FINAL PROJECT REPORT

United Nations Development Programme
Cambodia
Cambodia Climate Change Alliance – Phase II
01-07-2014 – 30-06-2019

PROJECT ID: 00073625
DURATION: 1st July 2014 to 30th June 2019
TOTAL BUDGET: US$ 11,635,797.53
IMPLEMENTING PARTNERS: Department of Climate Change, General Secretariat of the National Council for Sustainable Development, Ministry of Environment
# Table of Content

**Table of Content**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table of Content</td>
<td>1</td>
</tr>
<tr>
<td>Acronyms and Abbreviations</td>
<td>2</td>
</tr>
<tr>
<td>I. Context</td>
<td>4</td>
</tr>
<tr>
<td>II. Performance review</td>
<td>4</td>
</tr>
<tr>
<td>1. Capacity development and national ownership</td>
<td>4</td>
</tr>
<tr>
<td>2. Impact on beneficiaries</td>
<td>5</td>
</tr>
<tr>
<td>3. Participation, gender sensitivity and inclusion of vulnerable groups</td>
<td>7</td>
</tr>
<tr>
<td>4. Sustainability</td>
<td>7</td>
</tr>
<tr>
<td>III. Project results summary</td>
<td>9</td>
</tr>
<tr>
<td>1. Result 1</td>
<td>9</td>
</tr>
<tr>
<td>2. Result 2</td>
<td>13</td>
</tr>
<tr>
<td>3. Result 3</td>
<td>17</td>
</tr>
<tr>
<td>Logframe</td>
<td>23</td>
</tr>
<tr>
<td>IV. Lessons learnt and next steps</td>
<td>32</td>
</tr>
<tr>
<td>V. Financial status and utilization</td>
<td>34</td>
</tr>
<tr>
<td>1. Financial status</td>
<td>34</td>
</tr>
<tr>
<td>2. Financial utilization</td>
<td>34</td>
</tr>
<tr>
<td>Annexes</td>
<td>35</td>
</tr>
<tr>
<td>Annex 1 – Summary of key activities and outputs – CCCA 2 grant projects</td>
<td>36</td>
</tr>
<tr>
<td>Status of core indicators and targets of CCCA grants for Window 1 Round 1 &amp; Round 2</td>
<td>36</td>
</tr>
<tr>
<td>Final progress report for LoAs under Window 2</td>
<td>53</td>
</tr>
<tr>
<td>Status of core indicators and targets of CCCA Research and Innovation grants for Window 3</td>
<td>55</td>
</tr>
<tr>
<td>Final progress report for individual grants under Window 3</td>
<td>57</td>
</tr>
<tr>
<td>Annex 2 – Final risk log update: June 2019</td>
<td>70</td>
</tr>
<tr>
<td>Annex 3 – Supporting Documents</td>
<td>74</td>
</tr>
<tr>
<td>Annex 4 – Response to Final Evaluation</td>
<td>78</td>
</tr>
</tbody>
</table>
## Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
</tr>
<tr>
<td>BSP</td>
<td>Budget Strategic Plan</td>
</tr>
<tr>
<td>CCAP</td>
<td>Climate Change Action Plan</td>
</tr>
<tr>
<td>CCCA</td>
<td>Cambodia Climate Change Alliance</td>
</tr>
<tr>
<td>CCCSP</td>
<td>Cambodia Climate Change Strategic Plan</td>
</tr>
<tr>
<td>CCTT</td>
<td>Climate Change Technical Team</td>
</tr>
<tr>
<td>CDC/CRDB</td>
<td>Council for the Cambodia Development/Cambodia Rehabilitation and Development Board</td>
</tr>
<tr>
<td>CCTWG</td>
<td>Climate Change Technical Working Group</td>
</tr>
<tr>
<td>CIP</td>
<td>Commune Investment Programme</td>
</tr>
<tr>
<td>CPER</td>
<td>Climate Change Public Expenditure Review</td>
</tr>
<tr>
<td>CRDT</td>
<td>Cambodia Rural Development Team</td>
</tr>
<tr>
<td>DCC</td>
<td>Department of Climate Change</td>
</tr>
<tr>
<td>EFI</td>
<td>Economic and Finance Institute</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>GCF</td>
<td>Green Climate Fund</td>
</tr>
<tr>
<td>GDA</td>
<td>General Department of Agriculture</td>
</tr>
<tr>
<td>GERES</td>
<td>Group for the Environment, Renewable Energy and Solidarity</td>
</tr>
<tr>
<td>GSSD</td>
<td>General Secretariat of NCSD</td>
</tr>
<tr>
<td>IIED</td>
<td>International Institute for Environment and Development</td>
</tr>
<tr>
<td>KAP</td>
<td>Knowledge Attitude Practice</td>
</tr>
<tr>
<td>LDCF</td>
<td>Least Developed Countries Fund</td>
</tr>
<tr>
<td>LoA</td>
<td>Letter of Agreement</td>
</tr>
<tr>
<td>MAFF</td>
<td>Ministry of Agriculture, Forestry and Fisheries</td>
</tr>
<tr>
<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
</tr>
<tr>
<td>MEF</td>
<td>Ministry of Economy and Finance</td>
</tr>
<tr>
<td>MIH</td>
<td>Ministry of Industry and Handicraft</td>
</tr>
<tr>
<td>MLMUPC</td>
<td>Ministry of Land Management, Urban Planning and Construction</td>
</tr>
<tr>
<td>MME</td>
<td>Ministry of Mine and Energy</td>
</tr>
<tr>
<td>MoE</td>
<td>Ministry of Environment</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------</td>
</tr>
<tr>
<td>MoEYS</td>
<td>Ministry of Education, Youth and Sport</td>
</tr>
<tr>
<td>MoH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>MoInf</td>
<td>Ministry of Information</td>
</tr>
<tr>
<td>MoT</td>
<td>Ministry of Tourism</td>
</tr>
<tr>
<td>MOWA</td>
<td>Ministry of Women Affair</td>
</tr>
<tr>
<td>MOWRAM</td>
<td>Ministry of Water Resource and Meteorology</td>
</tr>
<tr>
<td>MoU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>MPWT</td>
<td>Ministry of Public Works and Transport</td>
</tr>
<tr>
<td>MRD</td>
<td>Ministry of Rural Development</td>
</tr>
<tr>
<td>MTR</td>
<td>Mid Term Review</td>
</tr>
<tr>
<td>NAP</td>
<td>National Adaptation Plan</td>
</tr>
<tr>
<td>NBP</td>
<td>National Biodigester Program</td>
</tr>
<tr>
<td>NCCC</td>
<td>National Climate Change Committee</td>
</tr>
<tr>
<td>NCDD-S</td>
<td>The National Committee for Sub-National Democratic Development</td>
</tr>
<tr>
<td>NCDM</td>
<td>National Committee for Disaster Management</td>
</tr>
<tr>
<td>NCSD</td>
<td>National Council for Sustainable Development</td>
</tr>
<tr>
<td>NDC</td>
<td>Nationally Determined Contribution</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
</tr>
<tr>
<td>NSDP</td>
<td>National Strategic Development Plan</td>
</tr>
<tr>
<td>ODA</td>
<td>Official Development Assistance</td>
</tr>
<tr>
<td>PSB</td>
<td>Programme Support Board</td>
</tr>
<tr>
<td>REDD+</td>
<td>Reducing Emissions from Deforestation and Forest Degradation</td>
</tr>
<tr>
<td>RGC</td>
<td>Royal Government of Cambodia</td>
</tr>
<tr>
<td>SPCR</td>
<td>Strategic Project for Climate Resilience</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>UNEP</td>
<td>United Nations Environment Programme</td>
</tr>
<tr>
<td>UNFCCC</td>
<td>United Nations Framework Convention on Climate Change</td>
</tr>
<tr>
<td>UNITAR</td>
<td>United Nations Institute for Training and Research</td>
</tr>
<tr>
<td>WCS</td>
<td>Wildlife Conservation Society</td>
</tr>
</tbody>
</table>
I. Context

The Cambodia Climate Change Alliance (CCCA) - Phase 2 is an initiative led by the Ministry of Environment and supported by the European Union, Sweden and UNDP. The overall objective is to strengthen national systems and capacities to support the coordination and implementation of Cambodia’s climate change response, contributing to a greener, low carbon, climate-resilient, equitable, sustainable and knowledge-based society. The specific objective is to contribute to the implementation of the Cambodia Climate Change Strategic Plan.

The CCCA Phase 2 programme focused on three main drivers of change (results), for the period from July 2014 to June 2019:

i. Strengthening the governance of climate change;
ii. Harnessing public and private, domestic and external resources in support of the CCCSP vision;
iii. Developing human and technological capital for the climate change response.

The programme, implemented by the Ministry of Environment / National Council for Sustainable Development, combined technical assistance activities and financial support for pilot projects through a grant facility (22 funded projects). The budget of the CCCA Phase 2 was USD 10.8 million.

II. Performance review

1. Capacity development and national ownership

The overall level of national ownership of CCCA has remained very high throughout this second phase, as confirmed by the mid-term and final project evaluations. CCCA is seen in the General Secretariat of NCSD (GSSD) as a flagship initiative supporting the coordination functions of the Government for the climate change response. The National Implementation Modality of UNDP has played a critical role in achieving this level of ownership, as it has allowed GSSD to be in the lead for the management of most activities, under the control of the board. CCCA also made conscious efforts to align its technical assistance activities with Government priorities, and to engage of GSSD/DCC staff in line with their assigned Government functions. The creation of NCSD itself was a major achievement supported by CCCA, which strengthened coordination arrangements for the climate change response. Government budget allocations to climate change have increased over the CCCA 2 period, including budget allocations for NCSD itself. Remaining challenges for capacity development within GSSD/DCC are the relatively high staff turnover, and competing demands on staff time from other climate change initiatives and international negotiations / events.
Ownership of CCCA activities in line ministries has also been satisfactory, with some variations between ministries/agencies. In general, the approach of putting national partners in the lead through grant projects has generated good working relationship and a good level of involvement at least from the core Government teams assigned to CCCA initiatives. Key challenges included the limited technical capacity of some ministries/agencies to engage on climate change, and in many cases a persistent “silo approach” to climate change programming and implementation which did not allow for broader capacity development and buy-in across partner institutions, beyond the core teams assigned to climate change. More targeted efforts are needed to generate this broader buy-in, which will be a focus of CCCA Phase 3. Some partner institutions have already made considerable progress in integrating climate change in their core sectoral tools (e.g. Ministry of Rural Development’s new 5-year policy and strategy, and budget strategic plan).

On the legal front, CCCA supported GSSD/DCC to develop the climate change title of the new Environment and Natural Resources Code, which is currently under Government review. The Code clarifies institutional arrangements and the mandates of various ministries/agencies in relation to climate change.

On the partnership front, at the Government level the stronger partnerships with coordinating ministries/agencies is worth mentioning. Strong working relationships have been developed with Ministry of Planning, Ministry of Economy and Finance and the Council for the Development of Cambodia. Several of CCCA 2’s key achievements are the results of these partnerships. e.g. inclusion of climate change in the new rectangular strategy, National Strategic Development Plan and CSDGs, progress on climate-responsive budgeting and annual tracking of climate finance.

Another area where CCCA2 made significant progress is on partnerships with the private sector. The mapping exercise conducted in 2016 helped identify a number of opportunities for the government to support private sector involvement. CCCA2 supported the development of a strategy for payment for ecosystem services around the Kbal Chhay area in Sihanoukville to address constraints on access to clean water, in partnership with private sector actors in the area. In 2019, a cross-ministerial effort supported by CCCA led to recommendations for a reform of the vehicle import tax for more fuel-efficient vehicles, in consultation with private sector actors.

Partnerships with civil society included dedicated grant projects led by NGOs (see Annex), as well as promotion of civil society participation in the newly established technical Working Group meetings with Development Partners. National and international NGOs have two representatives each in these meetings, which also include representation of academia. CCCA supported the establishment of MoU and concrete activities between NCSD and 6 national universities, in addition to promoting cooperation with academia under the CCCA grants. These partnerships should be further expanded under Phase 3. There is also scope to do more with civil society on the advocacy side. A partnership between CCCA and the regional Sida-UNDP project on the governance of climate finance has been put in place and includes an initiative to promote “Climate change citizens’ budgets” as a tool for government/civil society dialogue on climate finance priorities.

2. Impact on beneficiaries.

CCCA 2 directly targeted two main groups of beneficiaries.
Government officials at national and sub-national level have benefitted from support to mainstream climate change in their institutions and in their practices. This included support to staff in the Department of Climate Change, Technical Working Group members and climate change focal points in 14 ministries on issues including legal framework (e.g. Environment and Natural Resources Code, or the royal decree and sub-decree establishing NCSD), monitoring and evaluation frameworks, sector strategies and policies (e.g. for Ministry of Rural Development), international climate change negotiations, and on climate responsive budgeting (with MEF, MAFF, MOWRAM, MPWT and MRD). Further details on results from these activities are provided in the logframe and links below. The overall level of institutional capacity for the climate change response has increased over the CCCA 2 implementation period, as reflected in the diagram below.

A remaining challenge is to achieve better “depth” in priority ministries by reaching out to a broader range of Government officials, beyond the designated climate change focal points. Reaching this critical mass of staff in key ministries will be key to the scaling up of the climate change response.

The second main group of direct beneficiaries targeted by CCCA 2 was climate vulnerable households, who were the focus of the CCCA adaptation grants. Monitoring data presented in section III below indicates that 23,723 households, including 26.4% ID Poor households and 5.8% female-headed households have benefitted from CCCA 2 support, through an increase in revenue, more diversified sources of income, or access to services that increase their resilience to climate change. A key lesson learnt in this regard is that effective and sustainable adaptation solutions in most cases also require engagement of slightly better-off households, who have the assets required to make the transition to more climate-smart options. The challenge is to find approaches which allow for participation of the poorest / most vulnerable households and deliver benefits to them, while leveraging the resources, assets and capacities of other members of the local community, in order to ensure that benefits are sustainable beyond the life of the project. For example, the capacity to pay fees is important for maintenance of local infrastructures such as micro-grids, drinking water stations or irrigation schemes, but mechanisms should be designed to include free or cheaper access for the most vulnerable households or groups of population (e.g. free drinking water distribution to schools under the NCDM grant project in Kampot and Kep).
3. Participation, gender sensitivity and inclusion of vulnerable groups

CCCA grants included specific mechanisms to ensure community participation and gender sensitivity in project design, for example through the use of the Vulnerability Risk Assessment methodology, which incorporates strong guidance on participation and gender. Gender disaggregated data was also systematically collected for CCCA grants, with specific targets for female-headed households and ID Poor households, presented in section III below. Cambodia-specific evidence and research on the interaction between gender and climate change remains a major gap, which has been included in the design of the next phase of the CCCA so that it can inform future programming.

A complaints mechanism was put in place, making it mandatory for grantees to inform local communities on CCCA contact details for the submission of any questions or complaints about the project. Availability of this information was monitored in the field by the CCCA team. The 22 projects financed by CCCA 2 were all considered low risk for social and environmental standards and did not generate complaints from the communities.

CCCA 2 evaluations noted that there is scope to improve the gender sensitivity of CCCA interventions at policy level, particularly in relation to the Cambodia Climate Change Strategic Plan and Climate Change Action Plans in line ministries. Although gender concerns were included in these documents, and CCCA supported Ministry of Women’s Affairs for their own Climate Change Action Plan, implementation of gender measures has been limited. Availability of data at the national level (beyond CCCA grants) remains an issue.

4. Sustainability

At the institutional level, NCSD is now well established, with a dedicated budget and staff under the Ministry of Environment’s budget. It has also been successful in raising resources from a number of development partners to support its activities. The Climate Change Technical Working group is also functioning regularly, with secretariat support from the Department of Climate Change.

In line ministries, the level of ownership of climate change working groups or focal point mechanisms varies, with some well-established groups for example in Ministry of Women’s Affairs, Ministry of Rural Development, and Ministry of Public Works and Transport. Staff turnover can be an issue in sustaining these mechanisms (e.g. in MAFF were both the chair and key members of the climate change group have moved and need to be replaced).

Significant capacity constraints remain in line ministries and will require continuous support, for example for the establishment and implementation of monitoring and evaluation frameworks, or for climate-smart design and budgeting of projects. It is expected that the additional emphasis of MEF on the quality of budget submissions and performance-informed budgeting, as part of Public Financial Management reforms, will be a major incentive for ministries to develop these capacities.

At field level, CCCA supported projects have three main sustainability strategies. Some projects and activities aim at sustainability through a private sector approach. This was the case for example of the NBP project on bio-digesters, GERES project on sustainable biomass fuel in industry, the MAFF/GDA project on agroecology or the CRDT project. Expectations in this regard should take into
account the fact that the projects are relatively small and aim at piloting innovative approaches. Full sustainability may therefore be achieved only after several rounds of funding. All four project mentioned above have shown interesting potential, and CCCA did provide top-up financing to help them engage private sector stakeholders. Private sector interest has been confirmed in all cases and private co-financing has been allocated, but some barriers to sustainability and scale remain to be addressed, with interventions from the public sector through subsidized loans (NBP), awareness campaigns on new technologies (GERES, MAFF/GDA), or support to agriculture cooperatives to better structure themselves and negotiate with buyers at scale (CRDT).

Another frequent model in CCCA grant projects focused on the provision of community infrastructures and initial training through a grant, with a fee collection mechanism established to cover operations and maintenance costs. This was applied by MOWRAM and CRDT (irrigation schemes), NCDM (drinking water station), and MME (community solar-energy solutions through micro-grids or battery charging stations). This may be the best available model for remote communities, where there is no business model for a purely private sector approach. It requires the commitment of public funds for scaling-up. These infrastructures provide significant benefits to the community and can be run at a lower cost compared to private sector solutions, thus the establishment of a fee collection mechanisms is usually possible, with technical assistance. The main challenge for this model is the need to ensure continuous availability of technical support services when needed, either from government or from private sector operators under contract with the community.

The third model is based on purely public funds, for activities that require continuous public investments. This is the case for infrastructures like climate-proofed roads, or public health and education interventions. Sustainability relies on the allocation of funds for such activities through the national or sub-national budgets. CCCA provided support to ministries with a significant investment budget (MPWT, MRD, MOWRAM and to a lesser extent MAFF) to present pilot climate-smart projects under the national budget process. A key constraint to be addressed is that current budget procedures allocate a fixed amount of budget to each ministry, with no incentives for designing higher quality projects. This is expected to evolve in the next phase of Public Financial Management reforms.
III. Project results summary

1. Result 1

The focus of this result was on strengthening governance of climate change, with significant results achieved, in particular on the establishment and roll out of new institutional arrangements for climate change.

Discussions on the design of new institutional arrangements for climate change and of other key areas of sustainable development, which have led to the establishment in 2015 of the National Council for Sustainable Development (NCSD), through a Royal Decree, and its General Secretariat (GSSD), through a Sub-Decree, were key to creating a common understanding of the importance and urgency of effectively addressing climate change in the country’s efforts to move towards sustainable development. Embodied in the legal framework that created NCSD and GSSD (including its Department of Climate Change, DCC) is the clear mandate for coordination of the national climate change response, establishing functions indispensable to good governance including strengthening of legal and policy frameworks, monitoring and evaluation, knowledge management and research, resource mobilization, education and awareness raising and partnership building. Its mandate also sets clear responsibilities in further strengthening coordination of climate change response at sectoral and sub-national climate response. Following its establishment, NCSD has further defined its internal structure, which currently includes subsidiary bodies of key importance to the coordination and implementation of CC response, such as the Provincial Group (to ensure coordination at the sub-national level), the Strategic Environmental Assessment Group (to ensure that plans and policies will fully address CC issues) and inter-ministerial Technical Working Groups. The Climate Change Technical Working Group (CCTWG), established in 2017, was the first of NCSD TWG to be created, and it now plays an indispensable role in ensuring comprehensive technical review of key documents and mechanisms proposed by DCC/GSSD or specific sectors, and in assisting coordination particularly at the national and sectoral level. Discussions on the contours of other subsidiary bodies are still ongoing, with no definite timetable yet set for their establishment, as they are often dependent on decisions from external processes (e.g. Provincial Group’s mandate and composition is waiting decisions from the current reform process of sub-national administration).

In addition to this work, CCCA has also supported DCC/GSSD’s efforts to strengthen the legal framework for climate change response. This support has culminated in one of the few comprehensive pieces of legislation in the developing world, providing a clear definition of duties and obligations of government and non-government actors operating at all levels, and a solid legal base for future climate change regulatory and policy frameworks. This piece of legislation constitutes a Title in the draft Natural Resources and Environmental Code, which is presently in the final round of consultation before approval. In the meantime, CCCA has supported the drafting of specific regulations, including the Sub-Decree on Rules and Procedures for the Participation in Greenhouse Gas Emission Reduction Mechanisms.

CCCA has also provided support to NCSD to engage in climate negotiations. This has enabled RGC to take an active part of the discussions and has resulted in firm commitments in the eve of the Paris Agreement, expressed in Cambodia’s Nationally Determined Contributions (NDC). In order to mobilize key actors towards the implementation of NDC, CCCA provided support to the development
of the NDC Roadmap and Stakeholder Engagement Plan. CCCA continued support to this process in the next phase of the programme will be key, in particular its support to the revision of the initial NDC aiming at strengthening Cambodia’s commitments (with submission of the revised NDC due in 2020) and to the establishment of an MRV mechanism (within the NCSD/CC website and CC data portal) to track progress on achieving NDC commitments.

Objectives related to the effective monitoring and evaluation (M&E) of the country’s response to climate change have been achieved for the most part, with the launching of the National M&E Framework for Climate Change Response in 2016 and its operationalization. Cambodia was one of the first countries in the world to develop a national climate change M&E framework, with the support from IIED and CCCA.

The national M&E system is now functioning, focusing on tracking 7 of the 8 core set indicators of the M&E framework1. These indicators, in particular two impact indicators tracking the level of ‘commune’s vulnerability to climate risks’ and ‘families affected by extreme weather events’, though measured at the macro level, provide useful tools to addressing gender and poverty issues and are often used by government and non-government entities to assist in targeting climate change adaptation efforts.

Communes’ Vulnerability to Climate Hazards

<table>
<thead>
<tr>
<th></th>
<th>2014 No. of Communities</th>
<th>Percentage</th>
<th>2015 No. of Communities</th>
<th>Percentage</th>
<th>2016 No. of Communities</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vulnerable</td>
<td>797</td>
<td>48.83%</td>
<td>795</td>
<td>48.56%</td>
<td>737</td>
<td>44.78%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2014 No. of Communities</th>
<th>Percentage</th>
<th>2015 No. of Communities</th>
<th>Percentage</th>
<th>2016 No. of Communities</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>279</td>
<td>17.09%</td>
<td>301</td>
<td>18.03%</td>
<td>288</td>
<td>17.50%</td>
</tr>
<tr>
<td>Quite</td>
<td>318</td>
<td>31.72%</td>
<td>492</td>
<td>30.53%</td>
<td>449</td>
<td>27.28%</td>
</tr>
<tr>
<td>Less</td>
<td>494</td>
<td>24.74%</td>
<td>367</td>
<td>22.47%</td>
<td>355</td>
<td>21.45%</td>
</tr>
<tr>
<td>Least</td>
<td>403</td>
<td>26.65%</td>
<td>473</td>
<td>28.07%</td>
<td>356</td>
<td>33.78%</td>
</tr>
</tbody>
</table>

MOP/NCSD, 2019

CCCA also assisted DCC, MoP and CCTWG through facilitated discussions on the development of additional relevant M&E frameworks, resulting in agreement on the set of CC indicators for C-SDG13 and NSDP 2019-2023 M&E frameworks (including baselines, and targets for 2030 and 2023, respectively). Today, CCTWG is conducting regular updates, review and validation of indicators, being particularly involved in the production of five institutional readiness indicators which are part of all CC M&E framework, providing also some recommendations on the improvement of the updating process at its last meeting.

At the sectoral level, progress on the establishment of sectoral M&E frameworks has been slower, with the launching of three sectoral M&E frameworks (MPWT in 2014; MAFF and MoH in 2016). These frameworks, which are meant to track progress on the implementation of sectoral CC

1 With exception of the indicator on GHG emissions (to be available from 2020, based on GHGI and BUR data) and difficulties in accessing to MoP’s commune database data (for 2017 and 2018), indicators have been regularly updated.
Action Plans (CCAP), have registered no traction within the respective sectors, with no recorded indicator updates since their launching. CCCA has however worked with MoP to ensure that issued programming and planning guidance to sectors for the National Strategic Development Plan (NSDP) and Sectoral Strategic Development Plans (SSDP) requires that sectors develop and adopt sector relevant CC indicators.

Future efforts should continue to build on progress achieved, with particular focus on further engagement of sectors on reporting on progress of CC responses either through specific sectoral CC M&E frameworks or, preferably, through reporting on sector relevant CC indicators as part of NSDP and SSDP M&E frameworks. An update/revision of the National CC M&E Framework should also be conducted in the near term, in order to reflect recommendations from CCTWG and CCCSP Mid Term Review and ensure that its institutional arrangements are in line with institutional arrangements recently established by MoP for other relevant CC M&E frameworks. This will enable GSSD and sectors to better track progress of the national CC response in the medium to long-term, while ensuring alignment with NSDP and C-SDG13 indicators. An additional challenge ahead will be to expand the M&E framework to capture progress made at different levels, including impact of local, sectoral and national climate investments.

**Strengthening capacity of line ministries to manage CCAP implementation** and to contribute to CCTWG/NCSD activities was another key objective where significant progress was made. Starting from very low levels of sectoral engagement in national climate change discussions, where only a reduced number of technical staff in each line-ministry had been directly involved in the formulation of their sectoral climate change response (CCAP), CCCA support to scale up sectors’ engagement in the implementation of CCAPs adopted a multi-prong approach.

Support included *in-depth work with two central ministries* – MoP and MEF – to strengthen planning, programming and budgeting guidelines by requiring sectors to mainstream climate change and green economy considerations in their submissions to these ministries. As a result, guidelines for sector submissions to NSDP 2019-2023 and for SSDP 2019-2023 were issued by MoP, compelling sectors to consider how to strengthen climate proofing of their sector contributions to NSDP and sectoral strategic development plans, including how to integrate CCAP priority actions into these planning instruments. The impact of MoP guidelines on the quality of NSDP and SSDP is yet to be tested, as NSDP 2019-2023 was still awaiting approval at the end of CCCA II, however we do expect to see higher levels of integration than in previous cycles. Further support included work with MEF for the integration of CC into Budget Strategic Plan and Annual Budget Circulars, along with support to 4 key line ministries (MAFF, MOWRAM, MPWT, MRD) to include climate criteria in planning/screening procedures. As a result, these selected ministries are now prioritizing CC-relevant projects on their budget submissions.

Financial and technical support was also made available to sectors through *CCCA grants*, in particular Window 1 grants, which were designed as key mechanisms to engage sectors in CCAP implementation. Funds from Window 1 grants were made available to all 14 sectors to enable the implementation of CCAP priority actions. These grants helped to kickstart CCAP implementation and to consolidate sectoral CC engagement gains. However, significant challenges remain to deepen sectoral engagement in CCCAP implementation, as indicated in section II.2. above. The impacts of CCCA Window 1 grants both on the ground and on policy are presented in Annex.
To ensure that mainstreaming efforts undertaken at national and sectoral levels gradually would translate in resilient practices on the ground, CCCA also provided capacity development support to Provincial Departments of Environment (DPoEs), commune councils, and to some extent district and provincial authorities on climate proofing local development planning and budgeting processes. In coordination with NCDD-S, support was provided to 37 communes among 10 provinces, enabling them to get involved in climate proofing the existing Commune Investment Programme (CIP) process, from the initial vulnerability assessments, through the integration of climate interventions into commune investment programmes, with 14 communes receiving additional support to experience the full cycle, through the implementation of selected climate interventions.

<table>
<thead>
<tr>
<th>Location (province, district, commune)</th>
<th>Project title</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Kampot, Teok chhu, Boeng Tuk</td>
<td>Construction of water gate to prevent the salt water intrusion from sea</td>
<td>5,175$</td>
</tr>
<tr>
<td>2. Pursat, Krakor, Kampong Pou</td>
<td>Renovate water gate to retain more water for irrigation rice</td>
<td>5,000$</td>
</tr>
<tr>
<td>3. Tbong Khmum, Ou Rang Ov, Domril</td>
<td>Eco-school - Solar pumping, school gardening and solar lighting</td>
<td>8,000$</td>
</tr>
<tr>
<td>4. Takeo, Prey Kabas, Bakam</td>
<td>CC awareness raising</td>
<td>500$</td>
</tr>
<tr>
<td>5. Oddar Meanchey, Banteay Ampil, Kok Kpos</td>
<td>Water storage for Kok Kpos Primary School</td>
<td>3,800$</td>
</tr>
<tr>
<td></td>
<td>Water storage for Kok Kpos Secondary School</td>
<td>3,800$</td>
</tr>
<tr>
<td></td>
<td>Rehabilitation pond</td>
<td>5,200$</td>
</tr>
<tr>
<td>6. Tboung Khmum, Orang Ov, Domril</td>
<td>Rehabilitate road of 1200meter, width 5m</td>
<td>14,000$</td>
</tr>
<tr>
<td></td>
<td>2 handle wells</td>
<td>2,400$</td>
</tr>
<tr>
<td></td>
<td>Support to upgrade Domril secondary school to be an eco-school: Solar pumping, school gardening and solar lighting</td>
<td>13,000$</td>
</tr>
<tr>
<td>7. Takeo, Prey Kabas, Pou Rumchak</td>
<td>Install sola water pump and street lights at school</td>
<td>8,100$</td>
</tr>
<tr>
<td>8. Siem Reap, Kralanh, Snoul</td>
<td>Rehabilitation a pond</td>
<td>13,500$</td>
</tr>
<tr>
<td>9. Siem Reap, Svey Leu, Kantout</td>
<td>Install a solar water pumping station</td>
<td>9000$</td>
</tr>
<tr>
<td>10. Svey Rieng, Svey Chrum, Bassac</td>
<td>Construct 6 culverts to reduce flush flood</td>
<td>9000$</td>
</tr>
<tr>
<td>11. Koh Kong, Srel Ambil, Chroy Svay</td>
<td>Construct a water gate</td>
<td>9000$</td>
</tr>
<tr>
<td>12. Kampong Speu, Oral, Hau Samang</td>
<td>Dig a pond</td>
<td>13000$</td>
</tr>
<tr>
<td>13. Kampong Speu, Phnom Srouch, Tang Samrong</td>
<td>Dig a pond</td>
<td>12500$</td>
</tr>
<tr>
<td>14. Oddar Meanchey, Banteay Ambil, Beng</td>
<td>Dig a pond</td>
<td>14200$</td>
</tr>
</tbody>
</table>

---

2 Targeted communes were selected based on their CC vulnerability index score (Climate Change M&E Framework) and recommendations from PDpEs.

3 Pursat, Kampot, Takeo, Oddar Meanchey, Kampong Cham, Tboung Khmum, Siem Reap, Koh Kong, Svey Rieng and Kampong Speu.
Throughout its second phase, CCCA provided capacity development support to NCSD, GSSD/DCC, CCTWG, technical staff from selected line ministries and academia, in particular through mentoring, trainings, facilitated discussions with different stakeholders. Support included mentoring and training programmes in different areas – e.g. CC M&E systems, climate finance, vulnerability assessments, GHG Inventories, research and development - as well as close support and mentoring of CCTWG members on issues related to matters they were asked to analyse (these are described in greater detail in different sections of this report). In addition, the selection of topics chosen to be the focus of knowledge sharing events and conferences (detailed in result 3) was aimed at bridging detected capacity gaps that could hinder the implementation of the country’s climate response (CCCSSP and CCAP) or to develop new capacities needed to tap into opportunities to advance CC response.

The reason for the choice of an *ad hoc* approach lies in the fact that there are still significant constraints in the area of Administration and Human Resources Management at NCSD/GSSD, which are impeding the implementation of effective medium to long-term capacity development programmes. This includes a relatively high staff turnover and competing priorities / assignments for NCSD staff. Thus, a more pragmatic, ad-hoc and time-bound approach to technical capacity development efforts of GSSD/NCSD was adopted, allowing CCCA to quickly respond to demands and to coordinate with other stakeholders implementing capacity development programs (this point is further discussed in the section on Lessons Learnt).

Looking forward, though it is expected that HR management constraints will gradually be reduced, there will still be the need for a great degree of flexibility in programming capacity development activities, especially in the first years of CCCA 3 implementation, requiring regular capacity needs assessment and programme development. The more focused scope of the CCCA new phase will allow for more in-depth capacity development support to be provided to the 5 targeted line ministries, making it possible to involve these sectors in identifying opportunities for mentoring and in tailoring capacity development activities.

2. Result 2

The focus of this result was on harnessing various streams of finance to support the climate change response, and progress overall has been very satisfactory, especially for public funding. These results were achieved through a mix of direct support from CCCA staff, and letters of agreements (Window 2) signed with the concerned agencies and ministries. Unlike Window 1 and Window 3 grants, these agreements focused on technical assistance and policy support only (no field activities), and were thus much smaller in size.

Objectives related to *improving coordination between government and development partners* have been achieved, with the establishment in 2017 of a six-monthly dialogue mechanism between the Climate Change Technical Working Group, where all relevant sectors are represented, and development partners. Membership also includes representatives of local and international NGOs, chambers of commerce and academia. Meetings have focused on strategic issues such as the CCCSSP mid-term review, the Nationally Determined Contribution, climate change integration in the NSDP,
and GCF readiness requirements. Key initiatives have also been discussed in this forum, for example the proposed regulations on carbon finance projects, or the new MRD sector strategy including climate change objectives. At the June 2019 meeting, the CCTWG submitted for the first time some Joint Monitoring Indicators to be included under the partnership mechanism run by the Council for the Development of Cambodia (CDC).

CCCA also cooperated with CDC to improve the tracking of external climate finance in the ODA database. A climate change thematic marker was designed and tested for three years (2016-2018). CCCA conducted a data quality review and shared the results with CDC. Based on the initial testing period, the thematic marker was simplified in 2019 and donor focal points have been retrained. CDC now includes an analysis of climate change finance in its development cooperation report every year, and CDC data on climate finance is available through the new NCSD website.

In addition to this tracking work, NCSD has been included in the list of institutions to be consulted when new donor country strategies are under discussion or review by CDC. NCSD is thus able to bring a climate change perspective to these strategic discussions with development partners.

**Access to multilateral climate funds** was another key objective and progress in this area is largely satisfactory. CCCA provided support to NCDD-S -- the agency in charge of supporting decentralization and local administrations -- to meet the accreditation requirements of the GCF in relation to fiduciary standards. The accreditation process is almost completed and NCDD-S is expected to be accredited at the October 2019 session of the GCF board to receive grants up to USD 50 million. This would be a significant milestone for Cambodia, as very few LDCs have managed to have a public entity accredited for direct access to the GCF.

Another key achievement was the clearance received from GCF for NCSD to access its readiness funds directly, resulting in the approval of the first readiness project for Cambodia (271,000 USD), focused on the strengthening of the National Designated Authority. CCCA supported both proposal development and the process to obtain GCF clearance on use of NCSD operational procedures (procurement, finance etc.). An NCSD operations manual had been developed prior to this application, also with CCCA support. This strengthened operations manual has allowed NCSD to access funds directly from other partners as well (e.g. UNEP).

The focus should now shift to gaining direct access for other modalities of financing from multilateral climate funds: loans, guarantees and equity. This will require the creation or strengthening of a local banking institution, and NCSD is already in discussions with GCF on this issue.

CCCA provided capacity development support to the NCSD General Secretariat in its role as designated authority for various climate funds, in particular through mentoring on the review of proposals and concept notes submitted to NCSD for no-objection. While the process has been largely *ad hoc* to date, NCSD is now using GCF readiness funds to put in place a standard submission and approval process for concept notes and full project proposals.

**Partnerships with the private sector** have improved over the project period, starting from a situation where public-private dialogue was almost non-existent. As a way to engage, CCCA supported an initial scoping of opportunities for the private sector to contribute to the climate change
response. Extensive consultations with the private sector were held and resulted in the first mapping of private sector activities related to climate change, as well as a series of recommendations on catalytic initiatives that the government could take to boost private sector investment (2016).

Based on consultations with NCSD, CCCA support focused on payments for ecosystem services (feasibility study on water in Sihanoukville) and on reform of tax on vehicles to incentivize more efficient vehicles. Both exercises involved concerned private sector operators. NCSD is working on the implementation of the proposed PES arrangements in Sihanoukville, and the recommendations on tax reform have been sent to Ministry of Economy and Finance for consideration in June 2019.

Private sector is also represented by chambers of commerce at the CCTWG meetings.

These initial efforts have shown that there are a number of private sector operators willing to engage in the climate change response, if adequate policy support from government is in place. There is scope for CCCA to increase its private sector engagement work in the next phase.

The final component of work under this result focused on making the national budget more climate-responsive. A multi-pronged approach was adopted for this component.

On one hand, CCCA engaged “top-down” with Ministry of Economy and Finance, to increase awareness of the linkages between climate change, economic growth and public finance management. Three main work streams contributed to this:

- **Expenditure tracking.** Methodological support was provided to MEF to track annually the profile of climate public expenditures (both national budget and ODA), and to what extent these trends were in line with Cambodia’s climate change priorities. Climate public expenditure reviews have been produced for fiscal years 2013 to 2017, also with support from the Council for the Development of Cambodia (CDC);

  ![Source of Public Climate Finance (In billions of KHR)](image)

  *Climate Public expenditure review 2017, MEF and NCSD, 2019*

- **Economic policy aspects.** CCCA, in cooperation with the regional UNDP-Sweden programme on the governance of climate finance, supported a pioneering research and modelling effort in
MEF, looking at the impacts of climate change on economic growth. Key findings indicate an impact of 9.8% on absolute GDP by 2050, with most of the impact coming from the effects of heat on workers. The report contributed to the higher profile given to climate change in the new rectangular Strategy of the government. Its methodology has also been adopted with some adjustments by DFID for similar research in India, and several governments in the region and beyond have expressed interest to replicate it;

- **Budget allocations.** Basic guidance on the inclusion of climate change priorities has been reflected in the circulars on Budget Strategic Plans (BSP) and annual budget issued by MEF since 2016, following CCCA advocacy. CCCA engaged MEF general department of budget on the results of cost-benefit analysis of climate–proofed investment project conducted with priority line ministries. MEF allocated additional funds for training of staff on climate change in key ministries (e.g. MPWT, MRD).

![Economic Impact of CC by Sector and Type of Impact](image)

NCSD/MEF, 2018

On the other hand, CCCA supported the line ministries with the largest investment budgets and climate change portfolios to analyse priority investments with a climate change lens, incorporating climate change in their cost-benefit analysis. This included both formal training for engineers, technicians and planners, and on-the-job mentoring. The results of the analysis have been presented to MEF during budget negotiations, to justify increases in budget for climate-proofing, in view of the higher longer-term socio-economic benefits.
Several ministries, particularly MPWT and MRD, have confirmed high interest in this approach and have asked for expanded support. Budget allocations for climate-related programmes have increased over the last five years, but the current budget allocation process remains a major constraint, as it does not incentivize quality projects. Ministerial budgets are pre-allocated and any changes usually result from political level negotiations, not technical quality discussions. MEF is aware of this issue and there are plans for funds to be reserved for higher quality investments (including but not limited to projects incorporating a climate change lens). This should be a top priority for future MEF engagement on climate-responsive budgeting.

The National Strategic Development Plan is the overall framework for budget allocation decisions. As indicated under Result 1 above, CCCA partnered with Ministry of Planning to ensure that climate change would be better reflected in the new NSDP (2019-2023). Guidance was developed in partnership with MOP, both for the NSDP and for the corresponding sector plans. NCSD and MOP provided joint training to ministry focal points and also briefed development partners at the CCTWG meeting. This resulted in much better reflection of climate change priorities in the NSDP 2019-23, with 8 sectors mentioning climate change, and 16 climate-related indicators.

### 3. Result 3

The focus of this result was on strengthening human and technological capacities to support climate change response, and progress over the full implementation period of CCCA 2 has been very satisfactory, especially in terms of enhanced access to quality assured climate change data and unprecedented engagement of research institutions on climate change.

Objectives related to **standards and procedures for quality assurance of climate change data, knowledge and communication products**, and more broadly for knowledge management, have been achieved with the launching of the CC knowledge platform with the first CC data portal in Cambodia. Preparation for the launching involved approval of SOPs for the management of all climate change related content (data, knowledge and communication products) to be accessible through the NCSD website, including quality assurance procedures. In addition, specific DCC branding and content creation standards for awareness raising and communication materials, also detailing QA procedures to be followed, have also been approved. Staff from all GSSD departments designated to assume website content management and QA functions have been trained on NCSD website SOPs. DCC staff received further training on the application of DCC branding and content creation standards and procedures (no specific standards for technologies have been developed).

The achievement of this objective did not come easy, with many starts and stops, with the availability of high-quality consulting firms on IT and data-base management in Phnom Penh being a recurrent issue. But its solid start, with the development of a Strategy for Knowledge Management and Information System (KMIS) for Climate Change (2016), backed up by a consultation process that involved a wide range of climate change practitioners (both government and non-government), clearly showed the interest and need to increase public access to quality assured climate change related data and to increase research and the generation of policy relevant data and information. Internal consensus on the vision that a move towards a more advanced web platform for CC (as a logical next step to
CCCA (camclimate.kh.org) would provide the central piece of knowledge management activities of DCC/GSSD took some time to achieve, but eventually obtained an agreement that superseded expectations: the CC KMIS is now embedded in the NCSD platform. Opportunities for synergies with other sustainable development areas key to the climate change response are now enhanced, especially with green economy and sciences and technology.

The **CC web platform (including online spaces for DCC, CCTWG, CC data portal)** is now serving as the hub for CC knowledge management activities, ensuring that codification of knowledge and lessons learnt from multiple CC programmes and projects implemented in Cambodia are recorded and publicly available and quality assured data products are also available.

The **CC web platform (including online spaces for DCC, CCTWG, CC data portal)** is now serving as the hub for CC knowledge management activities, ensuring that codification of knowledge and lessons learnt from multiple CC programmes and projects implemented in Cambodia are recorded and publicly available and quality assured data products are also available.

The CC data portal is now providing access to users to quality assured datasets and data products as they become available (starting with an initial set of 6 data products from 5 databases at the launch). To achieve this CCCA, has also facilitated discussions with data producers (MoP, CDC/CRDB, NCDD-S) to ensure that data sharing agreements were reached (with data-sharing agreements finalized with 2 ministries, establishing the protocols for management of data transfers) and that a safe environment for data-sharing was created which acknowledged ownership of data shared, while enabling public access to data essential to conduct CC work, currently not publicly available.

Looking forward it will critical not to lose momentum and to capitalize on the achievements of Phase 2. Of particular importance is to ensure the consolidation of the new GSSD staff’s functions (in particular of assigned DCC staff) essential for the effective operation of the NCSD website and CC data portal, and to agree on a phased expansion of data-sharing initiatives with different data producers (and consolidation of the existing ones with MoP, CDC/CRDB, NCDD-S) as well as on the pipeline for data products. Camclimate, the website established during the first phase of the CCCA program, was able to serve well the needs of practitioners (as indicated by a steady increase of the number of its users) until recently; its long list of collaborators should be built upon in the new NCSD platform, now being the time to create an external practitioners’ sounding board that can help DCC be in touch with users’ needs as it plans and implements the expansion of the CC data portal and website.

Objectives related to **mainstreaming of CC into curriculum development and research** have been achieved, with results obtained on partnerships on CC research largely surpassing the target set. CCCA provided support to two different workstreams – mainstreaming CC into curriculum
development in the secondary education system and mainstreaming CC in the tertiary system – adopting different approaches to engage actors in both levels of the education system.

CCCA support to MoEYS on **CC mainstreaming into curriculum development targeted the higher secondary level**. Decision to focus support on this level was taken in consultation with MoEYS and development partners, as similar initiatives already covered other education levels. To strengthen sectoral engagement, CCCA provided grant support (Window 1) to MoEYS, Department of Curriculum Development, who led the work on curriculum development and testing of teaching modules for grades 10-12, including teachers training. Significant technical support was provided to the drafting and revisions of the modules and text book throughout 2017 and 2018. The Climate Change Textbook for Higher Secondary School, launched in July 2018, is now a reference guide book nationwide for teachers and students in the general education level. Climate change concepts detailed in the textbook were successfully integrated into the outline of the new national curriculum in the “Earth Science and Environment” subject for upper-secondary schools and are expected to be rolled out in schools throughout Cambodia.

**Engagement of national universities in climate change** work was another area where CCCA provided in-depth support, responding to the needs expressed by both academia and policy makers. Initial scoping on opportunities to integrate CC into curriculum at the tertiary level revealed different possibilities in each of the institutions assessed for introducing discussions on CC matters in different programmes, though it also clarified that formal changes in university curriculum would require a longer timeframe than CCCA could commit to. This initial scoping also looked at other areas of possible cooperation to promote involvement of academia and students on climate change, covering both teaching and research missions of academic institutions, and led to the selection of universities which would be targeted for CCCA support. Partnership agreements between GSSD and six national universities (RUA, RUPP, ITC, MCU, UHST, PNCA) were signed as a result, covering not only climate change but other key areas of sustainable development, indicating the commitment of the different institutions to work jointly to help bridge the gap between science and policy in these different but critical areas for the sustainable development of the country. Under the MoU established, CCCA provided support to the development and implementation of programmes of work on climate change with the six partner universities.

- **Engaging students and lecturers’ on climate change** was one component of the work programmes agreed with partner universities. Activities receiving support from CCCA included the establishment of climate change thesis award programmes (at Bachelor and Master levels), the setup of demonstration experiments, and dedicated CC lectures. These activities managed to mobilize a significant number of students and lecturers, with 29 students (including 9 at Master level) awarded for their research thesis work on climate change topics and over 2,000 students (45% women) participating in demonstration projects and lectures on CC related topics. In addition, support to lectures/classes on CC was also provided to two other universities in Svay Rieng and Battambang provinces (SRU and BTB universities).

- **Promoting climate change research and capacity development of academia** was a primary aim of CCCA support to these six partner institutions, ensuring the continued participation of a significant number of researchers from these institutions in knowledge sharing events, conferences and trainings organized by CCCA. Support provided to promote engagement of
researchers in CC policy relevant research was particularly strategic and generated very positive results. CCCA’s challenge to researchers to prepare policy briefs based on recent research findings of relevance to CC policy makers met initially with some hesitation, as most had never produced such briefs. However, with review support from CCCA, the challenge exceeded expectations, with 6 policy briefs from 3 universities providing evidence and policy recommendations based on research conducted in Cambodia (these are available at NCSD/CC website, with targeted dissemination to policy makers as opportune). Support to a 4-month mentoring and training programme on resource mobilization for CC research responded directly at a need expressed by many partner universities, developing capacity of researchers to identify relevant funding opportunities and prepare and manage CC research grants. As a result, 4 grant proposals, led by major partner universities (ITC, RUA and RUPP), have been prepared and are ready for submission.

Objectives related to **strengthening codification and dissemination of CC knowledge**, including lessons learnt from innovative practices pilots have been achieved, through a continued production and dissemination of awareness raising materials and knowledge products, including those derived from CCCA Window 3 Grants for Research and Innovation Projects. A communication strategy for CCCA Phase 2 detailed communication and dissemination activities meant to ensure that CC knowledge produced reached key target audiences.

**Research and innovation initiatives** have been and will continue to be critical to increasing effectiveness and scaling up of climate change response efforts in Cambodia. CCCA support to knowledge generation in innovative, policy relevant climate change areas was provided in different modes, including Window 3 grants (and Window 1 and 2 grants as well), individual funding for small research projects, and commissioned studies. These have generated an impressive body of knowledge now available to all practitioners at the NCSD/CC website.

- **CCCA Window 3 Grants** were established to stimulate research and the piloting of innovative techniques and processes in specific CC priority areas defined by NCSD. Unlike other Windows of CCCA Grant Facility, window 3 grants received proposals from government and non-government entities alike, who competed for funding in equal footing. A total of 8 research and innovation projects covering 6 sectors (agriculture, rural development, sustainable energy, waste management, health, protected areas management) received support from the CCCA Grant Facility, with grantees committing to the codification and dissemination of lessons learnt through the implementation their projects. Window 3 grantees have produced in total 26 knowledge products, with an additional 5 knowledge products based on a cross-grant analysis.

- **Small scale research and innovative initiatives and studies** conducted with the support of CCCA have shed light on impacts on CC on economic growth (MEF, 2018), impacts of heat stress on labour productivity in construction and garment sectors (ITC, 2019), and on conducting participatory carbon and energy audits tailored to Cambodia (Sevea, ITC, 2018). These have produced key evidence and recommendations that are now available to policy makers.
Additional CC knowledge products developed with support from CCCA included those produced by CCCA grantees from Window 1 (25) and 2 (21), seminal studies and publications developed with support from CCCA such as the Second Study on Understanding Public Perception of Climate Change in Cambodia - Knowledge, Attitudes and Perceptions (MoE, 2016), the Climate Change Glossary in Khmer Language (MoE/GSSD, 2017), or the Study on Private Sector Contribution to the Climate Change Response (NCSD, 2016) and data products in 6 areas of relevance to policy makers and other CC practitioners.

As a result of CCCA support, a total of 80 knowledge products are now being disseminated, providing evidence that is helping shape government policy in key areas of climate change response. Demonstrable policy impact of CCCA Window 3 Grants are already noticeable in at least 3 areas – Policy on Biodigester Development in Cambodia 2016-2025, Solid Waste Management Strategy, and the 3-year PDOE investment plan in Stung Treng. All knowledge products can be found at the NCSD/CC website.

In addition to knowledge production, CCCA support extended also to dissemination of CC knowledge and communication products and awareness raising activities, in line with targets set in CCCA’s Visibility and Communications Strategy:

Continued media engagement through press releases, media articles (press and social media) and media briefings, providing timely information on climate change related polices and interventions. To strengthen engagement, CCCA support also included training on climate change of 160 press national and provincial media officials, the production of media resources for TV networks and social media channels (e.g. KAP2 video, stories on climate change action in Cambodia) and TV broadcasted programmes, resulting in broad media coverage of major climate change issues, including global dialogues and national climate change response. Some of CCCA’s sponsored communication programs, campaigns and events allowed the CCCA program to reach wider audiences in an unprecedented fashion, reaching an estimated 3 million viewers during the airing of the four talk shows and four video features produced by Ministry of Information and TVK, and broadcasted through TVK, National Radio (FM 105.75 & AM 918), YouTube and Facebook.

Increased awareness and capacity on how to respond to climate change through regular awareness raising events tailored to different target groups (often including government institutions, NGOs, private sector and academia), training on climate change targeting Youth, young professionals and university students and academia (reaching over 3,000 youth, of which 42% women), and exhibitions and communication campaigns often in collaboration with government or development partners (e.g. Earth Hour, World and National Environment Day, International Day on Biological

*Increased public access to knowledge products* through publishing (both printing and online) of reference works, including the already mentioned knowledge products developed with CCCA support, as well as products developed by government with support from other development partners, such as Cambodia’s Second National Communication (2015) or the National Adaptation Plan (NAP) Communication Strategy.

*Increased access to information on the work of DCC and climate change practitioners, and outreach materials* through the production of a quarterly newsletter and leaflets, posters on climate change impacts and responses (targeting sub-national audiences), and factsheets, briefs and other communication/visibility materials (e.g. translating results of projects funded by CCCA Grant Facility as well as tools and policy documents for broader audiences).

Strengthened capacity of DCC/GSSD to effectively produce and disseminate CC information to different target audiences was in great part made possible through CCCA’s support to the establishment of approved DCC branding and content development guidelines for knowledge and communication products in 2018. Likewise, the launching of the NCSD/CC website and data portal in June 2019 has also greatly contributed to enhancing Cambodian’s access to climate change knowledge and information and to strengthening GSSD capacity on knowledge management.

These activities are helping build a common understanding of Cambodia’s climate change response and greater levels of engagement of key stakeholders with climate action on the ground.
## Logframe

### Overall objective:

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Baseline (2014)</th>
<th>Target (2019)</th>
<th>Final status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. % of CCAP annual requirement funded through budgetary and extra-budgetary resources</td>
<td>1. No action (CCAP is being finalised)</td>
<td>1. 50%</td>
<td>69.5% This estimate is based on interviews conducted with ministries for a sample of CCAP actions representing 53% of total CCAP budget.</td>
</tr>
<tr>
<td>2. % of CCAP actions implemented with the support of the NCCC Secretariat or climate change working groups of line ministries</td>
<td>2. No action (CCAP is being finalised)</td>
<td>2. 50%</td>
<td>51% (88/174 CCAP actions) received support through NCSD, including 67 actions supported through CCCA grants or technical assistance.</td>
</tr>
<tr>
<td>3. CCCSP implementation on track (incl. process and impact indicators)</td>
<td>3. The CCCSP is approved, national M&amp;E framework is being finalised</td>
<td>3. 2018 CCCSP Monitoring Report is considered satisfactory by NCCC</td>
<td>The mid-term review of the CCCSP has been completed, in close cooperation with the CC TWG. It highlights both areas of progress and remaining challenges.</td>
</tr>
</tbody>
</table>

### Result 1: Strengthening the governance of climate change

<table>
<thead>
<tr>
<th>Outcome Indicators</th>
<th>Baseline (2014)</th>
<th>Target (2019)</th>
<th>Final status</th>
</tr>
</thead>
</table>
| 1. National M&E Framework is approved and functional including gender disaggregated and poverty indicators | 1. A draft M&E Framework is under discussion | 1. M&E Framework approved and CCCSP progress report submitted in line with NSDP timeline | - National CC M&E Framework has been launched (April 7, 2016). 
- M&E system is functional and is now tracking 7 of the 8 core set indicators of the M&E framework. Though these indicators do not measure specific gender or poverty dimensions, they |

---

4 Actions were scored with a funding rate of 0/0.25/0.75 or 1, based on information received from concerned ministries. This estimate is lower than the CPER estimates, as not all climate finance in Cambodia is aligned with CCAPs.

5 Impact indicators for the CCCSP were under development when CCCA was launched.

6 The official document of the framework (in Khmer language) was submitted but his signature was put on hold while awaiting a final decision on new institutional arrangements, to ensure that the framework is aligned with arrangements being made by MoP on relevant broader M&E frameworks (C-SDG and NSDP). Signing of the official national climate change M&E framework document is expected before the end of 2019.

7 With exception of the indicator on GHG emissions (to be available from 2020, based on GHGI and BUR data) and difficulties in accessing to MoP’s commune database data (for 2017 and 2018), indicators have been regularly updated.
provide a useful tool to advance these agendas. Additional CC indicators that better capture these dimensions are being developed at sectoral levels (NSDP and SSDP M&E frameworks).
- M&E framework will be updated following recommendations of CCCSP MTR, while ensuring alignment with NSDP and C-SDG13 indicators.

2. Number of ministries with institutional arrangement to manage their CCAP and contribute to CCTT activities
2. Two line ministries have CC working groups (MoWA and MAFF)
2. Ten line ministries
- All 14 ministries/agencies with approved CCAPs have designated representatives at the CC TWG and actively contribute to TWG activities. Among these, five ministries (MAFF, MoWA, MRD, MoH, MPWT) have active sectoral climate change working groups or teams, with different levels of engagement.

3. Number of ministries that demonstrate capacity to implement at least 50% of actions in their CCAPs and report on CCAP progress in line with national standards (incl. gender analysis)
3. CCAPs is being finalized
3. Ten line ministries
- Capacity remains weak, with less than 10 ministries able to implement at least 50% of the respective CCAP priority actions.
- All 14 ministries have reported on CCAP implementation in different degrees of completeness, with 3 ministries (MoWA, MRD, NCDM) reporting on progress made in addressing CC/Gender issues.
- Though CCAP reporting mechanism has been developed in collaboration with CCTWG, sectors still need significant support. Mechanism will be revised in the second half of CCCSP implementation, considering MTR recommendations.

4. Strengthen legal mandates for the NCCC, CCTT and NCCC Secretariat
4. Institutional and legal review is ongoing
4. New legislation on NCCC, CCTT and NCCC Secretariat
- Legislation for the new institutional arrangements for climate change has been approved, establishing NCSD and GSSD (including DCC) in 2015, and CCTWG in 2017.

### Output 1.1: Legislation on climate change institutions, including roles of sub-national administrations has been strengthened

<table>
<thead>
<tr>
<th>Output Indicators</th>
<th>Baseline (2014)</th>
<th>Target (2019)</th>
<th>Final status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.1 Status of the legislation on climate change institutions</td>
<td>1.1.1. Institutional and legal review is ongoing</td>
<td>1.1.1 Recommendations to strengthen legislation on Climate Change institutions, including</td>
<td>Recommendations from a legal and institutional review (building on the 2013 national legal and institutional review of CC) have led to the design of</td>
</tr>
</tbody>
</table>

---

8 In particular those tracking the level of ‘commune’s vulnerability’ and ‘families affected by extreme weather events’.
The role of sub-national administrations are submitted to the NCCC and concerned ministries, culminating in the establishment of NCSD and its subsidiary bodies in 2015 (including CCTWG and Provincial Group).

- Delivery exceeds plan (legislation was approved within a year, earlier than expected)

### Output 1.2: National and key sectoral M&E frameworks are developed and submitted for approval

<table>
<thead>
<tr>
<th>Output Indicators</th>
<th>Baseline (2014)</th>
<th>Target (2019)</th>
<th>Final status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2.1 Status of National M&amp;E Framework for Climate Change</td>
<td>1.2.1 A draft M&amp;E Framework is under discussion</td>
<td>1.2.1 National M&amp;E framework finalized and submitted to NCCC</td>
<td>- National CC M&amp;E framework finalized (launched on April 7, 2016), with draft official framework document awaiting update on M&amp;E institutional arrangements to align with MoP’s broader M&amp;E arrangements. - M&amp;E framework will be updated to ensure it can effectively track progress of the national CC response in the medium to long-term, while ensuring alignment with NSDP and C-SDG13 indicators.</td>
</tr>
<tr>
<td>1.2.2 Number of sectoral M&amp;E plans developed and submitted for approval by concerned ministries</td>
<td>1.2.2 None</td>
<td>1.2.2 Five</td>
<td>- 3 sectoral CC M&amp;E frameworks developed namely MPWT (2014), MAFF and MoH (2016); - Guidance to sectors to submit CC related indicators to NSDP 2019-2023 may replace the need for specific sectoral CC M&amp;E frameworks if CC is effectively mainstreamed in SSDPs and NSDP.</td>
</tr>
</tbody>
</table>

- Delivery below plan (national framework achieved, but only 3 sectoral M&E frameworks. More resources required to build data collection systems in more sectors for climate change indicators. this is budgeted under CCCA3).

### Output 1.3: Capacity of key line ministries has been strengthened to manage their CCAP and contribute to CCTT/NCCC activities

<table>
<thead>
<tr>
<th>Output Indicators</th>
<th>Baseline (2014)</th>
<th>Target (2019)</th>
<th>Final status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3.1 Number of line ministries that receive inputs for inclusion of climate criteria in planning/screening procedures</td>
<td>1.3.1 None</td>
<td>1.3.1 At least Four ministries</td>
<td>- In-depth work with 4 key ministries (MAFF, MOVRAM, MPWT, MRD) and MEF on sector’s annual budget submissions. - Guidance on mainstreaming CC into sectoral planning and programming, including the use of climate criteria in planning and screening procedures, provided to all ministries for their NSDP submissions and SSDP.</td>
</tr>
</tbody>
</table>
1.3.2 Status of capacity development programme for climate change officials in NCCC, CCTT, NCCC Secretariat and line ministry working groups

1.3.2 Draft capacity development plan for NCCC, CCTT and DCC is available and only some activities are being implemented

1.3.2 Capacity development programme functional for climate change officials in NCCC, CCTT, NCCC Secretariat and line ministry working groups

- Capacity building/mentoring to DCC, CCTWG and GSSD/NCSD is ongoing, in particular on M&E. CC mainstreaming in subnational planning and budgeting processes (CIPs), and website content management.

1.3.3 Number of line ministries producing annual CCAP monitoring reports

1.3.3 None

1.3.3 At least five ministries

- Although CCTWG was involved and endorsed the CCAP reporting mechanism, no ministry has yet been able to conduct regular CCAP reporting. In 2019, with external support, all 14 ministries have reported on CCAP implementation in different degrees of completeness, with 3 ministries (MoWA, MRD, NCDM) reporting on progress made in addressing CC/Gender issues.

1.3.4 Number of line ministries/agencies receiving CCCA grant support for the implementation of CCAP priority actions

1.3.4 None

1.3.4 At least seven ministries/agencies

- 14 Ministries/agencies received grants from CCCA to implement priority activities part of their approved CCAPs.

Result 2: Domestic and external finance effectively oriented in support of climate resilient, and low carbon development

|--------------------|-----------------|---------------|--------------|
| 1. Status of government – partners coordination mechanism | 1. No formal mechanism in place | 1. A nationally led, coordinated funding arrangement is functional | - TOR CC-TWG and DPs has been approved
- 6-monthly CCTWG and DPs meetings have been held regularly |
| 2. Status of Cambodia’s direct access to Multilateral climate funds | 2. No direct access | 2. Cambodia gains direct access to at least 1 Multilateral Fund | - NCDD-S accreditation process is 95% complete and will be submitted to the GCF board for approval in October 2019.
- NCSD has been cleared for direct access to GCF readiness funds (initial project: 271,000 USD) |
| 3. Number of ministries benefiting | 3. Four (MOWRAM, NCDD, | 3. Eight ministries | 9 ministries and agencies. MAFF, MPWT, MRD and MOWRAM (domestic budget), NCDD-S (GCF |

9 In cooperation with UNITAR (United Nations Institute for Training And Research)
from NCCC Secretariat support on financing sourcing and modalities

<table>
<thead>
<tr>
<th>Status of public-private dialogue on climate change investments</th>
</tr>
</thead>
</table>
| 4. Status of public-private dialogue on climate change investments
| 4. No formal mechanism in place
| 4. A national dialogue platform formulates recommendations on facilitation of CC investments
| No specific “platform”, but private sector has been formally included in the membership of CCTWG meetings with DPs (Eurocham and Cambodian Chamber of Commerce), and consultations were held with relevant actors on two private sector-related initiatives supported by CCCA:
| - Payment for Ecosystem Services feasibility study in Kbal Chhay (water operator, beer factories, tourism operators)
| - Study and recommendations on vehicle taxation for more fuel-efficient vehicles (car dealerships, automotive association)

<table>
<thead>
<tr>
<th>Number of ministry’s planning and budgeting documents explicitly integrating CC</th>
</tr>
</thead>
</table>
| 5. Number of ministry’s planning and budgeting documents explicitly integrating CC
| 5. One (Ministry of Environment budget/PIP)
| 5. At least one document in each of the ten priority ministries
| Eight ministries (including MOE).
| - MPWT’s CCAP is fully reflected in their PIP and partially in their budgets since 2017.
| - MAFF and MoE budget submissions for 2016, 2017 and 2018 integrate CC, with support from CCCA (and GIZ for MOE)
| - MOWRAM’s CCAP is partially reflected in their budget submission since 2017;
| - MRD’s CCAP is partially reflected in their 2018 and 2019 budget submission / BSP;
| - MEF’s budget and BSP guidelines include clear references to climate change;
| - MOWA has integrated climate change as a crosscutting issue in its strategy;
| - MOP’s NSDP and Sector Strategic Plan Guidelines integrate climate change.

Output 2.1: Coordination mechanism is established and functional for climate change domestic and external finance and investments

<table>
<thead>
<tr>
<th>Output Indicators</th>
<th>Baseline (2014)</th>
<th>Target (2019)</th>
<th>Final status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1.1. Status of government-donor</td>
<td>2.1.1. There is no formal</td>
<td>2.1.1. Government-donor coordination mechanism</td>
<td>Regular meetings held every 6 months (last one in June 2019)</td>
</tr>
</tbody>
</table>
### 2.1.2. Status of mechanism for NCCC-Secretariat to respond to requests from line ministries and other stakeholders for financial and technical support on CC finance

**2.1.2. Not established**

- Director of DAPF acts as focal point for requests on climate finance. The newly established CC-TWG provides a forum to gather these requests for support.
- Factsheets on climate funds and how to access them have been finalized.
- CCCA provides ongoing support to NCSD in its role to support the Green Climate Fund NDA role.

**2.1.2. Mechanism in place for NCCC-Secretariat to respond to requests from line ministries and other stakeholders for financial and technical support on CC finance**

- First consultations held in 2016
- Private sector representatives have been included in the six-monthly coordination mechanism on CC.
- Private sector representatives consulted on the vehicle tax work, and on the payment for ecosystem services work.

**2.1.2. Not established**

**2.1.2. Mechanism in place for NCCC-Secretariat to respond to requests from line ministries and other stakeholders for financial and technical support on CC finance**

- Director of DAPF acts as focal point for requests on climate finance. The newly established CC-TWG provides a forum to gather these requests for support.
- Factsheets on climate funds and how to access them have been finalized.
- CCCA provides ongoing support to NCSD in its role to support the Green Climate Fund NDA role.

### 2.1.3. Availability of dialogue platform with private sector on climate change

**2.1.3. Not established**

**2.1.3. A programme of dialogue sessions with the private sector is implemented**

- First consultations held in 2016
- Private sector representatives have been included in the six-monthly coordination mechanism on CC.
- Private sector representatives consulted on the vehicle tax work, and on the payment for ecosystem services work.

### 2.1.4. Percentage of NCSD, CCTT and NCSD Secretariat staff participating in preparations and involved in international negotiations on CC

**2.1.4 TBC**

**2.1.4. 70% average**

- Since 2014, 80% of CC-TWG members have participated in negotiations (20 people), 81% of DCC staff (13 people), and 17% of NCSD members (11 people). Average 31% (due to expansion of NCSD to 63 members including provincial governors).

- Delivery in line with plan: no issue faced for this output, planned dialogue mechanisms have been put in place and are operational.

### Output 2.2: NCCC Secretariat procedures updated and applied in line with the requirements for National Implementing Entities of multilateral climate funds

<table>
<thead>
<tr>
<th>Output Indicators</th>
<th>Baseline (2014)</th>
<th>Target (2019)</th>
<th>Final status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2.1. Status of NCCC secretariat procedures</td>
<td>The first version of NCCC secretariat procedures is under pilot implementation</td>
<td>2.2.1. NCCC Secretariat procedures updated and applied in line with the requirements for National Implementing Entities of at least 1 of the multilateral climate funds</td>
<td>Procedures applied, final approval by Minister received. NCSD is not yet accredited by GCF, but NCSD procedures have been cleared by GCF for access to the GCF readiness funds.</td>
</tr>
</tbody>
</table>

- Delivery below plan: the procedures have been updated as planned but NCSD has not yet applied for accreditation with climate funds. The NCDD-S accreditation was prioritized, as it was closer to meeting GCF requirements. CCCA provided support and NCDD-S is expected to be the first Cambodian accredited entity by end of 2019.

### Output 2.3: Climate change related expenditures are integrated into the government plans and budgets including the ODA database

<table>
<thead>
<tr>
<th>Output Indicators</th>
<th>Baseline (2014)</th>
<th>Target (2019)</th>
<th>Final status</th>
</tr>
</thead>
</table>

- Delivery in line with plan: no issue faced for this output, planned dialogue mechanisms have been put in place and are operational.
2.3.1. Status of CC expenditure reviews against national CCAP

2.3.1 First Climate Public Expenditure and Institutional Review conducted in 2012 and updated in 2013

2.3.1. Annual CC expenditure reviews conducted and mapped against the national CCAP

Annual climate public expenditure reviews have been conducted with MEF, including analysis of CCAP funding for selected ministries.

2.3.2. Quality and application of climate change tag in the ODA database managed by CDC/CRDB

2.3.2. Climate change tag not consistently applied in the ODA database

2.3.2. Climate Change tag improved and consistently applied in the ODA database managed by CDC/CRDB

Thematic marker in ODA database is more specific since 2016. Guidance developed for donor focal points, who have been trained by CDC/CRDB and GSSD. A quality assurance exercise has been conducted by NCSD in July 2017 and communicated to CDC/CRDB. The thematic marker was refined and simplified again in 2019 based on experience.

2.3.3. Number of knowledge products on cost-benefit analysis of the climate change response in Cambodia

2.3.3. Initial estimates and case studies integrated in the report on Climate Change Financing Framework (2014)

2.3.3. At least two knowledge products on cost-benefit analysis of the CC response in Cambodia

20 case studies produced (cost-benefit analysis of national budget projects, including MAFF, MOWRAM, MPWT and MRD investments).

☆ Delivery exceeds plan: Strong cooperation with MEF and CDC/CRDB have allowed the project to over-achieve in this area, with a good perspective to deepen this work under Phase 3.

<table>
<thead>
<tr>
<th>Result 3: Strengthened human and technological capacities to support climate change response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Result Indicators</strong></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>1. Status of procedures for management and exchange of climate change related information</td>
</tr>
<tr>
<td>2. Status of integration of climate change in schools and universities’ curriculum</td>
</tr>
</tbody>
</table>
3. Mechanism is in place to identify and test relevant technologies for CCAP implementation

There is no mechanism in place

3. Support function established in the NCCC Secretariat for technology assessments and piloting

- No permanent support function exists yet at GSSD. However, CCCA Window 3 Grants on research and Innovation have provided a testing ground for new technologies and processes (8 projects implemented), and MoE Window 1 Grant project DCC/GSSD allowed not only for testing the introduction of e-bikes, but the first involvement of DST/GSSD in supporting project design and testing.

4. Availability and functionality of standards and quality assurance procedures for climate change publication and data

Not available

4. Standards and quality assurance procedures are in place and functional

- Standards and QA procedures for publication of knowledge and communication products (SOPs on DCC Branding and Content Creation) and for data and knowledge management (SOPs for CC data products accessible through the CC Data Portal) have been approved and staff trained.

**Output 3.1: Standards and procedures for quality assurance of climate change awareness raising materials and knowledge management are developed**

<table>
<thead>
<tr>
<th>Output Indicators</th>
<th>Baseline (2014)</th>
<th>Target (2019)</th>
<th>Final status</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1.1. Status of standards for awareness-raising on climate change</td>
<td>3.1.1. Not established</td>
<td>3.1.1. Standards for awareness-raising on CC approved by NCSD</td>
<td>- Content creation guide and DCC branding guidelines for publications, including awareness raising materials have been approved in 2018.</td>
</tr>
<tr>
<td>3.1.2. Status of quality assurance procedures of key CC materials and technologies</td>
<td>3.1.2. Not established</td>
<td>3.1.2. Procedures for quality assurance of key CC materials and technologies approved by NCCC</td>
<td>- QA procedures for all materials produced by DCC (though not specific to technologies) are contained in SOPs/Guides mentioned above have been approved.</td>
</tr>
<tr>
<td>3.1.3. Status of a protocol for management and exchange of climate data</td>
<td>3.1.3. Not established</td>
<td>3.1.3. A protocol for the management and exchange of climate data is approved by NCCC</td>
<td>- Protocol for management of climate change data (mentioned above) has been approved. - Data sharing protocols have also been drafted in collaboration with 2 key institutions (CDC/CRDB, MOP); no formal data-sharing agreement has been established.</td>
</tr>
</tbody>
</table>
been signed yet with data being shared when available.\(^\text{10}\)

Output 3.2: Partnership with education institutions is established to integrate climate change into curriculum development and research

<table>
<thead>
<tr>
<th>Output Indicators</th>
<th>Baseline (2014)</th>
<th>Target (2019)</th>
<th>Final status</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2.1. Number of partnerships with universities on CC curriculum development and research</td>
<td>3.2.1. No comprehensive partnerships in place, but three academic institutions have been involved in CCCA pilots projects (RUA, RUPP and PNCA)</td>
<td>3.2.1. At least three partnerships in place with universities on CC curriculum development and research</td>
<td>- 6 MoUs signed between GSSD and national universities (RUA, RUPP, ITC, UHST, MCU, PNCA) with universities actively participating in CC academic and research activities.</td>
</tr>
</tbody>
</table>

\(\checkmark\) delivery exceeds plan: High interest from universities to partner with NCSD

Output 3.3: Lessons generated from innovative practices pilots are documented and shared with relevant stakeholders

<table>
<thead>
<tr>
<th>Output Indicators</th>
<th>Baseline (2014)</th>
<th>Target (2019)</th>
<th>Final status</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3.1. Number of sectors/sub-sectors who have piloted innovative practices with support from CCCA grants</td>
<td>3.3.1. 0</td>
<td>3.3.1. At least four sectors/sub-sectors</td>
<td>- Eight CCCA Research and Innovation grants have been implemented, covering six sectors: agriculture, rural development, sustainable energy, waste management, health, protected area management.</td>
</tr>
<tr>
<td>3.3.2. Number of knowledge products from research initiatives in key sectors</td>
<td>3.3.2. 0</td>
<td>3.3.2. Four knowledge products from research initiatives in key sectors</td>
<td>- 5 policy briefs produced by partner universities, presenting research findings and recommendations in key sectors - 6 case studies and lessons learnt reflecting directly or indirectly on the implementation of research initiatives from CCCA grants.</td>
</tr>
<tr>
<td>3.3.3. Number of knowledge-sharing events for CC practitioners, researchers and policy-makers</td>
<td>3.3.2. 1 per year</td>
<td>3.3.3. Two knowledge sharing events per year</td>
<td>- At least two events per year (with 4 events in 2018 and 2 in the first half of 2019).</td>
</tr>
</tbody>
</table>

\(\checkmark\) delivery exceeds plan: higher number of grants and knowledge products than initially expected

\(^{10}\) Access to Commune Database data for the year 2017 has been difficult, though data sharing arrangements were agreed to in advance with MoP. Signature of a data sharing agreement is urgent as update of 2 indicators of the national framework depend on accessing this data.
IV. Lessons learnt and next steps

Inter-ministerial work tends to be a challenge in many countries, including Cambodia. However, CCCA 2 has been successful in **generating buy-in from a range of ministries on issues of common interest, particularly through the establishment of joint task forces** or teams. This was done under the leadership of NCSD and purely within government frameworks. The creation and designation of membership for these task forces was subject to approval from their respective ministries. These intra-governmental mechanisms have been effective in ensuring effective participation and buy-in for the concerned policy initiatives, e.g. MEF-NCSD work on the impacts of CC on growth, or the work on tax reforms for vehicles (involving MEF/customs, MEF/policy, NCSD, MOE/pollution, MOC, MME and MPWT). This approach has already been adopted by other UNDP projects (e.g. supporting an inter-ministerial task force on renewable energy, led by NCSD), and should be continued as a way to generate effective ownership of policy initiatives across ministries. When possible, Government staff should be integrated in the research teams (as was the case for MEF economists for the CC and growth study) and not just in an oversight function. This helps develop an in-depth understanding within ministries of the evidence behind policy recommendations.

As CCCA 2 supported NCSD to initiate private sector engagement on CC, it has become clear that there is a lot of **interest and potential to do more with private sector**. Even though CCCA does not have the financing tools to engage with the private sector at scale (loans, equity, guarantee), it can support policy reforms that will facilitate climate-friendly investments and provide seed funding (grants) for innovative approaches. There is also scope for CCCA to support NCSD engagement with the finance sector, to expand climate financing options in Cambodia.

As mentioned above in the report, a **key issue for capacity development is to achieve a critical mass of staff in ministries, who are equipped and committed to incorporating climate change in their practices**. This is not yet the case, as most ministries have only a small group of staff engaged on climate change issues. Achieving critical mass will require deeper and more focused engagement with a few selected ministries. The more focused approach adopted for CCCA 3 (5 priority ministries instead of 14 ministries and agencies) should allow for this to happen.

This **capacity issue is even more prominent at sub-national level**, where CCCA has complemented NCDD-S efforts (focused on commune and district officials), by building capacity in Provincial Departments of Environment (PDOEs) to provide technical support to communes and districts to plan and implement climate change actions. This has led to improvements in the target communes, but serious capacity gaps persist in PDOEs and they are not yet able to deliver this technical support independently, without mentoring from the national level (Department of Climate Change). With significant decentralization and deconcentration reforms under implementation, and plans announced by the government to reorganize and strengthen the district level, NCSD may need to rethink the approach under Phase 3, and focus capacity development efforts at that level, in cooperation with NCDD-S.

**Constraints in Human Resources management** at NCSD/GSSD, including relatively high staff turnover, competing priorities and assignments (both in-country and abroad), lack individual TORs for staff, remained a challenge for the implementation of effective capacity development programmes. Recently, through the support from a UNDP project on Environmental Governance,
GSSD conducted an assessment of its capacity for HR management highlighting critical issues and recommendations on how to bridge institutional capacity gaps and developed a HR management strategy and action plan (2018/2019). While GSSD capacity for management of HR resources remains is being built, a more pragmatic, ad-hoc and time-bound approach to technical capacity development efforts of GSSD/NCSD will likely be more effective (rather than investing on medium- and long-term capacity development strategies and programmes), complemented with investments in capacity development of external actors that have demonstrated to be able to assist GSSD/DCC in performing specific technical functions (e.g. academia, CCTWG representatives). Attention to HR management issues will need to be part of future technical institutional capacity development initiatives.

Potential for continued engagement of research institutions on CC issues and institutions is great, though limited to a few number of major national universities. Given the great level of enthusiasm generated in the last 2 years of the implementation of MoUs with GSSD and collaboration with DCC, it is key not to break the momentum. However, missions and capacities of GSSD’s partner universities differ at present quite significantly and would be best served in the future by distinct types of support.

For smaller partner universities with a strong teaching vocation, continued involvement of academia in knowledge sharing events and lectures on-site on CC topics for students and lecturers, in some cases support to student bachelor CC thesis award programmes, were able to mobilize significant participation and support ought to be continued in these areas; dissemination of opportunities for small pilot/demonstration grants would help identify young researchers with aptitude for CC research.

For larger, well-known national universities (RUA, RUPP, ITC), participation in specialized trainings and knowledge sharing events as well as support to research has generated the most interest, with academia engaging significantly in activities that provided an opportunity for dialogue with policy makers (e.g. participating in discussions of the national research agenda for CC, designing/conducting research, and production of policy briefs). However, at par with the interest, it was also noted that these institutions lack capacity, not only funding and physical capacity to conduct research, but human capacity as well (with a very reduced number of senior researchers available to lead research teams, and a general lack of capacity to design, mobilize funding for, and conduct CC research). The way forward to capitalize on the interest and potential of these major national universities, given what was learnt through the first 2 years of collaboration, is to continue to support their engagement in policy relevant CC research through support to research consortiums, whereby international research institutions and centers of excellence in specific CC areas working in collaboration with these universities would help raise local research capacity and bring in much needed human resources to be able to conduct research on topics prioritized in the national CC research agenda. As capacity increases at these universities, they will be able to increasingly assist GSSD in specific technical areas of CC adaptation and mitigation.
V. Financial status and utilization

1. Financial status

Table 1: Contribution overview [01 July 2014-30 June 2019]

<table>
<thead>
<tr>
<th>Donors</th>
<th>Committed</th>
<th>Received</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Original Currency</td>
<td>USD *</td>
<td></td>
</tr>
<tr>
<td>1 SIDA</td>
<td>SEK 29,000,000.00</td>
<td>3,527,823.94</td>
<td>-</td>
</tr>
<tr>
<td>2 EU</td>
<td>EUR 6,000,000.00</td>
<td>6,179,576.87</td>
<td>EUR 487,121.62</td>
</tr>
<tr>
<td>3 UNDP</td>
<td>USD 1,374,849.46</td>
<td>1,374,849.46</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL</td>
<td>USD 11,082,250.27</td>
<td>11,082,250.27</td>
<td></td>
</tr>
</tbody>
</table>

* Based on the exchange rate on the day of receipt of the contributions.

2. Financial utilization

Table 2: Expenditure by activity [01 July 2014 - 30 June 2019]

<table>
<thead>
<tr>
<th>RESULT</th>
<th>Total Project Budget</th>
<th>Cumulative Expenditure</th>
<th>Balance</th>
<th>Delivery (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESULT 1: A clear governance and accountability framework is functional for the climate change response at national and sector levels. [iii]</td>
<td>5,532,748.05</td>
<td>5,441,881.89</td>
<td>90,866.16</td>
<td>98%</td>
</tr>
<tr>
<td>RESULT 2: Public and private resources are leveraged and managed efficiently, in support of climate resilient, and low carbon development [iii]</td>
<td>1,814,940.46</td>
<td>1,784,972.81</td>
<td>29,967.65</td>
<td>98%</td>
</tr>
<tr>
<td>RESULT 3: Strengthened human and technical capacities to support climate change response [iii]</td>
<td>3,586,450.88</td>
<td>3,493,075.41</td>
<td>93,375.47</td>
<td>97%</td>
</tr>
<tr>
<td>Indirect Eligible Cost (GMS)</td>
<td>701,658.14</td>
<td>686,707.87</td>
<td>14,950.28</td>
<td>98%</td>
</tr>
<tr>
<td>Total</td>
<td>11,635,797.53</td>
<td>11,406,637.98</td>
<td>229,159.56</td>
<td>98%</td>
</tr>
</tbody>
</table>
Annexes

1. Summary of key activities and outputs – Grant projects
2. Final risk log update
3. Supporting documents
4. Response to final evaluation
**Annex 1 – Summary of key activities and outputs – CCCA 2 grant projects**

**Status of core indicators and targets of CCCA grants for Window 1 Round 1 & Round 2**

<table>
<thead>
<tr>
<th>Targets</th>
<th>June 2019 status</th>
</tr>
</thead>
<tbody>
<tr>
<td>- At least 18 different types of adaptation activities and 5 different types of mitigation activities will be demonstrated, with 8,000 households as direct beneficiaries (at least 10% female-headed households and 10% ID poor households);</td>
<td>- 47 adaptation and mitigation activities are operational (Entomological surveillance; Health Professional Training on Climate Sensitive Diseases; ELISA reader and washer machine and real time PCR machine for dengue; Awareness Raising Campaign on eco-driving; Traffic signs equipped with solar panel; ground water monitoring wells; drilling wells (observation wells); rain gauges stations; river gauges stations, meteorology station, canal rehabilitation; latrines, rain water collector, pump-wells, combined wells, home gardens; water stations; hygiene change agent (HCA); Women Climatic Platform, climate-resilient ponds; first aids kids, provision of school kits to the vulnerable school girls, lightning protector, thermometers, water filters, fans, solar pump connected with water container, water containers, Information boards, water distribution systems in schools, garbage bins, garbage cages, school ponds, latrines constructed and renovated linked with hand washing sinks, trees plantation, school gardens, ceiling fans, construction of a water release system, and demonstration sites of compost making; crops plantation, garlic leaves plantations with drip system and agro-clinics; resilient housing (10); 8 kW on-grid system for a Community School; solar battery charging stations (2); micro grid system; and battery standalone solar system; e-bikes; billboards, and 50 educational banners; renewable energy and clean production pilots in industry (10); with 23,033 households as direct beneficiaries (including 4.4% female-headed and 25.8% ID poor households);</td>
</tr>
<tr>
<td>- At least 1,000,000 USD in public and private resources will be leveraged by CCCA grant projects for adaptation and mitigation activities;</td>
<td>- 1,648,968 USD have been leveraged (11.4% from private sector);</td>
</tr>
<tr>
<td>- 400 provincial, national and local government staff will be trained on CC adaptation and/or mitigation (at least 20% female);</td>
<td>- 4,481 government staff trained (31.3% female);</td>
</tr>
<tr>
<td>- 9,000 community members will be trained on CC adaptation and/or mitigation (at least 40% female);</td>
<td>- 19,436 community members trained and 500,000 actively engaged through social media (44.9% female);</td>
</tr>
<tr>
<td>- 30 knowledge products will be published (including e.g. flood vulnerability maps, guidelines for</td>
<td>- 25 knowledge products including e.g. three clinical guidelines on leptospirosis, melioidosis and schistosomiasis, 1 Guidance document for National and sub-national GHG Emission Inventory for Road Transport in Cambodia; 1 National</td>
</tr>
</tbody>
</table>
CC resilient infrastructures, CC curriculum for schools, etc.);

- At least 12 Government policies or regulations will take into account evidence produced by CCCA projects (for example guidance on control and treatment of climate-sensitive diseases)

| GHG Inventory Report for Road Transport in Cambodia and 1 technical report on rapid GHG EI for road transport in Siem Reap, 1 database including 2 additional years of chronic water cycle data in addition of historical data, thesis of 4 students on water management, 1 vulnerability map and 1 standard technical guidelines for climate-proof rural infrastructures, Training Curriculum on Climate Change (Grade 10-12), Guidelines of diagnosis of the climate vulnerabilities and assessment of adaptation strategies to climate change using Participatory Approach, Manual on climate-smart agriculture practices, diagnostic and Implementation, training manual on national GHG inventory in industry sector and training manual on cleaner production and environmental management system, 1 technical guidelines for resilient housing, 1 architectural design plan for resilient housing, 11 Radio/TV talk shows, 8 video features, 2 game shows leaflet on Green Hotel Standard;
| 12 government policies or regulations including: Action Plan (2019-2021) for Tourism National Policy (2016-2030); Cambodia Green Hotel Standards; standards for rural water infrastructures, national curriculum on climate change for higher secondary schools, Emergency Preparedness and Response Plans in Kampot and Kep provinces, 5-year policy and strategy for rural development sector; clinical guidelines on climate sensitive diseases (3); technical guidelines for resilient housing, sub-decree on river basin management. |
## Final progress reporting on individual grants under Window 1:

<table>
<thead>
<tr>
<th>Ministry</th>
<th>Project</th>
<th>Key achievements</th>
</tr>
</thead>
</table>
| Ministry of Health-Preventive Medicine Department (PMD); National Centre for Parasitology, Entomology and Malaria Control (CNM) | Strengthening country capacity to deal effectively with climate-sensitive vector-borne and water-related diseases and reducing the health impacts of disasters | **Key lessons learnt:**<br>- Improved surveillance system for dengue as a key climate-sensitive disease, and improved preparedness / data collection /M&E for health-impacts of natural disasters;<br>- However analysis of climate and dengue data has not allowed for the identification of clear indicators that could provide early warning of dengue outbreaks (further analysis required: the analysis done by CCCA has been shared with a new WHO/Adaptation Fund project on climate and health where this work will be taken forward);  

**Improving surveillance for climate-sensitive vector-borne diseases (dengue):**<br>- Four rounds of entomological survey (vector borne diseases) were conducted;<br>- The PCR and ELISA machines for dengue surveillance have been received. Four technical staff from National Dengue Control Program/CNM were trained so that dengue samples can be analyzed directly in CNM instead of Institut Pasteur (IPC);<br>- Analysis of meteorological and dengue surveillance data was produced and discussed with an expert group (17 persons) to formulate recommendations on improved meteorological surveillance and climate-based early warning. A training workshop for improving epidemiological and serological surveillance for dengue fever was then organised with 42 participants;  

**Improving Health / Disaster Risk Management linkages:**<br>- The National Climate Change Action Plan for Public Health (NCCAPPH) has been aligned with the National Strategic Plan on Disaster Risk Management for Health (NSPDRM). As a result, a final new strategy and action plans in English and Khmer version were developed;<br>- Two workshops on development of common operational datasets for health sector inputs into disaster management databases DRR/DRM and CamDi were held. MOH and NCDM have agreed through exchange of letters to cooperate on data-sharing and relevant MoH data has been shared with NCDM;<br>- Three training workshops on health sectors role in Disaster Risk Reduction (DRR) with a total of 83 participants (11 of them are female);<br>- Two workshops to increase resourcing of community capacity on Climate Change impact on health related to DRR and DRM. As a result, the community contingency disaster plans and contingency disaster plans at operational district level for Poipet, Kampong Thom, Kampong Siem and Siem Reap were drafted;  

**Climate-sensitive water-related diseases:**

---

Final Project Report- 38/85
- Case definitions and clinical guidelines for emerging climate-sensitive infectious diseases (leptospirosis, melioidosis and schistosomiasis) have been finalized;
- Seven training workshops to scale-up education and training of health professionals in prevention, diagnosis and management of water-related diseases (WRDs), applied epidemiological analysis, and application of GIS for health. This led to improvements in key stakeholders’ skills in environmental epidemiology and its application for the management of climate-sensitive diseases;
- Two training workshops on improving community and health system surveillance of climate-sensitive WRDs (Leptospirosis, Melioidosis, and Schistosomiasis) were organised with 99 participants (18 female).
<table>
<thead>
<tr>
<th>2. Ministry of Water Resources and Meteorology (MOWRAM)</th>
<th>Increase the Knowledge of the water cycle in order to reduce vulnerability to Climate Change hazards through an integrated approach (IKWCRCC) in 3 districts of Oddar Meanchey province</th>
</tr>
</thead>
</table>

**Key lessons learnt:**
- The proposed water cycle monitoring approach has received support within MOWRAM, who are now promoting similar approaches in larger projects (e.g. with World Bank);
- The partnership with universities (ITC) has provided valuable capacity for this exercise, but more sustainable arrangements/partnerships would need to be put in place to expand this approach;
- Water management of this particular irrigation scheme has improved and budget has been allocated by MOWRAM for basic costs of support.

**Improved water cycle monitoring capacity for better water management:**
- One meteorological station, 6 ground water monitoring wells, 3 drilling wells (observation wells), 9 river gauges and 6 rain gauges were installed in order to record climate data and extend the scope of current monitoring of the watershed in Deng, Chong Kal, and Lum Toung communes, Oddar Meanchey province;
- The PDOWRAM project team has compiled and collected water cycle data every month as planned and conducted analysis in cooperation with ITC;
- 9 PDOWRAM/MOWRAM staff trained on: (i) TST (Total Station) equipment in order to get land elevation and location data; (ii) land management/GIS software; (iii) use of Topo station machine (which is helpful to monitor the condition of groundwater table against the rainfall pattern and ground water extraction in the area as well as availability of ground water, and this machine is used to design and manage the structured surface water, and it helps the decision maker to determine which source should be used for what purpose based on their availability), development of database system, compilation of data and data interpretation.
- 4 ITC bachelor students have been supported and successfully completed their research thesis on 1) Study of groundwater by pumping test and DRASTIC method for making vulnerability mapping in Oddar Meanchey province; 2) Application of PRMS model to simulate stream flow of Otameng Catchment; 3) Determination of Portable Water Supply Network in Chong Kal, Oddar Meanchey and 4) Study on water supply system in Anlong Veng district at Oddar Mean Chey province;
- Agreement on exchange of water cycle data collected by the Department of River Works and Hydrology and the Department of Meteorology. This data is now gathered in one unique database able to assess the situation on water resources in Oddar Meanchey;

**Improved water infrastructures:**
- Canal rehabilitation (2 canals in total 4.91 kilometres long and 1.5 meter-deep) benefiting a total of 1,142 households. Green grass plantation along canals in order to avoid erosion and maintain sustainable use;
- The Farmer Water Users Committee/Group at Chong Kal was officially accredited by the Governor of Oddor Meanchey province. MOWRAM allocated budget to support this community;
<table>
<thead>
<tr>
<th>Ministry of Public Works and Transport (MPWT), Department of Planning (DoP)</th>
<th>Green House Gas Emissions Inventory and Mitigation Plan for the Road Transport Sector in Cambodia</th>
</tr>
</thead>
</table>

**Key lessons learnt:**
- Capacity in MPWT to conduct GHG inventories has been developed, and better data is now available on emissions in the transport sector. This can be used to strengthen future policies. Commitments of the government in the sector. Action has already started, with a draft reform of import taxes for cars, aiming at incentivizing more fuel-efficient cars, with support from CCCA. The inventory also shows the need to address the issue with trucks (diesel). A green logistics policy is currently under development by MPWT;
- The current vehicle registration database does not track some key variables required for a higher quality / more detailed GHG inventory. Upgrading this database is something CCCA could support in Phase 3.

**National GHG inventory for the road transport sector:**
- Final Guidance Document and spreadsheet for national GHG Inventory for Road transport sector has been developed, including inputs from GSSD/DCC;
- Training on national greenhouse gas inventory for Road Transport held at the Royal University of Phnom Penh for MPWT staff;
- National GHG inventory for the road transport sector completed.

**GHG inventory for road transport in Siem Reap:**
- Final Guidance Document for city-level GHG Inventory for Road Transport sector developed and training held in Siem Reap;
- Rapid GHG emissions inventory for road transport in Siem Reap was conducted with 25 MPWT staff (5 of whom are female. and report produced;
- Dissemination workshop on results was organised.

**Campaign on eco-driving in Siem Reap and on TV:**
- MPWT and Clean Air Asia conducted a field visit in Siem Reap to identify potential pilot projects on mitigation in the road transport sector;
- A baseline survey of driving behaviour of 200 drivers was conducted;
- A public awareness raising campaign on eco-driving including communication materials was developed and implemented in December 2018, reaching over 4,000 drivers in Siem Reap through face-to-face advocacy, leaflets and posters. A video clip was developed in cooperation with the Ministry of Information and broadcasted on TVK;
<table>
<thead>
<tr>
<th>Key lessons learnt:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Climate-resilient water and sanitation infrastructures in public spaces provided benefits to the most vulnerable/poor in concerned villages;</td>
<td></td>
</tr>
<tr>
<td>- However, access of the poor to the benefits of other climate solutions that require land/initial capital is more difficult. Need to design solutions where the poor can participate (e.g., through labour opportunities), but continued engagement of “better off” members of the community is also required to create these opportunities;</td>
<td></td>
</tr>
<tr>
<td>- New design standards for water infrastructure were useful but need to expand training across MRD. Engineering aspects are only part of the solution for resilient water access. More holistic approach including land management and forestry is required to secure access to water (beyond MRD mandate).</td>
<td></td>
</tr>
</tbody>
</table>

- A consultative workshop on vulnerability mapping was organized with 46 participants (8 of whom are female);  
- Vulnerability mapping and technical guidelines for climate resilient rural infrastructures (water) finalized with inputs from 25 MRD staff/engineers, and disseminated to 329 MRD staff;  
- An underground water survey was conducted for Kompong Svay district;  
- Project completed construction of 8 flood proofed latrines, two rain water collectors, 8 pump-wells, 5 combined wells and 16 adaptive home gardens. A total of 631 vulnerable households (276 households with ID poor and 268 female headed households) are benefiting directly from these climate proofed infrastructures.  
- Published 500 books of training manual on “Training of Trainer on Food Security and Nutrition” in the context of climate change;  
- 8 model green houses were established and there are 02 water gates that were constructed. 15 families have received support to renew their houses while 45 received a new model resilient house (with co-financing from Caritas);  
- Development of housing guidelines for climate resilience in Cambodia (with co-financing from Caritas);  
- 2 meetings with PCDM of Kampong Thom to produce contingency planning book;  
- 4 meetings were conducted at village level to develop DRR Plan by using Hazards Vulnerability Capacity Assessment (HVCA) tools, and one meeting with commune council’s members and village leaders in order to discuss about the integration of DDR/CCA into commune development plan. An exchange visit was conducted to Battambang with 35 participants (9 female) to understand the process of mainstreaming climate change in commune investment plans and learn about climate-resilient agriculture techniques;  
- 8 trainings on climate change concept and resilience were provided to members of village development associations (VDA) and members of NCDM at village and commune level in the target district (227 people, 126 female);  
- A district level meeting was conducted with 30 government officials (3 of whom are female), to improve their knowledge on climate change and awareness of communities facing increasing threats as result of climate change;  
- Eight awareness raising events on climate change and sanitation and hygiene were conducted with 969 community members.  
- A study visit on hydroponic home garden was conducted on hydroponic home gardening, materials needed, and process of vegetable growing. As a result, all farmers selected have implemented hydroponic home garden (16 households);  
- An additional an exchange visit was organized to learn about experiences and strategies of climate change adaptation through agro-ecological intensification and diversification of family farming program, which is implemented by Agrisud in Siem Reap province, with 35 participants.
| 5 | National Committee for Disaster Risk Reduction and Climate Change Impact in Coastal Areas | **Key lessons learnt:**  
- The community-based water purification /distribution scheme is viable as an adaptation strategy for access to clean water, provided that public funds cover the initial investment (water station) and technical assistance for an initial year;  
- CCCA has discussed this model with MRD and UNICEF, and it is included in the new WASH master plan, either community-based or managed by a local entrepreneur.  

**Support for climate-resilient access to water**  
- Women climatic platform members selected. 25 hygiene change agents selected and trained to participate in distribution of safe water and dissemination of hygiene messages;  
- Two water stations constructed and fully functioning. 20 people have been trained on how to produce pure drinking water, marketing and maintenance of the Water System Unit. Five primary schools with 1178 students and 18 poor families receive free drinking water. The water stations cover 922 households;  
- A training on business concept / book-keeping for 19 people involved in managing water stations;  
- 8 awareness raising events on hygiene promotion were organised for 372 villagers (247 female);  
- 8 climatic ponds (with lining) were provided, benefiting 45 vulnerable/poor households in target areas.  

**Local disaster management planning and response:**  
- Developed training plan and curriculums focusing on the priority area of Emergency Preparedness and Response, in cooperation with PCDM Kampot/Kep;  
- Training on how to integrate DRR/CC activities into CIP for target commune councils;  
- Facilitated the meeting with Commune-CCDM for developing Emergency Preparedness Response Plan (EPRP: tools, process, district integration workshop);  
- NCDM lead to organize the meeting with PCDM, DCDM, CCDM to review roles and responsibilities of all groups involved in provincial EPRP;  
- NCDM conducted training to provincial and local government staff on Early Warning System, damage reporting;  
- Meeting with CCDM was organized to develop Emergency Preparedness and Response Plan. As a result, EPRP in Kampot and Kep target locations are finalized.  
- Coordination meetings with key people at village level to integrate climate change response into Commune Investment Plan. The activities prioritized by communes are 1) need more support from commune fund for digging family ponds and 2) small irrigation system (village canal), which will be brought up to a district integration workshop to find support from line departments.
### 6. Ministry of Agriculture, Forestry and Fisheries (MAFF)

**Increasing Resilience to Climate Change for farmers in rural Cambodia: through Climate Smart Agriculture practices**

<table>
<thead>
<tr>
<th>Key lessons learnt:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- The innovative tool for community engagement though “serious game” on climate change has shown potential, as well as some of the pilots (resilient garlic farming in particular);</td>
</tr>
<tr>
<td>- The remaining challenge is integration/ harmonization with larger climate change programmes in MAFF (e.g. IFAD, ADB);</td>
</tr>
</tbody>
</table>

**Introduction of innovative tools for participatory vulnerability assessment and selection of demonstrations in MAFF:**

- Participatory Vulnerability Assessment tool (“serious game”) developed (includes scenarios/models, and role play);
- Manual on climate-smart agriculture practices and guidelines on climate vulnerability and assessment of adaptation strategies to climate change using participatory modelling and simulation finalized;
- 4 trainings on climate-smart agriculture practices, diagnosis and implementation held for MAFF national and provincial staff;
- 4 trainings on diagnosis of climate vulnerability and assessment of adaptation strategies to climate change using participatory tool and modelling held for MAFF national and provincial staff;
- Vulnerability assessment diagnostics conducted in all three target provinces/communes;
- 7 RUA intern students have been selected to be involved and learn from the project;
- Project developed CSA demonstration options report for each commune resulting from vulnerability assessment;
- In collaboration with project partner, project completed the orientations for three targeted Provincial Departments of Agriculture, Forestry, and Fisheries (PDAFF) on Demonstration Actions;

**Piloting of selected demonstrations:**

- 61 vulnerable households were identified and selected for demonstration activities and have received trainings on the general concept of climate change and climate smart agriculture;
- Three farmer field days on implementation of CSA demonstration activities in the target provinces were organized with over 254 farmers participating (90 women);
- Demonstrations established:
  - In Kampong Cham province: 10 diversifying crops plantations with the installation of integrated rain harvesting/storing, 10 crop rotation plantations with drip system and two agro-clinics;
  - In Kampong Chhnang province: 10 chicken raising activities, 2 agro-clinics and 8 crop rotation plantations.
  - 11 training courses and coaching on various topics including vegetable crop production cultivation techniques and rotation crop planting method and pests, diseases management, using trichoderma on garlic were provided by PDAFF for the beneficiary households;
  - Relevant books, resource documents and leaflets were collected to put in each local agro-clinic.
Ministry of Women's Affairs (MoWA)

Mainstreaming of gender impacts of climate change and disasters in education sector

**Key lessons learnt:**

- This was a first attempt for joint MoWA/MoEYS work on climate change, with positive results for curriculum development, but more difficulties in delivery of adaptation activities in the field (still separate delivery channels);
- There is a need to strengthen MoWA capacity to influence other ministries with large climate change-related programmes (as opposed to MoWA acting as delivery partner, with limited field presence and budget).

**Gender sensitive vulnerability assessment and adaptation activities in pilot schools and communities**

- Joined the vulnerability assessment (VRA) of eco-schools conducted by the MOEYS project, to provide support on gender;
- VRA and activities plan of eco-school was conducted at Hun Sen Angkor Chey (Kampot) and Kampong Tralach (Kompong Chhnang) high schools;
- Project established School Disaster Management Committee in each target school for strengthening and raising awareness of school disaster preparedness. A consultative workshop on Emergency Preparedness Response Plan Development at school and community level was organized. Conversation/dialogue were organized to discuss about women’s needs when disasters or climate change happened with 80 participants;
- Project provided one solar pump connected with water container, 2 water containers, one concrete water container for rain water collection, 10 water filters, 18 fans, a lightning protector, and 3 thermometers in response to the schools’ climate change response needs;
- A training on life skills and alternative agriculture skills was organized with 183 participants (144 women);
- Project provided chicken and tools to 60 most vulnerable female-headed households for climate-smart agriculture techniques;
- Project provided seeds and tools to schools for students to practice resilient agricultural gardens through promoting climate-smart agriculture in target schools;
- Project provided First Aids Kits to 4 target schools;

**Gender-sensitive climate change curriculum, capacity development for MOEYS staff and awareness raising activities**

- School kits and drawing materials were provided to 60 most vulnerable female students in target schools for drawing contest preparation. A drawing contest was organized with a drawing contest award in Phnom Penh with a total of 82 participants including students and teachers (30 female);
- Coordinated with MOEYS/Department of Curriculum Development and relevant stakeholders to finalize training curriculum/modules. As a result, gender is included into the climate change training materials (Grades 10-12), as well as the gender-sensitive training curriculum on CCA/DRR for grades 7-9. A training of trainers for grades 7-9) was organized with 97 participants (40 female) in four provinces.
<table>
<thead>
<tr>
<th>Ministry of Education, Youth and Sports (MoEYS), Department of Curriculum Development (DCD)</th>
<th>Mainstreaming Climate Change in Education (MCCE)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key lessons learnt:</strong></td>
<td></td>
</tr>
<tr>
<td>- Good progress made on curriculum development and implementation in pilot schools. Good level of youth engagement on climate change issues;</td>
<td></td>
</tr>
<tr>
<td>- A key challenge is the scaling-up of this scheme. High levels of political support exist in both MoE and MoEYS. MoE is considering using the Environmental and Social Fund of the government to support further expansion of eco-schools.</td>
<td></td>
</tr>
</tbody>
</table>

**Climate change integration in higher secondary school curriculum** |
- Organized initial workshop and three TWG meetings on Modules Development of Mainstreaming of Climate Change in Education, resulting in draft teaching materials / curriculum; |
- 30 teachers (6 of them female) were selected and trained to test the new climate change curriculum (grades 10-12) in 10 schools; |
- A National Consultation Workshop on Climate Change Textbook for Upper Secondary School was organized to collect final comments and finalize the Climate Change Textbook for Upper Secondary Schools. It was officially approved by both MOEYS and MOE ministers and launched; |
- Key points/ contents of Climate Change Textbook for Upper Secondary School was formally integrated into the outline of the new national education curriculum (Earth and Environment Science subject). |

**Eco-school pilots including climate change (10)** |
- The project organized a one and half-day workshop to discuss the establishment and management of each of the 10 pilot Eco-Schools. In doing this, firstly a VRA (Vulnerability Reduction Assessment) to CC was conducted for each Eco-School and its catchment area. Then issues to be addressed for each Eco-School were identified, prioritized, and selected; |
- The VRA and operational plans and budget of eco-schools have been finalized and a training on implementation of eco-schools was carried out in each target school; |
- 10 formal agreements on Project Implementation were signed between Department of Curriculum Development (DCD) and each school. Eco-School Steering Committee and Eco-Club Committee of each school were established. As a result, plans of Eco-Club are prepared; |
- A Facebook Group named “Eco-School Alliance” was created for all schools to share knowledge, experience and project progress: [https://www.facebook.com/groups/1138629222932365/](https://www.facebook.com/groups/1138629222932365/); |
- A 3rd Cambodian Eco-School Prize was awarded to one of MCCE Project’s target schools – Hun Sen Chrey Thom High School; |
- A technical training on composting and vegetable gardening was delivered in each school; |
- A technical training on how to grow trees, set-up sample forest demonstration and establish biodiversity garden was delivered by Global Forest and Biodiversity Innovative (GFB); |
- Adaptation activities: 10 Information boards, 10 water containers, 10 irrigation systems, 27 garbage bins, 33 garbage cages, 2 school ponds, 43 latrines constructed and renovated linked with 11 hand washing sinks, two pumping wells, 1176 trees plantation, 5 school gardens, 16 ceiling fans, construction of a water release system, and demonstration sites of compost making; |
- Awareness-raising: 1,800 T-shirts and 1,800 packages of study materials (composed of notebooks, pens and rulers) have been produced and distributed. |
| | Ministry of Industry and Handicraft (MIH) | Demonstration of best practices on available technology for contribution to climate change adaptation and mitigation in industrial and handicraft sectors | Key lessons learnt:  
- Although this project experienced significant delays in the beginning, it was successful in producing improved data on emissions in the industry sector, which can help future targeting of activities;  
- Pilots with private sector have shown high potential for emissions reductions, but the availability of financing solutions for SMEs is key, as well awareness-raising to increase the level of trust in new technologies. New UNIDO projects are focused on this, but there is potential to do more, on a larger scale.  

**GHG inventory in industry sector (IPPU), including capacity development for MIH staff**  
- Rules and procedures and methodology for GHG inventory in industry (IPPU) have been developed, together with a training manual and 38 MIH staff (18 female) have been trained;  
- GHG inventory for IPPU sector was produced and validated.  

**Capacity development of MIH staff and implementation of renewable energy and clean production activities in pilot firms**  
- The technical guidelines and training manual for Renewable Energy and Clean Production and Environmental Management System have been developed;  
- 17 firms were visited for potential energy / GHG / clean production improvements;  
- 10 firms signed Memorandums of Understanding (MOU) to conduct an energy and GHG audit and conduct demonstration activities (low carbon technologies), mostly in the food processing industry. The audits were conducted by MIH and project staff (on the job training) and the selected activities were implemented in 2019, with over 170,000 USD co-invested by the partner firms in low carbon technologies, resulting in GHG emissions and water savings. An analysis of benefits and a financial analysis was carried out for all pilots. |
| 10 | **Ministry of Mines and Energy (MME)** | Promote Low-Carbon Technologies in Energy Sector | **Key lessons learnt:**  
- Proposed solutions are valid, and relevant. Fee collection requires strong community organizational capacities (technical assistance required in the first year), and costs of maintenance from the private sector must be factored in;  
- The potential market for these solutions is not yet known (ongoing study by the Energy Authority of Cambodia on how many locations will need off-grid solutions in the long term). Once confirmed, advocacy with government could be done to subsidize such schemes in remote areas. CCCA3 could consider further work on this if potential market is confirmed.  

**Capacity development of MME staff and update of energy balance sheet for Cambodia**  
- A technical committee for energy statistics was formed to facilitate the data collection, analysis and compilation for the energy balance report with detailed SOP and worksheet in both English and Khmer;  
- A training course was held on Energy Balance and Statistics Development with 42 participants (4 female);  
- An energy statistic manual is finalized;  
- The energy balance report for 2015 and 2016 is finalized and available.  

**Pilot off-grid renewable energy solutions and related capacity development in MME**  
- A field monitoring visit was conducted to the pilot renewable energy sites in Pursat and Prey Veng province in order to understand the needs, changes from earlier surveys. Pursat sites were selected;  
- A site assessment has been done to study the new potential pilot site in Kampong Thom Province, the energy demand and potential of low carbon technology. As a result, Kampong Thom is selected for the pilot activities;  
- Two consultative workshops on assessment of low carbon technology for electricity generation in Cambodia were conducted, with 35 participants (5 female);  
- Assessment report on low carbon technology for electricity generation in Cambodia is completed, including a policy gap assessment and policy recommendations to promote the low carbon technology in Cambodia for electricity generation was conducted.  
- 8 kW on-grid system for Khmer-English Chinit Community School (K.Thom) has supplied an average energy generation of 32 kWh per day. It is estimated that the saving can be around 11680 kWh which is around 2219.2 USD per year and 7767.2 kgCO2e;  
- 10 kWp solar with 42 kWh battery as micro grid system for Samrong area of Prhal Village, Talou Commune, Pursat Province. Taking diesel battery charging as the baseline, the system can save around 395.09 USD (@0.65 USD/kWh) and 639.44 kg of CO2 equivalent (@ 1,052 g CO2e/kWh);  
- 6 kW Solar battery charging station Prhal Village, Talou Commune, Bakan Distric, Pursat Province. Average number of battery brought to the charge station is around 8. The estimated annual saving can be up to 3,672 kWh which is equivalent to 3,862.94 kGCO2e/year and 2,386.8 USD/year.  
- 2.5 kW with 10 kWh battery Standalone Solar system for Reangtil Health Center, Pursat Province, serving floating community. It is estimated that annual power saving is at 2555 kWh which is equivalent to 638.75 USD and 2687.86 kgCO2e.  
- 5 kW solar battery charging station at Reangtil community. The estimated annual saving can be up to 5,840 kWh which is equivalent to 6,143.68 kGCO2e/year. The battery station is expected to support 706 household or 3161 people from floating community. Able to charge 42 batteries.
<table>
<thead>
<tr>
<th>Ministry of Tourism (MoT)</th>
<th>Public Awareness of Climate Change in Tourism Sector</th>
<th><strong>Key lessons learnt:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>- Good level of interest for Green Hotel Standards, and engagement from MoT, but it may be more sustainable for such schemes to be certified by the private sector in the future, due to capacity constraints.</td>
</tr>
</tbody>
</table>

**Support to community-based eco-tourism in Peam Krosop**
- Domestic study tour for Peam Krosop community to another successful Community-Based Ecotourism development in Kampot;
- Refresher workshop on Cambodia Community Based Tourism / CBET Standards;
- Installed 80 rubbish bins at Peam Krasoap CBET;
- Training workshop on home-stay and food & beverage service quality improvement for Peam Krasoap CBET at Koh Kong province was provided with 65 participants (32 of whom are female);
- Project produced and distributed 1,000 leaflets in Peam Krasoap CBET;
- A training workshop on transport service quality improvement (boat & moto-taxi in the community) was organized with 54 participants (27 are female);
- A training workshop on CBET tour guide interpretation quality improvement was conducted with 54 participants (27 are female);
- Waste management educational signs/materials were installed at Peam Krasoap. A public campaign on waste management in the community was organized;
- Certificates were provided to homestays meeting community-based eco-tourism standards.

**Support to clean city and climate change awareness campaign in Phnom Penh**
- Project installed 6 billboards and 150 rubbish bins in Phnom Penh in support of clean city campaign before Water Festival 2018;
- 30 clean city youth ambassadors have been appointed on a voluntary basis from high schools and youth groups in Phnom Penh, and have led two campaign events respectively on “Clean up Cambodia” and “No Plastic Campaign” (with 3,000 participants).

**Implementation of Cambodia Green Hotel Standards**
- Dissemination workshops on Cambodia Green Hotel Standards have been held in Siem Reap, Phnom Penh, Battambang and Kampot (for all coastal provinces) with 367 participants (141 female);
- Following an initial assessment and advisory visit and after an interim period to make adjustments, 76 hotels were assessed and 52 passed the assessment and received the Cambodia Green Hotel Standard in Phnom Penh, Battambang, Siem Reap, Kep, Kampot, Koh Kong and Sihanoukville provinces.
| 12 | Ministry of Land Management, Urban Planning and Construction (MLMUPC) | Promote settlement development adapted to natural disasters | **Key lessons learnt:**  
- *The standards piloted by the ministry have potential to be implemented through public housing programmes (currently limited but gradually being expanded)*;  
- *For further impact, linkages need to be built with the work on the Building Code, and with local authorities for approval of constructions in vulnerable areas.*  

**Design of resilient housing guidelines and piloting in three provinces**  
- Terrain study was conducted in three target provinces;  
- Two consultants were recruited to design resilient housing models and technical guidelines;  
- Project staff also conducted a site assessment to the houses affected by storm and houses affected by floods in the 3 target provinces.  
- Project conducted a consultation workshop on Resilient housing models and Resilient Housing Technical Guidelines with 80 project partners and key stakeholders (15 female). As a result, resilient housing models and resilient housing technical guidelines were finalized and approved by the Minister, MLMUPC;  
- A site assessment was conducted to select the beneficiaries and construction sites, resulting in the construction of 10 model resilient houses and strengthening of 12 existing houses in Tbong Khmum, Kratie and Preah Sihanouk provinces. 10 out 22 beneficiaries are female-headed households;  
- Project has developed simple training materials for communities and posters (500) and handbooks (1,000) on resilient housing have been disseminated;  
- 50 MLMUPC staff and 10 NGO staff have been trained on the guidelines (13 female);  
- A total of 450 community members (155 female) have also been trained on the guidelines and lessons learnt.
### Key lessons learnt:
- MoInfo has demonstrated good capacity to produce and promote awareness materials on climate change in various formats, but technical inputs from MoE/NCSD have also been essential;
- MoE and MoInfo should strengthen their cooperation on CC and environmental education, based on their respective strengths, and in order to avoid duplication of efforts.

### TV and radio campaign
- All components broadcasted on National Television of Cambodia and on Radio National Kampuchea via FM 105.75 and AM 918, reaching an estimated 40% of the population;
- 8 video features: (i) climate and water data collection experience in Oddar Meanchey, (ii) Climate Change Resilient Roads, (iii) Climate Smart Agriculture, (iv) solar energy, (v) forestry and REDD+, (vi) medium scaled bio-digester, (vii) solar power pumping systems, (viii) climate change integration at sub-national level;
- 2 quizz games on climate change.

### Capacity development for journalists
- Two media training workshops were organized in order to deepen knowledge and capacity of TV/Radio journalists, editors and anchors on climate change, with 118 participants (42 female).

### Social media campaign
- Facebook page [https://www.facebook.com/mediaforclimatechangerambodia](https://www.facebook.com/mediaforclimatechangerambodia) and Twitter page [https://twitter.com/MOInfoclimate](https://twitter.com/MOInfoclimate) and YouTube channel [https://www.youtube.com/watch?v=hZlaF5CIeZE](https://www.youtube.com/watch?v=hZlaF5CIeZE) to conduct the campaign on social media;
- Total social media audience (hits) slightly under 500,000 people for the duration of the campaign.
| Ministry of Environment (MoE) | Develop and test low carbon resilient approaches and options in urban areas | **Key lessons learnt:**

- The analysis on e-bikes has inspired several initiatives to address the barriers identified, particularly the issue of consumer trust in the new technologies. GGGI and potentially CCCA3 could provide concrete support to facilitate e-bike adoption based on the recommendations/findings from this pilot project;

**Eco-school support in urban areas**

- School selection, baseline and vulnerability assessment. As a result, one primary school, two lower secondary schools and two higher secondary schools were selected for the pilot sites in Phnom Penh;
- Project provided ToT for 30 school teachers (6 female). As a result, all participants have gained knowledge on eco-school guidelines, management and maintenance of bio garden, climate smart agriculture, technique for growing crops, climate change context and its impact on mitigation and adaptation and solid waste management;
- Adaptation activities in the 5 schools include: 214 LED lamps, 100 garbage bins, 6 latrines / hand-washing facilities, 4 bio-gardens, 3 solar panel installations, 3 rainwater collection and distribution installations, 60 fans. 7,593 students (4,393 female) and 477 teachers (183 female) are direct beneficiaries.
- 1,120 students and teachers actively participated in eco-school activities (582 female) and benefitted from the additional teachings on eco-school and climate change.

**E-bike piloting and market assessment**

- Project procured 12 e-bikes and conducted testing of their performance over several months, with data used for the cost and benefit assessment analysis. E-bikes were found to be economically better than standard motorbikes for use in an urban context, but trust in the technology needs to be built through awareness campaign and exposure to the technology;
- A battery charging station for e-bikes was built in MoE;
- A set of policy recommendations from the pilot phase was produced for MoE.

**Campaign on e-bikes and eco-schools**

- TV/Radio talk shows on bio garden, renewable energy (solar energy) rainwater collection and horticulture gardening was conducted and broadcast on Apsara TV and radio.
Final progress report for LoAs under Window 2

<table>
<thead>
<tr>
<th>Name of Grantee</th>
<th>Total Grant</th>
<th>Period</th>
<th>Purpose of Grant/LoA</th>
<th>Key outputs delivered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Economy and Finance (MEF)</td>
<td>$ 70,000.00</td>
<td>2015-2017</td>
<td>Economic and Public Finance Impacts of Climate Change</td>
<td>Cost-benefit analysis (CBA) was conducted for priority climate change programmes of MPWT, MRD, MAFF and MOWRAM and presented in budget negotiations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Annual monitoring reports on climate finance were produced (CPER) for fiscal years 2013 to 2016</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A training module on climate change finance management was developed and delivered through MEF/EFI for planning and finance officials in 6 key ministries</td>
</tr>
<tr>
<td>Ministry of Economy and Finance (MEF)</td>
<td>$ 50,000.00</td>
<td>2018-2019</td>
<td>To strengthen MEF capacity to assess and monitor impacts of climate change on the economy and gender, and to reflect this information in the management of public finance, particularly through the national budget process.</td>
<td>The research on modeling on macro-economic impacts of climate change was produced with MEF, including presentation and publication.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Study on macro-economic impacts of CC informed the new rectangular Strategy 4, where climate change is one side of the sustainability and Inclusion rectangle.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Climate change public expenditure review (CPER) produced for fiscal year 2017</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inclusion of climate change and gender perspectives in circular/Sarachor of Budget Strategic Plan and annual budget law guidelines for fiscal years 2018 and 2019;</td>
</tr>
<tr>
<td>Ministry of Planning (MoP)</td>
<td>$ 11,150.00</td>
<td>2018-2019</td>
<td>Integration climate change</td>
<td>Cost-benefit analysis (CBA) was conducted for priority climate change programmes of MPWT and presented in budget negotiations. MPWT staff have been trained.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Climate change objectives reflected in the new 5-year policy (2019-23), strategy and action plan of MRD, and in its Budget Strategic Plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Integrated CC in guidelines for NSDP input preparation</td>
</tr>
<tr>
<td>Council for the Development of Cambodia/Cambodia Rehabilitation Development Board (CRDB/CDC)</td>
<td>$ 12,192.00</td>
<td>2019</td>
<td>Improvement of Climate Change Financing Tracking in the Official Development Assistant system (ODA) of The Cambodian Rehabilitation and development board/Council for the Development of Cambodia (CRDB/CDC)</td>
<td>Challenges related to CC financing tracking in the Cambodia ODA database were identified and the data entry process simplified for tagging of climate finance</td>
</tr>
</tbody>
</table>
### Status of core indicators and targets of CCCA Research and Innovation grants for Window 3

<table>
<thead>
<tr>
<th>Targets</th>
<th>June 2019 status</th>
</tr>
</thead>
<tbody>
<tr>
<td>- At least 5 different types of adaptation activities and 3 different types of mitigation activities will be demonstrated, with 162 households as direct beneficiaries (at least 4% female-headed households and 7% ID poor households);</td>
<td>• 11 types of adaptation activities, 2 types of mitigation activities and 2 types of mixed activities are operational (4 resilient drilled wells; 4 solar powered-water supply systems and 3 cycle climate adapted agricultural techniques, 4 saving groups, and strengthening community-based eco-tourism, one boat for access to market, 6 lagoon medium scaled biodigesters connected with electricity generator, 3 liquid slurry huts; 5 compost stores; 3 household compost stores, 3 farmer field schools, Community-based waste management initiative in Boeung Tompun, Conservation Agriculture cropping systems for the annual upland crops (maize, cassava, soybean), rice husk briquette (2 producers) as fuel for industry, LOCA tool for forest cover mapping, and development of vulnerability index in heath sector, with 690 households as direct beneficiaries (including 33% female-headed and 31.7% ID poor households);</td>
</tr>
<tr>
<td>- At least 300,000 USD in public and private resources will be leveraged by CCCA grant projects for adaptation and mitigation activities;</td>
<td>• 802,838 USD have been leveraged to date (30.7% from private sector);</td>
</tr>
<tr>
<td>- 120 provincial, national and local government staff will be trained on CC adaptation and/or mitigation (at least 20% female);</td>
<td>• 105 government staff trained (19% female);</td>
</tr>
<tr>
<td>- 350 community members will be trained on CC adaptation and/or mitigation (at least 30% female);</td>
<td>• 2,208 community members trained (45.6% female);</td>
</tr>
<tr>
<td>- 30 knowledge products will be published (including e.g. flood vulnerability maps, guidelines for CC resilient infrastructures, CC curriculum for schools, etc.);</td>
<td>• 26 knowledge products including e.g. Review on Existing Climate Change Adaptation Options; Literature Review on Vulnerability Assessment Method and Tools; Technical report on Climate Change Vulnerability Assessment in Steung Treng Ramsar Site; note books with educational messages on climate change and gender; Agricultural Training Manual; Designed architectural plan of lagoon medium scale biodigesters; 4 Posters on Best Practices on Waste Management Service; Brochure on Municipal Solid Waste in Phnom Penh; Spatial Assessment of the Potential Agricultural Residues Supply From Agro-Industries; Spatial</td>
</tr>
</tbody>
</table>
- At least 5 Government policies or regulations will take into account evidence produced by CCCA projects (for example guidance on control and treatment of climate-sensitive diseases)

- 3 government policies are influenced by CCCA projects, including Policy on Biodigester Development in Cambodia 2016-2025, Solid Waste Management Strategy for Phnom Penh, and 3-year PDOE investment plan (for Ramsar site) in Stung Treng.
## Final progress report for individual grants under Window 3

<table>
<thead>
<tr>
<th>#</th>
<th>Applicant and Partner Names</th>
<th>Sector(s)</th>
<th>Key Achievements</th>
</tr>
</thead>
</table>
| 1 | GERES Partner: ITC | Industry, Energy, Agro-industry | **Key lessons learnt:**  
- Technology issues have mostly been addressed through this pilot, and rice husk identified as the most promising source of fuel;  
- Rice millers have participated in pilots to produce briquettes, and would be ready to increase production if demand is confirmed. Competition from illegal wood remains the main issue, and pressure from international buyers will be crucial to achieve a switch to sustainable biomass fuels. Some partnerships have already been initiated e.g. with H&M.  
**Research and mapping of opportunities for valorization of agricultural residues as fuel for industry**  
- For the garment industry, data has been collected and analysed and first lessons have emerged. Regarding the brick industries, the challenge is to find a comprehensive and updated database that would allow to assess at the national level the demand in term of wood fuel. For the agricultural residues, after a preliminary review, project has been able to select the most relevant residues to study: rice husk, bagasse, empty fruit bunches (EFB) and corn cob;  
- H&M offered GERES access to 11 factories within their network of suppliers and to existing primary data of the 50+ factories in their pool of suppliers. A partnership agreement is formally setting this arrangement;  
- A spatial assessment of the production of these agricultural residues and a spatial assessment of the demand for fuel wood from industries have been completed.  
**Testing of production / processing methods for agricultural residues to be used as fuels**  
- The project procured the machines (pellet, grinding, crushing, and carbonization furnace machine) required to produce the alternative fuel. The project has also defined the protocol and methodology for the sampling and testing of fuel, and conducted laboratory tests in cooperation with ITC. Rice husk briquette seems the most promising technology;  
- On-site performance test with rice husk briquette in real conditions (in a garment factory).  
- A briquetting technology expert from Vietnam was contracted to identify the briquetting technologies best suited for Cambodian rice millers and propose a list of suppliers for these technologies, create a decision-making tool to help rice millers assess the potential profitability of the different briquetting technologies. |
available and build GERES team’s capacity on briquetting technologies;
- A thermal energy generation expert from Thailand came to identify potential modifications needed on the boilers to make RHB combustion more efficient, and build GERES team’s capacity on biomass boiler technologies and the theory of biomass combustion;
- A garment factory (M&V) in Phnom Penh has agreed to let ITC and GERES use one of their boiler to proceed with the tests in real conditions. Hence 2 tonnes of Rice Husk Briquettes offered by Golden Daun Keo have been burnt in the boiler and the results were successful and have shown that they can replace wood without modification on the boiler;
- A Decision Support Tool has been finalized to screen the financial, technical, environmental and social feasibility of agricultural-residue valorization into energy along with investment scenarios. This tool takes the shape of a report screening of the agro-residues available in Cambodia, with a barriers and opportunities assessment for each of this residues and a focus on the most promising agricultural residue and a case study.

**Financing instrument drafting**
- The NAMA proposal on Sustainable Thermal Energy in The Garment Sector in Cambodia was endorsed by the Ministry of Agriculture, Forestry and Fisheries (MAFF), the Ministry of Environment (MoE) and the Ministry of Industry and Handicraft (MIH). Moreover, the AFD and UNDP also involved in the design of the NAMA. The NAMA has not been funded to date.

**Private sector engagement**
- Field visits have been done in the provinces of Battambang, Banteay Meanchey and Kandal with stakeholders of the agricultural sectors (farmers, processors and local authorities). A study tour has also been organized in the south of Vietnam (organized with support from another project) to better understand the use of Rice Husk Briquettes in the Vietnamese industrial sector.
- Engagement of the rice millers, with a focus on 3 rice millers who are particularly interested in investing in rice husk briquetting as a result of the study tour organized in Vietnam in September 2018.
- Engagement with garment factories among H&M suppliers with on-site visits and firewood lab testing.
- Development of the communication tools aimed at rice millers and garment factories.

| 2 | National Biodigester Program Partner: Department | Energy, Agriculture |

**Key lessons learnt:**
- The technology is viable and delivers both economic and climate change benefits;
- Some farmers can afford the costs but availability of subsidized loans would contribute to wider adoption. Micro-finance and banking institutions have been sensitized to the technology, but potential support through climate finance would help make their loans more attractive.
Scoping potential and lessons learnt on bio-digester technology for pig farms

- 134 pig farms operate in Kampong Speu. Amongst these, 72 pig farms have technical potential for medium scale bio-digester plant which requires 500-2500 pig heads. The criteria, requirements and terms and conditions for the agreement with pig farms were developed;
- The innovative model design of medium scale bio-digester for piloting was developed by using AutoCAD software;
- A knowledge sharing meeting between NBP and UNIDO was conducted in order to share information on the large scale Bio-digester project of UNIDO which focused on farms with more than 4000 pig heads to produce 1MW electricity;
- During this period, 7 pig farms were visited to conduct the feasibility study for this project. As a result, two of them have been selected and have signed an agreement with the project. Two additional farms were added later;

Policy impact

- In terms of influencing policy development, the project has provided inputs into the policy on bio-digester development in Cambodia 2016-2025, which has been approved by the Ministry of Agriculture, Forestry and Fisheries, in particular to include medium and large scale bio-digester development;

Capacity development for farmers on farming using bio-slurry

- A Training Need Assessment (TNA) for Integrated Farming System farmers was conducted, where the two first pilots for medium scale bio-digesters are located. 47 farmers were selected to conduct individual interviews. The surveyed farmers provided their priority needs for capacity development, with soil management and natural fertilizer management as the most common need, followed by compost making, farmers field schools, chicken raising, techniques of bean plantation, cucumber and water convolvulus respectively;
- Project completed construction of three compost store sites in order to provide compost demonstration on-site learning, learning by practicing in compost production training to key farmers and compost making with liquid bio-slurry and its applications;
- Project has conducted 3 compost producing trainings on-site to 45 key farmers, local authorities and PDAFF staff. Based on the field monitoring report, 14 of 41 key farmers have been applying the compost making learnt from the training;
- 4 farmers were selected as integrated model farmers for experiments related to climate change for effective use of bio-slurry compost.
- Additional 4 training courses on compost producing organized.
- A refresher training was organized with 33 participants (9 of whom are female).
### Piloting of medium-scale biodigesters

- The project completed construction of six lagoon medium scale biodigesters in order to store biogas for daily cooking purpose, and produce bio-slurry. Moreover, electricity generators were linked with biodigesters in order to generate electricity for running cooling system in pig pens and cooking after the biogas is produced;
- The project team has conducted on-going monitoring visits and technical supports to the pig farm owners;
- The technical skills and knowledge sharing of innovated medium scale biodigesters was conducted for 18 participants;

### Dissemination strategy and private sector engagement

- Exchange visit was conducted with 48 participants (8 women);
- Preliminary Result workshop was conducted with 38 participants (3 women) in order to disseminate knowledge, and results of the medium scale biodigester system and its benefits to other potential animal farm owners, and other key stakeholders;
- The market/credit need assessment and outreach to financial institutions was conducted;
- An information folder/manual was drafted for farmers;
- A video spot and documentary were developed;

### Key lessons learnt:

- **This integrated model for climate resilience has shown potential, with a better organization of farmers leading to better access to markets, and capacity to pool resources for transport in remote locations;**
- **However, significant technical assistance is required over 2-3 years to support these remote communities;**
- **Availability of labour as people migrate to find jobs abroad / in urban areas can also be an issue.**

### Solar water pumping and climate-resilient model farms

- Land for model farms has been identified, and model farmers, and the farms’ activities have been agreed in a participatory manner;
- New training manuals have been developed on the concept of cyclical farms and the project conducted a workshop to introduce 10 model farmers (6 of whom are women) on cyclical agriculture farms concept;
- Three trainings on vegetable and mushroom growing techniques were organised for 14 model farmers (10 women);
- Four solar-powered water supply systems in target villages have been installed to support farming activities and improve access to water. Four water management committees with three to five members in each
committee have been trained on technical fixing on the water system and on how to record data of water usage;
- For model farmers, the project provided 4 training courses on chicken raising with 14 participants (10 women) and also provided additional coaching on farm management, preparation of home garden with drip system and preparation fence for chicken houses;
- The solar powered water supply systems have generated a total of 1989 USD from the water user fee and this money is being kept by the water user committee for maintenance, community development, and committee member wage as set in committee by-law;

Support to agricultural cooperatives, business management skills and market access
- The project conducted refresher trainings on group management. As a result, the community members drafted group by-law, and regulation and especially, more than 90% of them have improved knowledge on concept of group (facilitation, leadership, vision, objective and role of group members) referring to pre-and post-training assessment;
- The project conducted four refresher trainings on financial management. As a result, more than 80% of participating community members have improved knowledge (on book keeping, lending, monthly saving records referring to pre-and post-training assessment);
- The project conducted 39 meetings with 4 CBOs with 78 participants (55 of whom are women) to strengthen capacity on better group management, leadership and book keeping. As a result, CBOs have improved their capacity on saving recording and committed to create small business on vegetable and livestock within their members;
- Project facilitated the establishment of an Agriculture Cooperative (AC) for sustainable business model for farmers. The project team has conducted 2 meetings with 53 participants (39 of them are female) in cooperation with Kratie provincial technical department (Department of Agriculture) to provide explanation on the AC concept to operate potential agriculture business;
- Project provided 3 trainings on micro agricultural enterprise for a total of 48 CBOs members (43 of them are female) to provide the concept of enterprise on how to create small agricultural enterprise by using loan from their own saving group to increase their income;
- Project conducted a market survey to identify potential business and network for agricultural products;
- Project staff organized 3 meetings between seed supplier and CBO members, including model farmers with 46 participants (40 women) in order to orient the CBO members about seed quality, expired date, and seed varieties which adapt with climate change and grow faster;
- Project organized 5 training courses focused on vegetable growing (long bean growing) to climate change impacts to 4 SHG members with 42 participants (38 women). Moreover, 4 saving groups have saved a total of 14,403,200 riel (equivalent to around 3600.81 USD);
- Additional two Agriculture Cooperatives, in Akphivath Boeng Char Thmey and in Samaky Koh Khnae Kh Sach Leav were established and facilitated by PDA with a total of 58 members.
- In collaboration with PDAFF, an Agricultural Cooperative Union (ACU) was formed to improve the livelihood activities with a total 75 members (56 women are women);
- A workshop on meeting between buyers and sellers and identifying potential buyers to make contractual agreement was organized;
- 2 workshops between buyers and seller were conducted with a total of 58 participants (40 are women). As a result, one contract between model farmers and AC representative was signed and another contract between ACs and ACU is under processing.

**Outreach to local authorities**
- A training on climate change adaptation and VRA was provided 6 commune councils with an actual practice.

<table>
<thead>
<tr>
<th>4</th>
<th>General Department of Agriculture (GDA, MAFF)</th>
<th>Partners: RUA, ITC, CIRAD</th>
<th>Agriculture</th>
</tr>
</thead>
</table>

**Key lessons learnt:**
- The conservation agriculture approach tested by this project has high potential with good economic returns and climate change adaptation/mitigation results, and high co-benefits for biodiversity and combating land degradation;
- Remaining barriers are clearly identified, including access to agro-ecology inputs (seeds, machinery), and technical assistance. The scaling-up of this project would cover a gap in current assistance to the agriculture sector, and could be prioritized for applying to multilateral climate funds;
- For technical assistance, a balance needs to be maintained between partnering with the private sector (TA linked to provision of inputs), and public sector’s role to provide independent advice on technologies and inputs.

**Establish pilot for testing conservation agriculture practices**
- The experiment fields on crop and cover crops sown with 2.5 ha of land, were established in order to compare conventional plough-based management and direct seeding mulch-based cropping (DMC) systems.
- Two focus group discussions (with 55 farmers) were organized to share the knowledge with smallholders on paddy rice production managed under DMC and the utilization of fodder crops for livestock production. After the focus group discussion, all the participants were invited to join a farmer field day. In addition, experiments in the uplands and cover/fodder crop collections were also used for the field visit. As a result, 18 voluntary farmers with the total surface of 38.1 ha were interested in testing DMC on their own farm under the technical support from the project.
- In partnership with Tokyo University of Agriculture and Technology (TUAT), a master student from the soil science lab of TUAT collected soil samples from soybean cropping system trial for the assessment of enzymatic activities; Soil and plant samples were collected at the Bos Khnor Station, Stung Chinit and Battambang in order to analyze the diversity of microbial communities between contrasted cropping systems (conventional plough-based management and DMC systems) and to identify contrasted trends in terms of abundance and diversity (fungi and bacteria);
- Main crops with maize, upland rice, rice-bean were established and two bachelor students from the Royal University of Agriculture are involved on such experiments;
- Project conducted extension activities in the uplands of Battambang giving support to farmer groups for the establishment and management of conservation agriculture cropping systems;

**Assess soil ecosystem services (for adaptation) and carbon storage (for mitigation)**

- Soil sampling was organized in collaboration with RUA for assessing soil ecosystem services;
- Soil samples were collected in the uplands of Battambang on the experiment conducted in the experimental site of Boribo;
- Lab analyses were conducted by the Bachelor students on the Soil Lab of RUA focusing on the quantification of labile-C pool, water-stable aggregate, and nitrate content. Soil and plants samples were also dried and stored for further analysis. In addition, team of ITC pursued plant analysis quantifying nutrients contents in plants for a range of species and mix of cover/relay crops. Moreover, a dataset is currently under progress aggregating data from the Bos Khnor Station, Stung Chinit and Battambang;
- Main cash crops as maize, rice-bean and upland rice were harvested. As a result, the yields, above ground biomass were recorded. Besides the assessment of soil ecosystem services, soil insects were recorded every week using pit-fall trap. This assessment allows to characterize the diversity of insects on the top soil and on the litter. This is an additional information and indicators of the biodiversity that is enhanced under CA cropping systems when compared with conventional plough-based management;
- A training was first organized at the Soil Lab of RUA to adjust some methods based on existing tools and capacities. Three days sampling were then organized at the Bos Khnor Station and training was conducted at the same time. A group of 8 Bsc students were trained and involved on the soil sampling;
- The biofunc tool which has been conducted is a site assessment of soil ecosystem services and the results were presented at the DCC/CCCA Knowledge sharing event. With this assessment, an article has been produced, to be submitted to an international journal;
- Producing cover/relay crops at the end of the wet season is an additional activity and income for farmers bringing also a wider plant diversity of the cropping and farming systems. On average, the increase in net income when producing seed of cover crops (we take here the example of sunnhemp which is a legume, Crotalaria juncea) ranged from $225 to $530/ha.
In 2018, the assessment of the agronomic performance of maize under no-till and conventional plough-based management highlighted the following figures: (i) higher yield (4.1 vs. 3.5 t/ha) and net income ($583 vs. $486/ha) were observed under CA, (ii) CA farmers emphasized better crop density and homogeneity and seed saving, (iii) no-till management allows a higher flexibility and the opportunity to sow relay crops after early maize faster than under a conventional plough-based management. Water absorption in the soil is twice higher with CA practices. Retention and organic content is also improved.

On the mitigation side, assessment conducted in Ratanak Mondul district (Battambang) indicates that no-till (CA) practices lead to up to 1 ton of additional carbon accumulation in the soil per year per hectare. Considering an average of +500kg/ha for the surface under maize and cassava in Battambang province alone, this is equivalent to +120,000 tons of carbon storage per year, or 312,000 tons of CO2.

Knowledge-sharing and dissemination
- Participation to the 2017 World day to combat desertification that was organized at the Royal University of Agriculture (RUA);
- For the knowledge sharing, various presentations on the results of assessment of soil ecosystem services; designing a new generation of CA-based cropping systems for rice and annual upland crops and Plant Diversity (a central element to build resilient farming systems) were conducted during the first International Conference on Agricultural Intensification and Nutrition at the Royal University of Agriculture (RUA). In addition, a field visit was organized on Jan. 12th at the Bos Khnor Station bringing together representatives from different US Universities, US mission Cambodia, Agence Française de Développement, CIRAD and representatives from MAFF/GDA;
- Project staff participated in the Regional Workshop on the Role of Mechanization in Strengthening Smallholders’ Resilience through Conservation Agriculture in Asia and the Pacific (as co-financing);
- Project conducted data analysis and writing peer review article on the assessment of soil ecosystem services for contrasted cropping systems (Bos Khnor Station, Chamcarleu district);
- Project conducted a training on Biofunctool data analysis for Msc, Bsc students and staff from the Department of Agricultural Land Resources Management;
- During reporting period, two trainings on soil quality assessment and technical brief was organized at RUA and MAFF/DALRM. As a results, these trainings brought together students from RUA (Bsc and Msc) students and team of DALRM to address issues related and improve knowledge on soil quality assessment and Soil Quality Index (Biofunctool), methodology to develop a literature review, developing technical briefs on Soil Organic C mapping, what about Soil Organic C, and assessment of Soil Organic C stock;
- Presentation on sharing lessons learnt and results of project in a Regional Forum on Agroecology Futures has been organized by the General Directorate of Agriculture (GDA) with the support from CIRAD and GRET with 260 participants from the region (Vietnam, Yunnan, Laos, Myanmar, Thailand, Cambodia).
### Engagement of private sector on seed production and mechanization for conservation agriculture

- A training at the Bos Khnor Station on seed saving and production, Soil health, and Integrated Pest Management 84 participants (50 of whom are small farmers);
- Farmers are trained and empowered to produce seeds of cover/relay crops in the uplands of Battambang for two legumes (sunnhemp, *Crotalaria ochroleuca*) and sorghum. It is expected to provide support to smallholder farmers to produce approximately 4 tons of sunnhemp.
- Seed producers established fields of *Crotalaria juncea* (sunnhemp) and *Crotalaria ochroleuca* (rattle pod) in the uplands of Battambang. It is expected to produce a total 3 tons of sunnhemp and 1 ton of *C. ochroleuca*.
  Such seed of cover crops will then be distributed to others farmers in the uplands as a green manure crops before or after maize sowing. In addition, one company (Natural Farm Kirirom) is today involved in purchasing seeds of cover crops with smallholder farmers. The team from DALRM/CASC established recently a partnership with Swisscontact, a Swiss NGO, providing expertise related to private sector engagement. Swisscontact is providing supports to NFK in terms of business plan development and marketing strategy for the purchase and sell of seeds of cover crops.
- One part of the seeds produced are kept by farmers to be used in their own farms or to be sold to others farmers from the same community. It is noted a growing interest in the use of cover crops before maize sowing with the main objective to improve the productivity and profit. Thirty five hectare of cover crops before maize have been sown by farmers in 4 main villages (Sangha, Pichangva, Borun and Ciamontrey).
- Swisscontact engaged with a local manufacturer and importer providing support to identify farmers’ demand and to build connections between manufacturers and local service providers in one hand and between service providers and farmers on the second hand. As a result, seven second-hand no-till planters (two rice, four maize and pulse crops, and one cassava planters) have been imported recently.

<table>
<thead>
<tr>
<th>5</th>
<th>Wildlife Conservation Society Partners: MOE/GIS Department and USAID SERVIR Mekong</th>
<th>Key lessons learnt:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Protected Areas / Forestry</td>
<td>- Following consultations with GDANCP and REDD+ teams, the potential of this tool to be integrated in forest monitoring has been confirmed, particularly to provide information in-between the major surveys done by GDANCP to monitor forest cover. The tool has been handed over to GDANCP/GIS department of MOE for that purpose.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capacity development of MOE GIS and GDANCP staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- The project started off with a hosted two-day training, in partnership with USAID SERVIR Mekong, on Google Earth Engine (GEE) with a total of 42 participants;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- A 10 terabyte network server for spatial data management was installed. A training session in the use of the server was also held.</td>
</tr>
</tbody>
</table>
A meeting with GDANCP was held to identify which work processes could be supported by this tool. GDANCP expressed strong interest and the final period of the project will focus on capacity development and inserting the tool in the day to day functions of GDANCP.

- Additional trainings on LOCA platform were provided for GDANCP staff in order to provide a full overview of the suite of LOCA remote sensing modules and feedbacks on the tools developed for the LOCA platform. Based on the results from an anonymous survey respondents felt that the tools are useful for both current (80%) and future (70%) work responsibilities and they also would like to see further development of these tool (70%).

**Development of a tailored tool for land use / forest cover monitoring**

- The training meetings were held at the MoE Department of GIS to discuss MoE monitoring needs;
- With a process of establishing wildlife corridor areas to connect protected areas carried out by MOE, WCS provided technical support in aerial image interpretation to the MoE staff. Moreover, monitoring requirements specific to wildlife corridors are being integrated into the overall monitoring system design;
- Many software scripts written to produce analyses and data products on the GEE infrastructure. These include: 1) Basic Imagery Export for Landsat and Sentinel; 2) Cloud-free mosaics and greenest pixel; 3) Imagery transformations into indices (NDVI, EVI etc.) and 4) Time series analysis. These are the building blocks of the overall system that is being developed;
- Project developed remote sensing data access tools, and land cover classification algorithms. The tools are intended to provide access to the advance capacity of Google Earth Engine (GEE) without requiring the end user to use computer program scripting methods previously required. This scripting requirement was identified in previous workshops and consultations with DGIS staff to be a major obstacle in using GEE;
- Project developed a refinement of satellite data selection tool for protected area landscapes, satellite image sorting and visualization tool (click through), random Forest machine learning algorithm development and Image interpretation data collection method development for trial;
- Project created public web access to the remote sensing tools and developed analytic capacity providing statistics;
- Project developed an analysis framework to view and compare deforestation rates as provided by the University of Maryland Global Forest Change dataset. Comparisons are for within projected areas and outside protected areas to provide measures of conservation success;
- Agreement was found with GDANCP to include this tool in the range of tools to be used for protected area management and forest monitoring.

---

### Key lessons learnt:

- *The high quality of the health vulnerability index was confirmed by independent review of the project;*
- *The main issue is continued updating of this index, and making sure it is used in planning health system*
WHO, and James Cook University

**Response. CCCA has been in close contact with the new WHO project on health and climate change to ensure that follow-up support is provided to achieve this mainstreaming of the tool.**

**Development of a climate vulnerability index and M&E framework for the health sector**
- Consultative meeting on development of methodology for vulnerability index, including the literature review of existing research. As a result, a final draft of literature review was developed in partnership with WHO;
- As James Cook University staff in charge of the project left, a partnership was found with MPH Dept. of Global Health/University of Washington, to support the development of an M&E framework for climate change adaptation in health;
- Project organized a consultative workshop to present and discuss on literature review findings, M&E framework developed, vulnerability index background and methodology, and choice of indicators and trial of index using province-level data;
- Two field visits were conducted to Ratanakiri Province in order to collect data against proposed indicators in the M&E framework that has been used as input for testing climate change and health vulnerability index.
- A consultation workshop to review climate change and health ‘vulnerability index’ (including indicator selection, preliminary results and application of findings was held and the final index report has been finalized. In total, 50 officials received training and participated in consultations on the index, including 14 female.

<table>
<thead>
<tr>
<th>NEXUS Partners: ITC, MOE/NCSD and PP municipality</th>
<th>Waste management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key lessons learnt:</strong></td>
<td></td>
</tr>
</tbody>
</table>
- At policy level, the strategy has been adopted by the Phnom Penh governor;  
- Implementation remains a key challenge, where involvement of larger actors will be required (e.g. development banks, public private partnerships). Governance of the waste management sector in Phnom Penh is also a challenge, as districts have the mandate but lack capacity to manage the sector.  

**Development of a waste management strategy for the city of Phnom Penh**
- The project conducted desk review of current waste management contracts/master plans, existing reports, projects, policies;  
- Best practices report (4 case studies) at local, regional or international level;  
- An inception workshop was organised with 57 attendees (13 of whom are women);  
- Signing of a trilateral MoU between PP City Hall, Nexus and project partner IGES;  
- An introductory city-level Technical Working Group meeting was conducted with 31 participants (district vice-governors and representatives of line ministries);  

---

Final Project Report- 67/85
The second Technical Working Group (TWG 2) meeting with the city-level stakeholders took place at City Hall with 35 participants;
- A Strategy Formulation Workshop (Milestone) Workshop co-organized by IGES and Nexus took place with over 95 participants. As a result, a proposed Strategy Structure was drafted;
- Two technical working group meetings on waste collection and landfill management were organised;
- Project signed a grant agreement with pilot project implementer UPWD to co-fund the implementation of community focused waste management project in 2 communities around Boeung Tompun area, Dangkor district;
- Finalizing the second draft of the Strategy document and Action Plan;
- Consultations with GGGI, CCCA and UNDP on funding sources (public, private, development funds) for the proposed strategy;
- The waste management strategy was approved by the Governor of Phnom Penh in October 2018.

Support to community level waste collection scheme
- A call for Expressions of Interest (EoI) was issued in order to collect ideas for a small-scale demonstration project. As a result, 4 proposals were received and reviewed by NEXUS and City hall’s waste management division representatives. It was found that all the proposals were very relevant.
- Nexus and City Hall chose the UPWD-PIN implemented project for 2 poor remote communities (300 households) in Meanchey and Dangkor districts of Phnom Penh suffering from lack of/insufficient waste collection, focused on waste management education on bringing waste to collection points.

8 Provincial Department of Environment in Stung Treng
Partner: BDLink
Protected Areas / Ramsar site

Key lessons learnt:
- Access to clean water came up as the major adaptation issue in the Ramsar site;
- Proposed solutions were similar to interventions in other areas, and could be best handled through MRD in the future, as part of regular WASH programming.

Capacity development of PDOE staff on vulnerability assessment
- 2-day workshop on SPSS was organised with 20 participants (11 of whom are women);
- The stakeholder engagement plan was prepared and used by the project when involving stakeholders during project implementation;
- A review of literature on vulnerability assessment tools including vulnerability index and livelihood vulnerability index was completed and a VA methodology proposed;
- Project conducted pre-test of questionnaire at the near-by village and then project collected primary data of vulnerability assessment from households in the target communes in order to construct the vulnerability index;
The data from field survey has been entered and the analysis is under way. Moreover, the existing data (Climate Data) and climate-related section (temperature and precipitation) has been drafted;
- A training on climate change and vulnerability assessment was organised with 22 participants (12 women);
- Vulnerability assessment report was finalized;

**Selection and implementation of adaptation pilots in the Ramsar site**
- Community workshop held on assessment results and identification and prioritization of adaptation options;
- Meetings at village level were organised to select the target areas for piloting adaptation options;
- Project conducted site assessment through the interviews with villagers, in particular female-headed households and local authorities.
- 200 note books with pictures and climate and gender educational statement were produced;
- 4 climate resilient wells have been constructed and are fully functional.

**Including climate change in local plans**
- Integrated climate change into the PDOE investment plan 2019-2021, and Preah Rumkil commune investment plan.
### Annex 2 – Final risk log update: June 2019

<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
<th>Date Identified</th>
<th>Type</th>
<th>Impact &amp; Probability</th>
<th>Countermeasures / Management response</th>
<th>Owner</th>
<th>Submitted, updated by</th>
<th>Last Update</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Government staff capacity is not fully available for programme implementation due to other tasks (other than CCCA) and lack of sufficient national monetary incentives. (across results)</td>
<td>15 Feb 2014</td>
<td>Operational</td>
<td>P: Medium I: Medium</td>
<td>This programme is designed with a recognition of this risk. The CCCA will fully align with national arrangements, and Government staff will be engaged in line with their official functions and TORs, to minimize extra project-related tasks. Where additional support is required, project-financed personnel will be deployed to work in twinning arrangements with government project counterparts. The Government has committed to make available sufficient Government staff for programme implementation. Non-monetary incentives will be promoted through the implementation of the Capacity Development programme that was developed in CCCA phase 1. The CCCA will also stand ready to follow the Government/Development Partner/ EU member states policy for incentive system (if re-established) and apply it as soon as available.</td>
<td>MoE/CCD</td>
<td>NPM</td>
<td>June 19</td>
<td>No change</td>
</tr>
<tr>
<td>#</td>
<td>Description</td>
<td>Date Identified</td>
<td>Type</td>
<td>Impact &amp; Probability</td>
<td>Countermeasures / Management response</td>
<td>Owner</td>
<td>Submitted, updated by</td>
<td>Last Update</td>
<td>Status</td>
</tr>
<tr>
<td>----</td>
<td>----------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>-------</td>
<td>----------------------</td>
<td>------------------------------------------------------------------------------------------------------</td>
<td>-------------</td>
<td>--------------------</td>
<td>-------------</td>
<td>--------</td>
</tr>
<tr>
<td>2</td>
<td>Cross-sector coordination and joint programming involving different ministries or agencies remains difficult and challenging for climate change mainstreaming effort (across results)</td>
<td>15 Feb 2014</td>
<td>Organisational</td>
<td>P: Medium I: Low</td>
<td>The CCCA Phase 2 will support the establishment of an effective coordination platform through strengthening of the NCCC and CCTT. It also aims to facilitate the establishment of a formal donor coordination group and it will engage pro-actively in existing Technical Working Groups. The CCCA will strengthen the role of the NCCC secretariat to enable them to facilitate regular meetings and to coordinate between ministries.</td>
<td>MoE/DCC</td>
<td>NPM</td>
<td>June 19</td>
<td>Improved. NCCC has been replaced by NCSD since May 2015, which will be the framework for new coordination mechanisms. A CC TWG is established and operational.</td>
</tr>
<tr>
<td>3</td>
<td>Limited human and technical capacity of the line ministries in coordinating climate change mainstreaming activities within their sectors (across results)</td>
<td>15 Feb 2014</td>
<td>Organisational</td>
<td>P: Medium I: Medium</td>
<td>The capacity development plan developed under the CCCA phase 1 aims to address this risk. An effective implementation of the capacity development plan needs to be rolled out to ensure that line ministries are part of the process and gain knowledge and experience related to the mainstreaming activities into their respective sectors. Line ministries have demonstrated commitment during the development of their strategies and action plans.</td>
<td>MoE/DCC</td>
<td>NPM</td>
<td>June 19</td>
<td>Capacity support was provided for priority issues. Another UNDP project (EGR) conducted a capacity assessment and produced recommendations on HR management, staff functions.</td>
</tr>
<tr>
<td>#</td>
<td>Description</td>
<td>Date Identified</td>
<td>Type</td>
<td>Impact &amp; Probability</td>
<td>Countermeasures / Management response</td>
<td>Owner</td>
<td>Submitted, updated by</td>
<td>Last Update</td>
<td>Status</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>4</td>
<td>Public finance management and regulations related to green and sustainable development remain weak, making the perspective for climate-smart investments more difficult. (Result 2)</td>
<td>15 Feb 2014</td>
<td>Regulatory</td>
<td>P: Medium I: Medium</td>
<td>The CCCA’s interventions in facilitating dialogues on potential measures and incentives are expected to raise awareness of the government to create a favourable environment for private sector investment in the climate change response.</td>
<td>MoE/DCC</td>
<td>NPM</td>
<td>June 19</td>
<td>Improving. Work has begun with MEF, CDC, MAFF, MOWRAM and MPWT on CC mainstreaming in PFM, as well as dialogue with the private sector on policies for green investments. A mapping of private sector contribution to the CC response and recommendations for PS dialogue have been produced.</td>
</tr>
<tr>
<td>5</td>
<td>Non harmonized M&amp;E systems across institutional partners compromise the coherence of a programmatic approach (Result 1)</td>
<td>15 Feb 2014</td>
<td>Organisational</td>
<td>P: High I: Medium</td>
<td>As part of the M&amp;E framework for the CCCSP, the CCCA will ensure relevant stakeholders are actively involved.</td>
<td>MoE/DCC</td>
<td>NPM</td>
<td>June 19</td>
<td>No change. Efforts are ongoing in particular with SPCR/ADB to harmonize M&amp;E as much as possible. Work on aligned sectoral M&amp;E frameworks was expanded to MAFF and MoH</td>
</tr>
<tr>
<td>6</td>
<td>Institutional changes within the MoE affect the actual institutional set-up between the CCD and the line ministries. (across results)</td>
<td>15 Feb 2014</td>
<td>Organisational</td>
<td>P: High I: Low</td>
<td>Based on consultations to date, it is expected that a clear coordination role will be defined and delegated to a single and capacitated entity with a specific mandate over Climate Change within the MoE.</td>
<td>MoE/DCC</td>
<td>NPM</td>
<td>June 19</td>
<td>Improved. NCSD’s creation has confirmed the role of DCC. However, delays in determining detailed institutional arrangements for NCSD and GSSD have impacted some project activities that involve the design of mechanisms which need to be anchored on NCSD/GSSD institutional structures.</td>
</tr>
<tr>
<td>#</td>
<td>Description</td>
<td>Date Identified</td>
<td>Type</td>
<td>Impact &amp; Probability</td>
<td>Countermeasures / Management response</td>
<td>Owner</td>
<td>Submitted, updated by</td>
<td>Last Update</td>
<td>Status</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>------</td>
<td>----------------------</td>
<td>----------------------------------------</td>
<td>-------</td>
<td>----------------------</td>
<td>-------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>7</td>
<td>The quality of MOE/CCD internal controls and fiduciary risk management capacities may decline due to management changes (across results)</td>
<td>15 Feb 2014</td>
<td>Financial</td>
<td>P: Low I: High</td>
<td>The track record under the first phase of CCCA is positive and adequate procedures are in place. Early orientations for MoE reform, as expressed by the Minister to CCCA partners, indicate that the current top management of MoE/CCD, which has led to effective management and internal controls during the first phase, will be maintained and strengthened.</td>
<td>MOE/DCC</td>
<td>NPM</td>
<td>June 19</td>
<td>This has improved following the NCSD 1st meeting in August 2016.</td>
</tr>
<tr>
<td>8</td>
<td>Evolution of exchange rate may cause to reduction of programme budget</td>
<td>March 2015</td>
<td>Financial</td>
<td>P: High I: High</td>
<td>The exchange rate from EUR and SEK to USD is down and the USD budget of CCCA is no longer realistic.</td>
<td>MOE/DCC</td>
<td>NPM</td>
<td>June 19</td>
<td>Risk is realized already. CCCA USD budget has been adjusted downwards at the 2016 PSB meeting.</td>
</tr>
</tbody>
</table>

12 2011, 2012 and 2013 CCCA Audit Reports
**Annex 3 – Supporting Documents**

**Cambodia’s Second National Communication Submitted Under the United Nations Framework Convention on Climate Change (NCSD, 2015)**

**Climate Change Action Plans**
- Climate Change Action Plan from Ministry of Environment 2016-2018 (GSSD, 2016)

**Status of Implementation of Climate Change Action Plans: Reporting Template**

**M&E of climate change response:**
- Developing a National M&E framework for Climate Change - Tracking Adaptation and Measuring Development (TAMD) in Cambodia (IIED, 2016) (Developed with technical support from CCCA-I&II)
- Climate Change Adaptation: An M&E Framework for Cambodia’s Ministry of Agriculture, Forestry, and Fisheries
- Climate Change Adaptation: An M&E Framework for Cambodia’s Ministry of Heath
  En: https://ncsd.moe.gov.kh/resources/document/cc-adaptation-me-framework-moh

**Cambodia Sustainable Development Goals (CCCA-II support focusing on the localization of CSDG13 indicators and reporting)**
- Part 1 (Reviewing Previous Results and Next Steps) and Part 2 (Target and Indicator Data Schedules)
New institutional arrangements for climate change set in place with the establishment of NCSD in 2015:

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Amendment to Art. 2 of Royal Decree:</td>
<td>Kh: <a href="http://ncsd.moe.gov.kh/resources/document/royal-decreencsd-establishmentapr-2016amendment-article2">http://ncsd.moe.gov.kh/resources/document/royal-decreencsd-establishmentapr-2016amendment-article2</a></td>
</tr>
<tr>
<td>Decision establishing CCTWG:</td>
<td>Kh: <a href="https://ncsd.moe.gov.kh/resources/document/decisioncctwg-establishmentmay%E2%80%8B%E2%80%8B-2017">https://ncsd.moe.gov.kh/resources/document/decisioncctwg-establishmentmay%E2%80%8B%E2%80%8B-2017</a></td>
</tr>
</tbody>
</table>

Cambodia’s Intended Nationally Determined Contribution (RGC, 2015)


Nationally Determined Contribution Roadmap and Stakeholder Engagement Plan (GSSD, 2019)


Guideline for Formulating National Strategic Development Plan (NSDP) 2019-2023 (MoP, 2018)


Guideline for Sectoral Strategic Development Plan Preparation (MoP, 2018)


Mid-Term Review of Cambodia Climate Change Strategic Plan (CCCA, 2019)


Rural Development Policy 2019-2023 (MRD, 2018)


Climate Public Expenditure Reviews (by fiscal year)

<table>
<thead>
<tr>
<th>Year</th>
<th>En:</th>
<th>Kh:</th>
</tr>
</thead>
</table>
Climate Change Financing Framework (ENG summary version)


Terms of Reference for Meetings between the Climate Change Technical Working Group and Development Partners


CLIMATE CHANGE RELEVANT DATA

available to the public at the climate change portal of NCSD website

The Cambodia ODA database including climate finance information can be seen at http://odacambodia.com/ngo/report/listing_by_lastupdate.asp and specific climate finance reports from the ODA database can be accessed on the climate change data portal:


Communes’ vulnerability to climate hazards based on the Vulnerability Index developed for Cambodia using data from Commune Database (MoP) can be accessed at:


Data on families affected by extreme weather effects, using also Commune Database data can be found at:


Information on Vulnerability Reduction Assessments (VRAs) is now captured in a database established in a joint effort from NCSD and NCDDS. The database will continue to be populated by both institutions as they conduct VRAs to inform their decisions on the ground. This information can be accessed at:


The level of institutional readiness for climate change response is being tracked by NCSD. Reports on the evolution of institutional capacity since 2014, measured through 5 key indicators, can be found at:


The database of GHG emission reduction projects being implemented under different mechanisms, including CDM, JCM and voluntary standards, can be accessed at:


KEY KNOWLEDGE PRODUCTS

Modelling and Report on Addressing Climate Change Impact on Growth (NCSD/MEF, 2018)


Report on Promoting Private Sector Contribution to the Climate Change Response in Cambodia (NCSD, 2016)


Research Findings on Impact of Heat Stress on Labour Productivity in the Key Sectors for Cambodia’s Economy


<table>
<thead>
<tr>
<th>Title</th>
<th>Language</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy Briefs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case Studies and Lessons Learnt from CCCA-II grants:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Process Matters - Soft Components of Programming Strongly Affect the Likelihood of Sustained Change and Replication</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Final Project Report- 77/85
Boosting the Adoption of Low-Carbon Technologies

Engaging Communities Effectively in Community-Based Disaster Risk Management

Putting the Pieces Together - the Advantages of Integrated Rural Development Programming

Better Fuel, Better Future - How Private Sector Partnership Helps Cambodia Mitigate Climate Change and Burn Less Wood

Moving Forward Cambodia's Response to Climate Change - Learning from the CCCA Grant Projects to Improve Climate Change Programming in Cambodia

Stories from Beneficiaries of CCCA-II grants:
The Story of Chour Chheng – Shaping a Climate-Smarter Business

The Story of Chheang Yengsreylen – Making Our School and Society Greener and Climate-Smart

The Story of Noch Saroeun – Safe and Cheap Drinking Water, Harder and Harder to Find in Drought-Prone Areas

The Story of Soy Soknang – Accessing Electricity In A Remote Health Center, A Complete Game Changer

The Stories of Sem Sarem and Than Sophat – Living a Better and More Climate-Resilient Life Next to the Mekong River

The Story of Hor Sophal – Starting off a Chicken Business

Knowledge-Sharing Events and Conferences:
Learning Event for CC Technical Team and Practitioners - Proceedings

Sharing Experiences on the Design of CCCSP/CCAPs Actions - Learning Event
En: https://ncsd.moe.gov.kh/resources/document/sharing-experiences-design-cccspccaps-actions-learning-event-proceedings

Cambodia's Response to Climate Change - Knowledge-sharing Event Proceedings
### KEY COMMUNICATION PRODUCTS

CCCA2 communication products have helped disseminate CC knowledge – including knowledge generated with support from CCCA2 and seminal CC policy documents – to the different target audiences as prioritized in its Communication Strategy. Some of the key CCCA2 communication products that can be found on the NCSD/CC website are indicated below.

<table>
<thead>
<tr>
<th>Product Title</th>
<th>En:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate Change Newsletters</td>
<td><a href="https://ncsd.moe.gov.kh/resources?q=newsletters&amp;idx=resource_type&amp;p=0">https://ncsd.moe.gov.kh/resources?q=newsletters&amp;idx=resource_type&amp;p=0</a></td>
</tr>
</tbody>
</table>
Cambodia’s National M&E framework for Climate Change - Brief

Understanding Public Perception of Climate Change in Cambodia - KAP2 Brief

Video on Climate Change Knowledge, Attitudes and Practices (KAP 2 Study)
Kh: https://www.youtube.com/watch?v=55osJ0etUEw&t=10s
En: https://www.youtube.com/watch?v=RVprJ3l58Re

Ways to Adapt to Climate Change – Poster to assist local planning

TV and radio campaigns
The talk shows (8), video features (11), and quick shows (2) have been produced by MoInfo and broadcasted on National Television of Cambodia and on Radio National Kampuchea via FM 105.75 and AM 918, reaching an estimated 40% of the population.
https://www.youtube.com/channel/UCH_djn3-z4pfq0lqRJXedLp/videos

Talk show productions:
1. Efforts of the Royal Government of Cambodia in responding to climate change
2. The Development of Low Carbon Emission, Climate Change Solutions at Community Level
3. Climate Smart Agriculture
4. Addressing El Nino
5. Biomass for Sustainable Energy
6. Climate Change Proofing Infrastructure
7. Resilient Housing
8. Private sector’s Contribution to Climate Change
9. Climate Change integration in education and research
10. Cambodia’s climate change negotiation strategy on the international

Video features:
1. Climate and water data collection experience in Oddar Meanchey
2. Climate Change Resilient Roads
3. Climate Smart Agriculture
4. Solar energy
5. Forestry and REDD+
6. Medium scaled bio-digester
7. Solar power pumping systems
8. Climate change integration at sub-national level

Quiz games on climate change

CCCA-2 PROGRAMME EVALUATION REPORTS
CCCA 2 Mid-Term Evaluation

CCCA 2 Final Evaluation
En: https://erc.undp.org/evaluation/evaluations/detail/10006
### Annex 4 – Response to Final Evaluation

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCCA and CCD should implement targeted measures to finalize line ministries’ commitments to climate change mainstreaming in government programmes.</td>
<td>Accepted and already incorporated in Phase 3 design. CCCA Phase 3 will deepen CC mainstreaming in 5 priority ministries.</td>
</tr>
<tr>
<td>CCCA and CCD should fully monitor and report on, in the programme completion report, the results of the project activities at integrating climate change into the pilot communes and assess the effectiveness and lessons for subnational climate change action building upon other previous work on local government climate change mainstreaming in Cambodia.</td>
<td>Accepted, included in the final project report.</td>
</tr>
<tr>
<td>CCCA should develop and apply a method to assess the leadership, capability and sustainability of water and energy user groups that have been established in the CCCA Grant projects, drawing upon available standards and guidelines for sustainable community-based facilities management.</td>
<td>Accepted and already included in the issues under review by the consultancy on lessons learned from CCCA grants (May 2019).</td>
</tr>
<tr>
<td>CCCA Grant project agencies that have promoted selected technologies should be required to determine the level of adoption of the technologies, the necessary conditions for adoption, or reasons for rejection by the targeted user group/beneficiaries and the specific factors that influence the technology uptake and potential replication.</td>
<td>Already implemented. This is part of the final project report requirements and will also be a focus of the knowledge event organized on 28-29 May 2019.</td>
</tr>
<tr>
<td>CCCA should collaborate with UNIDO or other mitigation expert organisations on a review of government and private sector programmes involved with energy management in selected industrial sectors, drawing on the experiences and recommendations from the CCCA-II projects and the recent GEF industrial energy efficiency project in Cambodia.</td>
<td>UNIDO was consulted and included as an advisor for the CCCA project with MIH on clean production. Lessons learnt from the CCCA project will be communicated to UNIDO as MIH is not a priority ministry for Phase 3.</td>
</tr>
<tr>
<td>The Cambodia National Biogas Programme (NBP) should develop a business partnership with appropriate livestock supply companies to expand pig farm biogas technology with modern livestock management systems, particularly in areas where water quality improvements are needed near farm operations.</td>
<td>This recommendation applies to NBP not CCCA. It will be communicated with NBP. They already have a partnership with one large livestock supplier.</td>
</tr>
<tr>
<td>CCCA should adopt quality standards for project reporting and case studies and enhance capacity of grantees and CCD staff for concise, objective description of key results and useful evidence emerging from CCCA projects.</td>
<td>Closed. This is already done for standards, the issue is staff capacity. CCCA will provide additional training/mentoring on this under Phase 3.</td>
</tr>
<tr>
<td>CCCA, NCDD and CRDB should develop a practical decision support tool and related dashboard to assist local government staff in analyzing climate-resilient infrastructure options, drawing upon the extensive climate change project databases in Cambodia.</td>
<td>Noted but this is best done by NCDD-S through their climate change projects, with technical support from NCSD/CCCA as needed. CCCA will share this recommendation with NCDD-S for consideration.</td>
</tr>
<tr>
<td>CCCA and DCC should strengthen MOE’s strategic focus on ecosystem-based adaptation in their primary role to maintain the protected area system at the local level.</td>
<td>Accepted. This focus will be taken into account for cooperation with MoE under Phase 3</td>
</tr>
<tr>
<td>CCCA should develop a programme-wide Gender Action Plan that addresses measurable cross-cutting objectives and results from the multiple projects that are funded.</td>
<td>Accepted and implemented. Gender action plan requirement included in Phase 3 project document.</td>
</tr>
<tr>
<td>CCCA and UNDP should develop a CCCA-III M&amp;E Plan that includes external evaluation of projects by sector on an annual basis.</td>
<td>Accepted. Points 2 and 3 already incorporated in Phase 3 design. The first phase includes...</td>
</tr>
</tbody>
</table>
basis, appointing a designated M&E Officer, and ensuring that the CCCA-III Results Framework has well-defined, measurable outcomes and reliable, pre-tested indicators. | point is noted and CCCA grants under Phase 3 will be evaluated in a cross-cutting manner instead of grant-specific evaluations.

| CCCA should increase the monitoring and reporting on government, private sector and beneficiary contributions to the programme results. | Accepted and integrated in the results framework (indicators 3.3.3 and 3.1.1) |