



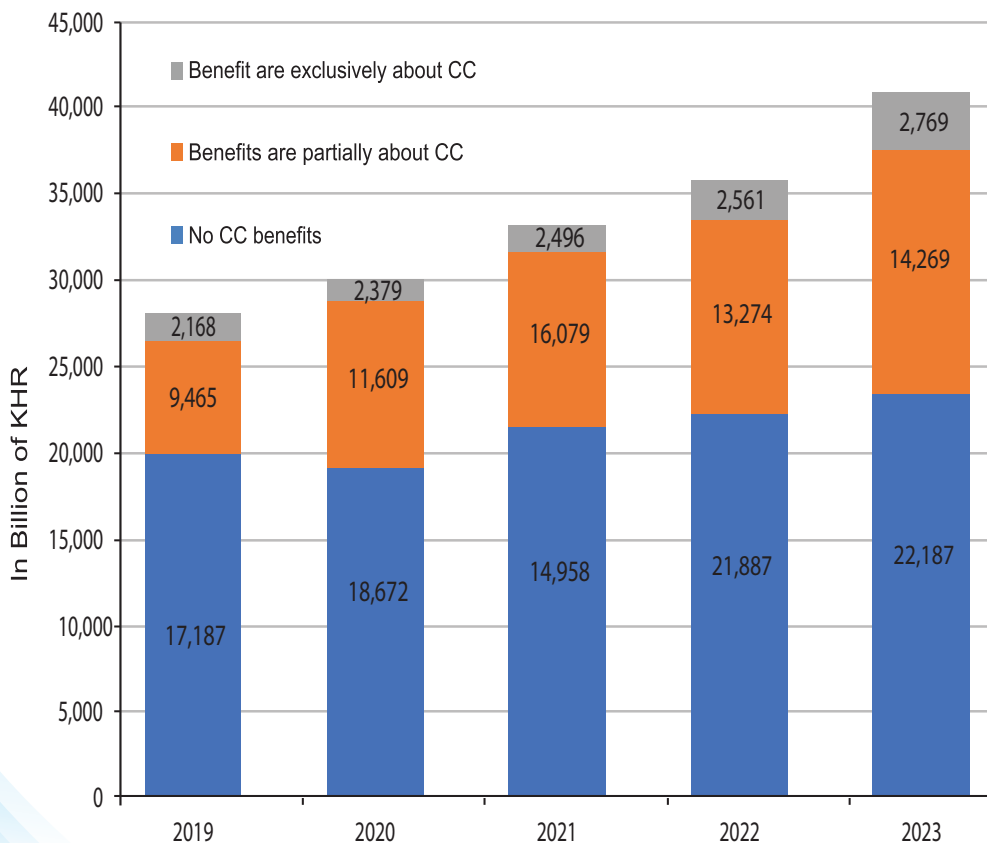
ក្រសួងសេដ្ឋកិច្ច និង ហិរញ្ញវត្ថុ

Ministry of Economy and Finance

ធានានូវកំណើន និង អភិវឌ្ឍន៍ប្រកបដោយចីរភាព

Ensure Sustainable Growth and Development

Cambodia Climate Public Expenditure Review 2023



November 2024

Preface

As one of the countries most affected by climate change, Cambodia has committed to address this challenge both locally and internationally. Cambodia submitted its updated Nationally Determined Contribution (NDC) to the UNFCCC on December 30, 2020. In 2021, Cambodia was the first country in ASEAN and only the second Least Developed Country in the world to submit a Long-Term Strategy for Carbon Neutrality with a 2050 target.

Since 2017, the Ministry of Economy and Finance has included guidance on climate change in annual budget circulars, and in 2019 climate change was recognized as a key challenge to be addressed both in the debt policy and in the budget of the Government. Key ministries have also started to integrate climate change in the way they prioritize activities for the national budget with technical supports from our partners. This report provides an update on climate finance trends, including data up to fiscal year 2023, to monitor to what extent Cambodia and its development partners are effectively supporting national climate change priorities.

In 2023, climate change expenditure remains at 2.1% of GDP, about the same level as in 2022 and KHR 2,769 billion, reflecting the increase in the construction of water infrastructures against floods and droughts, national roads, energy, and agriculture interventions, as well as the continued social protection cash distribution to the poor and vulnerable, which amounted to KHR 1,872.4 billion, offsetting the decline in spending on rural roads and health in 2023. The domestically financed climate change expenditure accounts for 48% of total climate change spending.

In the current government mandate (2023-28), climate change is reflected in the Pentagon 4 of the Pentagonal Strategy-Phase 1 and the National Strategic Development Plan (2019-2023) which is updating and its indicators. This has been translated into sectoral strategies and budgets. Since the 2020 CPER report, the alignment of expenditure with NDC actions has been assessed, and this year reference is made to the 2023 NDC tracking results.

While many actions are receiving financing, the financing gap is estimated at 15%. While the level of climate-relevant public expenditure continues to increase, it is still below the level required to address the urgent climate change issues that Cambodia is facing. Continued development of flood and drought-resilient infrastructure is required, as well as interventions in livelihoods, water supply and social sectors.

This report also looks at gender issues in the climate change response. The data available indicates that gender issues remain under-addressed in climate change programmes. Case studies of specific climate change programmes show that initiatives have been taken to address gender issues, and comprehensive information on the effectiveness of these efforts is improving, especially in the NDC Tracking System and in the Women Resilience Index displayed in the NCSD's Data Portal.

The Ministry of Economy and Finance will continue to be actively involved in these efforts to assess the effectiveness of climate finance, alongside the National Council for Sustainable Development and the Council for the Development of Cambodia.



H.E. Ros Seilava
Secretary of State
Ministry of Economy and Finance

Acknowledgement

The Ministry of Economy and Finance would like to express its gratitude to the extended cooperation and contribution from the National Council for Sustainable Development (NCSD), the Cambodia Climate Change Alliance Phase 3 (CCCA3, funded by the EU, UNDP and Sweden) and the regional project on the Governance of Climate Change Finance (UNDP/Sweden) in providing technical support and to the Cambodian Development Cooperation Board/Council For The Development Of Cambodia (CDCB /CDC) in providing data from the Cambodia ODA database as an input to this report.

The Cambodia Climate Change Public Expenditure Review report has been developed with technical support from the Department of Climate Change (MOE/NCSD) and the Cambodia Climate Change Alliance programme (funded by the European Union, Sweden and UNDP), by the Climate Change Technical Team of the Ministry of Economy and Finance with support of their technical officials from the General Department of International Cooperation and Debt Management (GDICDM) and the General Department of Budget (GDB), and technical officials of the Cambodian Development Cooperation Board (CDCB).

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List of Abbreviation and Acronyms

ADB	Asian Development Bank
ASPIRE	Agricultural Service Programme for Innovation, Resilience and Extension
CBR	Cost Benefit Ratio
CC	Climate Change
CCAP	Climate Change Action Plan
CCCS	Cambodia Climate Change Strategic Plan 2014-2023
CCFF	Climate Change Financing Framework
CDC	Council for the Development of Cambodia
CDCB	Cambodian Development Cooperation Board
CPER	Climate Public Expenditure Review
CPEIR	Climate Public Expenditure and Institutional Review
CRI	Climate Relevance Index
DBF	Department of Budget Formulation
DCC	Department of Climate Change
DI	Department of Investment
FA	Forestry Administration
FCPF	Forest Carbon Partnership Facility
FiA	Fisheries Administration
FMIS	Financial Management Information System
GCF	Green Climate Fund
GDP	Gross Domestic Product
GMAGs	Gender Mainstreaming Action Groups
GDANCP	General Department of Administration for Nature Conservation and Protection
GHG	Greenhouse Gas
KHR	Khmer Riel
MAFF	Ministry of Agriculture, Fisheries and Forestry
MCS	Ministry of Civil Service
MEF	Ministry of Economy and Finance
MIS	Management Information System
MISTI	Ministry of Industry, Sciences, Technology, and Innovation
MLMUPC	Ministry of Land Management, Urban Planning and Construction
MME	Ministry of Mines and Energy
MoE	Ministry of Environment
MoEYS	Ministry of Education, Youth and Sports
MOH	Ministry of Health
MoInfo	Ministry of Information
MoT	Ministry of Tourism
MoWRAM	Ministry of Water Resources and Meteorology
MPTC	Ministry of Posts and Telecommunications

MPWT	Ministry of Public Work and Transport
MRD	Ministry of Rural Development
MoWA	Ministry of Women’s Affairs
NCCC	National Climate Change Committee
NCDD	National Committee for Sub-National Democratic Development
NCDDS	National Committee for Sub-National Democratic Development Secretariat
NCDM	National Committee for Disaster Management
NCS	National Council for Sustainable Development
NGO	Non-Governmental Organization
NRS	National REDD+ Strategy
NSDP	National Strategic Development Plan
NSPC	National Social Protection Council
ODA	Official Development Assistance
PB	Program-based Budget
PFM	Public Financial Management
PFMRP	Public Financial Management Reform Program
REDD+	Reducing Emissions from Deforestations and Forest Degradation, and Foster Conservation, Sustainable Management of Forests, and Enhancement of Forest Carbon Stocks
RGC	Royal Government of Cambodia
SNA	Sub-National Administrations

Executive Summary

Key messages for the 2023 CPER:

- **The share of climate change expenditure in GDP in 2023 is 2.1%**, about the same share as 2022, an **8% growth compared to 2022**, and it is contributed by investments on water infrastructure to cope with floods and droughts, national roads, energy, and agriculture, as well as the ongoing cash distribution to the poor and vulnerable that amounted to KHR 1,872.4 billion, offsetting the decline in spending on rural road and health in 2023.
- **The domestically financed CC expenditure accounts for 48%** of total climate spending, an increase of 41.6% in 2023.
- CC concessional loans increased to KHR 1,080 billion in 2023, a modest increase by 4% compared to 2022, while the CDC's total ODA decreased by 11% to US\$ 1,890 million in 2023 from US\$ 2,125 million in 2022 in both loan and grant components. Despite the overall decline in grant and moderate concessional loan in 2023, the climate finance has performed relatively well, outweighed by the domestically financed infrastructure investments in national road, irrigation, and water reservoirs.

In 2023, the infrastructure ministries (MPWT, MoWRAM and MRD) shared 49.4% of the climate change expenditure, slightly decreased from 50.2% in the previous year, reflecting a significant increase in flood and drought infrastructure expenditure and with the continued strong but declining spending on roads and rural roads.

In this context, the MoWRAM has the largest share with 24% of climate change expenditure in 2023, which increased by 15% from 2022, mainly due to a continued increase in large expenditures in river dams and water reservoirs for flood and drought prevention, and irrigation rehabilitation. In the same year, the MPWT accounts for the second largest share at 19% of Cambodia's climate change expenditure, increased by 4%, with high spending in national road construction and rehabilitation. The investments in climate-related rural infrastructure (small-scale irrigation, rural water and sanitation, and rural roads) under the MRD are at 6.4% in 2023, declined by 11%, after its rebound in 2022, due to lower spending in rural roads.

The MAFF accounted for 16.7% due to large investment in CC resilient agriculture, mainly from external financing, followed by the MRD which shared 6.4%, SNA (3.9%), MoE (2.2%), NGOs (1.8%), MME (1.8%) and MoH (1.5%), while other ministries/institutions shared less than 1% of the total climate spending.

The MAFF's climate-related spending on agriculture, forestry and fisheries sectors increased by a significant 43% in 2023, similar to the 46% increase between 2021 and 2022. External finance remains the main source of finance in the agriculture sector, representing about 73% shares in 2023, reflecting development partners' high support for climate action in agriculture, especially in resilient crop, small-holder farmers, and resilient rice commercialization.

The climate change expenditure in the social sectors (education, health and gender) accounts for a much smaller share of total climate expenditure, 1.9%, further decreased by 16% in 2023. The education sector under the MoEYS (0.1% of the total) and gender sector under the MoWA (0.2%) increased by 1% and 94% respectively in 2023, where these activities and people's physical movement revived after Covid-19

periods. The MoH's CC expenditure shared only 1.5% and continued to drop by 23% in the year 2023, after the Covid-19 period.

In 2023, the MoE remained at the same level of 2022, with the 2.2% of the total climate spending. The MoE's sources of funding are 80% from external sources, including projects on sustainable landscape, wetland conservation, biodiversity and conservation, and natural resource management.

Climate change spending in the energy and mining sectors under the MME represents 1.8% in 2023, a 69% increase, due to continued strong financing from external sources for the energy and transmission lines. In this sector, much larger investments are made by the private sector.

The water supply and sanitation sector¹ in urban/semi urban contexts under MISTI accounted for about 1% of the total climate spending in 2023, an 27% increase from 2022, mainly due to higher investment projects in clean water supply and sanitation.

The SNA represents about 3.9% of the total climate change spending, increasing by about 0.2% from 2022.

In 2023, the domestically financed climate change expenditure accounts for 48.4% of the total climate change expenditure, rising from 37% in the previous year, while externally financed climate change expenditure shares 51.6% or fell by 11.5% compared to 2022.

The weighted CC and gender spending of the overall external programmes to the total CC expenditure is only 4.4% (or KHR 752 billion). The 54% or KHR 4,054 billion to total CDC's ODA is tagged as gender relevant, an increase from 43% (or KHR 3,694) in 2022.

Based on the online NDC tracking survey results², a total of USD 586.5 million was financed to the implementation of the NDC actions in 2023.

DISCLAIMER

In this CPER 2023 assessment, the recurrent spending component of the total public expenditure has been revised for the period 2018-2023 and this explains the differences in table 1 compared to the previously published CPERs. The total public expenditure (as shown in the Methodology - Annex 1) consists of recurrent spending, capital expenditure through MEF system and ODA as reported in the CDC/CDCB database. The recurrent spending component is based on the recurrent spending in the budget law document, revised from the program-based budget (total spending-foreign financed capital expenditure) at the planning stage.

¹ Water supply and sanitation systems for communities in the rural areas are under the MRD. Water supply is mainly invested and operated by the state-owned enterprises and the private sector.

² <https://ncsd.moe.gov.kh/ndc-tracking/>

I. Climate expenditure

I.1 Overall trend

The share of the total climate change-related expenditures that fully or partially deliver climate change benefits is 43.4% of government expenditures in 2023. This represents a slight increase from 42% in 2022. During the period 2019-2023, the average share is 45%. Once the climate change relevance weights (typology and weights explained in point C of the Annex 1) are applied to this expenditure, climate change expenditure³ represents 7.1% of the total public expenditure in 2023, a 0.3% increase compared to 2022.

Domestic sources increase significantly to 48% of total weighted climate change spending, up from 37% in 2022, offsetting the 11.5% decrease in the external funding, which still accounts for 52% of the total. The share of climate change expenditure in GDP is 2.1% in 2023, about the same as in 2022.

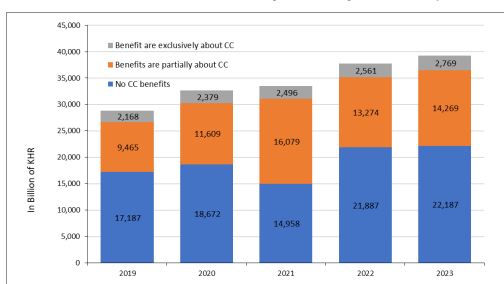
In absolute terms, public expenditure with climate change benefits has slightly increased by 8% from KHR 2,561 billion in 2022 to KHR 2,769 billion (about USD 692.3 million), reflecting the continued strong spending on resilient infrastructure such as roads, irrigation systems and dams, energy, and climate-resilient agriculture projects.

Table 1: Proportion of climate change expenditure to total public expenditure and GDP

	2019	2020	2021	2022	2023
Public expenditure with CC benefits vs. total public expenditure ⁴	40.4%	42.8%	55.4%	42%	43.4%
CC public expenditure (weighted) vs. total public expenditure ⁴	7.5%	7.3%	7.4%	6.8%	7.1%
CC public expenditure (weighted) vs. GDP	2.0%	2.2%	2.3%	2.1%	2.1%

Source: NIS, MEF, CDC & expert team calculation.

Figure 1: Public expenditure with CC benefits vs. total public expenditure (in billions of KHR)



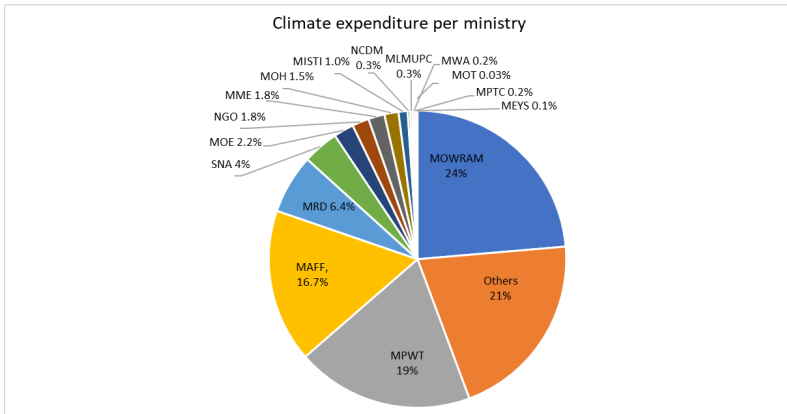
Source: MEF, CDC, and expert team calculation.

³ In this report, “climate change expenditure” refers to public expenditures that deliver climate change benefits, once they have been weighted for climate change relevance.

⁴ In this CPER 2023 assessment, the recurrent spending component of the total public expenditure has been revised for the period 2018-2023 and this explains the differences in table 1 compared to the previously published CPERs. The total public expenditure (as shown in the Methodology - Annex 1) consists of recurrent spending, capital expenditure through MEF system and ODA as reported in the CDCB/CDC database. The recurrent spending component is based on the recurrent spending in the budget law document, revised from the program-based budget (total spending-foreign financed capital expenditure) at the planning stage.

I.2 Sectoral allocation of climate change-related expenditure

Figure 2: Allocation of climate expenditure per ministry in 2023



Source: MEF, CDC, and expert team calculation.

In 2023, the infrastructure ministries (MPWT, MoWRAM and MRD) shared 49.4% of the climate change expenditure, slightly decreased from 50.2% in the previous year, reflecting a significant increase in flood and drought infrastructure expenditure and continued strong but declining spending on roads and rural roads. In this context, the MoWRAM had the largest share with 24% of climate change expenditure in 2023, which increased by 15% from 2022, mainly due to a continued increase in large expenditures in river dams and water reservoirs for flood and drought prevention, and irrigation rehabilitation. In the same year, the MPWT accounts for the second largest share at 19% of Cambodia’s climate change expenditure, increased by 4%, with high spending in national road construction and rehabilitation. The investments in climate-related rural infrastructure (small-scale irrigation, rural water and sanitation, and rural roads) under the MRD are at 6.4% in 2023, declined by 11%, after its rebound in 2022, due to lower spending on rural roads.

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The climate change expenditures in the social sectors (education, health and gender) accounts for a much smaller share of the total climate expenditure, 1.9%, further decreased by 16% from 2022 to 2023. The education sector under the MoEYS (0.1% of the total) and gender sector under the MoWA (0.2%) increase by 1% and 94% respectively in 2023, where these activities and people’s physical movement revived after Covid-19 periods. The MoH’s CC expenditure shared only 1.5% and continued to drop by 23% in the year 2023, after the Covid-19 period.

In 2023, the MoE remained at the same level of 2022, with the 2.2% of the total climate spending. The MoE's sources of funding are 80% from external sources, including projects on sustainable landscape, wetland conservation, biodiversity and conservation, and natural resource management.

Climate change spending in the energy and mining sectors under the MME represents 1.8% in 2023, a 69% increase, due to continued strong financing from external sources for energy and transmission lines. In this sector, much larger investments are made by the private sector.

The water supply and sanitation sector⁵ in urban/semi urban contexts under the MISTI accounted for about 1% of the total climate spending in 2023, an 27% increase from 2022, mainly due to higher investment projects in clean water supply and sanitation. The SNA represents about 3.9% of the total climate change spending, increasing by about 0.2% from 2022.

It should be noted that the CPER only reviews in detail the expenditures of the ministries that have adopted climate change action plans. Since the 2020 climate expenditure review, in the specific context of the COVID-19 pandemic, there has been a very significant increase in social protection expenditure via cash transfer, with a focus on poor and vulnerable citizens. This expenditure is reported under the Ministry of Social Affairs, Veterans and Youth Rehabilitation, which is included in the CPER under the category "others".

Table 2: Climate change expenditure by ministry (total development partner and national) in billions of KHR

Climate Change Expenditure	2019	2020	2021	2022	2023
MLMUPC	24.0	23.1	20.7	4.7	7.0
MOT	1.5	2.6	4.1	3.2	1.0
MISTI	23.5	18.6	42.4	21.4	27.3
MOINFO	0	0	0	0	0
MPTC	5.1	5.5	6.7	8.6	4.6
MAFF	193.6	267.4	221.6	323.0	461.6
MME	12.0	55.7	27.1	28.9	48.8
MOWRAM	559.4	488.3	526.6	570.5	654.7
MPWT	549.5	621.3	582.2	513.9	534.0
MRD	134.0	161.9	137.5	199.9	178.6
MOH	49.7	36.2	131.0	55.2	42.5
MoEYS	1.2	1.5	6.6	2.8	2.8
MoWA	3.4	2.6	3.6	3.4	6.6
NCDM	9.6	3.4	22.8	7.5	7.5
MOE	131.6	106.7	128.6	56.1	60.8
SNA	81.4	78.7	79.1	95.3	108.0
NGO	54.7	53.5	66.7	59.1	50.7
Total CC, CCFF ministries	1,834	1,927	2,007	1,954	2,196
Others	334.1	452.5	488.8	607.3	572.8
Total CC, all ministries	2,168	2,379	2,496	2,561	2,769
in millions of USD	542.1	594.8	624.0	640.2	692.3

Source: MEF, CDC, and expert team calculation.

⁵ Water supply and sanitation systems for communities in the rural areas are under the MRD. Water supply is mainly invested and operated by the state-owned enterprises and the private sector.

Table 3: Climate change expenditure by ministry (total development partner and national, in percentage of total climate change expenditure)

Climate Change Expenditure	2019	2020	2021	2022	2023
MLMUPC	1.1%	1.0%	0.8%	0.2%	0.3%
MOT	0.1%	0.1%	0.2%	0.1%	0.0%
MISTI	1.1%	0.8%	1.7%	0.8%	1.0%
MOINFO	0.0%	0.0%	0.0%	0.0%	0.0%
MPTC	0.2%	0.2%	0.3%	0.3%	0.2%
MAFF	8.9%	11.2%	8.9%	12.6%	16.7%
MME	0.6%	2.3%	1.1%	1.1%	1.8%
MOWRAM	25.8%	20.5%	21.1%	22.3%	23.6%
MPWT	25.3%	26.1%	23.3%	20.1%	19.3%
MRD	6.2%	6.8%	5.5%	7.8%	6.4%
MOH	2.3%	1.5%	5.2%	2.2%	1.5%
MoEYS	0.1%	0.1%	0.3%	0.1%	0.1%
MoWA	0.2%	0.1%	0.1%	0.1%	0.2%
NCDM	0.4%	0.1%	0.9%	0.3%	0.3%
MOE	6.1%	4.5%	5.2%	2.2%	2.2%
SNA	3.8%	3.3%	3.2%	3.7%	3.9%
NGO	2.5%	2.2%	2.7%	2.3%	1.8%
Others	15.4%	19.0%	19.6%	23.7%	20.7%

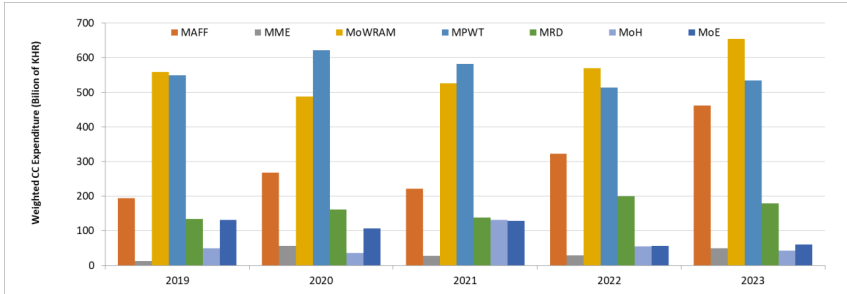
Source: MEF, CDC, and expert team calculation.

Table 4: Climate change expenditure by ministry (total, in percentage change)

Ministries/institutions	2019	2020	2021	2022	2023
MLMUPC	38%	-4%	-10%	-77%	48%
MOT	4%	67%	59%	-20%	-70%
MISTI	-25%	-21%	128%	-49%	27%
MOInfo					
MPTC	-28%	8%	21%	29%	-47%
MAFF	15%	38%	-17%	46%	43%
MME	-42%	364%	-51%	7%	69%
MOWRAM	35%	-13%	8%	8%	15%
MPWT	24%	13%	-6%	-12%	4%
MRD	14%	21%	-15%	45%	-11%
MOH	20%	-27%	262%	-58%	-23%
MoEYS	365%	25%	334%	-58%	1%
MoWA	-35%	-25%	41%	-7%	94%
NCDM	18%	-65%	578%	-67%	-1%
MOE	49%	-19%	21%	-56%	8%
SNA	15%	-3%	1%	20%	13%
NGO	-28%	-2%	25%	-11%	-14%
Others	19%	35%	8%	24%	-6%

Source: MEF, CDC, and expert team calculation.

Figure 3: Selected ministries and agencies' climate change expenditure 2019-2023



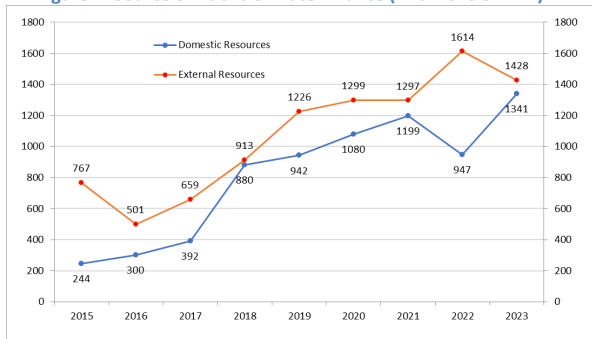
Source: MEF, CDC, and expert team calculation.

II. Sources of climate public expenditure

The amounts allocated from domestic resources (national budget) for climate change expenditure reached KHR 1,341 billion in 2023, an increase of KHR 394 billion or 41.6% compared to 2022. In 2023, the domestically financed climate change expenditure accounts for 48.4% of the total climate change expenditure, up from 37% in the previous year, while externally financed climate change expenditure accounts for 51.6%, down by 11.5% compared to 2022.

Since June 2020, the RGC's social protection package has provided cash transfers to the poor and vulnerable households, by using the Ministry of Planning's ID Poor, contributing indirectly to climate change resilience and increased adaptation capacity for their livelihoods during Covid-19. In the implementation of the "Cash Transfer for the Poor and Vulnerable Households" initiative, cash assistance from the national budget disbursement in 2023 amounted to about KHR 1,872.4 billion⁶ (or US\$ 468 million), which was estimated to contribute to the livelihood adaptation response in climate expenditure. The majority of funded climate change expenditure, including external sources, continues to flow through the national treasury and the MEF financial systems, representing 89% of the total in 2023.

Figure 4: Source of Public Climate Finance (In billions of KHR)

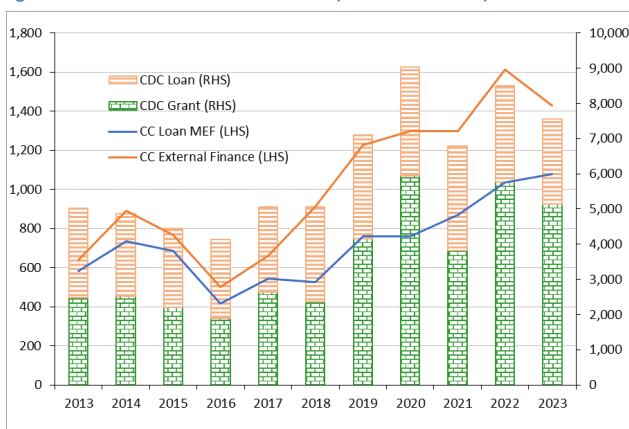


Source: MEF, CDC, and expert team calculation.

⁶ The partially-CC benefits amount to KHR 1,872.4 billion from the national budget within 2023.

To look at the loan disbursement flow, the data from the MEF’s General Department of International Cooperation and Debt Management is a useful resource. The total concessional loan disbursements amounted to KHR 6,103 billion (or about USD 1.53 billion), or an 13.4% increase in 2023. In terms of the CC spending, the CC concessional loans rose to KHR 1,080 billion in 2023, modestly increasing by 4% compared to 2022. At the same time, the CDC’s total ODA dropped by 11%, reaching to US\$ 1,890 million in 2023 from US\$ 2,125 million in 2022, as their grant and loan component drops by 11% and 12% respectively. In the overall ODA trend, despite there was a decline in 2023, the climate finance has performed relatively well, offset by the domestically financed infrastructure investment.

Figure 5: Sources of CC external finance (In billions of KHR)



Source: MEF, CDC, and expert team calculation.

In terms of CC external resources, Table 5 below shows that the top five development partners for climate change expenditure in 2023 are China (22%), ADB (18%), IFAD (10%), World Bank (9%) and Japan (8%).

Table 5: top 25 of Climate change (weighted) expenditure per development partner (in Billions of KHR)

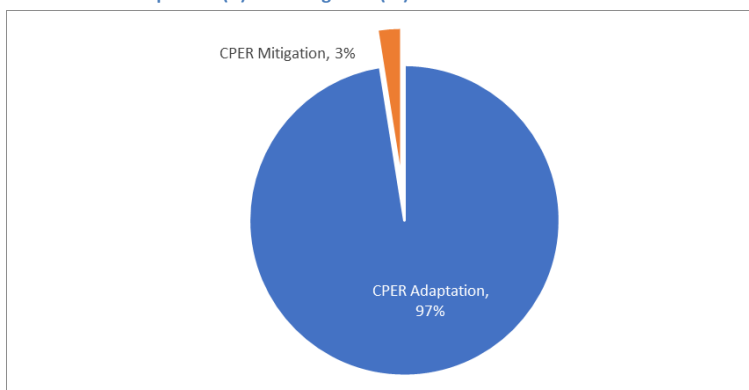
No.	Development Partners	2018	2019	2020	2021	2022	2023	2023 percentage to total
1	China	179.4	247.1	236.9	197.9	159.3	283.8	21.7%
2	ADB	157.1	324.3	168.6	178.6	181.3	240.4	18.4%
3	IFAD	69.3	46.5	56.1	67.5	109.1	133.3	10.2%
4	World Bank	18.0	37.4	49.4	77.9	187.9	123.3	9.4%
5	Japan	108.1	196.5	298.3	143.5	246.1	104.2	8.0%
6	France	18.9	106.6	20.0	32.6	172.9	85.4	6.5%
7	Republic of Korea	37.3	45.0	37.5	106.7	107.8	75.1	5.8%
8	EU/EC	28.4	39.4	39.3	63.9	58.1	73.4	5.6%
9	Australia	37.4	25.5	33.8	40.4	35.9	56.2	4.3%
10	USA	68.4	48.9	60.3	67.5	57.9	42.9	3.3%

11	New Zealand	2.1	9.8	11.2	10.9	9.2	17.2	1.3%
12	Germany	14.5	11.2	11.9	44.2	20.8	14.2	1.1%
13	WFP	0.1	2.7	2.6	22.7	9.0	11.9	0.9%
14	Switzerland	7.1	7.0	4.0	4.1	9.5	11.6	0.9%
15	FAO	4.6	10.3	9.1	5.7	5.6	9.2	0.7%
16	UNDP	27.2	25.5	13.7	5.9	8.0	7.4	0.6%
17	Sweden	14.0	17.9	21.6	3.6	1.9	4.0	0.3%
18	Czech Republic	1.3	1.3	0.8	1.4	3.0	2.0	0.2%
19	Canada	0.2	0.1	0.1	1.3	3.7	1.9	0.1%
20	Global Fund	2.4	5.1	5.2	5.3	1.4	1.4	0.1%
21	UNIDO	1.9	3.8	11.5	2.1	2.4	1.1	0.1%
22	UK	0.4	0.5	1.2	2.9	2.4	1.1	0.1%
23	UNICEF	0.0	0.6	1.1	1.2	1.2	1.0	0.1%
24	Ireland	0	0	0	0.9	0.2	1.0	0.1%
25	WHO	0.1	0.1	0.8	0.9	0.8	1.0	0.1%

Source: CDC, and team expert calculation.

Mitigation expenditure accounts for 3% of the CPER 2023, while adaptation accounts for 97%. This is broadly in line with the government's policy priorities, where adaptation is the main priority, while mitigation is a smaller but growing component of the climate change response. It is worth noting that mitigation is significantly funded by the private sector, especially through investments in renewable energy.

Figure 6: Shares of Adaptation (A) and Mitigation (M) in CPER 2023



Source: MEF, CDC and Expert team calculation.

III. Assessment of Gender integration in Climate Change Programming

This section assesses to what extent gender has been integrated into climate change programming, based on quantitative data from externally funded projects and other qualitative assessments on a case study of a project on **CSO-Public partnership to favor safe water access in rural areas in 2023**.

III.1 Gender in key climate change projects⁷

While the data on climate change finance and gender linkages are relatively scarce, this section looks at the available evidence from the CDC's ODA database.

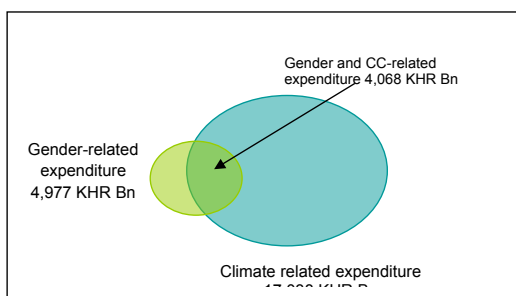
Table 6: Climate Change finance and gender linkages in CDC's ODA database (in Billions of KHR)

CDC's CC and Gender spending	2019	2020	2021	2022	2023
Gender tagged projects	2,584	4,860	2,859	4,060	4,977
CC & Gender related spending	1,995	2,623	2,027	3,201	4,068
Weighted CC & Gender spending	569	458	505	690	938

Source: CDC and Expert team calculation

In 2023, the weighted CC and gender spending of the overall external programmes to the total CC expenditure is at 5.5% (or KHR 938 billion). The 66%, or KHR 4,977 billion, of total CDC's ODA budget is tagged as gender relevant, with an increase from the 48% (KHR 4,060) in 2022. On the other hand, only 24% (KHR 4,068 billion) of the total climate change relevant programmes were also tagged as having a specific gender focus, with an increase from 20% in 2022. The increase in the share of gender programmes in total climate change expenditure is primarily in the areas of disaster management, rural infrastructure, rural electrification, fisheries, social protection reform, and water resources management, reflecting the fact that climate change and gender-tagged programmes had a positive trend in 2023.

Figure 7: 2023 climate and gender public expenditure (in billions of KHR, from external partners only)



Source: CDC and Expert team calculation

Climate Change is one of the key focus areas for the Neary Rattanak VI Strategic Plan (2024-2028). Of the gender-tagged programmes in CDC's ODA database, 82% are also climate change relevant, rising from 79% in 2022. The increase of this percentage is due to the higher level of total gender related programmes in 2023, in which the absolute amount of expenditures on gender and climate change relevant had increased by 23%. This indicates that while climate change remains a significant issue from a gender perspective, more efforts need to be made to systematically integrate gender concerns into climate change programmes.

Based on the NDC/LTS4CN tracking results of 2023, 62% of the actions under implementation reported the gender related progress made. It should be noted that Cambodia's updated Nationally Determined Contribution (NDC) includes climate change commitments up to 2030 and a strong focus on gender. Cambodia is committed to submitting the next NDC by 2025 and to making it more ambitious and inclusive, keeping a strong focus on the gender and climate change nexus.

⁷ Gender data in the chart is based on the ODA database tag (self-reporting by development partners) and climate change data is based on expert team analysis of the ODA database. Both gender and climate exchange data are unweighted (i.e. expenditure is relevant to CC and gender but not 100% allocated to these objectives).

III.2 A case of incorporating gender in a project on CSO-Public partnership to favor safe water access in rural areas

Background: The Department of Rural Water Supply (DRWS) of the Ministry of Rural Development in partnership with Teuk Saat 1001 has implemented the project “CSO-Public partnership to favor safe water access in rural areas”, funded by the Cambodia Climate Change Alliance (CCCA 3). The 28 months project (from 1st June 2021 until 30th September 2023) targeted and observed changes in 2 communes: Trapeang Thum Commune, in Siem Reap province and Tuek Chour Commune, in Banteay Meanchey province. The overall objective was to mutualize innovative solutions and methodologies to achieve access to safe water in drought affected rural communes by establishing new water kiosks and organizing workshops to strengthen the sector at national and local level. The main benefit of the project is to enable and maintain access to safe drinking water in rural areas impacted by water scarcity. Since the launch of the 2 water kiosks in May 2022, the operation had been maintained despite weather impact (heavy rains or hot season drying raw water sources), proving the sustainability of the facilities despite the climate change effects.

Project Contribution: The project is focused on access and consumption of safe drinking water, with the baseline and end line analysis, and the monthly performance of the water kiosks show the steady consumption of safe drinking water in the 2 communes. The 2 kiosks are managed by 2 committed women independent entrepreneurs, who actively join workshops and meetings organized under the project aiming to strengthen and to maintain the water kiosk operation at all times, even during water scarcity events. It is worth mentioning that the 2 entrepreneurs are part of the top performers of Teuk Saat 1001 network, since they sell on average 100 bottles per day in their respective communes. Before the installation of the water kiosks, more than 50% of the people in the areas used raw water for drinking purpose. Based on the final survey, most of the population has switched from unsafe to safe water. Furthermore, 75% of households reported experiencing of being impacted by drought or water scarcity, hence lacking of drinking water, before the project started. In the end line of the project, none of the surveyed households were reported facing lack of drinking water. Thus, the newly installed water kiosks contributed to provide safe drinking water to the communities in both rainy and dry seasons.

To attenuate the climate change impact and especially water scarcity periods, water providers in communes need to implement easy and efficient procedures to ensure their drinking water production will not be disrupted. Thus, the mitigation guideline proposed in outcome 2 was designed for this purpose. The objective was to list down solutions to identify alternative water sources, when the primary source is dry. To ensure the implementation and the understanding of the guideline, workshops and trainings have been conducted at provincial and training level. The water entrepreneurs participated to the trainings and are aware of the steps to be taken in case of future challenges.

Project Result: The holistic model implemented through the water kiosks has a positive impact on the environment, since users are refrained to boil raw water after consuming safe water produced from the water kiosks. In addition, Teuk Saat 1001 assess that each kiosk established under this project contribute to avoiding 100t of CO₂ emission a year, according to the technical note of the project, using a model that is certified by the Gold standard, allowing Teuk Saat 1001 to emit carbon credit. 15 years after the 1st MoU signature⁸, the collaboration between the DRWS and Teuk Saat 1001 passed to a new level. Indeed, to implement this project both organizations had collaborated closely to conduct the capacity building and systems strengthening activities, benefitting at the end the water sector in rural areas. Each year, Teuk Saat 1001 is audited to determine the quantities of CO₂ reduced thanks to the water kiosks activities, involving CCCA teams in the process could be a good case study topic. The project contributed to develop soft and hard skills at entrepreneur and public servant level. Before becoming entrepreneurs, the 2 women managing the kiosk were seamstress and contract teacher; thanks to CCCA grant, they were trained to manage the kiosks not only acquiring technical skills in the water production field but also trained in marketing, finance, entrepreneurship and team management transversal

⁸ Between Ministry of Rural Development and Teuk Saat 1001, 1st MoU signed in 2009.

know-how which contribute to elevate their educational level. This will give them better professional opportunities if they decide to stop being a water entrepreneur. The project has implemented 10 workshops at national and provincial levels resulting in (i) the development of a mitigation guideline to help rural water providers to cope with water scarcity issue and (ii) a draft of a technical module to be used by any stakeholders for the construction of bottled water production facilities. The five most important achievements are:

- 1) 2 sustainable community safe drinking water kiosks powered by solar energy were established to supply safe drinking water to communities in 2 communes affected by drought
- 2) One water scarcity mitigation guideline was developed and disseminated;
- 3) One training module on community safe drinking water kiosk model was developed;
- 4) The DRWS staff gained better understanding of community safe drinking water kiosk model through capacity building activities; and
- 5) Improved behavior changes and health impact, comparing the Baseline and End line survey findings.

Lessons learned: The project generates five lessons learned below.

- 1) Partnership between public institution and CSO accelerate rural communities' access to safe drinking water;
- 2) Support and good collaboration from local authorities is key factor to the success of the project implementation;
- 3) Sustainability approach, thanks to the entrepreneurship model combined with the continuous follow-up, enable access to community safe drinking water service on a long run;
- 4) Securing secondary water source is important to ensure drinking water production and supply; and
- 5) Close monitoring is a requisite for each project site.

Recommendation: After the project completion, the three recommendations are made below.

- 1) The collaboration of pipe water supply and bottled water kiosk is an efficient driver to expand access to safe water in rural areas,
- 2) The water scarcity mitigation guideline has been finalized and introduced to stakeholders at local and national level. To ensure recognition at ministry level, it should be deployed and tested in a commune to prove and/or improve the solution developed.
- 3) Climate resilient water safety plan was endorsed by the Minister of MRD in May 2023. However, the dissemination of the guideline to relevant stakeholders has not been done yet. To ensure universal access to safely managed water as per CSDG by 2030, it requires more joint effort to disseminate and implement the guideline, and support commune councils to develop commune climate resilient water safety plans.

IV. Public spending and NDC priorities

Based on the online NDC tracking survey results⁹, a total of USD 586.5 million USD was financed to the implementation of the NDC actions in 2023. The online tracking system allows NDC finance to be identified with the types of climate change responses, either mitigation, adaptation or enabling, by implementing institutions (i.e. by relevant ministries), by national and SNA levels, and by development partners' support. The effort put in updating regularly the tracking system reflects the commitment of the RGC in implementing NDC to tackle climate change. At a different source separately from the online NDC tracking, a macro-level alignment assessment of the total public expenditure in 2023 indicates that USD 662.6 million disbursed in 2023 is aligned with the NDC priorities (see the Annex 4 on NDC's related spending and annual average finance cost). The NDC mitigation actions show a large funding gap, with only USD 23.6 million allocated, a small proportion compared to the USD 639 million of the adaptation measures (including enabling actions). The total funding required for the NDC is estimated at an average of USD 780 million per year, thus the funding gap for 2023 can be estimated at 15%¹⁰.

⁹ <https://ncsd.moe.gov.kh/ndc-tracking/>

¹⁰ In Cambodia's updated Nationally Determined Contribution (2020) in section 7, the total funding required for mitigation (USD 5.8 billion) and adaptation (over USD 2 billion) for the ten-year period is over USD 7.8 billion, which is around USD 780 million on average per year.

References

National Council for Sustainable Development, MoE (2020), Cambodia's Update Nationally Determined Contribution,

Climate Action Tracking (2023), <https://ncsd.moe.gov.kh/ndc-tracking/>

MoE, iDE, CCCA (2022) Advancing gender equality through climate action. Cambodia

MRD, CCCA (2023), Civil Society Organization-Public partnership to favor safe water access in rural areas

iDE, Bansod (2021), Supply side research summary, Transitioning Cambodia from Biomass to clean electric cooking.

MoSVY's monthly public report on the social protection in Cambodia

UNDP, CFADE (2015) A methodological Guidebook on Climate Public Expenditure and Institutional Review (CPEIR). https://www.asia-pacific.undp.org/content/rbap/en/home/library/democratic_governance/cpeir-methodological-guidebook.html

UNDP, CFADE (2015) Draft Paper: Climate Change Tagging. The Case Studies of Bangladesh, Indonesia, Nepal and the Philippines.

RGC (2013) Cambodia Climate Change Strategic Plan 2014-2023. National Climate Change Committee, Cambodia

RGC (2014) National Strategic Development Plan (2014-2018). Cambodia

ADB (2016) ADB and Climate Investment Funds, Country Fact Sheets (Second Edition)

ANNEXES

Annex 1: Methodology

a. Scope of this study

This study updates the information provided in the last published CPER in the following way:

- Includes public expenditure **for fiscal year 2023**;
- Analyses the public expenditure data for the 14 ministries and agencies with an approved Climate Change Action Plan, and for the Ministry of Posts and Telecommunications¹¹ (MPTC);

b. Data sources

This CPER report follows the methodology used in the previous CPER, first identifying expenditures which deliver some degree of climate change benefits, and then weighting these expenditures based on the share of their benefits that contribute to the climate change response. The tools used for this report follow the "[Methodological Guidebook: Climate Public Expenditure and Institutional Review \(CPEIR\)](#)" produced by the UNDP regional programme on the Governance of Climate Finance. The sources of the data are as follows:

- **Recurrent Spending of central government:** Since the 2019 CPER report, CPER analysis uses the actual recurrent expenditure from FMIS. The recurrent spending data was provided by the FMIS Secretariat of MEF. Data obtained for programme budget ministries was broken down to group of activities which are detailed enough to conduct the climate change tagging and assessment. Detailed data on the functional classification of the programme budget ministries' expenditures is **available for 14 CCAP ministries**.
- **Domestic financed investment:** The source for "Domestic financed investment" remains actual figures, but since the 2019 report figures from the FMIS have been used. In this regard, more and more comprehensive data can be obtained, especially on the counterpart funding.
- **MEF and CDC loan and grant: External finance** (CDC and MEF loan and grant): data on development partner disbursements was provided by the CDCB/CDC (ODA database) the General Department of International Cooperation and Debt Management. CDCB/CDC data includes all development partners' loans and grants with data templates designed by CDC/CDCB. MEF data includes actual disbursements from development partners' loans and grants under MEF management. When data on loan and grant projects came from two sources (CDCB/CDC and MEF), data from MEF is used;
- In the case of loan and grant programmes involving several implementing ministries/agencies, disaggregated information on the share of disbursements channeled to each implementing agency is not always available. In these cases, estimated percentages have been applied for each implementing agency based on the project/program document and past experience. It is assumed that the percentage share is constant for each year over the multi-year life of the project/program.
- Continued analysis on estimated climate change current expenditure of **Sub-National Administration expenditure** from the aggregate level of the actual spending data during the period 2018-2022; and
- Gender qualitative analysis based on CDCB/CDC database;

¹¹ MLMUPC, MoT and MolInfo were added to the CCFE exercise, and MIME was split in two: MIH and MME. MPTC was included although its CCAP is pending approval.

Analysis of the ODA database relied on the climate change sector and thematic markers (with some limitations as development partners tagging of these markers is improving but not yet systematic), and on additional information available in the database on project objectives and outputs.

The CPER assignment was coordinated by the General Department of International Cooperation and Debt Management of the MEF, with support from the FMIS, the General Department of Budget of the MEF to provide and process data as well as provide inputs for the report. The Information Management Department of CDCB/CDC provided the loan and grant data of the ODA database. MEF technical officials have processed the loan and grant data, including tagging for climate change relevance and allocation of disbursements to relevant ministries and agencies.

c. Typology and Weights

The table below depicts the typology of climate change categories and its weights, based on the cost benefit concepts, and the UNDP's 2015 methodological guidebook on the Climate Public and Institutional Review¹². The CC weighted item is found by the multiplying the weight to its spending level.

Table 7: Climate Change public expenditure typology and weights

Climate Change Categories	Abbreviation	Weights	Descriptions
Renewable energy	RE	20%	renewable projects, including hydropower, solar, bioenergy...
Forestry Management	FM		
• Forestry Management general	FM	10%	general forest management
• Forestry Management, CC direct	FMC	100%	Direct impact to forest under REDD+, carbon credit, GCF
Disaster reduction	DRM	50%	Arrangement or investment made for disaster reduction
Infrastructure (pure CC proofing)	ICP	50%	expenditure with objective to avoid flood, or infrastructure highly resilient to cc, like bridge or road designed for water flow
Disaster response	DRR	100%	Infrastructure maintenance or improvement (mainly) or food assistance after disaster events
Water against drought/flood	WCC	50%	Dam or Dike preventing flood or water reservoir, or investment to keep water resources, secondary objective to cc
Health (climate sensitive diseases)	HCC	10%	Health related to vector born disease, malaria...
Planning for climate change	PCC	100%	Planning or projects for cc, CCCA, GCF...
Irrigation	IRR	25%	irrigation system
Water general	WG	33%	water resource management
Biodiversity and conservation	BC	50%	biodiversity and conservation
Eco-tourism	ECT	5%	Eco-tourism expenditure
Livelihoods target	LVT		
• Livelihoods (CC Proof)	LVTC	100%	livelihoods with climate change sensitive or resilience: ADB climate resilience on rice, and IFAD ASPIRES

¹² <https://www.undp.org/asia-pacific/publications/methodological-guidebook-climate-public-expenditure-and-institutional-review-cpeir>

• Livelihoods (of CC Venerable)	LVT	50%	livelihoods with vulnerable groups or small group holders, or geographically vulnerable
Livelihoods (general)	LVG	5%	general livelihood
Emissions (secondary objective)	EG	10%	expenditure items support reducing the emission, ICT support, traffic management, rail road, ...
Energy General	ENG	2%	On-grid electricity, transmission lines
Road improvement (incl. CC proofing)	ROC	15%	road improvement or rehabilitation, mainly increase height, or lay with tarmac
Road (no indication of CC proofing)	ROG	5%	road construction in general, mostly dirt road, road in the rural areas
Infrastructure (secondary benefits)	IG	5%	mixed infrastructure road and other, improve transportation and less emission
Water quality (general)	WQG	5%	Clean water supply and sanitation water
Planning (general)	PG	2%	planning general that indirectly support cc
Health (General)	HG	2%	health general that indirectly support cc
Governance (General)	GG	2%	governance support to cc ecosystem

Source: CBR, UNDP's 2005 methodology guidebook on Climate Public and Institutional Review, and Expert team.

Annex 2: Unweighted Climate Change expenditure by ministries and agencies (in billions of KHR)

Development Partners and national (Unweighted)	2019	2020	2021	2022	2023
MLUPC	70	78	104	37	64
MoT	9	18	51	43	35
MISTI	464	353	819	503	371
MoInfo	0	0	0	0	0
MPTC	40	48	66	67	54
MAFF	426	515	457	563	769
MME	538	1,023	376	418	773
MoWRAM	1,196	1,218	1,364	1,382	1,636
MPWT	2,966	3,641	3,929	3,260	3,478
MRD	1,148	931	982	1,046	1,553
MoH	2,467	1,785	5,642	2,425	1,833
MoEYS	36	29	97	59	67
MWA	11	9	42	19	37
NCDM	17	4	23	8	7
MoE	152	128	181	108	198
SNA	696	665	711	861	1,010
NGO	156	156	206	187	200
Total CC, CCFF ministries	10,392	10,602	15,052	10,987	12,087
Others	1,241	3,387	3,524	4,847	4,950
Total CC, all ministries	11,634	13,989	18,575	15,834	17,038
in millions of USD	2908	3497	4644	3959	4259

Source: MEF, CDC and team expert calculation.

Annex 3: Largest Items of Climate Change Expenditure (in Billions of KHR)

No.	Donor	Official Title	CC sector	CC%	Adapt./ Mitig.	2023 (weighted)
1	China	Dang Kambet Reservoir Development Project in Kampong Thom Province	wcc	50%	a	96.9
2	IFAD	Sustainable Assets for Agriculture Markets, Business and Trade (SAAMBAT)	lvt	50%	a	93.6
3	World Bank	Cambodia South East Asia Disaster Risk Management - IDA Credit No. 60140	dr	100%	a	93.1
4	ADB	(48409-002) LN 3661-CAM: Climate-Friendly Agribusiness Value Chains Sector Project	lvct	100%	a	70.1
5	China	Prek Trout Irrigation Development Project in Phnom Penh, Kandal and Takeo Province	irr	25%	a	46.5
6	France	Sustainable Coastal and Marine Fisheries Project (SCMFP)	bc	50%	a	40.0
7	Japan	The National Road No.5 Improvement Project (Thlea Ma am-Battambang and Sri Sophorm - Poipet Section) II	ROC	15%	a	34.4
8	Japan	The National Road No.5 Improvement Project (Prek Kdam-Thlea Ma am Section) (III)	roc	15%	a	33.0
9	Australia	Cambodia Australia Partnership for Resilient Economic Development (CAP RED)	LVTC	100%	a	30.9
10	IFAD	Accelerating Inclusive Markets for Smallholders Project (AIMS)	lvct	100%	a	30.3
11	China	Construction of National Road from Samlot-Veal Veng-Koh Kong (NR. 1551)	roc	15%	a	26.5
12	ADB	(41435-054) LN 3570-CAM: Tonle Sap Poverty Reduction and Smallholder Development Project - Additional Financing	lvt	50%	a	23.4
13	China	Design and Construction Project of Phnom Penh Ring Road No.3 (NR.4-NR.1)	roc	15%	a	23.3
14	Republic of Korea	Climate Resilient Rural Infrastructure Development Project	ICP	50%	a	23.2
15	China	Kratie Bridge over Mekong River Project	roc	15%	a	22.9
16	China	Design and Construction of National Road No.71 C Project	ROC	15%	a	17.1
17	ADB	(51159-002) LN 3877-CAM(COL): Irrigated Agriculture Improvement Project	IRR	25%	a	17.0
18	USA	USAID Greening Prey Lang	fmc	100%	m	16.0
19	EU/EC	CAPFISH-Aquaculture	lvt	50%	a	15.5
20	EU/EC	CAPFISH-Capture: budget support component	lvt	50%	a	15.0
21	ADB	(48409-002) GR 0579-CAM: Climate-Friendly Agribusiness Value Chains Sector Project	lvct	100%	a	14.7
22	China	Upgrading of National Road No.7 Project (Skun-Kampong Cham)	roc	15%	a	13.4
23	ADB	(50264-002) LN 4013-CAM(COL): Agricultural Value Chain Competitiveness and Safety Enhancement Project	lvt	50%	a	12.8
24	World Bank	Road Asset Management Project II Additional Financing	roc	15%	a	11.4
25	Republic of Korea	Dauntri Dam Development Project-Supplementary Loan (EDCF)	wcc	50%	a	11.1

26	China	National Road No.41 Reconstruction and Upgrading Project	roc	15%	a	10.3
27	ADB	Loan 4267-CAM: Trade and Competitiveness Program, Subprogram 1	lvq	5%	a	10.0
28	ADB	(42285-013) LN 8295-CAM(STCF) Integrated Urban Environmental Management in the Tonle Sap Basin Project	bc	50%	a	10.0
29	ADB	(44321-013) LN 3007-CAM: Climate-Resilient Rice Commercialization Sector Development Program (Project Loan)	lvtc	100%	a	9.9
30	Republic of Korea	Irrigation Development and Flood Mitigation Project in Banteay Meanchey	drm	50%	a	9.7
31	EU/EC	CAPFISH-Capture: FAO Complementary Support to the Cambodia Programme for Sustainable and Inclusive Growth in the Fisheries Sector: Capture component (CAPFISH Capture)	lvt	50%	a	9.5
32	Australia	Resilience Fund	pcc	100%	a	9.3
33	France	AFD- CaPFish-Aqua	lvt	50%	a	9.3
34	China	National Road No.33 Reconstruction and Upgrading Project	roc	15%	a	8.9
35	China	Water Resource Development of Stung Raksa, Preah Vihear Province	wcc	50%	a	8.8
36	Australia	Australian Centre for International Agricultural Research (ACIAR), (Regional)	lvtc	100%	a	8.5
37	France	AFD- Svay Chek river restoration and management project	irr	25%	a	8.4
38	France	AFD- Water resources management and Agroecological Transition for Cambodia (WAT4CAM) Program Phase 2 (Grant)	wg	33%	a	7.9
39	Japan	Southwest Phnom Penh Irrigation and Drainage Rehabilitation and Improvement Project	irr	25%	a	7.8
40	IFAD	Agriculture Services Programme for an Inclusive Rural Economy and Agricultural Trade (ASPIRE-AT)	lvtc	100%	a	7.7
41	USA	Commercialization of Aquaculture for Sustainable Trade (CAST) - USDA Vietnam Program	lvt	50%	a	7.7
42	Republic of Korea	Dau Nri Dam Development Project (EDCF)	wcc	50%	a	7.5
43	EU/EC	CAPFISH-Capture: CAPFISH Capture - Post Harvest Fisheries Development	lvt	50%	a	7.5
44	Japan	National Road No.5 Improvement Project (Thlea Ma'am - Battambang and SriSophorn - Poipet Section) (I)	roc	15%	a	7.0
45	Japan	National Road No.5 Improvement Project (Prek Kdam - Thlea Ma'am Section) (II)	roc	15%	a	7.0
46	ADB	(42334-018) LN 3678-CAM: Rural Road Improvement Project III	roc	15%	a	6.5
47	Japan	Siem Reap water supply expansion project (II) CP-P26	wqg	5%	a	6.5
48	Republic of Korea	National Road No.2 and National Road No.22 Improvement Project	roc	15%	a	6.4
49	ADB	(44321-013) GR 0818-CAM: Climate Resilient Rice Commercialization Sector Development Program (Additional Financing)	lvtc	100%	a	6.0
50	WFP	Activity 2 - Provide implementation support and technical assistance to national and subnational public and private sector actors engaged in food production and transformation.	pcc	100%	a	5.9

Source: MEF, CDC and team expert calculation.

Annex 4: NDC's related spending and annual average finance cost (in millions of USD)

No	Action	Ministry	No of Action M and A	in Millions of USD	
				Related Spending 2023	Annual Finance cost
1	Urban planning tools for climate change mitigation and the urban planning solution in three sub city	MLMUCC	M1	0.00	2.75
2	Improvement of process performance of EE by establishment of energy management in buildings/industries	MME	M2	1.18	5
3	Efficiency energy and pollution management in latex and rubber wood processing	MAFF	M3	0.00	0.1158
4	New sanitary landfills with LFG extraction and LFG extraction at the Dangkor Landfill. Potential for private sector engagement in financing, constructing, and operating sanitary landfill and LFG systems	MoE	M4	0.00	145.2
5	Composting of biodegradable organic fraction of MSW supplemented with separation of organic waste (at source). Can be done at different stages in the waste management value chain, either at household, community level or at landfill site. Private sector can invest in and operate the composting facilities	MoE	M5	0.19	Conditional action
6	Production of Refuse-Derived Fuel (RDF) from either a) fresh MSW or b) old MSW mined from the Dangkor landfill. The mechanical and biological separation and treatment of waste will be combined with an anaerobic digestion plant (generation of biogas from organic waste) to power facilities at the landfill. The produced RDF can be sold to e.g. cement industry as fuel. Private sector can invest in and manage the RDF and anaerobic digestion plant	MoE	M6	0.00	1.688
7	Implementation of National 3R strategy	MoE	M7	0.00	Variable cost
8	Bio-digesters construction (85% reduction compared to 2000)(Small size (2-3-4m3); Medium size(6-8-10m3), Large size(>10m3)	MAFF	M8	0.00	1.275
9	Centralized recycling facility for industrial waste from the garment sector	MISTI	M9	0.00	Variable cost
10	Better management of industrial wastewater in the food & beverage sector	MISTI	M10	0.00	Variable cost
11	Application of electrical equipment labelling & MEPS (Lighting, Cooling & Equipment)	MME	M11	0.00	25
12	Public awareness campaigns	MME	M12	0.00	2
13	Building codes and enforcement/certification for new buildings and those undergoing major renovation	MME	M13	0.00	2.5
14	Introduction of efficient electrical industrial motors and transformer	MME	M14	0.00	1.6
15	Improve sustainability of charcoal production through enforcement of regulations	MME	M15	0.00	1
16	Increase energy access to rural area	MME	M16	3.36	4
17	Roadmap study on Integration of renewable energy resources (solar, wind, hydro, biomass) into energy mix	MME	M17	5.97	0.03
18	Diversification of household and community energy generation sources to reduce reliance on biomass as an energy source	MME	M18	0.00	NA
19	Reducing GHG emission through off grid street lightening of rural municipality	NCDD	M19	0.00	1
20	Toward Battambang city to green city	NCDD	M20	0.00	0.8

21	Eco-payment based on changing behavior on fire wood use of community in Angkor and Kulen Conservation Park	NCDD	M21	0.00	0.7
22	Cooling of public sector buildings	NCDD	M22	0.00	6.7
23	Promote sustainable energy practices in manufacturing	MISTI	M23	0.08	Variable cost
24	Actions to promote sustainable sourcing of fuel wood in the garment industry	MISTI	M24	0.00	1.959025
25	Implementation of National Cooling Action Plan - Direct emission reduction due F-gas transition in air-conditioning and refrigeration - Indirect emission reduction due to improved cooling efficiency - Additionally, Inclusion of performance requirements of Passive Cooling Systems in Building Energy Code and implementation of "passive cooling" measures in the cities can be carried out as part of the implementation of the NCAP – see below	MLMUPC	M25	0.00	5
26	Inclusion of performance requirements of passive cooling systems in building energy code of Cambodia	MLMUPC	M26	0.00	0.075
27	Implementation of "passive cooling" measures in the cities (addressing urban heat island effect [UHIE]), public buildings and commercial buildings.	MLMUPC	M27	0.00	4.9
28	Promote integrated public transport systems in main cities	MPWT	M28	0.16	NA
29	Enhance maintenance and inspection of vehicle (Piloting maintenance and emission inspections of vehicles)	MPWT	M29	0.00	Variable cost
30	E-mobility	MPWT	M30	0.00	NA
31	Establish green belts along major roads for climate change mitigation	MPWT	M31	0.00	NA
32	Shift long distance freight movement from trucks to train	MPWT	M32	0.00	NA
33	Increasing the effectiveness and sustainability of agricultural land management techniques (Conservation Agriculture)	MAFF	M33	0.39	2.4963
34	Organic input agriculture and bio-slurry; and deep placement fertilizer technology	MAFF	M34	0.01	0.26
35	Promote fodder production to improve high nutrient rich and high-quality forage feed value agriculture byproducts technology to support cattle production	MAFF	M35	0.00	0.0625
36	Promote manure Management through compost making process to reduce carbon emission	MAFF	M36	0.00	2.125
37	Seedlings distribute to public and local community	MAFF	M37	0.00	Variable cost
38	REDD+	MAFF	M38	12.21	NA
39	1. Promoting one tourist, one tree campaign	MoT	M39	0.00	0.2
40	2. Practicing responsible travel manner in order to protect and conserve environment, biodiversity, culture and local livelihood improvement	MoT	M40	0.00	NA
41	3. Always remind and practice 3R in all tourists' activities	MoT	M41	0.00	NA
42	4. Reducing energy use, improving energy efficiency, increasing the use of renewable energy, carbon offsetting, waste management and recycling, and water conservation	MoT	M42	0.00	NA
43	5. Operating sustainable destination management		M43	0.00	NA
44	6. Promoting adventure and green tourism activities		M44	0.05	NA

45	Installing air quality monitoring equipment in all provinces across the countries and establishing air quality data monitoring center with mobile application for public information and access	MoE	M45	0.02	NA
46	Establishing air quality monitoring and broadcasting center	MoE	M46	0.02	Variable cost
47	Improving urban environmental management through increasing green spaces in the city	MoE	M47	0.00	NA
48	Emission management from factories	MoE	M48	0.00	NA
49	Air quality management from construction sites	MoE	M49	0.00	0.05
50	Development of a long-term low emission strategy	NCSD	M50	0.00	NA
	Subtotal Mitigation Action			23.6	218.5 + Other programmes' conditional cost = USD 0.58 Billion
1	Towards an agroecological transition in the uplands of Battambang	NCDD	A1	0.00	1
2	(Program 1: Improvement of Agricultural Productivity and Diversification and Agri-Business) Development of rice crops for increase production, improved quality safety; harvesting and post harvesting technique and agrobusiness enhancement	MAFF	A2	35.10	3.7122
3	Development of horticulture and other food crops for increase production, improved quality safety; harvesting and post harvesting technique and agrobusiness enhancement	MAFF	A3	2.94	1.5238
4	Development of industry crops for increase in production, improved quality safety; harvesting and post harvesting technique and agrobusiness enhancement	MAFF	A4	9.87	1.2506
5	Improvement of support services and capacity building to crop production resilient to climate change by promoting research, trials and up-scaling climate smart farming systems that increase resilience to CC and extreme weather events	MAFF	A5	2.02	6.9562
6	Building climate change resilience on cassava production and processing	MAFF	A6	0.00	0.289
7	Research for the development and enhancement of agricultural productivity, quality, and transfer through strengthening of crop variety conservation and new crop variety release responding to the impacts of climate change	MAFF	A7	0.86	0.2
8	Development of new technologies and increased yields by using new crop varieties which adapt to climate change	MAFF	A8	0.00	0.15
9	Development of rubber clone varieties suitable for AEZ and resilient to climate change	MAFF	A9	0.00	0.92486
10	Enhancing institutional and capacity development on climate change impact, vulnerability assessment, adaption measures and mitigation related to rubber sector	MAFF	A10	0.00	0.3852
11	(Program 2: Promote animal production and animal health) Improvement of animal breeding technology in Cambodia through AI which can adapt to climate change	MAFF	A11	0.08	1.25
12	Promotion of research capacities on animal genetic, animal breeding, and animal feed is strengthened to adapt to climate change	MAFF	A12	0.00	5

13	Strengthening capacities for risk prevention and reduction, effective emergency preparedness and response at all levels; enhancing livestock and disease-related early warning system, and integrating disaster risk reduction and climate change adaptation measures into recovery and rehabilitation initiatives in the livestock sector	MAFF	A13	0.00	0.625
14	(Program 3: Fishery management and aquaculture development) Promoting aquaculture production systems and practices that are more adaptive to climate change	MAFF	A14	13.35	1.56
15	Promoting climate resilience in the fisheries sector	MAFF	A15	1.65	3.35
16	Scaled up climate resilient agricultural production through increased access to solar irrigation systems and other climate-resilient practices	NCSD	A16	0.00	1
17	Developing a training manual and providing training on approaches for development of climate-smart and sustainable livelihood to rural poor people	MRD	A17	124.19	1
18	Protection, risk mitigation, and resilience building from marine pollution particularly caused by activities on land including marine pollution from waste and aquaculture activities.	MoE	A18	0.10	0.2
19	Effective management and protection of ecological systems of marine and coastal zones to avoid adverse impacts from various factors, build their resilience and restore its functions for productive and healthy oceans	MoE	A19	0.00	7
20	Upgrading curriculum and training methodologies, including libraries, to include climate change subjects for primary schools	MEYS	A20	0.00	0.2
21	Upgrading curriculum to include climate change for nonformal education	MEYS	A21	0.00	0.095
22	Build centers of excellence for delivering climate change courses and research among Universities	MEYS	A22	0.00	0.325
23	Conduct training for education officials on climate change e.g. as a required component of teacher training	MEYS	A23	0.00	0.09
24	Conduct climate risk analysis for the existing electricity infrastructures and provide recommendations	MME	A24	0.00	0.0322
25	Climate proofing of existing and future solar/hydropower infrastructure	MME	A25	0.00	NA
26	Strengthen institutional capacities at national and sub-national levels to integrate gender responsiveness in climate change adaptation's policies, plans, programming, including gender budgeting	MoWA	A26	0.01	0.05
27	Enhance coordination and implementing accountability mechanisms to reduce climate change vulnerabilities of disadvantaged women and other marginalized groups such as ethnic minority women and men, People with Disability (PWD), youth, and elderly	MoWA	A27	1.49	0.05
28	Enhance monitoring and evaluation systems of sectoral ministries to track gender outcomes in climate change initiatives with particular focus on collecting and managing sex disaggregated data, gender indicators and budgeting, outcome-based reporting, and dissemination and up-scaling of the gender and climate change adaptation related knowledge generated.	MoWA	A28	0.00	0.02

29	Capacity development for GCCC members and sectoral ministries on gender analysis, gender responsive and NDC	MoWA	A29	0.00	0.04
30	Develop a technical guideline for gender mainstreaming in NDC process	MoWA	A30	0.00	0.012
31	Market supply chain of rural women entrepreneurs resilient to climate change	NCDD	A31	0.05	0.8
32	Local government and Climate Change-III (LGCC3)	NCDD	A32	0.23	1.3185
33	Reducing vulnerability of local communities through sub-national climate governance reform (focusing on policy)	NCDD	A33	0.00	1
34	Enable effective decision-making for health interventions through generation of information and improved surveillance or early-warning systems	MoH	A34	0.00	0.0113519
35	Enhance climate resilience in health service delivery	MoH	A35	9.56	0.0246758
36	Strengthen and provide capacity building of technical guidelines for diagnosis, detection, control, prevention and treatment of vector-borne and water-borne diseases, injuries and other food poisoning illnesses arising from climate change	MoH	A36	0.86	NA
37	Conduct water sanitation and hygiene (WASH) assessment on climate change and develop planning for communities and health facilities.	MoH	A37	0.54	NA
38	Strengthen institutional capacities to effectively integrate climate risks and adaptation options in health sector planning and implementation	MoH	A38	0.00	0.0107408
39	Heat stress adaptation for industrial production	MISTI	A39	0.00	Variable cost
40	Enhance the quality of broadcasting means and expand the capacity of coverages for raising awareness on climate change nationwide	MoINFO	A40	0.00	0.5
41	Training and enhancing human capacity on climate change in information sector	MoINFO	A41	0.00	0.075
42	Urge private media organizations to participate in covering/broadcasting the climate change topics and to complement the state broadcasting agencies.	MoINFO	A42	0.00	0.125
43	Urge and encourage to reduce (or ban) all forms of commercial advertisement that has negative impact on environment	MoINFO	A43	0.00	0.05
44	Integrating climate change response measures onto the construction design for buildings and for rural housing (use of modern integration of technology)	MLMUPC	A44	0.00	0.34
45	Develop resilient infrastructure of school buildings in response to climate change	MEYS	A45	0.00	0.195
46	Implement climate change and disaster resilient construction and infrastructure standards including for public sector and community-focused buildings covering public health, education, WASH etc.	NCDM	A46	0.00	0.04
47	(DLUP) Prepare spatial planning (city/district/municipality) guidelines at all levels for climate change adaptation (CLUP) Integrating climate change response measures to the commune land use planning	MLMUPC	A47	0.00	0.0586
48	Integrating climate change response measures to the policy of social land concession (SLC) and its procedures	MLMUPC	A48	0.00	0.186
49	Prepare modality of standardized green spaces for urban planning or new sub-cities to address vulnerability of urbanization.	MLMUPC	A49	0.00	0.786

50	Vulnerability Assessment towards the development of climate change strategic plans to respond to the impacts on land, housings, coastal management, and building due to climate change	MLMUPC	A50	0.01	0.256
51	Promote land use planning tools for urban houses and building construction adaptive to climate change benefits to the low-income and homeless people	MLMUPC	A51	0.00	0.256
52	Promote proper low cost shelters for low income households resilient to climate change, practically in the area of social land concession	MLMUPC	A52	0.00	3.256
53	Development of building code with mainstreaming climate change into building designs	MLMUPC	A53	0.00	0.656
54	Mainstream climate change response measures into coastal development planning against sea water intrusion, sea water rise and seasonal storm destruction, and rising temperature	MLMUPC	A54	0.00	Variable cost
55	Strengthening climate resilient city	NCDD	A55	0.02	1
56	Develop national road construction and maintenance design standards for national and provincial roads, considering climate change impact including M&E framework develop for climate proofing and low-carbon technology roads	MPWT	A56	1.27	0.05
57	Repair and rehabilitate existing road infrastructure and ensure effective operation and maintenance systems, considering climate change impact	MPWT	A57	174.99	1
58	Rural road rehabilitation and improvement for climate change resilience	MRD	A58	18.12	80
59	News coverage and program production for awareness raising on climate change and its impacts	MoINFO	A59	0.00	0.3
60	Develop and annually update national and subnational multihazard and climate risk assessments, including identification of most vulnerable communities.	NCDM	A60	0.22	0.15
61	National end-to-end early warning systems with focus on effective dissemination to populations at risk	NCDM	A61	0.24	1.5
62	Implement community-based disaster and climate risk management programs	NCDM	A62	0.00	0.6
63	Building resilience of biodiversity conservation and restoration to adapt to climate change	MoE	A63	26.35	0.1125
64	Integrated village development	MRD	A64	0.00	20
65	Strengthen flood resiliency capacity of communities around Tonle Sap (access to clean water, off grid renewable energy, and waste management)	NCDD	A65	0.00	1
66	Building climate resilient livelihood and public infrastructures in social land concession for vulnerable communities	NCDD	A66	0.00	1.45
67	Building climate resilience for district and commune governance through policy and strategic development plan reform (focus on implementation)	NCDD	A67	0.00	1
68	Mainstreaming climate change into Education Strategic Plan 2019-2023 Strategic Plan and SDG4 Roadmap for Education 2030	MEYS	A68	0.00	0.08
69	Strengthen the cooperation with local and International development agencies, NGOs and relevant institutions for technical and financial support to implement the adaptation planning in media sector	MoINFO	A69	0.00	0.01
70	Development of climate change national/capital/provincial development plans including an M&E system with specific indicators	MoP	A70	0.00	0.5
71	Development of a climate change public investment program for the national/capital/provincial levels	MoP	A71	0.00	0.3

72	Building adaptive and resilient capacity for MRD officers at national and sub-national level for mainstreaming climate change into rural development planning processes and technical design.	MRD	A72	0.00	1
73	Build adaptive capacity on climate change for village leaders (Village Development Committees, VDCs)	MRD	A73	0.00	1
74	Strengthen resilience and adaptation capacity to climate change in the most vulnerable provinces/districts/communes (produce vulnerability index maps at the commune level, integrate climate change into investment and development plans, demonstrate the identified actions at pilot sites)	NCS D	A74	0.00	1
75	Update and implement the Cambodia Climate Change Strategic Plan (CCCS P) for 2024-2033	NCS D	A75	0.00	0.5
76	Integrate climate change measures into national policies, strategies and sectoral strategies and plans	NCS D	A76	7.51	0.5
77	Enhance institutional capacity on climate change (mitigation, adaptation, policy, strategies, planning, and finance) through awareness raising, training, and advocacy	NCS D	A77	2.25	0.2
78	Provide capacity building and supports for Climate Change Innovation at the provincial along Tonle Sap River	MoT	A78	0.00	Variable cost
79	Raising public awareness on climate change innovation at all levels	MoT	A79	0.00	NA
80	Practicing smart agriculture in tourism sector	MoT	A80	0.17	NA
81	Establish an automated nationwide hydromet. monitoring network and data transmission program, including collection of climate and hydrological data	MoWRAM	A81	0.00	4.79
82	Establish a centralized and standardized approach to climate resilient water management	MoWRAM	A82	103.43	4.96
83	Establish a national climate and food warning system, including a service center and flood emergency response plans	MoWRAM	A83	7.38	0.88
84	Integrated groundwater management in Cambodia	NCDD	A84	0.00	1
85	Establish nationally standardized best practice systems for irrigation	MoWRAM	A85	86.72	0.24989
86	Resilient and adaptive rural water supply and sanitation construction	MRD	A86	7.43	35
	Subtotal Adaptation Action			639.0	208.4 + Other conditional cost = USD 0.2 Billion
	Total			662.6	426.9 + Other conditional cost = USD 0.78 billion

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