CAMBODIA CLIMATE CHANGE ALLIANCE













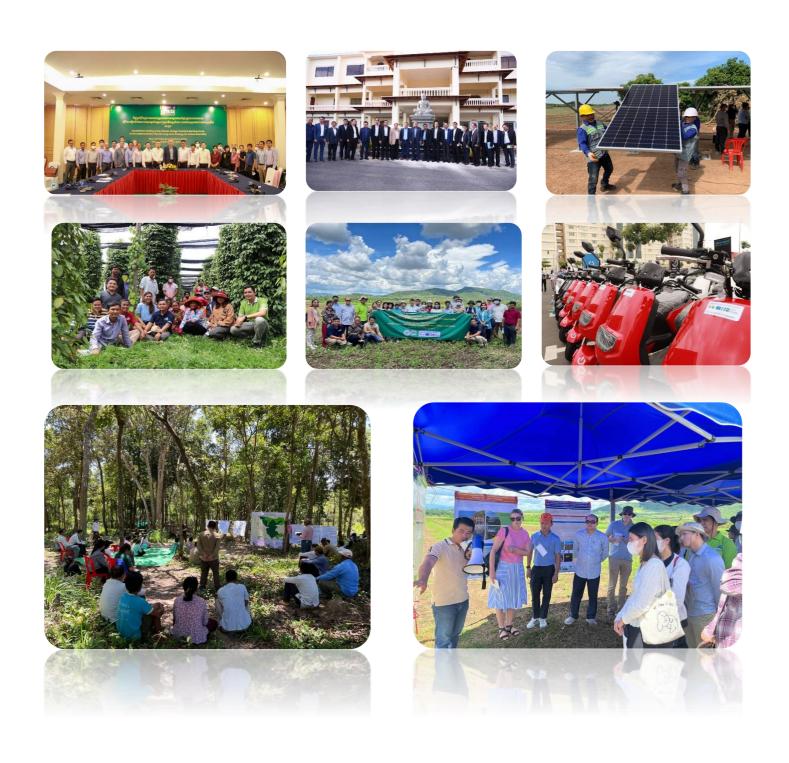






Annual Programme Report 2022

Annual Programme Report 01 January to 31 December 2022



Programme Title : Cambodia Climate Change Alliance- Phase 3

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Implementing Partner: Department of Climate Change,

General Directorate of Policy and Strategy,

National Council for Sustainable

Development (NCSD)

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Acronyms and Abbreviations

BK Bikay IT firm

CCCA3 Cambodia Climate Change Alliance-Phase 3

CPER Climate Public Expenditure Review

CCTWG Climate Change Technical Working Group

COP Conference of Parties
CSOs Civil Society Organizations

C-PIMA Climate Public Investment Management Assessment

DCC Department of Climate Change

DPs Development Partners

EU European Union

ITC Institute of Technology of Cambodia

GDPS General Directorate of Policy and Strategy

GGGI Global Green Growth Institute
GSSD General Secretariat of the NCSD
KAP Knowledge, Attitudes, and Practices

LoA Letter of Agreement

LTS4CN Long Term Strategy for Carbon Neutrality in Cambodia

MAFF Ministry of Agriculture, Forestry and Fisheries

MEF Ministry of Economy and Finance
 M&E Monitoring and Evaluation
 MME Ministry of Mines and Energy
 MoE Ministry of Environment

MoEYS Ministry of Education, Youth and Sport

MoU Memorandum of Understanding

MPWT Ministry of Public Works and Transport

MRD Ministry of Rural Development

MRV Measurement, Reporting and Verification

MTR Mid-Term Review

NCSD National Council for Sustainable Development

NCDDS National Committee for Sub-national Democratic development Secretariat

NDCs Nationally Determined Contributions
ODA Official Development Assistance
PEB Programme Executive Board

PIMA Public Investment Management Assessment

RUPP Royal University of Phnom Penh

UN United Nations

UNICEF University of Battambang
University of Battambang
United Nations Children's Fund

UNDP United Nations Development Programme

UNFCCC United Nations Framework Convention on Climate Change

WB World Bank

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1. Executive Summary

A key achievement for 2022 was the progress made on the transparency framework for the implementation of Cambodia's commitments under the Paris Agreement, with operationalization of the online tracking system for NDC and LTS4CN implementation, and the publication of the first annual report on NDC implementation, in cooperation with all concerned ministries and agencies. Availability of data on an annual basis is a major milestone in Cambodia's efforts to increase transparency on climate action.

With the support from CCCA3, MoE advocacy at the inter-ministerial level led to important policy decisions on international cooperation for climate action. Cambodia joined the Glasgow Leaders Declaration on Forests and Land Use, the Methane Pledge, and Green Government Initiative in July 2022, followed by Building Breakthroughs and MEF joined the Coalition of Finance Ministers for Climate Action in December 2022. Regarding national level policy, good progress was made on developing an operational model (public-private partnership approach) for off-grid solar mini-grids. This is now being piloted by MME, in a year which also saw the approval of the new Power Development Plan and the National Energy Efficiency Policy.

Some delays have been experienced for the approval of the sub-decree on the management of GHG emissions reduction mechanisms. This is crucial for Cambodia's engagement in carbon markets. The technical content is now finalized after inter-ministerial consultations, and a review by MoE lawyers is expected to be completed in the coming weeks, before the sub-decree is sent to the National Committee on Financial and Economic reforms for review and endorsement.

CCCA3 continued its work with MEF, MPWT and MRD to pilot tools for the mainstreaming of climate change in public sector planning and budgeting. Tools for provincial departments were piloted with MRD, and a template to reflect climate vulnerability analysis for roads in the budget submission documents was tested with MPWT and discussed with the MEF Department of Investment. CCCA3 participated in the Climate Public Investment Management Assessment conducted by IMF, and the action plan resulting from this assessment could be an opportunity to scale up some of the CCCA3 pilot initiatives in the short to medium term.

Progress made by the innovation, research partnerships and ministries grant is largely back on track after the COVID19 pandemic. Five grants have been closed so far and the lessons learned and potential for the grants to be scaled up identified. This work will continue into 2023 as the remaining grants will reach completion, and key findings will be reported to the board.

2. Programme Achievements

Outcome 1: Relevant climate information is generated in a reliable and timely manner, suitable to sectors and targeting specific needs.

Output 1.1: Climate Change data portal enhanced, enabling greater access of stakeholders to key climate data in support of effective climate action.

58,875 visitors (58,634 are new visitors) visited the NCSD website from January to December 2022, showing an increase of 32 % compared to the number of visitors in the same period in 2021 (44,556 visitors). This trend is due to the increasing number of data portal products and materials and documents uploaded, particularly the NDC/LDS4CN Tracking system, project factsheets and case studies, E-bulletin, E-lexicon, ToRs for consultancies, climate change videos, recently updated news and policy briefs, and climate change research documents.



Figure 1: Number of users to the NCSD Website from January to December 2022

From January to December 2022, a total of 6,795 users downloaded documents from the NCSD's website of which 1,883 were women, from government, academia, private sector, and NGOs. The top downloaded documents included the 2021 annual updated NDC report, CPER reports, LTS4CN implementation plan, ToRs of vacancies, project's factsheets and climate change videos.

Regarding the website satisfaction rating, 99% of the users reported that it is useful and user-friendly. 466 users (103 women) have downloaded climate data from the data portal and data portal users increased by 75% compared to the same period in 2021. In 2022, the updated climate change vulnerability Index (2020-2021) and the KAP3 portal received the highest downloads and visits, followed by the project mappings and brief findings.

The online NDC/LTS4CN tracking system was fully developed and updated, while the GCF application procedure was developed on the website and is commonly used. In addition to the data products deployed on the website, other products are being developed, particularly the GIS portal and CC Health Index. These tools are to be added in the beginning of 2023.



and YouTube Channel.

Regarding the communication and knowledge products, the 2023 calendar and diary (Figure 2) were published and shared with key stakeholders in a timely manner. They highlighted significant achievements of the CCCA3 in the year of 2022 and main progress made under the CCCA3 grant projects.

Four educational short films on climate change for children, youths, and elders were successfully produced and broadcasted in a wide range of communication channels, namely the MoE Facebook Page, Apsara Media Service (AMS), and NCSD's website

In addition, five scientific videos were recently published in the MoE's Facebook and NCSD's website, including information on Impacts, Adaptation, Energy Transition and Impacts from three degrees of global warming.

With the support of the CCCA3 grantees, a total of 16 videos highlighting project implementation

progress, best practices, technologies and ways forwards were developed and presented in the CCCA3 knowledge sharing event. These videos were also posted on the MoE's Facebook page, NCSD's website and the Youtube channel (Table 1).

Case studies highlighting outstanding achievements of the CCCA3 project implementation were produced and disseminated with a range of key stakeholders; they included gender initiatives on climate change and lessons learnt about climate smart farming, gender and adaptation costing options (Figure 3).

Additionally, the climate change E-bulletins were developed regularly and distributed to the stakeholders summarizing the recent climate related developments, events and implementation progress on the ground. The e-bulletin for the fourth quarter of 2022 is ready to be disseminated in the beginning of 2023.

The table below is listing the knowledge and communication products produced by grantees to

Advancing gender equality through climate action

**Preguard by:
**International foundaments Princepose (IRP), Cambedda Chemast Change Afficines-Phare 8 (CCCLR)

The women's labour participation rate has been increasing in the recent years from 77.75% in 2014 to 84.1% in 2019 in Cambedda: The number of women in decision making positions is also raising, and women represent 41 percent of the total civil servants, and 26 percent of the mar serving in decision making roles, while in the public and private sector, about 36 percent of women belong to the management team*.

However, there is still a way to go and 1 in 10 commune chiefs elected are women in 2022 and some 173 women were elected as chiefs of 1,652 communes with an increase of 32 women, from the previous 2017 commune election. The unequal distribution of household burden is still holding up women's economic inclusion. It is predominantly women (86.9 per cent of who perform all the caring and household tasks compared with men. Women's participation in tusks such as ecoking, cleaning, shopping and direct care is consistently higher than men's and only cooking is taking approximately 1,5 hours a day of the time of women in the rural areas, for instance.

National Institute of Statistics, 2020

National Assembly (NA) Women Parliamentariant Calcus Known sides; 11 Phylog. 2022; A store of the project, 2022. The project also studied the cooking avoided depression and relative definition project, 2022

National Institute of Statistics, 2020

National Institute of Statistics, 2020

National Assembly (NA) Women Parliamentariant Calcus Known sides; 11 Phylog. 2022; A store of the project, 2022. The project also studied the cooking avoided depression and relative definition project, 2022

National Institute of Statistics, 2020

Gender Equality through Climate Action

address impacts of climate change not only in the community but also at the national level.

Table 1. Summary of Communication Products Developed under the CCCA3 grants

Grantee names	Project name	Communication products made by CCCA3	Other products developed by grantees
		Innovation Grant Round I	
EnergyLab	Building the Electric Mobility Ecosystem in Cambodia	Project information and factsheet https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/EnergyLab- Poster%20presentation%2 0Knowledge%20sharing% 20event.pdf	Project completed
Swiss Church Aid (HEKS/EPER)	Climate Smart Farming Project	Project information and factsheet update on https://ncsd.moe.gov.kh/dcc/project/climate-smart-farming-project	Introduction video of the Implementation of Climate Smart Farming project: https://www.facebook.com/100 568751349619/videos/1601066 890308114 Video of Perennial cover-crops for black pepper: https://ncsd.moe.gov.kh/kh/dcc/resource/video/SmartAgro/HEKSCambodia/pepper/covercrop
Institute of Technology of Cambodia (ITC)	Pushing Energy Efficiency in Cambodia	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/ITC-CEE- Poster%20presentation%2 0Knowledge%20sharing% 20event.pdf	Poster of tips to help save energy in the kitchen: https://www.facebook.com/CEE Comp/photos/a.102991184944 329/655415263035249/ Poster of energy efficiency in using refrigerator: https://www.facebook.com/CEE Comp/photos/a.102991184944 329/651019393474836/ Poster of energy efficiency in using air conditioner:

Grantee names	Project name	Communication products made by CCCA3	Other products developed by grantees
			https://www.facebook.com/CEE Comp/photos/a.102991184944 329/624981132745329/ CEE Comp Award Ceremony at the Ministry of Environment (MoE): https://www.facebook.com/CEE Comp/posts/pfbid02isaZDcTUpJ JodwrvMt5z7jt4vcTykkAyqNg3L RwZsd1uMVWcc9roVLEqzgvtDR nzl Announcement of Award Ceremony: https://www.facebook.com/CEE Comp/photos/a.102991184944 329/607557711154338
People In Need Cambodia (PIN)	Strengthening Climate Information and Early Warning System in Cambodia to Support Climate Resilient Development and Adaptation to Climate Change.	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/PIN- Poster%20presentation%2 0Knowledge%20sharing% 20event.pdf	Project completed
Prek Leap National Institute of Agriculture (NIA)	Innovation Facility Installation of Demonstration Ram Pump	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/NIA- Poster%20presentation%2 0Knowledge%20sharing% 20event.pdf	N/A

Grantee names	Project name	Communication products made by CCCA3	Other products developed by grantees
The Regional Community Forestry Training Center for Asia and the Pacific (RECOFTC)	Sustainable financing for climate action through community forestry in the Prey Land landscape	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/RECOFTC- Poster%20presentation%2 0Knowledge%20sharing% 20event.pdf	Project completed
Teuk Saat 1001 (TS1001)	Ensuring safe and resilient drinking water supply services for 3 communes in times of COVID-19	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/TS1001- Poster%20presentation%2 0Knowledge%20sharing% 20event.pdf	Project completed
		Innovation Grant Round 2	
Preah Sihanouk Province Coastal Development and Management Committee (CDMC)	Enhancing Climate Resiliency Through Strengthening Marine Protected Area Management Effectiveness in Kampong Smach, Prey Nob District	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/CDMC- Poster%20presentation%2 0Knowledge%20sharing% 20event.pdf	Meeting on project update and monitoring: https://www.facebook.com/per malink.php?story_fbid=pfbid03 6XphcuB1rQ4qimU24MyL689N1 ojuThFfWU7T9SpYEc2z4V9Gb1a Z6zK6QEHtHDLzl&id=10007891 5878480 Monitoring and Evaluation visit at project site: https://www.facebook.com/per malink.php?story_fbid=pfbid04 hLxtWTyiJJgndCRjj2NamYHPijiaa NorToy18vUMJXKQ1xpfyYt5Fe9 LM7V5bdBl&id=1000789158784 80

Grantee names	Project name	Communication products made by CCCA3	Other products developed by grantees
			Field visit at Koh Kong province: https://www.facebook.com/per malink.php?story fbid=pfbid0xo Bu6KyuhZV3x6qnYjeGLMaz1zp7 QtCjz8iu35DVpMzXakZvFS88H8 VGhcJa7Ni8l&id=100078915878 480
Facilitation Association of Economy for Cooperatives (FAEC)	Resilience and Adaptation Planning for Ecosystem and Sustainable Development (RAPESD)	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/FAEC- Poster%20presentation%2 0Knowledge%20sharing% 20event.pdf	40 students from Royal University of Agriculture and Agricultural students from Vietnam visited project implemented by FAEC Cambodia: https://www.facebook.com/fae c.cambodia.org/posts/pfbid02J QW7cunsjutSRpHp4L5xycK5ftfP TmKphrMcHmyHS5695Yh4QRLb ZRSSRgFBr13KI SANTOK Agricultural Cooperative continues to provide training to its members on climate change under FAEC Cambodia's RAPESD project, funded by the EU / Sverige & UNDP through MOE / CCCA3 https://www.facebook.com/fae c.cambodia.org/posts/pfbid02G xjpShYqXF6PKkAYDMWGEpDjSt EDPB9W3ESsg6Gzh87zhpuL8w3 CWwu1TvJU7ax4l KAMKO KILO 38 Agricultural Cooperative continues to provide training to its members on climate change under FAEC Cambodia's RAPESD project, funded by the EU / Sverige & UNDP through MOE / CCCA:

Grantee names	Project name	Communication products made by CCCA3	Other products developed by grantees
	Project name	products made by CCCA3	
			project funded by EU / SIDA / UNDP through MoE / CCCA was conducted by cooperative- based trainers in Battambang and Kampong Thom provinces
			https://www.facebook.com/fae c.cambodia.org/posts/pfbid0qtP Tdmk8RV3fBDbd9fUcEbvxf6ByK BTUCQvF15kmzkzP5LWdrFGtNG A5KcpmUZ3dl

Grantee names	Project name	Communication products made by CCCA3	Other products developed by grantees
International Development Enterprise (iDE) Cambodia	Scale pilots to accelerate the uptake of efficient electric cooking appliances to mitigate climate impacts through avoided deforestation and reduced emissions	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/iDE- Poster%20Presentation%2 0Knowledge%20sharing% 20event.pdf	Project completed
Ministry of Industry, Science, Technology and Innovation (MISTI)	Promoting Waste Water Treatment in Industrial and SMEs Sectors	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/MISTI- Poster%20presentation%2 0Knowledge%20sharing% 20event.pdf	N/A
Department Rural Water Supply (DRWS) of Ministry of Rural Development (MRD-TS1001)	CSO-Public partnership to favor resilient access to safe water in rural areas	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/MRD-TS10001- Poster%20presentation%2 0Knowledge%20sharing% 20event.pdf	N/A
	L	oAs with the Line Ministries	
Ministry of Education, Youth, and Sport (MoEYS)	Mainstreaming Climate Change and increasing resilience in the education sector	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/MoEYS- Poster%20Presentation%2 0Knowledge%20sharing% 20event.pdf	N/A

Grantee names	Project name	Communication products made by CCCA3	Other products developed by grantees
Ministry of Mines and Energy (MME)	Piloting Energy Efficiency and Solar Micro Grids for Cambodia's Clean Energy Future	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/MME- Poster%20presentation%2 0Knowledge%20sharing% 20event.pdf	N/A
Ministry of Environment (MoE)	Strengthening Air and Climate Pollution Management in Cambodia	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/MoE- Poster%20presentation%2 0Knowledge%20sharing% 20event.pdf	N/A
Ministry of Public Works and Transport (MPWT)	Promotion of electric motorbike adoption for a sustainable transport sector	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/MPWT- Poster%20presentation%2 0Knowledge%20sharing% 20event.pdf	Handover of electric vehicles and inauguration of electric vehicle charging stations at the Ministry: https://www.facebook.com/mpwt.gov.kh/posts/pfbid0Ar2SZf51cJdM8Y34C5Phc4WTyj6sTiUcWUreM5Jh5SWDVmgP1r4tTxaPi6nCBi2Kl
Ministry of Rural Development (MRD)	Building Climate Resilience for Rural Water Supply Infrastructures in Cambodia (BCR-WS)	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/MRD- Poster%20presentation%2 0Knowledge%20sharing% 20event.pdf	N/A

LoAs with Research Partner Universities

Grantee names	Project name	Communication products made by CCCA3	Other products developed by grantees
Institute of Technology of Cambodia (ITC)	Study on the impact of heat stress to human productivity and economy in Cambodia	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/ITC-HSC- Poster%20presentation%2 0Knowledge%20sharing% 20event.pdf	N/A
University of Battambang (NUBB)	Investing into Soil Organic Carbon management for resilient upland farming (ISOC)	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/NUBB- Poster%20presentation%2 0Knowledge%20sharing% 20event.pdf	N/A
Royal University of Phnom Penh (RUPP)	The cost of adaptation to climate change and for infrastructure, water, and agriculture projects	Project information and factsheet: https://ncsd.moe.gov.kh/ sites/default/files/2022- 01/RUPP- Poster%20presentation%2 0Knowledge%20sharing% 20event.pdf	N/A
Institute of Technology of Cambodia (ITC)	Improving capacity on integrated coastal management with low impact development considering environmental sustainability and climate change in the coastal area of Cambodia	Project information and factsheet: https://ncsd.moe.gov.kh/ dcc/project/improving- capacity-integrated- coastal-management-low	N/A

Output 1.2: Tailored data, information, and knowledge product targeting the needs of public institutions, private sector and CSOs, in priority sectors.

With the support of GGGI, the CCCA3 team has discussed and translated key terminologies under Article 6 of the Paris Agreement on carbon trading. 24 key terms will be further integrated into Climate Change Lexicon.

In order to further strengthen the understanding of climate change information and increase the participation among practitioners in climate action, a drawing competition for children and youths ran from September until December. 444 children and youths applied and 30 were selected as finalists through scoring from competition committee and public votes given. The final announcement and awarding ceremony will be organized in early 2023.

A Khmer version of the KAP3 report was approved by the minister of environment and shared widely.



Figure 5: KAP3 Preface approved and signed by Minister of Environment

Key KAP3 data was included on the data portal on the NCSD's website, presenting scientific information on Cambodians' understanding and engagement with climate change issues. KAP3 findings were also included in quarterly E-bulletins and presented in the various knowledge sharing events.

Regarding the climate change research partnerships to address data and information gaps, the CCCA3 team has continued to support research partnerships in cooperation with the local universities (the ITC, NUBB, and RUPP) and their international university partners to generate data for decision making on climate change adaptation and mitigation. It is noted that some research projects require a longer period to produce research findings following the objectives and the timeframe agreed. During the reporting

period, most of the projects produced their initial findings and completed baseline studies, however, further technical support from the partners is needed while the project management for some of these grants need to be strengthened in order to improve the effectiveness of the implementation of the projects.

III. Result and Discussion

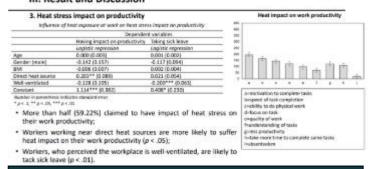


Figure 6: Initial results from the heat stress project implemented by ITC

The research on the impacts of heat stress on productivity and the economy of Cambodia led by ITC is moving forward as planned and after the team completed the cool and the hot season analysis of the garment and education sectors the team is now focusing on the construction sector study taking place during the upcoming hot season. The statistical analysis and initial findings of the garments and education sectors have been further analyzed with the research

partners. In addition, energy audits in two garment factories were completed. Two papers on impacts of heat stress on primary students and garment sector were presented at an international conference and selected as some of the best papers presented at the conference. Moreover, a Second Heat Stress Workshop is to be organized on 17th January 2023 to raise awareness of heat

impacts and discuss initial findings with key stakeholders.

The research project on adaptation to climate change through soil organic carbon management (ISOC) led by NUBB is moving ahead and field works have been conducted and soil sampling collected. A draft baseline study was completed and is currently under discussion between the research partners and stakeholders. A comparison between different types of soils (forest land vegetation) using different conventional and conservation methods is underway while some parts of the soil analysis were completed by a PhD student and about to be presented at an international conference in France. A draft research paper on soil organic carbon is also underway by the PhD student. A study on physiology including soil microbial activities and insect population is in progress while an economic comparison between a practice of

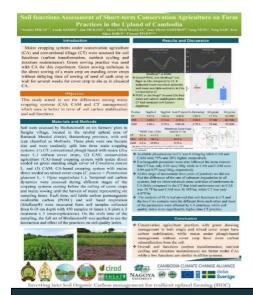


Figure 7: An initial result of the ISOC project present by PhD Candidate

conservative agriculture and conventional agriculture has also been conducted.

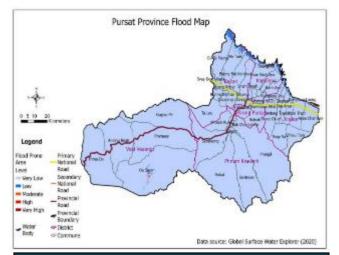


Figure 8: Composite of flood hazard zone and road network in Pursat Province by RUPP research team

Another research project on the cost of adaptation measures in the infrastructure sector led by the RUPP and supported by international partner universities from Thailand and Germany is under progress. Methods and refined tools to estimate the adaptation costing and noncosting of roads and adapting infrastructure were developed and they are under support from two professors from AIT-Thailand. The RUPP team completed Capacity Needs Assessment of MRD and MPWT and a training following the results is under discussion

among the RUPP, the two ministries and RUPP's research partners.

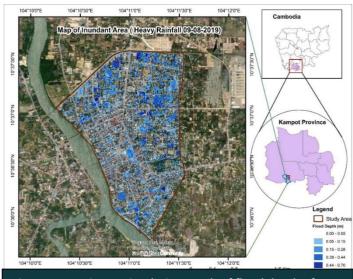


Figure 9: A primary simulation result of flood depth of Kampot town using PCSWMM application for 140 mm rainfall intensity by the ITC-CLID

The research on Improving capacity on integrated coastal management with low development considering environmental sustainability and climate change in the coastal area of Cambodia (CLID) is carried out by the ITC in cooperation with RUA, Kyoto University and IRD. The research activities are underway, and a project draft baseline report was developed by the RUA and shared with the DCC/CCCA and partners for further comments and inputs. Based on the baseline results, there is a need for organizing a training on CLID for national and sub-national officers and this will take place in the beginning of 2023. bachelor students who were involved in the project activities completed their

research projects on CLID approaches and coastal development in different provinces in October 2022. Moreover, one student whose study was partly supported by the project who presented the findings of the study on Urban Drainage System for Flood Modeling in Krong Kampot, Kampot Province at an internal conference. Field surveys for flood modeling were conducted in Kampot and Kep provinces as well as the equipment installed and data collection started for the period of 3 months on sea level rise data in the coastal provinces selected.

Table 2: Progress of Research Partnership Grants as of December 2022

01	Research: Impacts of heat on health, productivity, and economy in Cambodia	Progress up to date
Budget	• USD 149,995	 Regular monthly meeting conducted. The literature reviews on heat stress impacts on the garment, construction and education sector were completed by two PhD students and a master student and were reviewed by their respective international committees. Data collection for garment factories and
Implementer	 Institute of Technology of Cambodia (ITC) 	schools were completed while statistical analysis and key findings of the two sectors were presented and discussed among research partners. Initial findings

Partnership	 National University of Singapore (NUS) Hong Kong Polytechnic University (Hong Kong) Ministry of Education, youth and sports 	 on the garment sector were presented by the ITC in an international conference. The data collection in the construction sites is completed for the cool season while the hot season will be made next year. The combined guidebook for the three sectors is being reviewed by the ITC and its research partners. The second Heat Stress Workshop is planned in January 2023 aiming to raise awareness on heat impacts and share the initial results of the study as well as collect substantive comments for further recommendation.
02	Research: Investing into Soil Organic Carbon management ISOC for resilient upland farming (ISOC)	Progress up to date
Budget	• USD 149,990	 Regular monthly meetings conducted. Different land use observations from the forest to cultivated lands in the study areas were conducted through field survey and satellite image and data interpretation is underway. Results of the land use change from the study were discussed among experts from CIRAD and NUBB. The initial results from baseline survey showed that soil carbon stock decreased over time after cultivation while the different crops seem have different effects depending on the impact of the practices
Implementer	 University of Battambang (NUBB) 	on the soil. The survey results were finally reviewed by the research partner, CIRAD.

Partnership	 Department of Agricultural Land Resources Management (DALRM), General Directorate of Agriculture (GDA), the MAFF Cambodian Agriculture and Research Development Institute (CARDI) Royal University of Agriculture (RUA) Centre de Coopération en Recherche Agronomique pour le Développement (CIRAD, Research Unit AIDA/CSIA), ENSAT Toulouse, France 	In addition to soil samples collected that have been analyzed in NUBB and GDA, other intensive soil analysis on microbial activities and other soil components has already been analyzed by the PhD student in the Nagoya University Lab and the results are being interpreted by the PhD.
03	Research: The cost of adaptation to climate change and for infrastructure, water and agriculture projects	Progress up to date
Budget	• USD 149,975	 Regular meetings conducted. The results from the Capacity Needs Assessment for the MPWT and MRD were shared with the two respective
Implementer	 Royal University of Phnom Penh (RUPP) 	ministries. The methodology and refine tools were developed and commented on by professors from the AIT-Thailand and the data to be
Partnership	 Asian Institute of Technology (AIT) University of Freiburg (Germany) 	fulfilled in the tools are being discussed among the RUPP and its partners. The draft template for data inputs on loss and damage were developed and to be tested by the relevant stakeholders while some historical data on loss and damage from MRD was collected.

04	Improving capacity on integrated coastal management with low impact development considering environmental sustainability and climate change in the coastal area of Cambodia (CLID)	Progress up to date
Budget Implementer	 USD 149,940 Institute of Technology of Cambodia (ITC) 	 Monthly meetings with CCCA3 and its research partners were regularly conducted. The literature review and modeling on low impact development and sea level rise is still underway by
Partnership	 Institute of Research for Development (IRD), France Kyoto University (KU), Japan Royal University of Agriculture (RUA) 	 technical working groups. Three water level sensors were installed in 3 different locations in Kep and Kampot province to record the 15 minute-water level. The sensor installation in Koh Kong is underway. The baseline report was finalized by the research team and reviewed by the DCC/CCCA. Following the results from the baseline survey, a training on CLID approach for national and subnational officers will be conducted in early January. Through field survey and primary simulation results of flood inundation depth of Kampot town using PCSWMM for 140 mm rainfall intensity was presented in an scientific conference. Four B.S students of RUA supported by the project studied CLID approaches in the four provinces and successfully defended their research in November 2022. The thesis will be shared with the CCCA3 in early 2023.

Table 3: Summary of Financial Delivery of Research Partnership Grants

			Disbursem	ent (USD)	Expenditure (USD)		
No	Grantee's Name	Total Budget	Disbursem ent (to date)	% of Total Budget	Expenditure (to date)	% of Disbursement	
01	Institute of Technology of Cambodia (ITC)- Heat Stress	149,995	92,791	62%	92,420	100%	
02	University of Battambang (NUBB)	149,990	98,385	66%	97,259	99%	
03	Royal University of Phnom Penh (RUPP)	149,975	39,965	27%	39,283	98%	
04	Institute of Technology of Cambodia (ITC)- Coastal	149,940	44,804	30%	44,010	98%	
	Total	599,900	275,946	46%	272,971	99%	

Output 1.3: Reliable and timely data to enable monitoring and evaluation of climate change response.

The NDC/LTS4CN tracking system was operationalized and upgraded with new actions and



indicators based on recommendations from CCTWG members. All concerned ministries for the first time provided an annual update on NDC implementation through the system, and the 2021 NDC progress report has been published and uploaded on the NCSD website.

Linking with CCCA support to MoE on the management of carbon market mechanisms under Outcome 2, support was initiated this year under Outcome 1 to update and verify data on existing carbon projects in

Cambodia, with the exception of REDD+ project, which already have monitoring in place. At present, there are 12 Clean Development Mechanism (CDM) and 6 Joint Crediting Mechanism (JCM) active projects. Two projects have been visited at the end of 2022. The purpose of the field monitoring is to update the information on the projects and on the transfers of Certified Emission Reductions (CER) claimed during their operation. The updated information will be added to the registry of emission reduction projects, on the data portal.

An overall GHG project registry system in line with the draft sub-decree on GHG emissions reduction mechanisms is being discussed with relevant stakeholders so as to consolidate all project-related emission reductions such as CDM, JCM, REDD+, Voluntary Carbon Market (VCM) and Article 6 on the National Council for Sustainable Development (NCSD) website.

Output 1.4: Regular knowledge-sharing event between researchers, policy-makers, practitioners, and other targeted audiences.

On 19th December 2022, the CCCA3 and DCC organized a Knowledge Sharing Event in Phnom

Penh. The event was presided over by H.E Ma Chansethea, Director of Department of the Administration, Planning, and Finance, Ministry of Environment and Mr. Chhum Sovanny, Programme Analyst, UNDP with participation of representatives from 22 CCCA3 grantees (both completed and going projects), CCTWG members, line ministries, youths, NGOs and private sector, for a total of 84 participants (28 women).

The event presented and shared progress made, best practices and the scale up possibilities of the grants identified. Knowledge products and learning were presented at the event



Figure 11: The panelist from private sector, academia, NGOs and line ministries during the knowledge sharing event on 19 December 2022

including 16 videos developed by the CCCA3 grantees highlighting innovative technologies to address climate change impacts and reflections on key challenges and ways forward.

A wide range of opportunities and barriers for public and private sectors to participate in climate action were discussed, including results of a survey on gender mainstreaming in climate change projects.

Outcome 2: Tools are developed and implemented for the effective mainstreaming of climate change into policies, regulatory frameworks, programmes and budgets of priority sectors.

Output 2.1: Decision-makers, practitioners, private sector actors, and communities in priority sectors are sensitized and engaged in climate responses

In July 2022, following decisions from the Prime Minister, Cambodia officially announced that the country joined the Glasgow Leaders Declaration on Forests and Land Use, the Methane Pledge, and Green Government Initiative, followed by Building Breakthroughs. These decisions follow six months of inter-ministerial advocacy from CCCA3, including policy briefs, and could open possibilities for Cambodia to access funding.

CCCA3 also advocated successfully for Ministry of Economy and Finance to join the Coalition of Finance Ministers from Climate Action. MEF officially asked to become a member in December

2022. This will help Cambodia to access best practice information and support on their role in supporting Climate Action.

CCCA3 also continued to provide technical support to finalize a a study on the economic and climate impacts of a ban on imports of 10-year old second-hand vehicles. The team has translated and prepared the summary results of the study, which have been shared by the Minister of Environment with the Deputy Prime Ministers (Interior and Economy and Finance), for decision.

An additional study on assessing the Potential Impacts of Fiscal Measures to Reduce Import Duties/Taxes on Electric Motorbikes has been completed with the good collaboration and engagement from the Department of Planning and Techniques, General Department of Custom and Excise. The study should contribute to the implementation of one of the measures mentioned in the COVID-19 recovery plan, on reducing import duties for electric motorbikes.

Output 2.2: Amended programming / budgeting procedures and processes in priority sectors to incorporate climate change

Under the support provided to MRD in 2022, one pilot provincial department and district incorporated climate change into their annual plan and in one budget request for infrastructure, presenting the relevant evidence in a standardized way for budget negotiations. Representatives of all provincial department of rural development were trained on the tools covering four main types of activities – rural road development, rural water and sanitation, community development and rural economic development – and provided feedback.

In MPWT, the focus is on support to the department of road infrastructure, as they are primarily in charge of preparing budget submissions (less decentralized process than MRD). A pilot road project was identified in Takeo province (129H). Guidance was developed on how to conduct a vulnerability assessment for roads, and templates developed to present this information in budget submissions. The documentation was prepared for this pilot road, and discussed with the MEF Department of Investment, who provided feedback on their requirements, and indicated that qualitative requirements for public investments projects were due to be updated in 2023, providing an opportunity to include climate change-related criteria. CCCA3 and MPWT will follow-up with MEF in 2023 to incorporate lessons learnt from this pilot case in their new regulations.

A critical development this year was the increased focus put on climate change by the PFM reform group (with EU, WB, IMF and ADB as main donors). IMF conducted a Climate Public Investment Management Assessment for the first time and several CCCA initiatives were reflected in the assessment. The proposed action plan includes several actions that could help scale up the pilot level CCCA work initiated with MEF, MRD and MPWT in particular. Recommendations cover in particular mainstreaming CC in planning and budgeting, procedures to coordinate climate-related public investments, national guidelines for the design and costing of climate-related investments, climate-related fiscal risk analysis in the medium-term fiscal framework.

The recommendations of the climate PIMA also include climate-tagging in budget documents, and having an MoE-MEF led inter-ministerial task force to advise on climate-relevant investments. In order to proceed, separate meetings both at technical and management level between MEF, MoE and concerned partners will be needed.

Output 2.3: New or updated policies / standards in priority sectors incentivizing climate-smart investment (public or private)

The draft Sub-decree on management of GHG emissions reduction mechanisms has been finalized and is now being reviewed by MoE lawyers, before it can be moved for further process and submission to the Economic and Financial Policy Reform Committee.



Figure 12: Pilot Project implemented by MME at Koah Kanthey Island, Kandal Province, on Solar Micro-Grid.

Under Ministry of Mines and Energy, an operational model for off-grid solar minigrids has been developed. This could pave the way for more public-private investment in solar mini-grids.

MME has also developed guidelines for energy efficient procurement for Government institutions. Consultations will be help in 2023 with Ministry of Economy and Finance to see how these guidelines could be a first step towards greening public procurement,

New air pollution standards are under development by Ministry of Environment,

with the final consultations on the sub-decree scheduled for February 2023.

Output 2.4: Top-up financing provided for selected public investments which have gone through a climate screening process

Table 5: Summary of project progress of LoAs with Line Ministries (GIG) as of December 2022

No.	Grantee's Name	Project name	Progress to date	Challenges
01	Ministry of Public Works and Transport (MPWT)	Promotion of Electric Motorbike Adoption for a Sustainable transport sector	 Purchased and official handover the 30 e-bikes Drafted policy reviews and guidance electric motorcycles registration in Cambodia. Options to improve regulations for battery waste management in Cambodia. 	• The progress on the pilot incentive scheme with private sector for promotion of electric motorbikes has been slow. CCCA is supporting to accelerate

No.	Grantee's Name	Project name	Progress to date	Challenges
			 Policy guidance electric motorcycles charging and battery space at public buildings Incentives scheme for the adoption and testing with private fleet is still under process. 	operationalizatio n.
02	Ministry of Rural Development (MRD)	Building climate resilience for rural water supply Infrastructures in Cambodia (BCR-WS)	 Three climate-resilient water pumps completed. Two resilient community ponds. Another community pond construction was started in Andas village, Sala Visay commune, Prasat Balang district, Kampong Thom province. 	Progress has been slower than expected due to heavy rains and some funding delays, but the project is now progressing well.
03	Ministry of Environment (MoE)	Strengthening Air and Climate Pollution Management in Cambodia (SACPMC)	 The data platform on air quality for all locations can be seen by the public through provided web address http://103.14.251.113/hom e Completed strengthening capacities on air quality management plan and reduction of Short-lived Climate Pollutant (SLCP) emissions by organizing two capacity building events on SLCP mitigation measures for officers for national and subnational levels on 24 December 2021 in Phnom Penh and 	Draft of sub- decree on Air Quality, Noise and Vibration Management still to be completed

No.	Grantee's Name	Project name	Progress to date	Challenges
			 on 30 June 2022 in Kampot Province. Continue the monitoring the air quality and black carbon at 5 target cement factories, coal power plants and 12 stationary sources 	
04	Ministry of Education, Youth, and Sport (MoEYS)	Mainstreaming Climate Change and Increasing Resilience in the Education Sector	 Supported the establishment of Eco- schools and Eco-clubs of 7 targets Eco-schools (Primary level) in Battambang, Kratie, Kampot, Kampong Speu, and Kampong Cham provinces. 	The project expenditure is behind schedule, particularly for resilient WASH infrastructure.
			 Provide training to school principals, and teachers from the primary level on WASH in schools and the guidance to use Booklet on climate change response in Kampong Chhnang province. 	
			 Conducted WASH training in schools as well as guidance to teach and learn the climate change response booklet for the secondary level 	
			 Organized a workshop to provide the overall look of the booklet as well as guidance on how to teach the booklet to target school principals and teachers 	

No.	Grantee's Name	Project name	Progress to date	Challenges
05	Ministry of Mines and Energy (MME)	Piloting Energy Efficiency and Solar Micro Grids for Cambodia's Clean Energy Future	 Completed Operation Model for Solar Micro Grids System Completed three training events on procedure and how to use the smart energy monitoring system in ministries Conducted the validation workshop on Energy efficiency procurement guidelines for government buildings and the Building Energy Management (BEM) guideline The pilot solar micro-grid system is being installed 	Several activities are still behind the plan, but with a clear plan to complete by Q1 2023.
06	National Committee for Sub- national Democratic development Secretariat (NCDDS)	Upgrading the climate investment information database of subnational government of Cambodia	 Conducted the kick off meeting with MoP and discussed with MOE/NCSD to clarify the assignment and data required Conducted the initial discussions among stakeholders who have been working on Vulnerability Risk Assessments, to gather VRA reports. 	Time consuming on coordination and to get consultant on board.

Table 6: The financial delivery of LoAs with line ministries (GIG) as of December 2022

			Disbursemen	t (USD)	Expenditu	re (USD)
	Grantee's Name	Total Budget	Disbursement (to date)	% of Total Budget	Expenditure (to date)	% of Disbursem ent
01	Ministry of Rural Development (MRD)	250,000	185,078	74%	184,825	100%
02	Ministry of Public Works and Transport (MPWT)	250,000	140,548	56%	137,122	98%
03	Ministry of Environment (MoE)	185,999	156,274	84%	156,007	100%
04	Ministry of Education, Youth, and Sport (MoEYS)	250,000	156,982	63%	154,888	99%
05	Ministry of Mines and Energy (MME)	249,865	127,812	51%	125,510	98%
06	National Committee for Sub-National Democratic Development (NCDDS)	94,967	14,519	15%	12,358	85%
	Total	1,280,831	781,213	61%	770,711	99%

Output 2.5: The climate response is coordinated across sectors and actors, under NCSD leadership

Four CCTWG meetings were conducted from January to December 2022, including discussions on

the updated data on NDC tracking, the LTS4CN implementation plan, and COP27 preparations. CCCA supported the development of Cambodia's position for COP27, as well as the Joint ASEAN declaration on climate change for COP27.

On 20th December 2022, CCTWG members discussed the Implementation Plan of the LTS4CN and NDC / LTS4CN tracking system with the aim to strengthen the cooperation and capacity of the national focal points on the NDC / LTS4CN tracking system and to discuss the key indicators to be included in the online-system and disseminate the LTS4CN implementation action plan. The workshop



Figure 13: The updated NDC / LTS4CN tracking system training workshop to CCTWG members

was led and coordinated by Dr. Hak Mao, Director of the DCC and participants included representatives of MoE and CCCA3, CCTWG, line ministries, and private sector, a total of 50 participants (12 women participants). At the meeting, the actions and indicators of LTS4CN to be added to the NDC/LTS4CN system were agreed with the key sectors.

In 2023, the second year for NDC implementation and a first year of implementation of LTS4CN will be updated and an annual report for 2022 developed.

Output 2.6: An NDC implementation plan is developed, including required sectoral actions and governance arrangements

The LTS4CN implementation plan was developed and presented to concerned stakeholders in December 2022.

Output 2.7: Model for delivery of climate change response at district and provincial level is developed and tested, in line with decentralization reforms

For this output, CCCA is focusing on improving sub-national data systems to better track climate finance, centralize information on vulnerability analysis, and report on impacts.

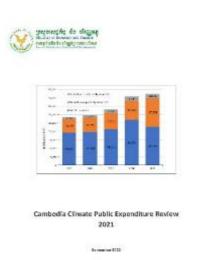
During the reporting period, NCDDS started consultations with the Ministry of Planning to improve collection of Commune Database data for the climate change index. At the same time NCDDS met with the Ministry of Environment team to discuss data requirements.

NCDDS has also initiated work with organizations producing Vulnerability and Risk Assessments at commune and district levels, in order to collect data and design a system to maintain this data in the future.

Outcome 3: National capacities for the mobilization, coordination, and tracking of public and private climate change resources are strengthened.

Output 3.1: Climate-related expenditures are regularly tracked and their efficiency and effectiveness is analyzed.

The CPER for fiscal year 2021 was completed. In 2021, climate change expenditure increased



to 2.3% of GDP (from 2.2% in 2020) or KHR 2,530 billion. The main component remains climate-proofing of infrastructure as part of the measures against floods, and COVID19 measures through social protection cash transfer to the vulnerable groups and the poor, amounting to KHR 1,176 billion or around US\$ 294 million. For the first time, this report assesses alignment of expenditure with NDC actions. While many actions are receiving financing, the financing gap for the past year is still estimated at 65%.

change response. Partial data indicates that gender issues remain under-addressed in climate change programmes. Case studies of specific programmes show that initiatives

The report also takes a look at gender issues in the climate

Figure 14: CPER Fiscal year 2021

have been taken to address these gender issues, but comprehensive information on the effectiveness of these efforts is not always available.

Output 3.2: MEF receives technical support to increase its capacities to conduct policy research on fiscal and economic policy issues related to climate change and develop the corresponding policy instrument

Following the completion of the Cambodia Resilient Urban Green Infrastructure Economic and Policy Analysis Study of the potential value of Green Infrastructure (GI) in urban centers in Cambodia, with a focus on Phnom Penh, CCCA3 has supported MEF to engage the municipality of Phnom Penh and the Ministry of Land Management, Urban Planning and Construction in a dialogue on the results of the study and concrete next steps in Phnom Penh. A final report was produced and the Khmer language version is being finalized. All three institutions agreed to set up an interministerial mechanism to address the recommendations of the report.

The study on assessing the Potential Impacts of Fiscal Measures to Reduce Import Duties/Taxes on Electric Motorbikes has been completed with the good collaboration and engagement from the department of Planning and Techniques, General Department of Custom and Excise with the cooperation with the Ministry of Economy and Finance. The study indicates that incentives for the import of electric motorbikes could by the end of this decade lead to an increase in fiscal revenues and to 65,000 tons Co2eq. in emissions reduction per year. MoE will officially send the report to MEF for consideration.

Output 3.3: Innovative adaptation and mitigation approaches from the public and private sector receive seed funding and have access to scaling-up opportunities

Implementation of the grants has continued during the reporting period. As a part of grant management guideline and requirement from donors, during this reporting period, the grant management team conducted monitoring visits and spot checks to all operational grants, and coordinated for the EU ROM mission to see the progress and meet the beneficiaries in the field as well.

Table 8: Summary of financial delivery of the CCCA3 innovation 1 &2 and COVID19 response grants as of December 2022

	Grantee's Name		Disbursement (USD)		Expenditure (USD)	
No.		Approved Budget	Disbursement (to date)	% of Total Budget	Expenditure (to date)	% of Disbursem ent
	Innovation Grant Round 1 and COVID19 Response					
01	Energy	100,000	100,000	100%	100,000	100%
	Laboratory					
	Limited					
	(Energy Lab)					
02	Swiss Church Aid (HEKS/EPER)	100,000	75,696	76%	77,117	102%

			Disbursement	(USD)	Expenditu	re (USD)
No.	Grantee's Name	Approved Budget	Disbursement (to date)	% of Total Budget	Expenditure (to date)	% of Disbursem ent
03	Institute of Technology of Cambodia (ITC)	99,884	99,884	100%	97,384	97%
04	People In Need Cambodia (PIN)	100,000	100,00	100%	100,000	100%
05	Prek Leap National Institute of Agriculture (NIA)	99,987	91,083	91%	90,803	100%
06	The Regional Community Forestry Training Center for Asia and the Pacific (RECOFTC)	99,977	99,977	100%	97,540	98%
07	Teuk Saat 1001	112,879	112,879	100%	112,879	100%
	Total	712,728	679,518	95%	675,699	99%
		Inno	ovation Grant Rou	und 2		
01	Facilitation Association of Economy for Cooperatives (FAEC)	100,000	61,507	62%	61,505	100%
02	Ministry of Industry, Science, Technology and Innovation (MISTI)	100,000	61,624	62%	61,374	100%
03	International Development Enterprise (iDE) Cambodia	98,960	98,960	100%	98,960	100 %
04	Preah Sihanouk Province Coastal Development and Management Committee (CDMC)	100,000	48,148	48%	47,517	99%

			Disbursement	(USD)	Expenditu	re (USD)
No.	Grantee's Name	Approved Budget	Disbursement (to date)	% of Total Budget	Expenditure (to date)	% of Disbursem ent
05	Ministry Rural Development (MRD/ Teuk Saat 1001	99,987	72,074	72%	70,248	97%
	Total	498,947	342,313	69%	339,604	99%

Table 9: Summary of project progress for innovation 1, 2 and COVID19 grants as of December 2022

No.	Grantee's Name	Area of focus/ Project title	Progress to date	Challenges
		Innova	tion Grant Round 1	
01	Energy Laboratory Limited (Energy Lab)	Electric mobility	Project completed	
02	Swiss Church Aid (HEKS/EPER)	Climate-smart agriculture	 Completed the farmer exchange learning event in Snoul District A video documentary titled "Perennial Cover Crops for Black Pepper" has been published and disseminated through numbers of social media channels 	Slight delay in implementation
03	Institute of Technology of Cambodia (ITC)	Pushing Energy Efficiency in Cambodia	 The private building competition was successfully implemented, with an average of over 9% in energy savings for 22 buildings Conducted the energy day 	• N/A
04	People In Need Cambodia (PIN)	Early warning system (floods)	Project completed	

No.	Grantee's Name	Area of focus/ Project title		Progress to date		Challenges
05	Prek Leap National Institute of Agriculture (NIA)	Installation of Demonstration Ram Pump (Low-carbon irrigation)	•	The Ram Pump installment in site 2 is almost completed The training session on ram pump technology has been provided to PNIA students, teachers as well as interested students from other universities	•	Several deliverables remain to be finalized, including training curriculum
06	The Regional Community Forestry Training Center for Asia and the Pacific (RECOFTC)	Sustainable financing for climate action through community forestry in the Prey Land landscape (Community forestry)	•	Project completed		
		Innovat	tion	Grant Round 2		
01	Preah Sihanouk Province Coastal Development and Management Committee (CDMC)	Enhancing Climate Resiliency Through Strengthening MPA Management Effective in Kampong Smach, Prey Nob District	•	Developed Kampong Smach Marine Fisheries Management Area Roadmap Approved the request of establishing the Kampong Smach area of 10,923 ha to be a MFMA by Minister of Agriculture, Forestry and Fisheries. Developed Awareness materials for local communities Continue construct the Community Information Center	•	Several activities are still behind the schedule Some delays due to need to coordinate between MoE protected areas and MFMA (MAFF)

No.	Grantee's Name	Area of focus/ Project title		Progress to date		Challenges
02	Facilitation Association of Economy for Cooperatives (FAEC)	Resilience and Adaptation Planning for Ecosystem and Sustainable Development (RAPESD)	•	Continually conducted technical workshops on climate resilient farming practices for agriculture cooperatives, and use of biochar Developed technical dossiers for rural agents (input distributors, AC leaders, agriculture technicians) for them to use when implementing workshops The format and AC management style had been discussed and finalized The communication and AC's Facebook created Supported ACs to engage in commune council meeting	•	Take longer time to explain on strategic and business plan to ACs and communities Management capacities of the grantee are limited and require support from CCCA.
03	International Development Enterprise (iDE) Cambodia	Scale pilots to accelerate the uptake of efficient electric cooking appliances to mitigate climate impacts through avoided deforestation and reduced emissions	•	Project completed		
04	Ministry of Industry, Science, Technology and Innovation (MISTI)	Waste Water Treatment Waste Management in	•	Finalized the GHG Inventory and Technology Needs Assessment report after	•	Progress is behind schedule, need to speed up demonstrations Limited data availability

No.	Grantee's Name	Area of focus/ Project title	Progress to date	Challenges
		Industry and SMEs Sector	 consultation with DCC and CCCA Start constructing the wastewater treatment technologies in pilot industrial sites. 	
05	CSO-Public partnership to favor resilient access to safe water in rural areas (MRD-TS1001)	CSO-Public partnership to favor safe water access in rural areas	 Continually support the 2 water entrepreneurs Conducted the monthly monitoring visit of the field advisor, water quality technician and regional technician Progressed on the development of guidelines for water operators, and public-private partnership model for water kiosks. 	The sale volume decreased due to heavy raining season

3. Challenges

Some delays in disbursements have been experienced again this year, due to the low delivery of some grants that delayed fund transfers from UNDP to NCSD. This has been resolved in Q4, as CCCA provided smaller/more targeted advances to grantees, to ensure timely spending of the advance. Some grants still require support from the CCCA team on specific issues, including reporting and procurement.

Some policy development processes are still running late due to the many steps required for approval, and competing priorities. As an example, the sub-decree on GHG emissions reduction mechanisms is technically finalized but still under review from the MoE's lawyer group.

A funding gap of around USD 378,000 is estimated under the current exchange rate scenario. However, the project team believes that expected results can still be largely achieved with this reduced budget. The proposed USD budget for 2023-24 takes into account this anticipated constraint, and matches the expected available resources.

4. Cross-cutting issues

4.1 Gender Mainstreaming

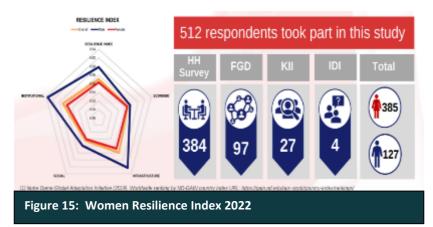
No	Key activities	Indicator and baseline	2022 Status
1	KAP 3 Study	Indicators and baselines to be defined by the study	Gender data and analysis was produced for KAP3. In preparation for KAP4, gender considerations will be integrated in TORs and improvements will be made based on MTR recommendations
2	Gender analysis incorporated in Cost- Benefit Analysis of relevant public climate investments	Gender analysis (qualitative or quantitative) is presented in the CBA document for the proposed investments	Gender aspects incorporated in the cost-benefit analysis conducted with MRD and MPWT.
3	Mainstream the gender issues and analysis in the design and result frameworks of the investments funded by CCCA3 in target sectors	Project document and results frameworks include gender analysis	 All result frameworks of the investments funded by CCCA3 in the target sectors have gender-disaggregated data requirements and the projects include gender analysis. Some challenges remain to ensure adequate participation and voice for women in some projects. CCCA is currently analyzing lessons learnt

4	Gender analysis integrated in Cambodia's updated NDC	The NDC documents include up-to-date analysis and targets on gender	 The NDC incorporates a gender lens. This was recognized by a UNESCAP assessment, where Cambodia is highlighted for progress in mainstreaming gender into climate change action. Most actions have specific gender targets. Progress on gender targets is also tracked in the NDC tracking system and in the first annual report issued in 2022.
5	Sectoral gender/climate change assessments	Number of CCTWG, Gender Mainstreaming Action Group, and non- governmental stakeholders who have participated in the assessments	- The sectoral gender assessments conducted for the key sectors (energy, transport, rural development, education, waste, biodiversity) of the NDC update process included all (16) of the CCTWG representatives/or substitute representatives
6	Tailored data products exploring different dimensions of gender and climate change issues in Cambodia	Number of data products directly addressing gender/CC data needs	 The KAP3 study results are aggregated by gender and analyze the gender dimensions in terms of the knowledge, attitudes and practices on climate change in Cambodia The LTS for Carbon Neutrality includes some initial analysis of economic gender impacts of the proposed mitigation measures. Now the CCCA3 team are working on the women vulnerability index for the data portal. It will be ready in Q1 of 2023.

7	Gender analysis incorporated in the annual climate public expenditure review exercise	The CPER report includes analysis of gender mainstreaming in climate change projects	- The assessment of gender integration in climate change programmes has been conducted in the CPERs for fiscal years 2018 to 2021, including a quantitative assessment and case studies of specific programmes.
8	Gender analysis incorporated in the design of CCCA3- funded grant projects	Grant project documents include gender analysis in their situation analysis, and work plans/budgets strategies	- The gender analysis has been included in the grants documents as well as the result frameworks
9	Monitoring and evaluation frameworks for CCCA3-funded grant projects are gendersensitive	Grant project results framework include gender data and evaluation ToRs include gender analysis	The gender tracking has been integrated into the M&E framework and the tracking sheet of the grants. As evidence from a rapid survey 2022, we have noticed that women represented 20%-70% of people engaged through all grants through activities such as the workshops and trainings, demonstration activities, air quality monitoring, public awareness activities and general management of the projects.
10	Gender/CC data being tracked by M&E national or sectoral frameworks	Number of gender/CC indicators being produced	Gender targets are included in the updated NDC and the NDC tracking system. Through the NDC/LTS4CN implementation plan deeper analysis will be conducted in next round of monitoring with technical support from UNWomen.

4.2 Gender Lens and Survey on CCCA3 grants in 2022

Vulnerable and marginalized people, especially women are often more severely affected by climate change, due to the nature of their vulnerability. Gender-based inequities lead women to face more adverse climate change impacts than men. Remarkably, women are particularly exposed to disaster risks and suffer more in terms of access to resources, healthcare, safety and security.



Livelihoods are often negatively affected and the work burden for women and girls increases during and after disasters, as they are typically responsible for securing fuelwood, water, food, and being primary caregivers. While women's vulnerability is frequently highlighted, their contribution to building disaster resilience has often been

overlooked, and they have been largely marginalized in the development of DRR policies and decision-making processes.

Under the NCSD Website, there will be an addition of Climate Resilience Index (to be developed by CCCA3) including a specific data portal focused on gender 'Women Resilience Index¹'. This information indicates the resilience index at the Sub-National level across several Cambodian provinces.

To further improve information on gender and climate change, a rapid gender survey for CCCA3 grants was conducted in December 2022 and a questionnaire on gender equality was sent to all CCCA3 grant recipients.

In the answers, the recipients summarized how the gender aspect had been incorporated in the design of their grant projects. It was mentioned that women had been involved particularly in technology/knowledge transfer activities and that projects had focused on enabling equal access to decision making. The list of participants was also monitored and one project mentioned that they had ensured that in the group discussion the percentage of women, men and young farmers was at least 50% for women and 20% for young farmers. Many of them also mentioned they also aimed at mainstreaming the gender representation in the project staff, target and beneficiaries' group.

The percentage of women and men involved in the implementation of the projects in 2022 varied between 20%-70% for women.

Half of the projects reported having organized awareness raising activities on gender during this year. The projects specified that focusing on less labor-intensive activities and creating women beneficiary target groups were found good for gender mainstreaming.

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¹ https://cambodia.actionaid.org/publications/2022/cambodia-womens-resilience-index-2022

35.7% of respondents faced challenges in mainstreaming gender and it was specified that the project materials developed should mainstream gender better and it is good to understand that some sectors need more support in gender mainstreaming than some other sectors. In addition, the project recommended to involve women more through advocacy, community participation and activities with private sector in order to strengthen equal involvement of women and men.

- 4. Did capacity building and awareness raising on gender equality take place during the year?
- 5. If yes, are there any platforms or tools that you could recommend for promoting gender equality?



- The project encouraged the participation of both male and female stakeholders in activities and onitoring by using attendant lists and reports
- Solutions introduced are less labor intensive, and feasible with most farmers especially women Women are the target group beneficiaries of the pilot project

Figure 16: Rapid Gender Survey of CCCA3 grants conducted in December 2022

For the continuous improvement, the projects identified that in 2023 they will more focus on gender equality and highlighted the need for creating an environment enabling for participation at the workshop, training as well as decision making. It was also mentioned that incorporating key gender messages into climate resilient business models, marketing, monitoring and the field work to be conducted are the main activities, some projects plan to promote the women engagement in climate educational video materials and other

media content.

5. Lessons learned

In 2022, most grants have moved back on track, with some still facing challenges, but it is expected that targets for the grant programme will be met.

During this year 2022, more technical support was requested from some grantees while the project management of these grants needs to be strengthened in order to improve the performance of projects. The specific recommendations on grant implementation have been discussed and provided through field monitoring visits and spot checks.

The Mid=-Term Review and ROM mission highlighted some areas for improvement, including developing a technical note on monitoring of the adaptation and mitigation impact indicators, identification and documentation of gender integration results, and gender data products in the data portal and private sector engagement.

The first round of tracking of NDC implementation was largely successful and represents a major milestone for Cambodia, the first time an annual progress report is issued on the climate change response. In 2023, the focus will be on improving the quality of data (especially cross-checking between development partners and ministries), and addressing some of the remaining data gaps (particularly in the FOLU sector).

This year has seen an acceleration in the interest from MEF and PFM partners for climate change mainstreaming in PFM reforms. This is an opportunity to take some of the CCCA pilot activities with MEF, MRD and MPWT to scale, and will be a key focus are for the remaining time of CCCA 3 and potentially for a successor programme.

6.1. Advancing gender equality through climate action by IDE

The women's labour participation rate has been increasing in the recent years from 77.5% in 2014 to 84.1% in 2019²in Cambodia. The number of women in decision making positions is also raising, and women represent 41 percent of the total civil servants, and 26 percent of them are serving in decision making roles, while in the public and private sector, about 36 percent of women belong to the management team^{3.}

However, there is still a way to go and 1 in 10 commune chiefs elected are women in 2022 and

some 173 women were elected as chiefs of 1,652 communes with an increase of 32 women, from the previous 2017 commune election⁴. The unequal distribution of household burden is still holding up women's economic inclusion. predominantly women (86.0%) who perform all the caring and household tasks compared with men. Women's participation in tasks such as cooking, cleaning, shopping and direct care is consistently higher than men's⁵ and only cooking is taking approximately 1,5 hours a day of the time of women in the rural areas, for instance⁶. Even though the



Figure 17: A woman cooking with wood in Kampong Thom.

country has made incredible progress in providing electricity (86% of rural areas in 20217), what makes the situation more challenging is that 80% of the rural population does not have access to clean cooking, and 77% still cook with wood⁸. Cooking with traditional methods not only causes deforestation, GHG emissions and degradation of natural resources, it also produces smoke that kills nearly 4 million people worldwide each year from pneumonia, stroke, lung cancer, and more⁹.

A Cambodia Climate Change Alliance-Phase 3 supported project, "Scale pilots to accelerate the uptake of efficient electric cooking appliances to mitigate climate impacts through avoided deforestation and reduced emissions" provided modern cooking services to Cambodian households and tested ATEC's electric cooking appliances through a sales and distribution chain of iDE's MECS micro enterprise in 2021 and 2022. The project also studied the cooking experience of its customers to assess the benefits from the switch from biomass/LPG stoves to electric stoves. At the end of the pilot project, 268 out of 1,167 household representatives from 42 villages decided to purchase an electric cookstove and use the payment plan provided to cover the cost of a stove. The main reason to choose these appliances was the time saved as cooking with electric enables

²National Institute of Statistics, 2020

³ National Assembly (NA) Women Parliamentarians Caucus Khuon Sudary, 17th May, 2022

⁴ VOD, article: 10% of New Commune Chiefs Are Women, 1st of July 2022

 $^{5\} Care\ work\ and\ care\ jobs\ for\ the\ future\ of\ decent\ work\ /\ International\ Labour\ Office-Geneva:\ ILO,\ 2018.$

⁶ Scale pilots to accelerate the uptake of efficient electric cooking appliances to mitigate climate impacts through avoided deforestation and reduced emissions project, 2022

⁷ Ministry of Mines and Energy, 2022

 $^{{\}it 8 \ Accelerating the transition to 'clean' cooking in Cambodia, Nexus, 2021}$

⁹ WHO, Household air pollution and health, 2021

multitasking, stoves were found being safer and they don't emit harmful toxic smoke. Out of the representatives who purchased the stoves, 195 were female (73%), and 2 were identified as ID-poor customers.

Actually, this is not low. According to the target set since the beginning of the project, the purchase goal we set was only 10%. The project achieved 26.3% purchase rate by the end of the project amidst and post covid-19 pandemic as well. Based on the record from the sale agents we learned that people did not buy because 1) people don't have enough money, 2) they seem be hesitated to switch because they are currently have cooking fuel available (gas, biomass, etc.), 3) Opt-out (no time to listen to DQ sales pitch), 4) some people we met are not decision makers (elderly), etc.



Mr. Moung Vandy, Project Lead – from iDE told that iDE has planned to scale up the pilot project and the focus of the next phase will be on three components to 1) increase the demand side by using smart subsidy programs, to 2)strengthen the supply side by targeting new segments such as grandmothers and unlocking new financing markets, and to 3) create a strong and supportive enabling environment for the electric cookstoves market by disseminating knowledge and insights gained, conducting behavioral studies and energy meter data, and having a more diverse pool of funding and alternative business models in order to reduce operational costs.

The use of electric cookstoves can rapidly decrease the amount of wood used in the households and this can reduce emissions contributing to global climate change (the forestry and land use sector is the highest emitter of the GHG emissions in Cambodia¹⁰). A switch to an electric stove can also reduce women's domestic workload and shorten the time spent on household tasks that may not change the division of the tasks between women and man in Cambodian households but it enables women to spend the time saved from cooking and other household tasks to participate in

labor market, decision making and education activities. In addition, when electricity grids have reached the rural areas of Cambodia, providing sustainable appliances to the households, such as electric stoves can have other benefits such as improved safety and reduced air pollution.

The happy customers are saying that the use of electric cookstoves is easy, and it is safer and healthier than using the traditional stoves, cooking food is also faster.



¹⁰ Cambodia's First Biennial Update Report, 2020

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"I am busy with my work, and I need to come home to cook food at the lunchtime.

After purchasing of an electric cookstove, I noticed that I have saved a lot of time" told Chheun Thet.



"This cookstove is safer and when I am using the timer function, I don't need to worry when I steam or boil food. I just press the button, and then I can do other work, when I come back, the food is ready," Told Ms. Saray Mach

6.2. Weed Management and Water Shortage Solutions for Pepper Plantation - Case Study of Farmer Nutt Phi

Nutt Phi is a farmer who lives in Memong village, Memot district, Thong Khmum province. He is 48



Figure 18: Weed management practices prior to project participation (weeding and chemical pesticides).

years old and earns his living by cultivating plantations, growing a variety of crops including rice, cashews, rubber, especially pepper that he has so far planted for a total of 1.400 poles. Through his 6-years pepper cultivation experiences, he shares pepper management challenges encountered on the farm. He has noted that pepper consumes much water and regular irrigation is required, especially in the dry season. He used to irrigate his pepper crops 3-4 times a week using a hose system connected to a pump from a pond, and each irrigation took between 30 minutes to an hour and used about 60 liters of diesel a month (3,500 riels a litre). In addition, if the temperature was very hot, more water was

needed. Nutt Phi told that relying on water sources from wells to irrigate pepper crops was not



working, and he had to pump water stored in ponds before using it for irrigation. Due to continuous drought in the area, he and some other farmers had to increase the farm irrigation, and that put them at a risk of water shortage. Therefore, he spent extra money to deepen the well to store enough water. When there was not enough irrigation water, the pepper fruit didn't provide good yield and this required him to find other solutions to keep the soil moist in the field. He added that he used to use hay covering between pepper poles to prolong moist longer, yet this practice required more labor. During the dry season, he also

spent money on weeding at least every two months, and this action took for two people for three to four days (the cost for a weeder is 25,000 riels a day). In addition, he sprayed (the cost of a sprayer is 50,000 riels a day and a bottle of pesticide is 40,000 riels) the grass once after the harvest every year. The total maintenance cost was about 2 million riels a year, not including the cost of fuel (1.3 million riels a year)11.

In the beginning of the rainy season in 2021, Nutt Phi participated in a farmer field school on the use of cover crops organized by the Smart Farming Project (supported by the Cambodian Climate Change Alliance Phase III) implemented by HEKs Cambodia. At the field school different cover crop cultivation techniques were introduced to the participants. After the training, Nutt Phi has changed the maintenance practice of 300 poles of plantations for planting cover crops between pepper substrates to increase soil fertility, manage all weeds and maintain soil moist in the field.



Figure 20: Mr. Nutt Phi (right) attends a demonstration training course for farmers organized by Smart Agro Co.Ltd (center) in Memmong village, Memot district, Thong Khmum Province.

¹¹ 60 liters a month, a litre costs is for 3500 riels and the use is for 6 months a year

During the first year of the cover crop practice, Nutt Phi noticed that the new practices helped to reduce water usage in the dry season. The soil stays moist for a longer time period when it is covered with cover crops, and farm irrigation can be reduced to one to two times a week with less water. He can irrigate well in just 10 to 20 minutes. Therefore, the use of diesel is about 30 liters a month for all of his pepper fields. He also observed that pepper changed the color of its leaves to darker green because of the sufficient soil moist for feeding the stems, and the new practice has also reduced the use of herbicides. In 2021, Nuth Phi received 1,700 kg of pepper from his 1,400 poles, and for the 2022 pepper harvest was 2,200 kg of pepper. He highlights that the increase in yield is due to sufficient moist, that makes the feeding of the stems better and the fruits heavier.



"Cover cropping plantation in pepper farm could maintain soil moisture, reduce weed and cost of pesticide, and improve the yield" told Nutt Phi.

However, he has also faced some difficulties and found out that the ground weed cover needs to be cleared before the cover crops to grow close to the ground. He had to remove all weeds by hand for 3

months before the cover crops covered the ground. He has seen the benefits from using the cover crops, including reduction in the use of pesticides, and water for irrigation. His community's farmers have already expanded the cultivation of cover crops. An additional 200 square meters (about 100 pepper's poles) of a land is next to be covered with cover crops.

7. Communication and Visibility

The NCSD website (https://ncsd.moe.gov.kh) serves as an online climate change knowledge and data-sharing platform that provides up-to-date information relevant to the development of climate change policies and strategies, and lessons learned from the climate change initiatives implemented.

Links to a selection of CCCA3 outputs are provided below:

- Meeting on the preparation of Cambodia's position for the 27th Summit (COP27) of the Parties to the United Nations Framework Convention on Climate Change: https://ncsd.moe.gov.kh/dcc/news/Pre-COP27/Meeting/Draft/Camdodia/Position/COP27
- Climate change drawing and photography competition for children and youth: https://ncsd.moe.gov.kh/kh/dcc/upcoming/event/climate/change/photo/drawing/competition/youth/adult
- ASEAN has been developing socio-economic development strategies after the outbreak of Covid-19 to withstand external threats such as epidemics, climate change and geopolitical issues, including the environment and natural resource management: https://ncsd.moe.gov.kh/kh/dcc/news/33th/ASEAN/Environment/SRP

- Opening Workshop on the Roadmap for the Use of Climate Technology for Electric Vehicles (E-mobility) in Cambodia: https://ncsd.moe.gov.kh/kh/dcc/news/Inception/workshop/GTC/DCC
- Workshop on the Green Climate Fund Project on Improving Climate Change Response
 Activities through Sustainable Waste Management in Cambodia's Coastal Areas:
 https://ncsd.moe.gov.kh/kh/dcc/news/inception/workshop/UNHabitat/Coastal/waste/management
- Brief NDC Annual Report 2021: https://ncsd.moe.gov.kh/dcc/resource/document/brief/NDC/annual/report/2021
- Finance Assistant and National Project Coordinator:
 https://ncsd.moe.gov.kh/dcc/Job/procurement/Finance/Assistant/National/Project/Coordinator
- National Consultant to assess the Cambodia Climate Change Strategic Plan 2014-2023 (CCCSP) implementation and explore a possible approach for the CCCSP (2024-) considering the updated NDC and LTS4CN: https://ncsd.moe.gov.kh/dcc/Job/procurement/National/Coordinator/IC
- International Consultancy Support Work Plan 2023:
 https://ncsd.moe.gov.kh/dcc/Job/procurement/International/Consultancy/Support/work
 plan/2023
- Climate Change Action Plan for Rural Development Sector 2021-2023: https://ncsd.moe.gov.kh/dcc/resource/document/CCCAP/MRD/2021-2023
- Cambodia Climate Change Summit 2022 launches in Siem Reap: https://ncsd.moe.gov.kh/dcc/news/Cambodia/climate/change/summit/2022/SRP
- National Technical Advisor or Project Coordinator / Admin and Finance Officer: https://ncsd.moe.gov.kh/dcc/Job/procurement/National/Technical/Advisor-or-Project%E2%80%8B/Coordinator/Admin/Finance/Officer
- Perennial cover-crops for black pepper:
 https://ncsd.moe.gov.kh/kh/dcc/resource/video/SmartAgro/HEKSCambodia/pepper/covercrop
- Meeting on Joint Carbon Credit Mechanism (JCM) to Promote Cooperation Method under Article 6.2:
 https://ncsd.moe.gov.kh/kh/dcc/news/JCM/Advancing/Cooperative/approaches/under/Article/6.2
- Ministry of Environment delegation meets with development partners and representatives of some countries at COP27: https://ncsd.moe.gov.kh/dcc/news/Cambodian/delegate/meeting/development/partners

- Forum Intervention on NDC implementation in Asia: South-Southeast Learning and Launching of CACCI-ASIA:

 https://ncsd.moe.gov.kh/kh/dcc/news/Intervention/on/NDC/Implementation/Asia/COP27

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- H.E.Mr.Say Sam Al, Minister of the Environment, addresses the 27th Summit of the Parties
 to the United Nations Framework Convention on Climate Change in Sharm el-Sheikh,
 Egypt: https://ncsd.moe.gov.kh/kh/dcc/news/COP27/Statement/HE/Minister
- Management and officers of the Department of Climate Change attend Sustainable
 Cooling Forum: A Multipurpose Tool to Deliver on Net-Zero Adaptation, Food & Energy
 Security:
 <a href="https://ncsd.moe.gov.kh/dcc/news/Management/DCC/Sustainable/Cooling/Forum/COI

https://ncsd.moe.gov.kh/dcc/news/Management/DCC/Sustainable/Cooling/Forum/COP2 7

- CCAP_MPWT 2020-2023: https://ncsd.moe.gov.kh/kh/dcc/resource/document/CCAP/MPWT/2020-2023
- CCAP_MME 2021-2023: https://ncsd.moe.gov.kh/dcc/resource/document/CCAP/MME/2021-2023
- CEE COMP Quarterly Brief N.4:
 https://ncsd.moe.gov.kh/dcc/resource/document/CEE/Comp/quarterly/brief/N.4
- Republic of Korea Advanced Technology Recovery Inc. Interested in implementing greenhouse gas reduction project in Cambodia: https://ncsd.moe.gov.kh/kh/dcc/news/CDM/mangrove/forest/restoration/Korea-Cambodia
- 3,000 Seedlings of Mangrove have been planted in Phum Thmey Community Forestries, Kep Province:
 https://ncsd.moe.gov.kh/dcc/news/EbA/Adaptation/Fund/mangrove/plantation/celebrating/National/Clean-up/Day
- Job Announcement of Procurement of Embankment and Watergate, Resilient Housing, Drainage System Design and Improvement, and Rainwater Tank Installation: https://ncsd.moe.gov.kh/dcc/Job/procurement/invitation/to/Bid/CCA4CS
- Implementation plan for LTS4CN: https://ncsd.moe.gov.kh/resources/document/implementation-plan-long-term-strategy-carbon

- Consultation meeting focused on strengthening environmental cooperation between Switzerland and Cambodia on climate change and reducing emissions from the energy sector: https://ncsd.moe.gov.kh/dcc/news/Swiss/Networking/Event/MoE
- Video Conference with NDC Partners and Genesis Analytics Experts: https://www.youtube.com/watch?v=NwB6UabAXKA
- Translated video on Climate Smart Agriculture and Climate Change: https://ncsd.moe.gov.kh/dcc/news/NDC/Genesis/Analytics/Meeting
- Knowledge Sharing Event: <u>https://ncsd.moe.gov.kh/kh/dcc/news/dcc/CCCA/knowledge/sharing/event</u>
- Training Workshop on Action Plan for Implementation of Long-Term Carbon Development Strategy and NDC / LTS4CN Monitoring and Evaluation System: https://ncsd.moe.gov.kh/dcc/news/Training/workshop/NDC/LTS4CN/tracking/system
- Training on the Prevention of and Response to Sexual Harassment and Sexual Exploitation and Abuse for partners:
 https://ncsd.moe.gov.kh/kh/dcc/news/training/Sexual/Harassment/SEA/UNDP/DCC/CCC
- Short story on climate change for kids, youths, and elders (part 1):
 https://ncsd.moe.gov.kh/node/12945; https://www.youtube.com/watch?v=GDYmAacEycY
- Short story on climate change for kids, youths, and elders (part 2):
 https://ncsd.moe.gov.kh/node/12943; https://www.youtube.com/watch?v=RVwI9mjIp9g
- Short story on climate change for kids, youths, and elders (part 3):
 https://ncsd.moe.gov.kh/node/12944; https://www.youtube.com/watch?v=gqsjZ2fCEAE
- CPER 2021: https://ncsd.moe.gov.kh/dcc/resource/document/CPER/2021
- Case study_iDE- Advancing gender equality in Climate Action:
 https://ncsd.moe.gov.kh/dcc/resource/case/study/iDE/Advancing/gender/quality/in/Climate/Action
- Case study_HEKS Cambodia- Weed management and water shortage solutions for pepper plantation: https://ncsd.moe.gov.kh/resources/document/case-study-heks-cambodia-farmer-nutt-phi

Indicators	Baseline	Target (2022)	Current status (July 2019- 31 December 2022)
Number of final beneficiaries of adaptation measures	7, 600 (2017)	14,000	 400,731 (22,157 females, 68,043 poor people, 1,038 Children and 890 Indigenous people) to date. 93,081 people (14,976 females), 6,1447 Poor, benefited from the short-term COVID19 water and hygiene intervention 2,300 people benefited in Livelihood 6,929 (241 females), 2,141 poor people benefited in Disaster Risk Reduction 16,569 (632 females) people benefited in agriculture 127 people benefit in Marine Protected Area Management 2,614 people in forestry 261,358 people in Energy
GHG emission reduced or avoided with support from program [CCCA3] in kt. Of CO2 eq	0(2018)	250	38.71 ¹² kt. of CO2 to date.
Overall status of this result:	On track for a	adaptation, beh	nind schedule for mitigation
Outcome 1: Relevant clim is suitable to sector and to			n a reliable and timely manner,
Outcome Indicators	Baseline	Target (2022)	Current status (July 2019- 31 December 2022)

 12 The GHG emission figure from RECOFTC is under reviewing and due to MTR recommendations, IDE and ITC-CEE have changed the figure due to wrong calculation method

Change in social response to climate risk [disaggregated by sex and sector)	4.2 [w 4.6] (2015)		-1.25% (-1.46 F): This indicator shows a decrease due to a change in methodology in KAP3. However, the community response to climate change also showed positive signs compared to the KAP2 findings (91% reported that their community is taking action compared to 83% reported in KAP2). Also, 89% of women reported that people in their communities were taking action (compared to 83% in KAP2).
Level of user satisfaction with data and knowledge products made available with CCCA3 support	N/A	75%	and provide an update on this indicator. 99% (based on the user satisfaction generated from the website)
Overall status of this result:	On track		

Output 1.1: Climate change data portal enhanced, enabling greater access of stakeholders to key climate data in support of effective climate action

Output Indicators	Baseline	Target (2022)	Current status (July 2019- 31 December 2022)
Number of users of data products available through the data portal [number of women]	0	1,600 [750]	1,055 (236 women) downloaded from the data portal between Feb 2020 ¹³ - December 2022
Overall status of this result:	On track: the number of users of data products available through the data portal is slightly behind plan but more data products are being put in place, and downloads are increasing.		

¹³ (data portal tracking system started in Feb 2020)

Output Indicators	Baseline	Target (2022)	Current status (July 2019- 31 December 2022)
Number of tailored data and knowledge products available through the data portal [with data product directly addressing gender/CC data needs], with support by CCCA 3	6[0] (2018)	14 [3]	14 [2] ¹⁴
Number of joint climate change research projects established between local universities with other national institutions and with international and regional research centers focusing on CC related research	6(2018)	11	10. See below indicator for an update.
Number of joint climate change research projects involving line ministries, NCSD and national/international academia established with support by CCCA3	0(2018)	5	4. Four research partnerships are under implementation (heat stress soil carbon management, adaptation costing in the infrastructure sector, and vulnerability assessment in the coastal areas). The initial results of the research were presented in some international conferences ar CCCA3 Knowledge Sharing Event.

On track.

Overall status of this

result:

Greenhouse Gas Emission" https://ncsd.moe.gov.kh/dcc/data-portal/greenhouse-gas-emission, Knowledge, Attitude, and Practices on Climate Change (KAP): https://ncsd.moe.gov.kh/dcc/data-portal/knowledge-attitude-and-practices-climate-change-kap, Green Climate Fund: https://ncsd.moe.gov.kh/dcc/green-climate-fund, NDC/LTS4CN tracking system: https://ncsd.moe.gov.kh/ndc-tracking/, Expert Roster: https://ncsd.moe.gov.kh/dcc/experts-roster

Project mapping: https://ncsd.moe.gov.kh/dcc/program/cambodia-climate-change-alliance-ccca-phase-iii, CCCA3 project factsheets (Innovation grant round 1&2, line ministries grants, Responding in time of Covid, and research partnership grants): https://ncsd.moe.gov.kh/dcc/program/cambodia-climate-change-alliance-ccca-phase-iii/innovation-grants-round-1. Online lexicon: https://ncsd.moe.gov.kh/lexicon, Publications on climate change including updated case studies, research and policy documents, videos and CC related resources https://ncsd.moe.gov.kh/dcc/publication

¹⁴ Vulnerability to Climate Hazards: https://ncsd.moe.gov.kh/dcc/data-portal/vulnerability-climate-hazards, Vulnerability Assessments, https://ncsd.moe.gov.kh/dcc/data-portal/vulnerability-assessments Families Affected by Climate Hazards: https://ncsd.moe.gov.kh/dcc/data-portal/climate-finance
Institutional Readiness: https://ncsd.moe.gov.kh/dcc/data-portal/institutional-readiness

Output 1.3: Reliable and timely data generated to enable monitoring and evaluating of climate change response					
Output Indicators	Baseline	Target (2022)	Current status (July 2019- 31 December 2022)		
Number of M&E/MRV frameworks with indicators timely updated and accessible through the online data portal	1 (2018)	8	8 ¹⁵ . The Institutional Readiness Indicator, Climate Finance Data Portal, vulnerability index, families affected, GHG emission projects registry have been updated respectively in 2019, 2020, and 2021 and the GHG inventory data and KAP 3 data has been added in 2021. The NDC/LTS4CN tracking system developed and upgraded in 2022		
Overall status of this result:	On track.				

Output 1.4: Strengthened knowledge sharing mechanism in place for researchers, policy-makers and practitioners					
Output Indicators	Baseline	Target (2022)	Current status (July 2019- 31 December 2022)		
Number of regular knowledge sharing event and awareness raising campaigns organized per year	4 (2018)	3	3 knowledge sharing events were successfully conducted in 2022, with one including research universities and policy makers, one at the subnational level and the latest one among all CCCA3 grantees with CCTWG members		
Overall status of this result:	On track				

¹⁵ Institutional Readiness Indicator, Climate Finance Data Portal, Vulnerability Index, Families Affected, GHG emission projects registry and the GHG inventory data, KAP 3 data and the NDC/LTS4CN tracking system

Outcome 2: Tools are developed and implemented for the effective mainstreaming of CC into policy/regulatory frameworks, programs and budgets of priority sector

Outcome indicators	Baseline	Target (2022)	Current status (July 2019- 31 December 2022)
Number of ministries/agencies that include climate criteria in planning/screening procedure [with gender aspects explicitly addressed]	3[0] (2017)	5 [1]	4 [1]. The CCCA3 has been working and coordinating with the CDC to integrate the climate thematic markers into the CDC's ODA Database for 2021 (allowing for cross-analysis with gender). A training on Climate Change Financing Tracking in Cambodia ODA database to the DP's focal points was conducted. An analysis of this data was conducted, including a gender lens. The CCCA3 has been working and
Number of	3 (2017)	7	coordinating with the MEF to integrate climate change criteria in the BSP budget circular 2023-25. Line ministries with CC screening criteria (on a pilot basis) are MPWT and MRD. 5 (2 in progress). In addition to
development plans that explicitly integrated climate change in budget and M&E (national, sectoral, sub- national) with support by CCCA3	3 (2017)		previous work on the NSDP, MRD strategic plan and MPWT Budget Strategic plan (baseline), CCCA provided inputs for the integration of GHG emissions reduction targets in the energy efficiency policy now approved by MME, and for the development of climate resilience indicators/database systems in MOEYS (in partnership with UNICEF). Moreover, the CCCA3 has worked on integrating climate change in the intermodal transportation master plan of MEF (not yet approved), and in the COVID-19 recovery strategy of MEF (issued early 2022).

Overall status of this result:

Behind schedule (slightly).

Output 2.1: Decision-makers, practitioners, private sector actor and communities in priority sectors are sensitized and engaged in climate responses

Output Indicators	Baseline	Target (2022)	Current status (July 2019- 31 December 2022
Number of advocacy products, including policy briefs targeting high level decision	0(2018)	7	7. One brief produced for the MEF and MOI on vehicle study and recommendation for revising taxation to promote vehicles with lower emissions.
makers, on climate change produced			The CCCA3 also supported a brief to the Prime Minister on coal power vs renewable energy, and a brief to the Minister of Economy and Finance on impacts of a "brown" energy mix on investment attractiveness.
			Policy briefs of key KAP3 findings with infographics were presented in the 2nd PEB meeting.
			In 2022, technical briefs have been produced to support interministerial discussions on joining the methane pledge, the Glasgow leader's declaration on forests and land use, and the coalition of finance ministers on climate action (all have eld to Cambodia joining these initiatives).
Overall status of this result:	On track.	1	,

Output 2.2: Programming/budgeting procedures are processes in priority sector amended to incorporate climate change

Output Indicators	Baseline	Target (2022)	Current status (July 2019- 31 December 2022)
Number of sectors having amended procedures and processes to incorporate climate change in	3 (2018)	5	6 ¹⁶ . The CCAP of the MME and MRD and MPWT approved.

¹⁶ Sectoral Climate Change Action Plan of MME, MRD and MPWT

-

programming and/or budgeting			
Overall status of this result:	On track		

Output 2.3: New or updated policies/standards in priority sectors incentivizing climatesmart investments (public or private)

Output	Baseline	Target (2022)	Current status
Indicators			(July 2019- 31 December 2022)
Number of policy documents, standards or regulations incentivizing climate –smart investment developed	0 (2017)	4	6 (2 in progress). The GHG sub decree is under review by MOE lawyers. The tax on imports of electric cars has been reduced by MEF, following advocacy from CCCA3. CCCA3 also contributed inputs to the national energy efficiency policy which has now been adopted. The Long Term Strategy for Carbon Neutrality developed and submitted to the UNFCCC in December 2021, as a policy signal to investors on Cambodia's priorities. Technical review of the MPWT's "National Strategic Plan for Climate Change Adaptation and Greenhouse Gas Mitigation in Transport Sector" and alignment with the new CCAP was provided Operational model for off-grid solar mini-grids is under review by MME
Overall status of this result:	On track		

Output 2.4: Top-up financing provided for selected public investments which have gone through a climate screening process

Output Indicators	Baseline	Target	Current status
		(2022)	(July 2019- 31 December 2022)

Amount, USD value and type of climate-smart public investment in priority sector topped up with CCCA 3 financing	0 (2018)	3/ 1,500,000 USD	5/1,250,000 USD. Electric motorbike promotion with MPWT, climate-proofed rural water infrastructures with MRD, energy efficiency and solar micro grid with MME, climate-resilient schools with MOEYS and for MoE support to improved monitoring/reduction of GHG emissions in industry and support to climate change education and campaign videos.
Number of beneficiary households of adaptation and mitigation activities supported by target ministries	0 (2018)	700 HH (2,800 people, 60% female)	 1,380 HHs (171 Female head HHs, 356 HHs with ID poor, 207 HHs with IP) (915 student and teachers) to date The targets for the approved projects are: MRD: 3,500 people (50% female) MPWT: 150 people (37% female) MME: 400 people (50% female) MoEYS: 21,412 students (9,923 female), 726 teachers (300 female), 106 school principals (39 female). MoE: n/a (focus on industries and communication/education campaigns)
Overall status of this result:	On track (but	gender target be	ehind plan)

Output 2.5: The climate response is coordinated across sector and actors under NCSD leadership					
Output Indicators	Baseline	Target (2022)	Current status (July 2019- 31 December 2022)		
Number of meetings of the climate change technical working group per year including number of meeting with DPs	4 including 2 with DPs (2018)	4 including 2 with DPs	4 (1 with DPs)		

Level of engagement of targeted sectors in CCTWG meeting, including meeting for updating national M&E indicators	83% (2018)	85%	90%
Overall status of this result:	On track		

Output 2.6: An NDC implementation plan is developed including required sectoral actions and governance arrangement leadership

Output Indicators	Baseline	Target (2022)	Current status (July 2019- 31 December 2022)
NDC implementation plan developed with required sectoral actions and governance arrangement and with private sector participation and engagement	No	Yes	Yes. In addition, the key data for the MRV/NDC tracking system has been collected from the line ministries, and the focal points were designated by target ministries and trained. The final private sector engagement plan has been finalized.
Overall status of this result:	Achieved.		•

Output 2.7: Model for delivery of climate change responses at district and provincial level is developed and tested, in line with decentralization reform

Output Indicators	Baseline	Target (2022)	Current status (July 2019- 31 December 2022)
Status of procedures developed and tested in at least one province and one district for climate change mainstreaming in line with their functioning responsibilities.	No (2018)	Yes	Ongoing. The focus is on M&E systems and this is currently under development (expected completion in 2023)
Overall status of this result:	Behind schedu	ile (slightly).	

Outcome 3: National Capacity for mobilization, coordination and tracking of public and private climate change resource are strengthen

Outcome Indicators	Baseline	Target (2022)	Current status (July 2019- 31 December 2022)
Amount of climate change public expenditure at national, sectoral and subnational levels (domestic funds only)	71M USD (2016)	93M USD (2021 Data)	USD294M based on the CPER 2021 data analysis
Overall status of this result:	On track.		

Output 3.1: Climate related expenditure are regularly tracked and their efficiency and effectiveness is analysis

Output Indicators	Baseline	Target (2022)	Current status (July 2019- 31 December 2022)
Annual Climate Public expenditure report is available, including analysis of effectiveness and gender analysis	No (CPER does not include effectiveness or gender (2017)	Yes (2021 data)	Yes, in the CPER for fiscal year 2021 (with quantitative analysis and case study on gender and climate change)
Overall status of this result:	On track		

Output 3.2: MEF receives technical support to increase its capacities to conduct policy research on fiscal and economic policy issue related to climate change and develop the corresponding policy instrument

Output Indicators	Baseline	Target (2022)	Current status (July 2019- 31 December 2022)
Number of policy studies (support by CCCA3) with MEF staff involvement economic and fiscal policy issue related to climate change	1 (2018)	5	5. 4 additional: Completed Assessing the Potential Impacts of Fiscal Measures to Reduce Import Duties/Taxes on Electric Motorbikes Study on intermodal transport master plan completed in 2021.

	T		1
			Economic analysis of Green Urban Infrastructure in Phnom Penh (presented to MEF, MLMUPC and PP municipality) A scoping study on carbon pricing options in Cambodia (in cooperation with regional programme of UNDP-Sweden). In cooperation / co-financing with UNDP, supported a study on imports of second-hand cars (banning older vehicles).
Number of legal and	1/budget	4	
Number of legal and policy instruments introduced with CCCA3 support to promote climatesmart investment and practice	1(budget circular) (2018)	4	The Long-Term Strategy for Carbon Neutrality developed and submitted to the UNFCCC in December 2021. Import tax on electric vehicles has been reduced by MEF in February 2021. Not yet approved: MPWT new regulations on e-vehicle registration (ongoing), MEF work on imports of second-hand vehicles, and potentially on import rates for e-motorbikes. The draft of the Sub-decree on the Management of GHG Emissions Reduction Mechanisms has been further improved with feedback and comments from the ministries at NCSD meeting. It is currently under review by MoE lawyers.
Overall status of	On track.		
this result:			

Output 3.3: Innovative adaptation and mitigation approaches from public and private sector receive seed funding and have access to scaling up opportunities

Number and type of adaptation and mitigation activities supported by CCCA3 innovation grant facility	(2018)	10	11. Eleven full proposals under the CCCA3 innovation grants (Round1 &2) facility.
			Innovation Round1: a. Energy efficiency in buildings b. Electric mobility; c. Conservation agriculture (climate-smart); d. Early warning systems (urban floods); e. Community forestry; f. Low-carbon irrigation technology Innovation Round2: a. Marine Protected Area Management b. Adaptation and carbon storage through soil management c. Efficient electric cooking appliances d. Industrial Waste Water Treatment e. Resilient access to safe water in rural areas
Number and type of beneficiaries' households of adaptation and mitigation activities supported by CCCA 3 innovation grant facility (disaggregated by sex)	0 (2018)	700 HH (2,800 people, 60% Female)	 30,117 HHs (16,298 Females head HHs, 15,468 HHs with ID Poor and 392,176 people, 18, 216 Female, 66, 512 Poor and 1038 children) to date. 20,826HHs (89,552people, 13176 Female, 61,202 Poor) Water distribution of COVID19 response: Below are the targets for the

approved projects: Innovation Round 1 a. HEKS: 1,160 HH (364 indigenous HH). b. PNIA: 60HH (400 university students) c. RECOFTC: Focus on CFs cover 6,059 ha of forest and include 1,434 families, for a total of 5,032 community members, of which, 2,275 are women d. ITC-EE: n/a project focus on EE with engaging lecturers, researchers at ITC and other relevant universities), the private sector (energy service providers, building owners, building tenants, facility manager) and the public sector (energy related governmental bodies). e. PIN: The specific communes will be determined by the initial data collection and assessment into Battambang's flood history with estimated population of 196,709¹⁷. f. EnergyLab: People living in Phnom Penh will benefit from the project. The key target audience is young professionals and students. Innovation Round 2

a. CDMC: 32,500 people

2 CPAs

(16,650 females), 8 CFis and

¹⁷ NIS, 2012

Volume of funds (by type public/private) leveraged through the financing facility	0 (2018)	500,000 USD	 b. FAEC: 7 ACs in BtB, 3 ACs in Kg Thom (658 Males, 965 females, 343 youths) c. IDE: 1,000 HH, 300,000 people benefit from social media d. MISTI: 500 SMEs e. MRD-TS1001: Create 6 new jobs
Overall status of this result:	On track		

9. Financial delivery

9.1. Contribution Overview

		Comm	Committed		eived	To Be R		
No	Donors	Original Currency	USD (1)	Original Currency	USD (2)	Original Currency	USD	Remark
		USD		USD		USD		
1	UNDP	500,000.00	500,000.00	324,258.14	324,258.14	175,741.86	175,741.86	
								Estimated for
		EUR		EUR		EUR		funds to be
2	EU	6,000,000.00	6,715,200.00	4,256,829.84	4,714,666.00	1,743,170.16	1,885,186.23	received in USD
		SEK		SEK		SEK		
3	SIDA	34,000,000.00	3,730,740.16	34,000,000.00	3,386,681.50	-	-	
		£		£		£		
4	UK	50,000.00	67,006.18	50,000.00	67,006.18	-	-	
								Against a revised
								USD budget of
		USD						USD 10.932M in
5	Funding Gap	922,955.17	378,569.63	-	-	-	378,569.63	BRV-G04
		TOTAL	10,932,109.52		8,492,611.82		2,439,497.72	

Note:

^{(1):} Based on the exchange USD1=EURO.8935 (infoEURO in June 2019)

^{(2):} subjected to change based on the date of the actual fund receive from EU and SIDA donor

9.2. Total Expenditure by Outcomes (1 Jan – December 2022)

		in USD		
Outcomes	BRV-G04 (Approved by 3rd project board meeting, incl. PO in 2021)	2022 Expenditure (01 Jan-31 Dec)	Balance	Delivery (%)
Outcome 1: Relevant climate information is generated in a reliable and timely manner, is suitable to sectors and targets specific needs	811,021.00	668,932.68	142,088.32	82%
Outcome 2: Tools are developed and implemented for the effective mainstreaming of CC into policy/regulatory frameworks, programmes and budgets of priority sectors	1,161,220.00	914,939.75	246,280.25	79%
Outcome 3: National capacities for the mobilization, coordination and tracking of public and private climate change resources are strengthened	665,848.00	591,277.76	74,570.24	89%
Evaluation (mid-term, final and contribution to CPD evaluation)	35,000.00	27,304.00	7,696.00	78%
Indirect Eligible Cost (GMS)	183,536.66	119,978.32	69,972.75	65%
Total	2,856,625.66	2,345,504.24	511,121.41	82%

9.3. Cumulative Expenditure by Outcomes as of 31 December 2022

	in USD								
		Budget Revision		C	Cumulative Expend	diture			
Outcomes	Budget (Prodoc)	BRV-G04 (3rd project board meeting)	2019 01 Jul-31 Dec	2020 01 Jan-31 Dec	2021 01 Jan- 31 Dec	2022 01 Jan- 31 Dec	Total 01 Jul 2019- 30 Sept 2022	Budget Balance (BRV-G04)	Delivery rate (%)
Outcome 1: Relevant climate information is generated in a reliable and timely manner, is suitable to sectors and targets specific needs	3,894,500	3,706,622.93	254,011.06	666,583.60	515,940.23	668,932.68	2,105,467.57	1,601,155.36	57%
Outcome 2: Tools are developed and implemented for the effective mainstreaming of CC into policy/regulatory frameworks, programmes and budgets of priority sectors	3,871,000	3,425,050.26	159,887.11	517,018.96	791,377.09	914,939.75	2,383,222.91	1,041,827.35	70%
Outcome 3: National capacities for the mobilization, coordination and tracking of public and private climate change resources are strengthened	3,209,500	3,005,445.66	186,999.71	630,187.55	859,763.94	591,277.76	2,268,228.96	737,216.70	75%
Evaluation (mid-term, final and contribution to CPD evaluation)	110,000	80,000.00	26,509.00			27,304.00	53,813.00	26,187.00	67%
Indirect Eligible Cost (GMS)	783,895.33	714,990.67	36,684.31	144,640.00	159,802.05	143,049.78	484,176.14	230,814.53	68%
Total	11,868,895. 33	10,932,109.52	664,091.19	1,958,430.11	2,326,883.31	2,345,503.97	7,294,908.58	3,637,200.94	67%

Annex 1: Annual Work Plan by Quarter

		Responsible	2023					
Outcomes	Outputs and Activities	Staff *	Q1	Q2	Q3	Q4		
Outcome 1: Relevant climate information is generated in a	Outcome 1: Relevant climate information is generated in a reliable and timely manner, is suitable to sectors and targets specific needs							
reliable and timely manner, is suitable to sectors and targets specific needs	Output 1.1: Climate Change data portal enhanced, enabling greater access of stakeholders to key climate data in support of effective climate action.							
	1.1.1. Management/maintenance of CC website and data portal (to ensure it responds to user needs)							
	Website maintenance		Х	Х	Х	Х		
	 Update the NCSD website including layout following user comment tracking Pop-up feedback box with support from Bikay 	CA, OO	Х	Х	Х	Х		
			Х	Х				
	1.1.2. Enhance CC data portal (webGIS) to make available georeferenced data							
	 Collect and input data as well as identify the data gap of the GIS portal Run and deploy the data collected on the NCSD's website with support of IT firm 	KMO, CA, TS, AO	х	Х				
	1.1.3. Develop Women Resilience Index on the NCSD's website	KMO, CA, AO, TS	Х	Х				
	1.1.4. Update existing data portal (GHG emission, Vulnerability Index,	KMO, CA, AO, MO TS	Х	Х	Х	X		

Outcomes	Outputs and Astinities	Responsible	2023					
	Outputs and Activities	Staff *	Q1	Q2	Q3	Q4		
	NDC/LTS4CN) - Support with the data validation and a focal point or data storage	AO, DCC/AO	х	х	х	х		
	1.1.5. Enhance CCCA3 programme data management and visibility							
	Online E-Bulletin (Each per quarter)	CA, KMO	Х	Х	Х	Х		
	Prepare posts for MoE social media	CA, KMO	Х	Х	Х	Х		
	Develop and print out the 2024 calendar	CA, KMO			Х	Х		
	Develop and print out the 2024 diary	CA, KMO			Х	Х		
	1.1.6 Develop the flashcard on climate change	KMO, DCC-Ratha, CA		х	х			
	1.1.7 Develop two short videosHome Gardening and Climate ChangeGender and Climate Change	KMO, DCC-Ratha, CA		х	Х			
	1.1.8 Develop case studies on CCCA3 grant projects on gender integration and tracking and recommendation for future programme	KMO, DCC-Ratha, CA	х	х	х	х		
	Output 1.2: Tailored data, information and knowledge products targeting the needs of public institutions, private sector and CSOs, in priority sectors.							
	1.2.1 KAP4 study (including gender dimension)	DCC-Ratha KMO, CA, TS, AO, M&E	Х	Х	Х	Х		

Outcomes	Outputs and Activities	Responsible	2023				
Outcomes	Outputs and Activities	Staff *	Q1	Q2	Q3	Q4	
	 KAP4 ToR recruitment and selection KAP4 research design KAP4 survey Consultation workshop Full report Khmer Translation and publication in 2024 Printing KAP4 report Research Disseminate 	DCC-Ratha, KMO, CA, TS, AO, M&E	Х	X	Х	X	
	1.2.2. Support collaborative CC research	porative CC research					
	Develop the policy brief of each research grant	KMO, TS, CTA, AO, MO,			х	х	
	Research partnership with ITC on heat stress research	KMO, TS M&E, AO, MO	х	Х	Х		
	Research partnership with NUBB on soil organic carbon	KMO, TS M&E, AO, MO	х	Х	х	Х	
	Research partnership with RUPP on adaptation costing in the infrastructure sector	KMO, TS M&E, AO, MO	х	Х			
	Research partnership with ITC on vulnerability assessment in the coastal areas	KMO, TS M&E, AO, MO	х	Х	Х	х	
	1.2.3 Update the CC Lexicon (Online) for new terms under article six of Climate Paris Agreement	KMO, AO, MO, CA	х	Х	Х	х	

		Responsible	2023					
Outcomes	Outputs and Activities	Staff *	Q1	Q2	Q3	Q4		
	Output 1.3: Reliable and timely data to enable monitoring and evaluation of climate change response.							
	1.3.1. Establish an enhanced MRV system							
	Update the 2023 implementation update of the NDC/LTS4CN and reporting development process	TS, M&E, Mo, AO	х	Х	Х	Х		
	Update climate finance data portal CO, AO, TS					х		
	Update the indicator in the data portal regarding the GHG projects	MO, TS/ M&E, KMO, CO				Х		
	1.3.2. Enhance M&E frameworks for target sectors and provide tailored M&E training programs							
	MRV/NDC/LTS4CN Capacity Building trainings for all sectors	TS, MO, AO, M&E	х			х		
	Support to line ministries in order to operationalize their MRV systems, in line with NDC/LTS4CN commitments and sectoral indicators/targets (including gender aspect)	TS, MO, AO, M&E	х			х		
	1.3.3. Agree on programme of work under the LoAs with target line ministries to improve their data collection / MRV capacity							
	MPWT	CTA, CO, TS, MO, AO, M&E	х	Х	Х	Х		
	MRD	CTA, CO, TS, MO, AO, M&E	х					

Outcomes	Outputs and Activities	Responsible	2023				
Outcomes	Outputs and Activities	Staff *	Q1	Q2	Q3	Q4	
	MoEYS	CTA, CO, TS, MO, AO, M&E	х	Х	Х	Х	
	МоЕ	CTA, CO, TS, MO, AO, M&E	х	Х	Х	Х	
	NCDDS	CTA, CO, TS, MO, AO, M&E	х	Х	Х	Х	
	1.3.4. Revision of the National M&E Framework/ develop the national Enhanced Transparency Framework						
	Revise methodology base on BUR, NDC update, LTS4CN	TS, AO, MO, M&E				х	
	Draft revised National M&E/ET Framework	TS, AO, MO, M&E				х	
	1.3.4. Capacity development to DCC (refer to capacity stocktaking report)						
	Conduct field visit to CDM and JCM projects (Follow up activities on the carbon credit projects in Cambodia (C-quest Capital, Geres, Nexus)	MO, TS	х		х	х	
	Capacity Development related to Article 6 operationalization (related to NDC and LTS4CN)	DCC-MO, MO, TS		х			
	Capacity Building on IPCC 2016 Guideline for all sectors, Calculating trade/tradable volume from Cambodia/s NDC	MO, TS					
	Capacity training on climate change adaptation, VRA assessment, VI (For DCC and Sub-CCTWG on Adaptation)	AO, TS	х	х	х		
	Output 1.4: Regular knowledge- sharing events between researchers, policy-makers, practitioners and other targeted audiences						

		Responsible		2	023	
Outcomes	Outputs and Activities	Staff *	Q1	Q2	Q3	Q4
	Identification and Documentation of the case study, lessons learnt and best practice from the field projects especially on gender integration and tracking and recommendation for future programme	KMO, CA, MO, AO, M&E	х	Х	х	Х
	Knowledge-Sharing Event for youth, private sector and relevant stakeholder on climate change research			х		х
	Workshop on Gender and Climate Change					
	Awarding ceremony for painting competition for kids and youth	KMO, CA	х			
	Workshop on Climate Change and Religion in Phnom Penh		Х			
	Training on climate change for media and field trips for filming videos and good practices on climate change (New LoA with MoE)	KMO, CA, TS, AO, MO	х	x		
Outcome 2: Tools are developed and implemented for the effective mainstreaming of CC into policy/regulatory frameworks, programmes and	Outcome 2: Tools are developed and implemented for the effective mainstreaming of CC into policy/regulatory frameworks, programmes and budgets of priority sectors					
budgets of priority sectors	Output 2.1: Decision-makers, practitioners, private sector actors and communities in priority sectors are sensitized and engaged in climate responses					
	Move two video and check with Savuth LoA with MoE					
	Output 2.2: Amended programming / budgeting procedures and processes in priority sectors to incorporate climate change	CO, CTA,		х	Х	Х

Outcomes	Outputs and Activities	Responsible	2023				
Outcomes	Outputs and Activities	Staff *	Q1	Q2	Q3	Q4	
	2.2.1. Advisory support and training to target ministries on planning/budget	CO, CTA,	Х	х	х	Х	
	Output 2.3: New or updated policies/standards in priority sectors incentivizing climate-smart investments (public or private)	CO, CTA,		Х	Х	Х	
	2.3.1. Policy studies in support of target ministries	CO, CTA,		х	х	Х	
	Output 2.4: Top-up financing provided for selected public investments which have gone through a climate screening process	CO, CTA,		х	х	Х	
	2.4.1. Top-up for climate resilient and low carbon public investments in target ministries	CO, CTA,					
	MRD	CO, CTA, AO, MO, M&E	Х				
	MME	CO, CTA, AO, MO, M&E	Х				
	MPWT	CO, CTA, AO, MO, M&E	Х	Х	Х		
	NCDDS	CO, CTA, AO, MO, M&E	Х	Х	Х	Х	
	MoE-GDEP	CO, CTA, AO, MO, M&E	Х	х			
	Launch and Disseminate video lessons on climate change for primary secondary students (LoA with MoE)	KMO, CA, TS	х				
	MOEYS	CO, CTA, AO, MO, M&E	Х	х	Х		
	Output 2.5: The climate response is coordinated across sectors and actors, under NCSD leadership						

Outcomes	Outputs and Astinities	Responsible	2023				
Outcomes	Outputs and Activities	Staff *	Q1	Q2	Q3	Q4	
	2.5.1. Support to inter- ministerial coordination mechanisms including TWG						
	CCTWG meeting (the agenda for discussing shall be collected rom CCTWG members and DPs)	co, oo	Х			Х	
	2.5.2. CCCSP strengthening following MTR						
	Develop climate change strategies stocktaking	CTA, TS, M&E, AO, MO, OO		х			
	2.5.3. Support to Cambodia's participation in UNFCCC Mechanisms						
	Post- COP27		Х				
	Pre-COP 28 and Post COP28 (2024)				х		
	Support DCC/CCTWG members to join relevant sectoral TWGs and other events (for example COP28)	CO, OO CO, OO			х		
	Draft of briefing for CoP28			Х	Х		
	2.5.4. Long Term Strategy for Carbon Neutrality in Cambodia (LTS4CN)						
	Operationalizing of the LTS4CN implementation in line with the NDC implementation and following the national ETF in progress.	CTA, TS, M&E, AO, MO		Х	Х	Х	
	2.5.5 Support to adoption of GHG mechanisms sub-decree						
	MoE's lawer is 'reviewing with consulting with DCC	DCC-MO, MO	Х	Х	х	Х	
	Support any final revisions and processing for PM's approval	CTA, CO, MO. DCC- MO	Х	Х	Х	Х	

		Responsible	2023				
Outcomes	Outputs and Activities	Staff *	Q1	Q2	Q3	Q4	
	Output 2.6: An LTS4CN implementation plan is developed, including required sectoral actions and governance arrangements.						
	Output 2.7: Model for delivery of climate change response at district and provincial level is developed and tested, in line with decentralization reforms						
	NCDDS Support to a sub-national climate investment information system development (LoA)						
	Project/Result monitoring and support with data validation and calculation/Method	AO, TS, M&E. DCC-AO	х	Х	х	х	
	Participate in development VI/VRA and data collection Coordinate with management for Data portal						
Outcome 3: National capacities for the mobilization, coordination and tracking of public and private climate	Outcome 3: National capacities for the mobilization, coordination and tracking of public and private climate change resources are strengthened						
change resources are strengthened	Output 3.1: Climate-related expenditures are regularly tracked and their efficiency and effectiveness is analyzed						
	3.1.1: Support to MEF and CDC/CRDB for annual climate public expenditure reviews, including a gender lens	CTA, CO, DCC-CO					
	Finalize and publish CPER for fiscal year 2022	CTA, CO, DCC-CO	х	х	Х	х	

Outcomes	Outputs and Activities	Responsible	2023					
Outcomes	Outputs and Activities	Staff *	Q1	Q2	Q3	Q4		
	 CDC Support CDC on ODA data entry on climate change financing (quality assurance for their database and training for CDC and donor staff) Sharing CC finance data with NCSD website 	CTA, CO, DCC-CO	х	х	х	х		
	Output 3.2: MEF receives technical support to increase its capacities to conduct policy research on fiscal and economic policy issues related to climate change and develop the corresponding policy instruments							
	3.2.1: Conduct research with MEF on fiscal and economic policy issues related to climate change and develop the related policy instruments	CTA, CO	х	х	х	х		
	3.2.2: Advocacy events and promotion materials on policy findings							
	Output 3.3: Innovative adaptation and mitigation approaches from the public and private sector receive seed funding and have access to scaling-up opportunities							
	3.3.1: Knowledge Sharing event among grantees	KMO, CA, OO			х			
	3.3.2: Support delivery of selected grants and monitor results							
	Review and comment on quarterly progress and financial report from the grantees	FMO, M&E, AO, MO, KMO	Х	Х	Х	Х		
	Review and comment on next disbursement request from the Grantees	FMO	х	Х	Х	Х		

Outcomes	Outputs and Activities	Responsible	2023				
Outcomes	Outputs and Activities	Staff *	Q1	Q2	Q3	Q4	
	Conduct spot check to grantees and debriefing on findings and recommendation then follow up on agreed actions	FMO, M&E, DCC-AFO	х	Х	Х	Х	
	Update the grant management scorecard	FMO, M&E, DCC-AFO	х	Х	Х	Х	
	Identification of case study, lesson learnt and best practices and promotion of successful practices/private sector /policy makers	KMO, M&E, AO, MO, DCC-AFO Designed DCC staff	х	х	х	Х	
	Monitoring visit to the project sites including donor field trips	M&E, KMO, AO, MO, Designed DCC staff, DCC-AFO	x	X	Х	Х	
	Review quarterly reports from grantees	M&E, FMO, AO, MO, KMO	х	Х	Х	Х	
	Quarterly and Annual Reporting (CCCA3)	M&E, TS, CTA	Х	Х	Х	Х	

Outcomes	In USD
	2023 Approved Budget
Outcome 1: Relevant climate information is generated in a reliable and timely manner, is suitable to sectors and targets specific needs	948,363.06
Outcome 2: Tools are developed and implemented for the effective mainstreaming of CC into policy/regulatory frameworks, programmes and budgets of priority sectors	907,171.05
Outcome 3: National capacities for the mobilization, coordination and tracking of public and private climate change resources are strengthened	506,314.21
Evaluation (mid-term, final and contribution to CPD evaluation)	119,978.32
Total	2,481,826.64

Annex 3: Risk log Update by 31 December 2022

No	Description	Date Identified	Туре	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
1	Changes in leadership in counterpart institutions lead to lower commitment to climate change action	10/2018	Political	May affect the capacity of the project to engage on certain policy issues, or to support improvements in planning/budget systems in these institutions P = 2 I = 4	Sensitization and engagement of HL decision- makers. Nurturing relationship with technical levels in key institutions (informing choice of focus sectors).	Project Manager	Project Developer	31 December 2022	Unchanged
2	New directions are taken for the National Strategic Development Plan (2019-2023) and sector-wide policies deviating from green growth	10/2018	Strategic	May affect the capacity of the project to engage on certain policy issues P = 1 I = 4	Engagement in the Mid Term Review of the CCCSP (2014-2023) in 2018. Support key stakeholders in the use of climate mainstreaming tools in key planning documents (applied research, CBA, making the business case).	Project Manager	Project Developer	31 December 2022	Unchanged

No	Description	Date Identified	Туре	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
3	Decentralization agenda compromised by internal debate within Government stakeholders and disengagement of development partners' support	10/2018	Strategic	Affect the capacity of the project to engage sub-national institutions P = 2 I = 3	A cautious and gradual engagement of subnational level authorities in climate response. Piloting approaches while NCDD issues conclusions from its study on sub-national institutions' capacities. Undertaking a "needs based assessment" to reinforce climate action at the subnational level and envision investments only in the 2 nd part of the programme.	Project Manager	Project Developer	31 December 2022	Unchanged

No	Description	Date Identified	Туре	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
4	Brain-drain, high staff turnover posing sustainability risks and limited availability of Government staff to engage in or lead proposed activities	10/2018	Organizationa	Limits the potential for capacity development and transfer of knowledge P = 3 I = 3	Proposed activities are in line with Government staff mandates (not addons), and contribute to the core functions assigned to Government staff (public officials will be assigned to programme activities based on their usual functions). Nurturing relationships with Government managers already engaging with CCCA and offering hands-on mentorship, training and knowledge exchange opportunities to public officials engaged in the programme.	Project Manager	Project Developer	31 December 2022	Unchanged

No	Description	Date Identified	Туре	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
5	Vested interests in specific sectors (e.g. energy, transport) may prevent the enactment of climate-smart policy measures if they are perceived as threats to their business model	10/2018	Strategic	Recommended measures may not be approved/applied in concerned sectors P = 2 I = 3	Engagement of all concerned actors through private sector dialogue. Building the business case of climate-smart and green technology solutions through local evidence. Positive incentives to mobilise climate-smart and low-carbon investments (technical assistance, access to financing, tax regime). Promote schemes to reward private sector "champions"/ green investors (awards, certifications).	Project Manager	Project Developer	31 December 2022	Unchanged

No	Description	Date Identified	Туре	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
6	Lack of availability of international support for "means of implementation " for NDCs	10/2018	Financial	Limited financing to scale up solutions developed by CCCA P = 2 I = 3	Tracking the increase of domestic investments to reduce dependence on international support. Use public funds to leverage private investments. Track international climate finance and engage in UNFCCC negotiations to hold donors accountable to existing commitments.	Project Manager	Project Developer	31 December 2022	Unchanged
7	Unfavorable exchange rate variations	10/2018	Financial	Insufficient budget for planned activities P = 3; I = 2	Track exchange rates and anticipate any reductions through timely USD budget revisions.	UNDP Prog. Associate	Project Developer	31 December 2022	Deterioratin g. Budget adjustment proposed to the Board.

No	Description	Date Identified	Туре	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
8	Restrictions to activities due to the COVID-19 pandemic	03/2020	Heath / Operational	Restrictions to our capacity to deliver, conduct meetings and field activities, threat to CCCA3 staff health P = 2; I = 2	Implement remote working arrangements whenever possible, adjust work plans.	Project manager, and PEB	Project manager	31 December 2022	Risk realized already in March 2020. Work plan adjustment s implemente d.

Issue Log

1	Complaint	09/2021	Nature of the issue:	31 December	We conducted an unannounced spot check to two
	received from a group claiming control of one of our grantees (FAEC)		Email sent to project manager from a group who are contesting internal decisions made by FAEC on their board / management, and alleging mismanagement on other projects (not the CCCA project). A case is pending before the courts.	2022	cooperatives at Battambang province during Q4 2022. We noticed the project implementation was working better and deliverables produced. All two ACs appreciated and happy with intervention done so far. However, we still maintain prudential measures with monthly update and plan submitted by the grantee to CCCA.



Lot 503, Sangkat Tonle Bassac, Chamkarmon, Phnom Penh, Cambodia Website: https://ncsd.moe.gov.kh/