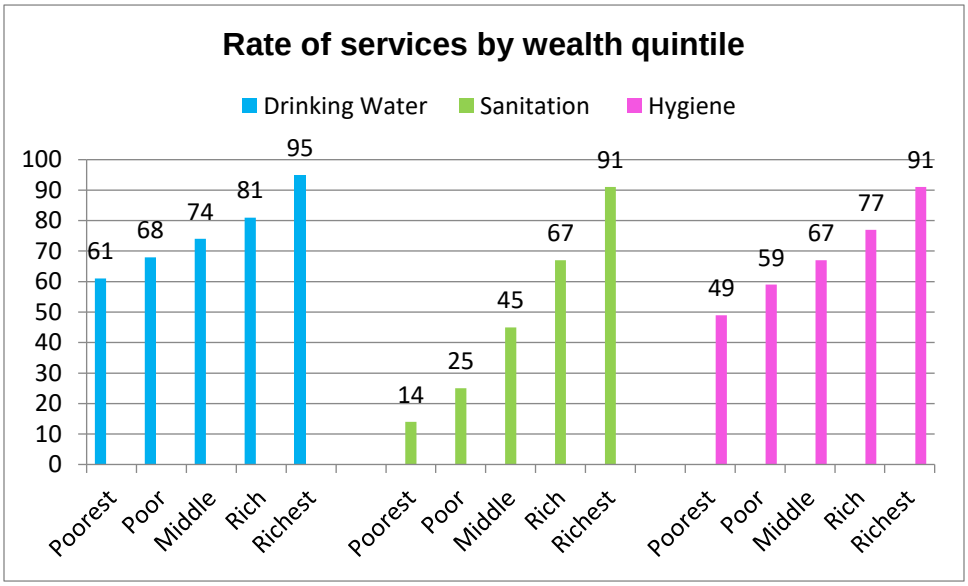
2.2 Challenges

Despite this progress, challenges remain, particularly:

Inequality of services, as evidenced by disparities in the rates of services between rural and urban areas and among wealth quintiles, as shown below[20].

Figure 3: Inequality of RWSSH services





Inadequate WASH facilities for schools and health care centres

As shown in Table 1, only 48 per cent of rural schools have a limited drinking water service (defined as an improved source with water available); 38 per cent have a basic sanitation service (defined as an

[20] https://washdata.org/data

improved single-sex facility that is usable); and 39 per cent have a basic hygiene service (defined as a hand-washing facility with water and soap available).

Table 1: WASH in schools

	Drinking water Limited service	Sanitation Basic service (improved, usable and single sex)	Hygiene Basic service (facility with water and soap)
National	49	39	41
Urban	49	48	50
Rural	**48**	**38**	**39**
Pre-primary	33	12	27
Primary	61	48	49
Secondary	47	67	40

Source: washdata.org, based on Census 2014 and Education Management Information System (EMIS) 2016 / 2017

Overall, 90 per cent of health centres were reported to have access to basic water supply, while only 37 per cent had access to basic sanitation facilities[21]. A 2015 assessment by the National Institute of Public Health and the Ministry of Health (MoH), with support from WaterAid, the World Health Organization (WHO) and UNICEF, in health care facilities in five provinces indicated insufficient WASH facilities:

- Although there was water supply, 49 per cent lacked safe drinking water, mainly for clients, and there are water shortages during the dry season
- 6 per cent of health care facilities rely on unimproved/open water sources
- Improved toilets were available, but did not meet the needs of people with reduced mobility; there were not enough toilets with menstrual hygiene management facilities designated for women and girls
- There were relatively poor hand hygiene facilities at the point of care and within toilets.

Insufficient financing

RWSSH sector financing is reportedly insufficient to meet nationally determined needs. In 2015, a service delivery assessment of water supply and sanitation in Cambodia was done, with the participation of many agencies, including MRD and other relevant agencies. This was done under the guidance of the then World Bank's Water and Sanitation Programme.

The service delivery assessment indicated that to reach 100 per cent coverage by 2025, some 302,000 people per year would need to gain access to an improved water source. This implied an average capital investment of US$ 32 million per year, comprising US$ 6.4 million in new investments to expand access and US$ 25.4 million to replace existing facilities.

Enabling approximately 658,000 people to gain access to improved sanitation would require US$ 32.5 million per year in capital expenditure, of which US$ 3.5 million is expected to come from public sources. This would support hardware subsidies for the poor, as most facilities are expected to be built from households' own funds, as clearly stipulated in the strategy. The costing model applied in the service delivery assessment to assess the adequacy of future investment in the sector shows 24 per cent annual deficit for rural water supply and 5.7 per cent annual deficit for rural sanitation. Insufficient financing is also a key barrier for addressing climate change adaptation in Cambodia. The inclusion of climate adaptation into WASH programme implementation would require additional costs.

[21] Ministry of Health (2016) Third Health Strategic Plan 2016–2020.

Inadequate and uneven institutional capacity

The NAP I review noted limited achievements in capacity development, including professionalizing planning and management at the sub-national level and engaging the private sector. The decentralization process to improve service delivery has yet to be taken to scale. There is a lack of climate change and disaster risk integration in the design and management.

The need for strong coordination has yet to be met. The sector involves various government ministries that play a role in water and sanitation, plus a multiplicity of donors, NGOs and private operators. There is limited engagement of sectors to implement the integration of WASH into relevant development programmes. While coordination between existing traditional donors and the government is well established, newly emerging donors who have been growing stronger in importance and volume of support over time, have not been brought into the existing coordination mechanism. The private sector is playing a rapidly increasing role in providing drinking water services in rural areas (through piped systems and water kiosks). These private sector actors are under the mandate of the Ministry of Industry and Handicrafts, however coordination and joint planning with MRD remains limited, leading to inefficient use of resources.

Various technical guidelines are yet to be developed for effective interventions to address both emerging and long-standing issues, such as community-owned and managed water supply systems, faecal sludge management, and the climate resilience of WASH infrastructure.

Insufficient monitoring and evaluation (M&E) system

The need for improved sector monitoring has been recognized in various policy and strategy documents and sector reviews. The RWSSH MIS was established in 2017 and has started to generate data on six key indicators, mostly related to sanitation improvement. A sectoral monitoring system, reporting access and use of services, service quality, sustainability and equity has yet to be established. Data and information generated through M&E also have yet to be published, including on the ministerial website.

Gender-based inequality

Gender and other aspects of social inclusion mainstreaming have been implemented in various sector initiatives, particularly those supported by partners. These initiatives have yet to be institutionalized. Promoting women into decision-making on RWSSH improvement, including in climate change adaptation and natural disaster management at all levels, needs to be pursued. The inclusion of menstrual hygiene management into RWSSH interventions has just begun at an early stage, and needs to be strengthened and expanded.

Climate resilience

Water resources and infrastructure are among the sectors most vulnerable to the impacts of climate events. With low levels of climate resilience, rural and poorer households are more exposed to seasonal climate risks:

- Rural populations experience a 22 per cent wet-to-dry season decrease in those using improved water sources, compared to a 2 per cent decrease in urban areas between the same periods[22]
- The poorest rural households experience a 20 per cent drop, compared to an 11 per cent drop among the richest rural households[23]

[22] Cambodia Demographic and Health Survey 2014.
[23] UNICEF/WHO Joint Monitoring Programme 2017; Cambodia Country File 2017.

- 52 per cent of health centres report that their available water sources do not provide enough water for the whole year for all purposes (drinking, food preparation, personal hygiene, medical activities, cleaning and laundry)[24]
- 17.2 per cent of Cambodia's communes (279 communes) were 'highly' vulnerable, while over 31.5 per cent (512 communes) were 'quite' vulnerable to multiple climate hazards[25].

Climate change, including the increased temperature increased and the risks of extreme weather events, is a key threat to infrastructure, particularly rural WASH facilities. The sector recognizes the continuing heightened vulnerability to natural disasters and climate change, while the national and community capacity to respond to these incidents is limited. Effort to increase resilience of WASH infrastructures have been made by MRD and its key WASH development partners in Cambodia. MRD through its ADB supported project has recently analysed suitable technical options and water safety and sanitation plans that incorporate climate change adaptation and disaster risk reduction measures into its project design and implementation, which provide a useful basis for future development and scale-up.

[24] Cambodia National Institute of Public Health in collaboration with the Department of Hospital Services, UNICEF, WaterAid and WHO (2017) Assessment of Water, Sanitation and Hygiene in Public Health Facilities in Five Provinces in Cambodia.
[25] The Cambodia climate change strategic plan (2014–2023).

3: Strategic direction of the sector

3.1 Strategic direction

Launched in 2014, the NSP RWSSH seeks to support the RGC to fulfil the sector's vision of universal water and sanitation coverage. The primary reason for the creation of the RWSSH NAP is to facilitate accelerated progress in the sector. As a follow up to NAP I (2014–2018), NAP II (2019–2023) was developed under strategic direction provided by the following plans:

I. National Strategic Plan RWSSH 2014–2025

The National Strategic Plan RWSSH 2014–2025 adopts universal access targets and lays out strategic actions and principles towards achieving these.

II. MRD's Rural Development Strategic Plan 2019–2023

The Rural Development Strategic Plan establishes four pillars towards improved quality of livelihoods and living conditions of rural Cambodians. This is in line with one of the Rectangular Strategy IV priorities seeking to "*promote rural development to be more vibrant by further investing in rural roads, small-scale irrigation systems, expanding the coverage of electricity supply and access to clean **water**, upgrading **sanitation**, village and housing arrangements, as well as promoting the livelihoods of people*".

The RWSSH programme covers improved access to WASH infrastructure, enabling communities to live in ODF environments and practice key hygiene behaviours. Its partnerships with the private sector in water supply improvement, promoting sanitation entrepreneurship, institutional strengthening and capacity development relate to all four pillars.

III. Cambodia Sustainable Development Goals (SDG)

The RGC has approved the Sustainable Development Goals and has been in the process of contextualizing them into the Cambodia SDGs. The NAP II will directly contribute to the following Cambodia SDG targets.

Table 2: Cambodia SDGs

	Goal 6: Ensure availability and sustainable management of water and sanitation for all	
Responsible agency	Target	Indicators
MRD	6.1: By 2030, achieve universal and equitable access to safe and affordable drinking water for all	6.1.1.2: Proportion of rural population using safely managed water supply services
		6.1.1.3 Proportion of rural population using basic drinking water source services
	6.2: By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	6.2.1 Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water
		6.2.1.1 Proportion of rural population using improved/basic sanitation
		6.2.1.2 Proportion of rural households with hand-washing facility with soap and water

The RWSSH NAP/PAPs II will contribute to the following Cambodia SDG targets

Responsible agencies	Targets	Indicators
MoH, CARD, MRD	2.2: By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years, and address the nutritional needs of adolescent girls, pregnant and lactating women and older people	2.2.1 Prevalence of stunting among children under 5 years
		2.2.2 Prevalence of malnutrition among children under 5 years
MoH	3.10: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals, and air, water and soil pollution and contamination	3.10.1 Percentage of public health care facilities with basic water supply
		3.10.2 Percentage of public health care facilities with basic sanitation
Ministry of Education, Youth and Sport (MoEYS), MRD	By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes	4.a.1 Proportion of pre, primary and secondary schools with basic drinking water facilities
		4.a.2 Proportion of pre, primary and secondary schools with basic sanitation facilities
		4.a.2.1 Proportion of pre, primary and secondary schools with basic hand-washing facilities
		Indicator 4.a.3 Percentage of schools with adapted infrastructure and materials for students with disabilities
Ministry of Women's Affairs	5. 5. Ensure, fully and efficiently, women's participation and equal opportunities in leadership at all levels of economic, political and public life	5.5.3 Number of specific measures and programmes to enhance women in management at all levels
Goal 13: Take urgent action to combat climate change and its impacts		
Ministry of Environment	13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters	13.1.1 Percentage of communes vulnerable to climate change with appropriate climate resilient technology options
	13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	13.3.4 Percentage of households and local community members receiving workshops and training on climate change

NAP 2019–2023 was informed by the following policy documents:

1. The Cambodia Climate Change Strategic Plan 2014–2023
2. Health Strategic Plan 2016–2020 of the Ministry of Health
3. MoH/National Nutrition Programme Fast Track Road Map for Improving Nutrition, 2014–2020
4. NAP for the Zero Hunger Challenge in Cambodia 2016–2025
5. Financial Sector Development Strategy 2011–2020

6. National Policy Framework for Social Security in 2015
7. The National Social Protection Policy Framework 2016–2025
8. National Population Policy 2016–2030 that provides analysis of key demographic trends, including youth, gender, migration, urbanization and the elderly.

3.2 National guidelines for operationalizing NAP II

A number of national guidelines have been prepared to assist with implementing this NAP II. These guidelines provide further information on key topics. They are:

Guideline	Overview
Water supply	
National rural drinking water quality guidelines	Description of recommended water quality standards
Water safety planning guidelines	Step-by-step guide to the water safety planning process
Household water treatment guidelines	Description of approaches and technologies for household water treatment
Sanitation and hygiene	
Community-led total sanitation (CLTS)	Step-by-step guide to the CLTS process, including verification
National guiding principles on sanitation hardware subsidies	Description of how subsidies should be used for household sanitation
National guidelines on WASH for people with disabilities and older people	Description of inclusive approaches to water supply, sanitation and hygiene
Sanitation in challenging environments	Definition of challenging environments and guidance on sanitation solutions

In addition to these guidelines, manuals are available from MRD to support the roll out of NAP II, including the household latrine construction manual.

3.3 Expected results

Aiming to contribute to the fulfilment of the sector's vision of universal coverage of rural water supply and sanitation, NAP 2019–2023 was designed to achieve the following results.

Table 3: NAP II – Outcome statement, indicators and targets

Outcome: By 2023, the rural population has increased access to equitable, safe and affordable drinking water, sanitation and hygiene				
Outcome indicators	Baseline (%)	2023 target (%)	Gap to be covered (population)[26]	Gap to be covered (households)
Rural households use basic water supply services	58.7[27]	90	3,529,771	797,839
Rural households use safely managed water supply services	16[28]	33	2,230,900	504,500
Rural households use basic sanitation services	71.2[29]	90	2,264,836	511,924
Rural households use safely managed sanitation services	Not available	35	4,593,040	1,044,000
Rural households with hand-washing facility with soap and water	77.1[30]	90	1,692,860	383,000

The above outcome is to be pursued through four mutually reinforcing outputs and a number of activity clusters, as shown below.

Table 4: Activity clusters

Output	Activity clusters
I. MRD, PDRDs, PWGs and local authorities have strengthened capacity to plan and coordinate, to advocate for more budget allocation, and to monitor the RWSSH programme, including in institutions (schools and health care facilities) and during emergencies	A. Improve the functioning of RWSSH coordination structures at national and sub-national levels, particularly on cross-sectoral links B. Formulate and implement a national capacity development plan (CDP) on RWSSH, including a functions and responsibilities review C. Expand and implement national RWSSH MIS D. Develop, review, disseminate and monitor the adoption of RWSSH regulatory frameworks and guidelines E. Advocate for increased national budget allocation for RWSSH F. Technical support and advocacy for increased sub-national budget allocations for RWSSH G. Expand and strengthen districts with transferred functions for RWSSH
II. Rural population, including those living in challenging environments and arsenic-affected areas, have increased	A. Establish new and/or rehabilitated community water supply facilities that are resilient to shocks and hazards B. Develop and implement rural WSPs that are climate resilient

[26] The population gap for access to rural water supply and access to rural sanitation used in this NAP II cost estimation was calculated based on the Cambodia Socio Economic Survey (CSES) 2017 by including the bottled water in rural areas (currently at 2.0%) as 'improved' (aligned with JMP definitions). The number of population gap to reach the NAP II target 90% rural population use basic water supply services and basic sanitation services by 2023 was estimated based on the CSES2017 rural population (12,047,000 people) without inclusion of the projected population growth until 2023.
[27] Cambodia Socio Economic Survey (CSES) 2017.
[28] washdata.org.
[29] Cambodia Socio Economic Survey (CSES) 2017.
[30] Ministry of Rural Development (2016) Knowledge, Attitudes and Practices (KAP) Survey.

equitable and sustainable access to safely managed drinking water services	C. Improve water supply facilities in rural schools and health centres to meet national standards and are appropriate to corresponding to climatic risks, in cooperation with MoH and MoEYS D. Establish rural water supply inventory E. Water quality monitoring
III. Rural population, including those living in challenging environments, have increased equitable and sustainable access to safely managed sanitation services	A. Develop and implement government-led ODF provincial plans, including the use of smart subsidies for poor households B. Promote structured engagement between the market and community-based sanitation approaches, with particular focus on marginalized groups and communities in challenging environments C. Improve sanitation and hygiene facilities in rural schools and health centres to meet national standards, in cooperation with MoH and MoEYS
IV. Rural population improves hygiene behaviours related to safe drinking water, sanitation and hand washing	A. Develop, implement and review WASH behaviour change communication (BCC) campaign for improved hygiene behaviour in communities B. Develop, implement and review WASH BCC plan for improved hygiene behaviour of school children C. Promote learning / knowledge development on hygiene behaviour change

The main planned results under each of the four outputs are listed in Table 5.

Table 5: Planned results / outputs

Outputs	Planned results
MRD, PDRDs, PWGs and local authorities have strengthened capacity to plan and coordinate, to advocate for more budget allocation, and to monitor the RWSSH programme, including in institutions that are resilient and during emergencies	• 100 MRD/PDRD staff trained and regularly access established learning platforms • PWGs of the 25 provinces and RWSSH focal points from at least 40 districts trained and regularly access established learning platforms • PWGs of the 25 provinces convene regular meetings to review progress of the respective PAPs and are able to report on the status of at least 50% of PAP indicators through the MIS • Provincial RWSSH emergency preparedness and response plans developed and endorsed in 16 provinces • At least 1,400 communes and 78 districts allocate budget for RWSSH in their commune investment plans and district investment plans, respectively • The national budget for RWSSH increases by at least 10% annually • At least 2 coordination meetings per year on WASH and nutrition, WASH in health care facilities and WASH in schools • At least 1 regulation on private sector engagement in community-managed water supply systems endorsed and disseminated

Outputs	Planned results
	• At least 20 districts implement transferred functions on rural water supply and 40 districts on rural sanitation
Rural population, including those living in challenging environments and arsenic-affected areas, have increased equitable and sustainable access to safely managed drinking water services	• 70% of poor households have access to basic water supply services • 70% of households in challenging environments have access to basic water and sanitation services • 770 community-managed piped water supply systems and 300 community-managed bottled drinking water systems (20L) established and operational that sustain disasters and climate risks • 19,500 climate-resilient boreholes, 4,000 protected dug wells, and 4,000 household rainwater harvesting systems in compliance with MRD's rural water supply technical design and construction supervision manual • 500 communes implement WSPs incorporating climate change adaptation and disaster risk management principles • 25 provinces annually report results of water quality monitoring • 60% of pre-schools (separate public pre-school), 64% of primary schools, 50% of colleges, and 60% of lycée with safe water • 100% of public health care facilities have basic water supply
Rural population, including people living in challenging environments, have increased equitable and sustainable access to safely managed sanitation services	• 12,700 villages (additional 10,911 villages); 600 ODF communes (additional 528 communes); 30 ODF districts (additional 28 districts); and three provinces achieve ODF status • # of ODF communities sustain climate risks and hazards • At least 5,000 villages sustain ODF status for at least three years • At least 30 districts have sanitation entrepreneurs providing off-site faecal sludge management services • At least 36 districts have sanitation entrepreneurs providing products for challenging environments • 35% of households use on-site faecal sludge management • 70% of households in challenging environments have access to basic services and 30% to safely managed sanitation • 80% of pre-schools (separate public pre-school), 95% of primary schools, 95% of colleges, and 100% of lycée with latrines • 60% of pre-schools (separate public pre-school), 65% of primary schools, 45% of colleges, and 60% of lycée with hand-washing facilities • 100% of public health care facilities have basic sanitation
Rural population improves hygiene behaviours related to safe drinking water, sanitation and hand washing	• 90% of households always treat drinking water (increase from 77.6%) • 90% of households always use a latrine with a place for hand washing with soap • 90% of caregivers of children under 5 years safely manage children’s faeces and practice hand washing with soap at critical times • 90% of households have a place for hand washing with soap and water (increase from 76%)

Outputs	Planned results
	• 90% of school children practice hand washing with soap at critical times • 200 communes promote menstrual hygiene management • National BCC campaign developed, implemented and monitored

The planned annual targets are presented in the Performance Monitoring Matrix in Annex I.

3.4 Addressing cross-cutting issues

NAP intends to address the major cross-cutting issues as follows:

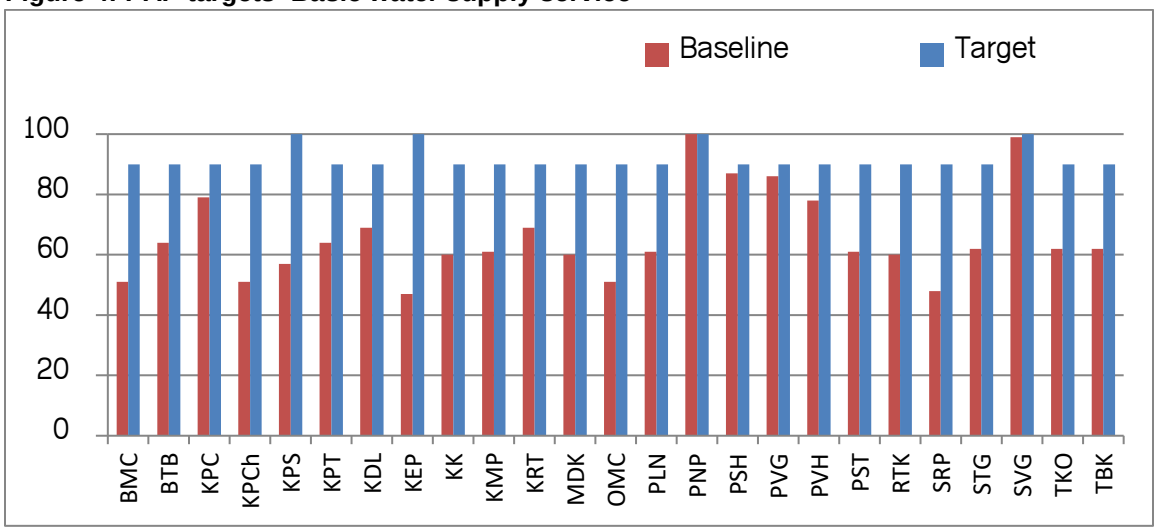
- Strengthen the focus on **disadvantaged groups** through interventions specifically targeting households with high levels of vulnerability. These will include ID poor households (those households identified as being poor) and those living in challenging environments. Based on the Sub-Decree on Identification of Poor Households, dated 27 December 2011, households with the head (husband or wife) suffering from serious disability or chronic disease, consisting exclusively of elderly members, with orphans living with them, female-headed households with many young children, or households with no members with the capacity to work, are to be included in the ID poor classification. The national guiding principles on the provision of subsidies for poor households, already developed for sanitation, will be utilized. Similar principles will be developed for water supply. Progress in addressing the inequality of services will be monitored through the specific indicators already developed.
- Incorporating specific interventions and **nutrition-sensitive** indicators to contribute to improved nutrition outcomes, in addition to the overall contributions from WASH improvement. These will include promoting safe management of infant faeces, and caregivers of children under 5 years washing their hands with soap and ensuring safe drinking water when preparing food for children. Convergence of RWSSH with nutrition improvement interventions will be promoted.
- Promoting women in leadership and the participation of women in capacity development and major activities. **Gender-based** needs will be addressed, for example through the provision of single-sex toilets in schools and health care facilities, and the promotion of menstrual hygiene management. Results and lessons learned from initiatives of various programmes within the sector will be utilized and built upon.
- Incorporation of **climate-resilient** adaptation and disaster risk management through:
    - Understanding of climate risks in the WASH sector
    - Implementation of Climate-resilient WSPs
    - Development of adaptation options and guidelines corresponding to climate risks including droughts, floods etc. to improve climate change resilience of RWSSH infrastructure
    - Capacity development at national and sub-national level on climate proofing rural infrastructure design, construction and maintenance
    - Flood-proofing measures for water supply infrastructure
    - Adoption and use of raised latrines, and other high-water table rural/urban sanitation facility designs
    - Development of RWSSH in emergency preparedness and response planning for storms, flooding and related disasters.

3.5 RWSSH PAPs 2019–2023

The outcome and output targets of the NAP were the basis for developing the RWSSH 2019–2023 PAPs in each of the 25 provinces. The planned targets of each province for basic water supply, sanitation and

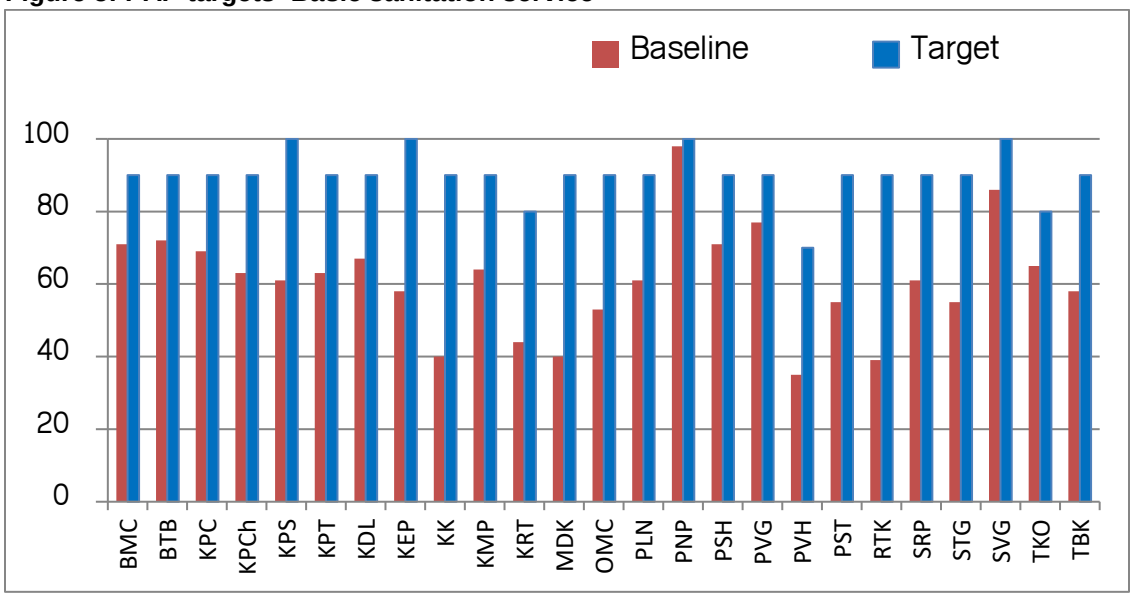
hygiene services are shown in Figure 4. The PAPs are still in the process of being reviewed for finalization, scheduled by the end of January 2019.

Figure 4: PAP targets–Basic water supply service



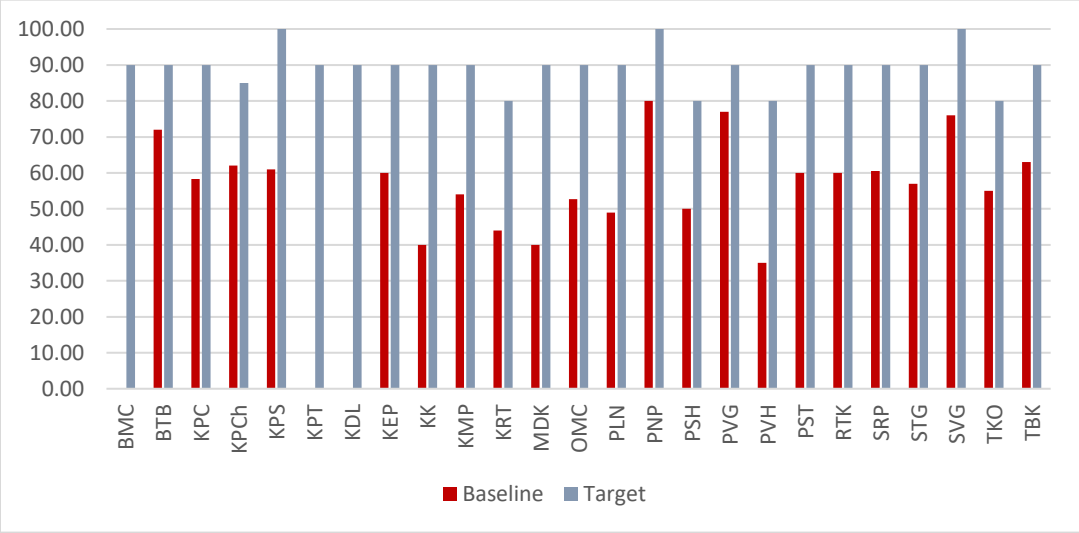
Source: (PAPs RWSSH 2019–2023)

Figure 5: PAP targets–Basic sanitation service



Source: (PAPs RWSSH 2019–2023)

Figure 6: PAP targets–Basic hygiene service



Source: (PAPs RWSSH 2019–2023)

The planned targets for safely managed water supply and sanitation are yet to be verified and hence, are not presented.

3.6 Implementation timeframe

The implementation of NAP II covers 2019 to 2023, inclusive. This aligns with the government's current mandate and national planning frameworks, including MRD's 2019–2023 Rural Development Strategic Plan.

At the national level, the first year of NAP II implementation will focus on:

- Dissemination of NAP II and PAPs II, followed by the preparation of technical implementation guidelines
- Verification of baseline data for certain key indicators
- Verification of funding sources for activity clusters
- Establishment of the CDP and initiation of its implementation
- Establishment of the expanded MIS to cover key monitoring indicators
- Review and develop technical guidelines
- Establishment of national BCC guidelines.

The PAPs II include more detailed plans for implementation in the first year, with estimated budget requirements. It is expected that subsequent annual plans will be developed accordingly.

3.7 Key assumptions

The following key assumptions will need to be reviewed regularly throughout the implementation period.

- Key development partners will continue to recognize RWSSH improvement as a priority development programme for Cambodia and its contribution to the achievement of a number of

Cambodia SDGs, particularly Cambodia SDG 1 (No poverty); 2 (Zero hunger); 3 (Good health and well-being for all people); 4 (Quality education); and 5 (Gender equality)

- New sector partners will recognize the importance of aligning their support with RWSSH NAP II
- Decentralization will be implemented as planned
- Private sector actors will be attracted to engage, and the government will continue to improve the enabling environment for private sector participation
- There will be no significant destructive impacts of climate change and emergencies.

4. Institutional arrangements for implementation

4.1 Institutional arrangements

MRD is the agency responsible for implementing the NAP, and is accountable for delivering the expected results. MRD's Department of Rural Water Supply (DRWS) and Department of Rural Health Care (DRHC) are the two technical departments that will coordinate and lead NAP implementation at the national level.

The TWG-RWSSH, in its role of ensuring effective coordination of the government's response to rural WASH, will provide a forum for MRD to coordinate and track progress on expected results, supported by other government entities and development partners.

At the provincial level, PDRDs will be responsible for implementing PAPs, and will be accountable for delivering the expected results. The PWGs-RWSSH will oversee the implementation of the PAPs, including targeting of RWSSH investments and providing support to district administrations.

MRD's District Offices of Rural Development (DORD) will play important roles in supporting district administrations and commune councils with monitoring, and will provide technical support and investment planning. A growing number of districts, especially those that have undertaken the transferred RWSSH functions under MRD's decentralization initiative, have also established RWSSH district working groups.

Development partners and CSO partners will continue to play an important role in supporting the implementation and monitoring of the NAP II and PAPs II. Private sector actors are expected to serve as the sector partners and participate in the provision of RWSSH services within the framework of the NAP II and PAPs II. Roles and responsibilities of different actors at different levels are shown in Table 6.

Table 6: Institutional implementation framework

Level	Body/organization	Roles and responsibilities
National	MRD	• Lead NAP implementation • Coordinate development partners and implementing agencies at national level • Review NAP annually • Raise and manage resources for RWSSH • Support PDRDs to develop PAPs • Support PDRD and DORD capacity building
	TWG-RWSSH	• Support coordinated oversight of NAP implementation • Convene quarterly meetings to review progress
	Development partners	• Provide technical and financial support for NAP process • Service delivery, capacity building and other activities
	Private sector	• Participate in service delivery, capacity building and other activities
Provincial	PDRD	• Lead PAP implementation • Coordinate implementing agencies at provincial level • Coordinate monitoring and reporting at provincial level • Review and update PAPs annually • Raise and manage resources for RWSSH • Support provinces, districts and communes with planning • Support DORD, district and commune RWSSH focal points

Level	Body/organization	Roles and responsibilities
	PWG-RWSSH	• Support coordinated oversight of PAP implementation • Convene quarterly meetings to review progress
	Implementing partners	• Provide direct implementation support including capacity development • Support monitoring and progress reporting
District	District administration	• District development planning (targeting RWSSH investment) • Manage and track district RWSSH investment
	District RWSSH focal points [31]	• Identify and prioritize RWSSH investment needs • Advocate for RWSSH investment with district administration • Support commune-level RWSSH capacity building and implementation
	DORD	• Provide technical support to district administrations and commune councils • Support district RWSSH focal points
	Implementing partners	• Contribute to the implementation of PAPs • Plan activities with DORD and local authorities
	District working group – RWSSH	• Manage oversight of PAP implementation • Report to PWG-RWSSH on progress
Commune	Commune councils	• Commune development planning (targeting investment) • Manage and track commune investment • Support community-level implementation
	Commune committee for women and children	• Support village-level campaigns • Advise commune councils on RWSSH investments
	Commune RWSSH focal points[32]	• Advocate for RWSSH investment • Support campaigns and capacity development • Support and build the capacity of village-level focal points and other RWSSH actors

4.2 Sustainability arrangements

Sustainability of the expected results will continue to be promoted through:

- Aligning the structure of the NAP with the Rural Development Strategic Plan. MRD's strategic budget plan will be used as the foundation for annual budget allocation consideration. The sector will continue to strengthen the implementation of programme-based budgeting and the 'performance-informed budget'
- Strengthening leadership, sense of ownership, and accountability at the national and sub-national level
- Strengthening country-wide actions through the leadership of the PWG RWSSH
- Promoting progressive attainment of commune-wide, district-wide and province-wide coverage, including the plan to enable three provinces to attain ODF status

[31] Individuals appointed by district administration to coordinate and support RWSSH implementation.
[32] Individuals appointed by commune councils to coordinate and support RWSSH implementation.

- Engaging with private sector actors as providers of WASH products and services
- Use the existing government system to report progress towards the targets, including the RWSSH MIS and MRD's reporting mechanism.

5. Financing

Reaching the access targets set for NAP 2019–2023 will involve an estimated 3.5 million people living in rural areas (705,954 people per year) gaining access to basic water supply services, and approximately 2.2 million people (452,967 people per year) to basic sanitation services. This translates into an estimated public funding cost[33] of **US$ 280.6 million**, including the total capital investment requirements: (US$ 3.0 million related to the enabling environment (Output I); US$ 201.1 million related to basic water supply, excluding in institutions (Output II); US$ 76.0 million related to basic sanitation, excluding in institutions (Output III); and US$ 0.4 million related to behaviour change (Output IV). This estimation does not factor in personnel and other related overhead costs[34]. In addition to the total public funding requirement, it is anticipated that US$ 266.8 million (US$ 106.3 million for rural water supply and US$ 160.4 million for rural sanitation) would be contributed by households through their contribution to WASH costs, through, for example, the purchasing of latrines/or latrine components. Table 7 summarizes the estimated public financial resource requirement by output of the NAP 2019–2023. The annual cost estimate is presented in Annex II.

Table 7: Estimated public costs by output

Coding	Description	Total cost (US$)
Output I	MRD, PDRDs, PWGs and local authorities have strengthened capacity to plan and coordinate, to advocate for more budget allocation, and to monitor the RWSSH programme, including in institutions (schools and health care facilities) and during emergencies	3,025,285
Output II	Rural populations, including those living in challenging environments and arsenic-affected areas, have increased equitable and sustainable access to safely managed drinking water services	201,166,119
Output III	Rural populations, including those living in challenging environments, have increased, equitable and sustainable access to safely managed sanitation services	76,038,091
Output IV	Rural populations improve hygiene behaviour	435,441
Total	**Programme cost**	**280,664,935**

The methods used for the cost estimation of the NAP II are:

- Identification of NAP II related interventions that were already costed in the NAP I, with unit costs, adjusted for inflation[35], used as a basis for estimation, particularly for actions related to enabling environment (Output I), promotional activities for water supply and sanitation (Output II and Output III), and behaviour change related actions (Output IV). Where the unit cost was not included in the NAP I, an estimation was made based experience in previous RWSSH programme implementation based on data provided by sector stakeholders.

[33] Public funding included domestic (government) and external (development partners and NGOs) sources
[34] These cost may have been estimated to be about 21 per cent of the total programme costs in NAP 2014–2018.
[35] Using an annual inflation rate of 3.29 per cent, calculated on the average for the period of 2010 and 2019 projection

- Updating the World Bank's Service Delivery Assessment Report (2015) per capita unit costing for the identified technology options for rural water supply and sanitation capital investment[36], and operations and maintenance, factoring in the inflation rate at 3.29 per cent per year, and application of assumed public and household cost assumptions.
- Adding the additional cost requirement for capital investment requirement for challenging environment for both rural water supply and sanitation based on the total severely and medium affected population living in the challenging environment[37] using the estimation cost contribute for sanitation subsidy scenario analysis (Scenario 1) [38]. For water supply, the additional cost requirement for challenging environment[39] was adapted the same proportion for sanitation.

The table below presents the costing elements used for this estimation compared to the NAP I and SDA.

Table 8: NAP II costing methodology elements, and comparison with NAP I and SDA

Element	NAP II	NAP I	SDA
Assumed baseline (and data source) and endline	2019 (CSES 2017) - 2023	2014 (CSES 2013) - 2018	2015 (JMP 2012) - 2025
Projected population increase over planning period	Yes	Not known	Yes
Capital costs – for new WASH facilities	Yes	Not consistently included	Yes
Life-span/depreciation/replacement cost – for existing WASH facilities	Yes	No	Yes
O&M costs	Yes	No	Yes
Unit costs adjusted for inflation	Yes	No	No
Bottled water included in endline planning	Yes	No	No
WASH promotion activities	Yes	Assumed yes – question on consistently applied	No - assumed to come from MRD 'operational budget'
Adjustment of costs for increased climate resilience and adaptation to challenging environments	Yes	No	No
WASH in Institutions (school and health facility) infrastructure	No	Not consistently	No

Funding sources to support the implementation of the NAP will include the national budget (classified as public domestic funding); funding from development partners and civil society organizations (classified as public external); and household contributions. Table 9 below presents the annual funding sources and gaps analysis for reaching the access targets set for NAP II. Based on data currently available, the anticipated public (domestic and external) capital investment is about US$ 20.8 million per year (37.1 per

[36] The capital investment requirements included the public investment requirement: domestic (government) and external (development partners and NGOs); and the household capital investment.

[37] Final Report: Cambodia Assessment – Affordable Sanitation in Challenging Areas in Cambodia and Lao PDR, Phase 1 Identifying Challenging Areas, Affected People and Local Sanitation Solutions (World Bank Water and Sanitation Program, 2011)

[38] Sanitation Subsidy Scenario Analysis Report.

[39] The consultation with MRD DRWS and ADB funded project rural water supply and sanitation team, the additional cost for rural water supply considering the climate change condition was varied between technology options, i.e for community pond the cost would require 50% additional cost, while climate resilient borehole would be more than double.

cent of public funding requirement). This leaves the sector with a financing gap of approximately US$ 35.3 million per year (covered about 62.9 per cent of the public funding requirement). In addition, the anticipated household leveraged contribution for the capital expenditure and operations and maintenance of about US$ 53.4 million per year.

Table 9: Estimated annual rural water supply and sanitation public funding sources and gaps

Estimated rural water supply and sanitation funding sources and gaps	US$ million/year	As percentage total
I). Funding Source:		
Public Domestic		
MRD[40]	4.8	8.6%
Public External		
MRD Foreign Aid Project (funded)[41]	7.3	12.9%
MRD Foreign Aid Project (unfunded projects)		
ODA through NGOs[42]	8.7	15.5%
Total anticipated annual public funding	**20.8**	**37.1%**
II). Cost		
NAP 2 cost/year	**56.1**	100%
III). Funding Gap		
Total anticipated annual funding gap	**35.3**	**62.9%**
IV). Anticipated household capital expenditure and operations and maintenance		
Household leveraged contribution[43]	**53.4**	

The sector will need to make efforts to improve the financing situation, through:

1. Strengthening advocacy to identify and mobilize funding for all sources, including public and private sector partnerships
2. Leveraging sub-national financing for RWSSH
3. Tracking budget allocations and expenditure through programme-based budgeting, including better tracking at sub-national level over time
4. Strengthening financial tracking in sector coordination arrangements
5. Documenting value for money for WASH investments

[40] MRD BSP2019-2021 for figure 2020 and 2021, and RGC Budget in Brief 2019, and the analysis of PB 2018 by the 25 PDRDs
[41] Budget Law 2019
[42] RGC CDC Database
[43] NAP II calculation based on SDA methodology

6. Monitoring and evaluation

The Performance Monitoring Matrix presented in Annex I shows the planned annual targets for each indicator of the RWSSH NAP II. There are five outcome indicators and 47 output indicators, including 35 indicators that have been adopted by the PAPs. A supplementary table, with definitions of each indicator, methods and frequency of data collection, and responsible agency, is presented in Annex IA. These indicators will form the basis for monitoring progress towards the NAP targets.

The first stage of RWSSH MIS was developed in 2017/2018 and has started to generate data and information on the six key indicators under NAP I, which will also be under NAP II. This fledgling MIS will be strengthened and expanded to cover additional key indicators during the NAP II period.

The situation and trends of the indicators will be reported on a regular basis. Results-based reporting with more qualitative and quantitative information on progress towards outputs and outcomes, including information on successes and challenges, will be promoted as part of the annual performance review, mid-term review and final review of the NAP and PAPs. Results-based monitoring and evaluation will ensure transparency and accountability. The schedule for performance reviews is shown in Table 8.

Table 10: Schedule of performance reviews

	Quarterly review	Annual review	Mid-term review	Final review
Schedule	End of each quarter	November/December for reporting to MRD congress	2021	2nd quarter of 2023
Methodology	• PAPs: through PWGs meetings, review key indicators • NAP: through TWG meetings, review key indicators	• PAPs: PWG meetings with national level representatives, to review annual performance targets • NAP: TWG-Secretariat (TWG-S) to lead comprehensive review of annual performance monitoring matrix during sector retreat • Results of annual reviews to be presented to TWG and MRD congress	• Comprehensive review of PAPs and NAP • PWGs and TWG-S meetings/ workshops	• Independent comprehensive evaluation

7. Conclusions

The RGC has launched the RWSSH NAP and PAPs 2019–2023 as a continuation of the NAP and PAPs 2014–2018 to provide a framework for achieving the outcome of “rural population having increased access to and use of equitable, sustainable and safe drinking water, sanitation and hygiene”. This is in line with the sector vision, the Rural Development Strategic Plan 2019–2023 and Cambodia SDG 6.

The plan covers four outputs, to be delivered through a wide range of specific activity clusters, towards the achievement of the above stated outcome.

- Output I: MRD, PDRDs, PWGs and local authorities have strengthened capacity to plan and coordinate, to advocate for more budget allocation, and to monitor the RWSSH programme, including in institutions and during emergencies
- Output II: Rural populations, including those living in challenging environments and arsenic-affected areas, have increased equitable and sustainable access to safely managed drinking water services
- Output III: Rural populations, including those living in challenging environments, have increased equitable and sustainable access to safely managed sanitation services
- Output IV: Rural populations improve hygiene behaviours related to safe drinking water, sanitation and hand washing.

The NAP and PAPs will be implemented through government agencies, particularly MRD and its line agencies that have been mandated to coordinate, facilitate, implement, monitor and evaluate RWSSH development. MRD will work closely with development partners and civil society organizations to mobilize financial resources, both internal and external, to implement the plans. MRD recognizes the important role that the private sector plays in sector development, and will strengthen its participation in the implementation of the plans.

To ensure the clarity of the implementation process, the first year will include a focus on the development and dissemination of implementation and technical guidelines, clarification of roles and responsibilities towards the NAP and PAPs among key staff of the DRHC and DRWS, and the commencement of capacity development. The development of the guidelines will be informed by, among other things, existing similar guidelines within the RWSSH sector, as well as initiatives from related sectors, such as

Strengthening the MIS will be important for effective monitoring and implementation, as well as contributing to good sector governance, particularly improving accountability. Regular review of progress towards the targets, the above listed assumptions and learning events are expected to result in continuous improvement of the implementation. Programme-based budgeting is expected to ensure that financial and human resources focus fully on results, and that the monitoring and evaluation of results is used to modify the plans and the delivery of programmes.

In addition to targets for basic services, the NAP and PAPs 2018–2023 seek to reach the higher targets of safely managed water supply and sanitation services. These will require new skills for designing, planning and monitoring.

Overall, successful implementation of the NAP and PAPs 2019–2023 requires improved capacity, higher professionalism, stronger coordination, innovations, and commitment to addressing inequality and to improving sector governance.

Annex I: Performance monitoring matrix

Note: *Indicators in bold represent relevance to cross-cutting issues*

Activity clusters	INDICATORS	Indicator code in PAP	Unit	2019	2020	2021	2022	2023	Baseline 2018 (data source)	Responsible agency
Output I: MRD, PDRDs, PWGs and local authorities have strengthened capacity to plan and coordinate, to advocate for increased budget allocation, and to monitor the RWSSH programme, including in institutions (schools and health care facilities) and during emergencies										
A Improve the functioning of RWSSH coordination structures at national and sub-national levels, particularly on cross-sectoral links	**1.1 # PWGs holding at least three meetings, including annual meeting, to monitor the progress of PAP II; at least one meeting includes WASH and nutrition**	1.1	Province	25	25	25	25	25	0 (PAP I review)	PWGs
	1.2 # Inter-sectoral coordination meetings (TWG, WASH in schools, WASH in health care facilities, WASH and nutrition)	N/A	Meeting	At least 3 x per structure	At least 3 x per structure	At least 3 x per structure	At least 3 x per structure	At least 3 x per structure	TWG had quarterly meetings, others not regularly	TWG and TWG-S

Activity clusters	INDICATORS	Indicator code in PAP	Unit	2019	2020	2021	2022	2023	Baseline 2018 (data source)	Responsible agency
	1.3 # Sectoral coordination meetings/ learning events (TWG-S/ SWGs – RuSH, DRWS, sanitation in challenging environments, WatSan etc.)	N/A	Meetings /events	At least 3	At least 3	At least 3	At least 3	At least 3	TWG-S meets quarterly; RuSH and WatSan: monthly; rural water supply, sanitation in challenging environments: not regularly	TWG-S SWGs of RuSH, rural water supply, sanitation in challenging environments and WatSan
I. B Develop national capacity on RWSSH based on a CDP[44]	**1.4 # PWGs completed training or learning based on CDP with at least 30% female participation**	N/A	PWG	12	25	25	Completed	Completed	N/A	PWGs
	1.5 # District administrations with officials responsible for RWSSH completed training courses based on CDP with at least 30% female participation	1.2	District	40	100	165	Completed	Completed	N/A	PWGs
	1.6 # PDRD staff members responsible for RWSSH completed training/learning based on CDP with at least 30% female participation	N/A	Person	25	75	Completed	Completed	Completed	N/A	PWGs

[44] To be established; will include a review of functions and responsibilities.

Activity clusters	INDICATORS	Indicator code in PAP	Unit	2019	2020	2021	2022	2023	Baseline 2018 (data source)	Responsible agency
	1.7 # MRD staff members responsible for RWSSH completed training/learning based on CDP with at least 30% female participation	N/A	Person	10	25	Completed	Completed	Completed	N/A	DRWS and DRHC
I. C Expand and implement national RWSSH MIS	1.8 # Provinces with at least 50% of PAP II indicators on RWSSH performance collected and recorded in the national RWSSH MIS	1.3	Province	25	25	25	25	25	N/A	PWGs
I. D Develop, review, disseminate and monitor the adoption of RWSSH regulatory frameworks and guidelines	**1.9 # National technical guidelines developed and endorsed**	1.4	Document	Endorsed guidelines on ODF plus (including child and animal faeces) faecal sludge management, sanitation in challenging environments, menstrual hygiene	Adopted and monitored	Adopted and monitored	Adopted and monitored	Adopted and monitored	N/A	DRHC DRWS

Activity clusters	INDICATORS	Indicator code in PAP	Unit	2019	2020	2021	2022	2023	Baseline 2018 (data source)	Responsible agency
				management promotion; pro-poor principles for rural water supply						
	1.10 # Regulations established and issued (e.g. related to private sector engagement in community water supply schemes)	N/A	Doc	Endorsed reg. on community-managed rural water supply systems (piped system and bottled water production, etc.)	Established	Executed	Executed	Executed	N/A	DRWS
I. E Advocacy for increased national budget allocation for RWSSH	1.11 % Annual increase of MRD budget for rural water supply	N/A	%	At least 20	At least 20	At least 20	At least 20	At least 20	2018 to 2019 increased by 20% (Dept. of Planning, MRD)	DRWS
	1.12 % Annual increase of MRD budget for RuSH	N/A	%	At least 10	At least 10	At least 10	At least 10	At least 10	2018–2019 decreased by 23 % (Dept of Planning, MRD)	DRHC

Activity clusters	INDICATORS	Indicator code in PAP	Unit	2019	2020	2021	2022	2023	Baseline 2018 (data source)	Responsible agency
I. F Technical support and advocacy for increased sub-national budget allocations for RWSSH	1.13 # Districts with budget allocation for RWSSH in the district investment plan	1.5	Districts	15	30	50	70	78	15 pilot districts decentralization and deconcentration (D&D) on sanitation (DRHC)	PWGs
	1.14 # Communes with budget allocation for rural water supply in the commune investment plan	N/A	Commune	605	805	1,005	1,205	1,400	405 (MIS)	PWGs
	1.15 # Communes with budget allocation for RuSH in the commune investment plan	N/A	Commune	607	807	1,007	1,207	1,400	407 (MIS)	PWGs
	1.16 # Provinces with emergency preparedness and response plans for RWSSH endorsed at the provincial level	1.8	Province	6	10	16	16	16	Brief section on WASH in guidelines of provincial committee for disaster management (report on disaster management 2014)	PWGs
I. G Expand and strengthen districts with transferred	1.17 # Districts with rural water supply functions transferred (D&D)	N/A	District	43	54	65	76	87	32 (DRWS)	DRWS

Activity clusters	INDICATORS	Indicator code in PAP	Unit	2019	2020	2021	2022	2023	Baseline 2018 (data source)	Responsible agency
functions for RWSSH	1.18 # Districts with RuSH functions transferred (D&D)	N/A	District	20	25	30	35	40	15 (DRHC)	DRHC
Output II. Rural populations, including those living in challenging environments and arsenic-affected areas, have increased equitable and sustainable access to safely managed drinking water services										
II. A Establish new and/or rehabilitated community water supply facilities	**2.1 % Poor households with access to basic water supply services that are available all year round and are climate resilient**	2.1	%	61	63	65	67	70	61% (UNICEF / WHO Joint Monitoring Programme 2017)	DRWS
	2.2 % Households in challenging environments with access to basic water supply services that are available all year round and are climate resilient	2.2	%	40 (TBC upon baseline availability)	45	55	60	70	Assuming less than national average of 58.7% (CSES) 2017	DRWS
	2.3 # Climate-resilient piped water supply systems managed by a community in compliance with MRD's rural water supply technical design and construction supervision manual[45]	2.5	Piped system	(At least 43 based on final review of PAPs 2019–2023)	200	450	650	770	TBC	DRWS

[45] Draft 2015 to be endorsed.

Activity clusters	INDICATORS	Indicator code in PAP	Unit	2019	2020	2021	2022	2023	Baseline 2018 (data source)	Responsible agency
	2.4 # Climate-resilient bottled water systems[46] managed by a community in compliance with MRD's regulation on community-managed rural water supply systems[47]	2.6	Bottled water system	100 (TBC based on final review of PAPs 2019–2023)	260	275	285	300	NA	DRWS
	2.5 # Climate-resilient boreholes in compliance with MRD's rural water supply technical design and construction supervision manual		Borehole	2000	3000	4000	5000	5500	NA (targets are new boreholes)	DRWS
	2.6 # Protected dug wells in compliance with MRD's rural water supply technical design and construction supervision manual		Protected dug well	300	500	800	1400	1000	NA (targets are new protected dug wells)	DRWS

[46] The implementation arrangement for bottled water systems will tentatively be focusing in the areas where no other technology option available, such as piped system. The engagement with the private sector will also be made to promote private sector investment on rural bottled water systems

[47] To be developed, see indicator 1.10.

Activity clusters	INDICATORS	Indicator code in PAP	Unit	2019	2020	2021	2022	2023	Baseline 2018 (data source)	Responsible agency
	2.7 # household rainwater harvesting systems in compliance with MRD's rural water supply technical design and construction supervision manual		Rainwater system	500	1000	1000	1000	500	NA (targets are new rainwater harvesting systems)	DRWS
II. B Develop and implement rural WSP	**2.8 # Communes implementing climate-resilient WSP based on national guideline for rural WSP**	2.7	Commune	100	250	400	470	500	28 (NAP I review report 2018)	DRWS
II. C Improve water supply facilities in rural schools and health centres to meet national standards, in cooperation with MoH and MoEYS	**2.9 % Public health care facilities (health centres and referral hospitals) with access to basic water supply**	2.8	% Health care facility	93	95	97	99	100	93 (Health Strategic Plan2016-2020)	MRD and MoH

Activity clusters	INDICATORS	Indicator code in PAP	Unit	2019	2020	2021	2022	2023	Baseline 2018 (data source)	Responsible agency
	2.10 % of schools with safe water	2.9	% Schools	36.2 (pre-school)	42.1 (pre-school)	48.1 (pre-school)	54.0 (pre-school)	60.0 (pre-school)	30.2 (pre-school) (Education Strategic Plan 2019-2023)	MRD/DRWS and MoEYS /School Health Department
				60.2 (primary school)	61.2 (primary school)	62.1 (primary school)	63.1 (primary school)	64.0 (primary school)	59.3 (primary school) (Education Strategic Plan 2019-2023)	
				43.9 (college)	45.4 (college)	47.0 (college)	48.5 (college)	50.0 (college)	42.4 (college) (Education Strategic Plan 2019-2023)	
				55.7 (lycée)	56.8 (lycée)	57.8 (lycée)	58.9 (lycée)	60.0 (lycée)	54.6 (lycée) (Education Strategic Plan 2019-2023)	
II. D Establish rural water supply inventory	2.11 # Districts that collect data on improved water supply	2.10	District	Guide and tools developed	50	100	150	191	0 (DRWS)	DRWS
II. E Water quality monitoring	2.12 # Provinces with annual report on water quality monitoring based on national guideline for drinking water quality	N/A	Province	Guide, template developed	5	15	20	25	0 (DRWS)	DRWS

Activity clusters	INDICATORS	Indicator code in PAP	Unit	2019	2020	2021	2022	2023	Baseline 2018 (data source)	Responsible agency
Output III. Rural populations, including those living in challenging environments, have increased, equitable and sustainable access to safely managed sanitation services										
III. A Develop and implement government-led ODF provincial plans, including use of smart subsidies for poor households	3.1 % Poor households with access to basic sanitation services	3.1	%	15	28	46	63	70	12.3 (UNICEF / WHO Joint Monitoring Programme)	DRHC
	3.2 % Households in challenging environments with access to basic sanitation services	3.2	%	10	28	46	63	70	N/A	DRHC
	3.3 # ODF Villages	3.3	Village	3,421	6,140	8,859	11,578	12,700	1,789 (MIS)	DRHC
	3.4 # ODF Communes	3.4	Commune	151	283	415	547	600	72 (DRHC)	DRHC
	3.5 # ODF Districts	3.5	District	6	13	20	27	30	2 (DRHC)	DRHC
	3.6 # ODF Provinces	N/A	Province	0	0	0	1	4	0	DRHC
	3.7 # ODF Villages that manage to sustain the status for at least three years	3.6	Village	750	2,000	3,250	4,500	5,000	N/A	DRHC
III. B Promote structured engagement between markets and community-based sanitation approaches, with particular focus on marginalized groups	3.8 # Districts with entrepreneurs providing basic sanitation products and services	N/A	District	179	185	190	195	197	174 (MIS)	DRHC
	3.9 # Districts with entrepreneurs providing off-site safe faecal sludge management services	3.7	District	13	36	59	81	90	N/A	DRHC

Activity clusters	INDICATORS	Indicator code in PAP	Unit	2019	2020	2021	2022	2023	Baseline 2018 (data source)	Responsible agency
and communities in challenging environments	3.10 # Districts with entrepreneurs providing sanitation products and services for sanitation in challenging environments	3.8	District	5	14	23	32	36	N/A	DRHC
	3.11 % Households using safely managed on-site treatment	3.9	%	15	20	25	30	35	N/A	DRHC
III. C Improve sanitation and hygiene facilities in rural schools and health centres to meet national standards, in cooperation with MoH and MoEYS	3.12 % Public health care facilities with basic sanitation	3.10	%	69	90	100	100	100	39.3 (2015) (Health Strategic Plan 2016-2020)	MRD and MoH
	3.13 % of schools with latrines and hand-washing facilities	3.11	% school (with latrine)	33.6 (pre-school)	45.2 (pre-school)	56.8 (pre-school)	68.4 (pre-school)	80.0 (pre-school)	22.0 (pre-school) (Education Strategic Plan 2019-2023)	MRD and MoEYS
				91.5 (primary school)	92.4 (primary school)	93.2 (primary school)	94.1 (primary school)	95.0 (primary school)	90.6 (primary school) (Education Strategic Plan 2019-2023)	
				91.2 (college)	92.2 (college)	93.1 (college)	94.1 (college)	95.0 (college)	90.3 (college) (Education Strategic Plan 2019-2023)	
				97.7 (lycée)	98.3 (lycée)	98.8 (lycée)	99.4 (lycée)	100.0 (lycée)	97.1 (lycée) (Education Strategic Plan 2019-2023)	

Activity clusters	INDICATORS	Indicator code in PAP	Unit	2019	2020	2021	2022	2023	Baseline 2018 (data source)	Responsible agency
			% school (with hand-washing facility)	35.0 (pre-school)	41.3 (pre-school)	47.5 (pre-school)	53.8 (pre-school)	60.0 (pre-school)	28.8 (pre-school) (Education Strategic Plan 2019-2023)	
				58.4 (primary school)	60.0 (primary school)	61.7 (primary school)	63.3 (primary school)	65.0 (primary school)	56.7 (primary school) (Education Strategic Plan 2019-2023)	
				41.7 (college)	42.5 (college)	43.4 (college)	44.2 (college)	45.0 (college)	40.9 (college) (Education Strategic Plan 2019-2023)	
				55.9 (lycée)	56.9 (lycée)	58.0 (lycée)	59.0 (lycée)	60.0 (lycée)	54.9 (lycée) (Education Strategic Plan 2019-2023)	
Output IV. Rural populations improve hygiene behaviour										
IV. A Develop, implement and review WASH BCC plan for improved hygiene behaviour in communities	4.1 % Households that always practice drinking water treatment	4.1	%	80	83	85	88	90	71.1 (CSES 2017)	DRHC
	4.2 % Households that always practice safe storage of drinking water for drinking and food preparation for children under 5 years	N/A	%	50	55	60	65	70	N/A	DRHC

Activity clusters	INDICATORS	Indicator code in PAP	Unit	2019	2020	2021	2022	2023	Baseline 2018 (data source)	Responsible agency
	4.3 % Caregivers who safely manage faeces of children under 5 years by disposal in to the latrine	4.2	%	40	50	70	80	90	31.4% (WSP – UNICEF child faeces disposal in Cambodia, 2010)	DRHC
	4.4 % Caregivers of children under 5 years who practice hand washing at critical times	4.3	%	20	30	40	50	60	11 (KAP survey 2016)	DRHC
	4.5 % Households using latrines with a place for hand washing with soap	4.4	%	80	83	85	88	90	76 (KAP survey 2016)	DRHC
	4.6 # Communes promoting menstrual hygiene management	N/A	Commune	100	300	400	500	600	N/A	DRHC
IV. B Develop, monitor and review WASH BCC plan for improved hygiene behaviour of school children	4.7 % Schools with children who understand and practice hand washing with soap at critical times	4.5	%	75	80	85	88	90	71 (KAP survey 2016)	DRHC

Annex IA: Supplement to performance monitoring matrix

INDICATORS	Definition	Numerator	Denominator	Agency responsible for generating data and/or information	Agency responsible for consolidating, analysing and reporting to TWG	Frequency of reporting
Output I: MRD, PDRDs, PWGs and local authorities have strengthened capacity to plan and coordinate, to advocate for more budget allocation, and to monitor the RWSSH programme, including in institutions (schools and health care facilities) and during emergencies						
1.1 # of PWGs holding at least 3 meetings, including the annual meeting, to monitor the progress of PAP II. At least one meeting includes an agenda on WASH and nutrition.	Self-explanatory, PWG-Secretariat (PWG-S) will be recommended to submit meeting schedules early in the year to TWG-S	# of PWGs holding at least 3 meetings, including the annual meeting, to monitor the progress of PAP II. At least one meeting includes an agenda on WASH and nutrition.	Not applicable (N/A)	PWGs	TWG-S	Quarterly
1.2 # Inter-sectoral coordination meetings (TWG, WASH in schools, WASH in health care facilities, WASH and nutrition)	Self-explanatory	# Inter-sectoral coordination meetings	N/A	TWG-S	TWG-S	Quarterly
1.3 # Sectoral coordination meetings/ events (TWG-S/ SWGs – RuSH, DRWS, sanitation in challenging environments, etc.)	Coordination meetings within RWSSH sector, major learning events could be included	# meetings/major learning events	N/A	Chairs of respective SWGs	TWG-S	Quarterly
1.4 # PWGs completed training or	A CDP covering review of functions and responsibilities relating to	# PWGs completed training/learning based on CDP	N/A	PWG-S	TWG-S	Annually from Year 2

INDICATORS	Definition	Numerator	Denominator	Agency responsible for generating data and/or information	Agency responsible for consolidating, analysing and reporting to TWG	Frequency of reporting
learning based on CDP	implementation of NAP/PAPs; analysis of skills to be developed; and recommended methods for development (the who, what, where, when, why and how)					
1.5 # Districts with administration officials responsible for RWSSH completed training courses based on CDP	Self-explanatory	# Districts with administration officials responsible for RWSSH completed training courses based on CDP	N/A	PWG-S	TWG-S	Annually from Year 2
1.6 # PDRD staff members responsible for RWSSH completed training/learning based on CDP	Self-explanatory	# PDRD staff members responsible for RWSSH completed training/learning based on CDP	N/A	PWG-S	TWG-S	Annually from Year 2
1.7 # MRD staff members responsible for RWSSH completed training/learning based on CDP	Self-explanatory	# MRD staff members responsible for RWSSH completed training/learning based on CDP	N/A	DRHC and DRWS	TWG-S	Annually from Year 2

INDICATORS	Definition	Numerator	Denominator	Agency responsible for generating data and/or information	Agency responsible for consolidating, analysing and reporting to TWG	Frequency of reporting
1.8 # Provinces with at least 50% of PAP II indicators on RWSSH performance collected and recorded in the national RWSSH MIS	PAPs have included 35 indicators and PWGs are expected to ensure the status of all indicators is reported. Provinces that manage to report at least 50% of these indicators will be accounted for.	# Provinces with at least 50% of PAP II indicators on RWSSH performance collected and recorded in the national RWSSH MIS	N/A	PWG-S	MIS Team	Annually
1.9 # National technical guidelines developed and endorsed	Guidelines may include promoting safely managed drinking water and safely managed sanitation; prioritizing the most disadvantaged communities; promoting women in leadership; effective advocacy, etc.	# National technical guidelines developed and endorsed	N/A	DRWS and DRHC	TWG-S	Annually
1.10 # Regulations (e.g. related to private sector engagement in community water supply schemes) issued	Regulation may be prioritized on private sector participation in establishing community managed bottled water system	# Regulations (e.g. related to private sector engagement in community water supply schemes) issued	N/A	DRWS	TWG-S	Annually
1.11 % Annual increase of MRD budget for rural water supply	MRD budget allocation for rural water supply	Total annual MRD budget for rural water supply	Total MRD budget for rural development	DRWS	DRWS	Annually

INDICATORS	Definition	Numerator	Denominator	Agency responsible for generating data and/or information	Agency responsible for consolidating, analysing and reporting to TWG	Frequency of reporting
1.12 % Increase of annual MRD budget for rural sanitation and hygiene	MRD budget allocation for RuSH	Total annual MRD budget RuSH	Total MRD budget for rural development	DRHC	DRHC	Annually
1.13 # Districts with budget allocation for RWSSH in the district investment plan	Self-explanatory	# Districts with budget allocation for RWSSH in the district investment plan	N/A	PWG	TWG-S	Annually
1.14 # Communes with budget allocation for rural water supply in commune investment plans	Self-explanatory	# Communes with budget allocation for rural water supply in commune investment plans	N/A	PWGs	MIS Team	Annually
1.15 # Communes with budget allocation for RuSH in commune investment plans	Self-explanatory	# Communes with budget allocation for RuSH in commune investment plans	N/A	PWGs	MIS Team	Annually
1.16 # of provinces with emergency preparedness and response plans for RWSSH endorsed at the provincial level	Provinces to be encouraged to develop specific WASH emergency preparedness and response plans. Could be a stand-alone plan or part of the provincial emergency preparedness and response plans	1.8 Number of provinces with emergency preparedness and response plans for RWSSH endorsed at the provincial level	N/A	PWGs	TWG-S	Annually

INDICATORS	Definition	Numerator	Denominator	Agency responsible for generating data and/or information	Agency responsible for consolidating, analysing and reporting to TWG	Frequency of reporting
1.17 # Districts with rural water supply functions transferred (D&D)	Districts that have assumed the operation and maintenance functions transferred under D&D for rural water supply	# Districts with rural water supply functions transferred (D&D)	N/A	D&D focal points DRWS	TWG-S	Annually
1.18 # Districts with RuSH functions transferred (D&D)	Districts that have assumed the RuSH functions transferred under D&D for rural water supply	# Districts with RuSH functions transferred (D&D)	N/A	D&D focal points DRHC	TWG-S	Annually
Output II. Rural populations, including those living in challenging environments and arsenic-affected areas, have increased equitable and sustainable access to safely managed drinking water services						
2.1 % of poor households with access to basic water supply services	Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing	Number of poor households (ID Poor households) with access to basic rural water supply	Total number of poor households	PWGs	DRWS	Quarterly
2.2 % Households in challenging environments with access to basic water supply services	Challenging geographical and environmental conditions, such as regions prone to flooding, ground water contamination, hard rock areas, floating villages	# Households in challenging environments with access to basic water supply services	Total number of households in challenging environments	PWGs	DRWS	Quarterly

INDICATORS	Definition	Numerator	Denominator	Agency responsible for generating data and/or information	Agency responsible for consolidating, analysing and reporting to TWG	Frequency of reporting
2.3 # Climate resilient piped water supply systems managed by a community in compliance with MRD's rural water supply technical design and construction supervision manual	Community-owned piped water supply that will deliver benefits under all potential future climate scenarios and can cope with uncertainties over future conditions: the facility is funded by NGOs or MRD and operated by a local operator under a water management committee of the commune council	# Piped water supply systems managed by a community	N/A	PWGs	DRWS	Quarterly
2.4 # Climate resilient bottled water systems managed by a community in compliance with MRD's rural water supply technical design and construction supervision manual	Community-owned kiosks that will deliver benefits under all potential future climate scenarios and can cope with uncertainties over future conditions, operated by a local entrepreneur selling 20L bottles through local sales points or directly to customers through home delivery	# Bottled water systems managed by a community	N/A	PWGs	DRWS	Quarterly

INDICATORS	Definition	Numerator	Denominator	Agency responsible for generating data and/or information	Agency responsible for consolidating, analysing and reporting to TWG	Frequency of reporting
2.5 # Climate-resilient boreholes in compliance with MRD's rural water supply technical design and construction supervision manual	A deep hole that has been driven, bored or drilled with the purposes of reaching ground water supplies that will deliver benefits under all potential future climate scenarios and can cope with uncertainties over future conditions.	# boreholes constructed	N/A	PWGs	DRWS	Quarterly
2.6 # Protected dug wells in compliance with MRD's rural water supply technical design and construction supervision manual	A protected dug well is defined as a dug well that is protected from runoff water through a well lining or casting that is raised above ground level and has a platform that diverts spilled water away from the well and is covered so that bird droppings and animals can't fall down the hole.	# protected dug wells constructed	N/A	PWGs	DRWS	Quarterly
2.7 # household rainwater harvesting systems in compliance with MRD's rural water supply technical design and construction supervision manual	A rainwater catchments tank is completely closed, have a tap to withdraw and have a capacity of at least 3,000 liters.	# household rainwater harvesting systems constructed	N/A	PWGs	DRWS	Quarterly

INDICATORS	Definition	Numerator	Denominator	Agency responsible for generating data and/or information	Agency responsible for consolidating, analysing and reporting to TWG	Frequency of reporting
2.8 # Communes implementing WSP based on national guideline for rural WSP	A systematic risk assessment and risk prevention approach encompassing all steps in the water supply system, from catchment through to the consumer. Simplified risk assessments with a stronger focus on risks related to transport and storage are more appropriate for community-managed systems	Number of communes that have developed and implemented WSPs incorporating climate change adaptation and disaster risk management principles as per national guidelines	N/A	PWGs	DRWS	Quarterly
2.9 % Public health care facilities with basic water supply	Basic water supply: the main source of water is an improved source, located on premises, from which water is available. On premises: water is accessed within buildings, or within the facility's grounds.	# Health care facilities with basic water supply	Total # health care facilities	PWGs	DRWS	Quarterly
2.10 % Schools with safe water	Drinking water from an improved source and water is available at the school	# Schools with safe water	Total # schools	PWGs	DRWS	Quarterly

INDICATORS	Definition	Numerator	Denominator	Agency responsible for generating data and/or information	Agency responsible for consolidating, analysing and reporting to TWG	Frequency of reporting
2.11 # Districts that collect data on improved water supply	Improved sources include: piped water, bore holes or tube wells, protected dug wells, protected springs, rainwater and packaged or delivered water.	# Districts that collect data on improved water supply	N/A	PWGs	DRWS	Quarterly
2.12 # Provinces with annual report on water quality monitoring based on national guideline for drinking water quality	Self-explanatory	# Provinces with annual report on water quality monitoring based on national guideline for drinking water quality	N/A	PWGs	DRWS	Quarterly
Output III. Rural populations, including those living in challenging environments, have increased, equitable and sustainable access to safely managed sanitation services						
3.1 Percentage of poor households with access to basic sanitation services	Basic: use of improved facilities which are not shared with other households	# Poor households with access to basic sanitation services	Total number of poor households	PWGs	DRHC	Quarterly
3.2 % Households in challenging environments with access to basic sanitation services	Challenging geographical and environmental conditions such as regions prone to flooding and floating villages	# Households in challenging environments with access to basic sanitation services	Total number of households in challenging environments	PWGs	DRHC	Quarterly

INDICATORS	Definition	Numerator	Denominator	Agency responsible for generating data and/or information	Agency responsible for consolidating, analysing and reporting to TWG	Frequency of reporting
3.3 # ODF villages	As per CLTS guidelines	# ODF villages	N/A	PWGs	DRHC	Quarterly
3.4 # ODF communes	As per CLTS guidelines	# ODF communes	N/A	PWGs	DRHC	Quarterly
3.5 # ODF districts	As per CLTS guidelines	# ODF districts	N/A	PWGs	DRHC	Quarterly
3.6 # ODF provinces	As per CLTS guidelines	# ODF provinces	N/A	PWGs	DRHC	Quarterly
3.7 # ODF villages that manage to sustain status for at least 3 years	As per CLTS guidelines	3.6 # ODF villages that manage to sustain status for at least 3 years	N/A	PWGs	DRHC	Quarterly
3.8 # Districts with entrepreneurs providing basic sanitation products and services	Sanitation entrepreneurs are private sector entrepreneurs involved in sanitation business. May include production and sales of sanitation materials, construction of latrines, sanitation suppliers that have been operational.	# Districts with entrepreneurs providing basic sanitation products and services	N/A	PWGs	DRHC	Quarterly
3.9 # Districts with entrepreneurs providing off-site faecal sludge management services	Services to collect sludge for treatment off-site. Faecal sludge management includes 1. Faecal sludge collection 2. Faecal sludge emptying and haulage 3. Treatment 4. Reuse/storage.	# Districts with entrepreneurs providing off-site faecal sludge management services	N/A	PWGs	DRHC	Quarterly

INDICATORS	Definition	Numerator	Denominator	Agency responsible for generating data and/or information	Agency responsible for consolidating, analysing and reporting to TWG	Frequency of reporting
3.10 # Districts with entrepreneurs providing sanitation products and services for sanitation in challenging environments	Sanitation entrepreneurs as defined above. Challenging environments as defined in the list of definitions	# Districts with entrepreneurs providing sanitation products and services for sanitation in challenging environments	N/A	PWGs	DRHC	Quarterly
3.11 % Households using safely managed on-site treatment	Households that manage safe disposal of excreta on site (e.g. double pit or vault latrines), faecal sludge treatment is conducted on site	# Households using safely managed on-site treatment	Total # households	PWGs	DRHC	Quarterly
3.12 % Public health care facilities with basic sanitation	Improved and usable sanitation facilities, with at least one toilet dedicated for staff, at least one sex-separated toilet with menstrual hygiene facilities, and at least one toilet accessible for users with limited mobility	# Health care facilities with basic sanitation	Total # of health care facilities	PWGs	DRHC	Quarterly
3.13 % Schools with latrines and hand-washing facilities	Functional latrine and hand-washing facilities with water and soap available at the school	# Schools with latrine and hand-washing facilities	Total # schools	PWGs	DRHC	Quarterly

INDICATORS	Definition	Numerator	Denominator	Agency responsible for generating data and/or information	Agency responsible for consolidating, analysing and reporting to TWG	Frequency of reporting
Output IV. Rural populations improve hygiene behaviour						
4.1 % Households that always practice drinking water treatment	Treatment of drinking water using sedimentation (settling, coagulation), filtration (biosand filters, ceramic filters, membrane filters), disinfection (chlorine, solar, ultraviolet, pasteurization, boiling). D: Total number of households	# Households that always practice drinking water treatment	Total number of households	PWGs	DRHC	Annually
4.2 % Households that always practice safe storage of drinking water for preparing food and drink for children under 5 years	Safe storage: covered, narrow opening spigot, beyond reach of animals, clean (free of dirt, debris, garbage, faecal matter, etc.)	# Households reported / observed always storing drinking water safely	Total # Households surveyed	DRHC focal person for hygiene	DRHC	As per KAP survey schedule
4.3 % Caregivers who safely manage faeces of children under 5 years by disposal in to the latrine	Safely manage: Enable children to defecate into a potty, disposal of child faeces in a latrine, or assist children using latrine	Number of caregivers reported as safely managing faeces of children under 5 years	Total number of care givers of children under 5 years surveyed	DRHC focal person for hygiene	DRHC	As per KAP survey schedule

INDICATORS	Definition	Numerator	Denominator	Agency responsible for generating data and/or information	Agency responsible for consolidating, analysing and reporting to TWG	Frequency of reporting
4.4 % Caregivers of children under 5 years who practice hand washing at critical times	Critical times are: before eating, after using toilet, before preparing food, before feeding children, after cleaning an infant who has defecated, after touching animals and after disposing of animal faeces	Number of caregivers who reported washing hands with soap at critical times	Total number of care givers of children under 5 years surveyed	DRHC focal person for hygiene	DRHC	As per KAP survey schedule
4.5 % Households using latrine with a place for hand washing with soap	Self-explanatory	Number of households observed to have a place for hand washing with water and soap available	Total number of households in the survey	DRHC focal person for hygiene	DRHC	KAP survey

INDICATORS	Definition	Numerator	Denominator	Agency responsible for generating data and/or information	Agency responsible for consolidating, analysing and reporting to TWG	Frequency of reporting
4.6 Number of communes promoting menstrual hygiene management	Menstrual hygiene management promotion covers: 1) awareness raising and advocacy; 2) managing menstruation hygienically (ensuring adequate water, cleaning and washing materials and private spaces); and 3) safe reuse, collection and disposal of menstrual waste with dignity in an environmentally safe manner	Number of communes	N/A	PWG report	DRHC	Annually
4.7 % Schools with children who understand and practice hand washing at critical times	Self-explanatory	# School children who reported hand washing with soap at critical times	N/A	DRHC focal person for hygiene	DRHC	As per KAP survey schedule

Annex II: Annual cost estimates

Coding	Description	Cost by year (US$'000)					Total cost (US$'000)
		2019	2020	2021	2022	2023	
Total	**Programme cost**	**54,719.85**	**57,719.08**	**57,748.15**	**57,207.22**	**53,270.64**	**280,664.94**
Output I	**MRD, PDRDs, PWGs and local authorities have strengthened capacity to plan and coordinate, to advocate for more budget allocation, and to monitor the RWSSH programme, including in institutions (schools and health care facilities) and during emergencies**	**684.18**	**689.31**	**613.93**	**522.98**	**514.89**	**3,025.28**
Activity cluster	**A** Improve the functioning of RWSSH coordination structures at national and sub-national levels particularly on cross-sectoral links	40.37	40.37	40.37	40.37	40.37	201.85
Activity cluster	**I. B** Develop national capacity on RWSSH based on a CDP to be established. It will include a review of functions and responsibilities.	118.74	118.66	65.95	-	-	303.35
Activity cluster	**I. C** Expand and implement national RWSSH MIS	106.83	106.83	106.83	106.83	106.83	534.15
Activity cluster	**I. D** Develop, review, disseminate and monitor the adoption of RWSSH regulatory frameworks and guidelines	49.57	24.79	24.79	24.79	24.79	148.71
Activity cluster	**I. E** Advocate for increased national budget allocation for RWSSH	10.00	10.00	10.00	10.00	10.00	50.00
Activity cluster	**I. F** Technical support and advocacy for increased sub-national budget allocation for RWSSH	110.62	140.62	117.95	92.95	84.86	546.99
Activity cluster	**I. G** Expand and strengthen districts with transferred functions for RWSSH	248.05	248.05	248.05	248.05	248.05	1,240.24
Output II	**Rural populations, including those living in challenging environments and arsenic-affected areas, have increased equitable and sustainable access to safely managed drinking water services**	**40,088.89**	**40,470.80**	**40,525.95**	**40,126.62**	**39,953.86**	**201,166.12**

Activity cluster	**II. A** Establish new and/or rehabilitated community water supply facilities	39,759.13	39,759.13	39,759.13	39,759.13	39,759.13	198,795.66
Activity cluster	**II. B** Develop and implement rural WSP	309.76	645.34	645.34	301.16	129.07	2,030.66
Activity cluster	**II. C** Improve water supply facilities in rural schools and health centres to meet national standards, in cooperation with MoH and MoEYS	-	-	-	-	-	-
Activity cluster	**II. D** Establish rural water supply inventory	10.00	11.17	11.17	11.17	10.50	54.02
Activity cluster	**II. E** Water quality monitoring	10.00	55.16	110.31	55.16	55.16	285.78
Output III	**Rural populations, including those living in challenging environments, have increased, equitable and sustainable access to safely managed sanitation services**	**13,870.53**	**16,509.18**	**16,506.84**	**16,504.50**	**12,647.03**	**76,038.09**
Activity cluster	**III. A** Develop and implement government-led ODF provincial plans, including use of smart subsidies for poor households	13,828.44	16,420.31	16,420.31	16,420.31	12,611.95	75,701.32
Activity cluster	**III. B** Promote structured engagement between market and community-based sanitation approaches, with particular focus on marginalized groups and communities in challenging environments	42.10	88.87	86.53	84.19	35.08	336.77
Activity cluster	**III. C** Improve sanitation and hygiene facilities in rural schools and health centres to meet national standards, in cooperation with MoH and MoEYS	-	-	-	-	-	-
Output IV	**Rural population improves hygiene behaviour**	**76.24**	**49.79**	**101.43**	**53.12**	**154.87**	**435.44**
Activity cluster	**IV. A** Develop, implement and review WASH BCC plan for improved hygiene behaviour in communities	76.24	49.79	101.43	53.12	154.87	435.44
Activity cluster	**IV. B** Develop, monitor and review WASH BCC plan for improved hygiene behaviour of school children	-	-	-	-	-	-