



Draft Proceeding On
EXPERIENCE-SHARING WORKSHOP ON CLIMATE CHANGE PROJECTS
Khemara 1 Hotel, Battambang, 20-21 June 2018



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INTRODUCTION

Cambodia Climate Change Alliance (CCCA) is funded by European Union (EU), United Nations Development Programme (UNDP) and Swedish Embassy. CCCA is implemented by the Department of Climate Change (DCC), General Secretariat of the National Council for Sustainable Development (GSSD) to strengthen national systems and capacities to support the implementation and coordination of Cambodia's climate change responses, contributing to the CCCSP vision.

At present, fourteen government agencies have received support from DCC/CCCA for the implementation of priority actions under their Climate Change Action Plans. These projects are now at different stages of implementation: 8 started towards the end of 2015, 6 have started at the beginning of 2017, and two of these projects have already reached completion.

In addition, 8 governmental and non-governmental organizations have received grants in 2016 for innovation and research projects focused on climate change priorities.

Considering that all CCCA projects are now well into the implementation phase, this event will put a major focus on sharing lessons from the demonstrations activities. It will also provide an opportunity to follow-up on the strategies identified at the June 2017 event to ensure sustainability, scale-up successful approaches, and achieve policy impact.

For this purpose, this event will bring together practitioners who have been directly involved in the implementation of the projects and climate change focal points from the concerned ministries and agencies in order to share knowledge and explore opportunities resulting from implementation of CCCA grant projects.

MAIN OBJECTIVES

The main objective of the learning event is to take stock of the achievements of CCCA grant projects and to identify any needs for support to maximize projects' impacts in the final phase of implementation.

More specifically, this learning event aims to:

- Identify successes and lessons learnt now that the projects are at an advanced stage of implementation;
- Follow-up on the opportunities and strategies identified in 2017 for sustainability and scaling-up;
- Building on recommendations from previous knowledge events, identify opportunities for collaboration or more in-depth experience sharing between specific projects;
- Share best practices and/or areas where financial management standards and guidance are required to improve implementation.

APPROACH

In line with the objectives of the workshop, the overall approach is to promote active participation and knowledge-sharing. Formal presentations will be kept to a minimum, and most of the sessions will be dedicated to guided group discussions between practitioners, on selected

topics, followed by discussions in plenary. Key messages and lessons learnt will be systematically identified and recorded.

OPENING SESSION

Welcome remarks were given by Mr. Julien Chevillard, CCCA/UNDP Trust Administrator to the participants from Climate Change Technical Working Group (CCTWG), CCCA's grantees from window 3 and window 2 (line ministries, academy and NGOs) and development partners.

He expressed that climate change needs to be integrated into sector ministries policy and strategic for next national strategic development plan 2019-2023. It is opportunity to mobilize the domestic and external resource to support line ministries' strategy and project in next government mandate. He also reminded participants particularly grantees to review and revise existing research agenda that has been agreed during last year event at Siem Reap Province.

In his final remark, he called for participants' attention in group works to provide inputs and experience follow the question that is facilitated by CCCA staff.

On behalf of H.E Tin Ponlok, Secretary General of NCSD, and on behalf of H.E Say Samal, Minister of Environment and Chairman of NCSD, Mr. Sum Thy, Director of Climate Change, delivered opening speech. He thanked participants for attention and actively engage. He reminded that two events per year to share experiences and knowledge among grantees. It is important to build relationship and partnership among grantees for future cooperation.

He highlighted the key achievement of CCCA as following: i) established new institution "National Council for Sustainable Development-NCSD" that was combined four inter-ministries committees on climate change, biodiversity, bio-safety, and green growth; ii) under coordination of DCC, climate change action plan and strategic plan was developed and adopted by 14 line ministries and required funding amount over USD 800 million; iii) Incorporated with Ministry of Planning (MoP), DCC developed M&E framework on climate change; and iv) In cooperate and supported by GIZ, conducted a research on NAP financing framework to identify the financing gaps for climate change action plan and strategic plan.

He also informed participants on effort of CCCA and DCC to mobilized international and domestic fund to support the implementation of Cambodia NDC/UNFCCC. He emphasized that that is great opportunity for line ministries to integrate climate change into sector strategic development plan 2019-2023 and CSDGs.

In the final speech, he thankful to CCCA donors (UNDP, EU and Sweden) to support CCCA activities and grantees. He informed that CCCA phase II is going to completed by end of June 2019. Currently, CCCA III expected to be continuous in July 2019.

Agenda of workshop, Mr. Ung Soeun, Coordination Officer, CCCA provided a workshop overview, and logistic arrangement. He informed participants on the main objective, expected output, number of participants and agenda items (as attached agenda item in annex).

SESSION I: IDENTIFICATION OF BEST PRACTICES AND LESSONS LEARNT TO DATE

The session focused on identifying lessons on specific adaptation techniques and measures that have been piloted by the grant projects. **Mr. Julien Chevillard** provided a guidance for group discussion, designated group facilitators and approach. He divided into five groups to discuss on specific thematic as following:

Group#	Thematic Area	Facilitators
1	Agriculture and/or irrigation	Mr. Yem Sokha
2	Water, sanitation and health	Mr. Ung Soeun
3	Education and awareness raising,	Mr. Va Vuthy
4	Renewable energy and energy efficiency,	Mr. Nun Sophanna
5	Eco-system base approach, Livelihood, forestry and disaster management	Mr. Lim Veng

He explained that results of each group discussion will be summarized to put into the flip chart and reporting template as follows:

- Best Practices and Successful Experiences
- Challenges and unsuccessful approaches
- Lessons learnt
- Recommendation

Each group need to answer key guidance questions as below:

- *What project key achievements/results have been produced so far?*
- *What were the key challenges in implementing project and ensuring effective implementation of adaptation and mitigation actions? How do you address those key challenges?*
- *Based on the pilot activities carried out, are there examples of adaptation and mitigation measures and techniques that have a good potential? What are specific adaptation or mitigation techniques successful in reducing vulnerability and/or reducing GHG?*
- *Are there any approaches that did not work and should be avoided in the future?*
- *What are the key best practices and lessons learned from project implementation?*
- *What were the key challenges in implementing and ensuring sustainability of adaptation and mitigation actions? How do you address those key challenges?*
- *What are recommendations for future action?*

He also invited participants to visit project posters that was displayed at outside meeting room. All participants should have a question to focal points of each poster.

SUMMARY KEY RESULT OF EACH GROUP DISCUSSION IN SESSION I

Group#	Thematic/Sector	Best Practices and Successful Experiences	Challenges and unsuccessful approaches	Lessons learnt	Recommendation
1	Agriculture and/or irrigation	<ul style="list-style-type: none"> - Installed solar power system for pumping fresh water; - Integrated farming system (model cycle farm); - Established agriculture cooperative; - Vulnerability assessment, demonstration tool, - Case study on installation of drip system for garlic leaf at Kraing Yov commune, Saang District, Kandal; - 9 model smart agriculture (3 projects in 3 provinces) <ul style="list-style-type: none"> • <i>Agro-clinic</i> • <i>Demo drip irrigation</i> • <i>Chicken raising</i> 	<ul style="list-style-type: none"> - MAFF: limited water availability in Kandal, K. Cham, - Access to market (island in Kratie: Koh Dambang) - Farmer grow mono-crop - Lack of labor forces; - Farmers doesn't follow crop calendar. 	<ul style="list-style-type: none"> - FWUG is accredited by MOWRAM - Crop rotation is CC adaptive measure; - Farmers were accepted new climate approach by using cover crop after dissemination roll out - After training at schools, students applied at home. 	<ul style="list-style-type: none"> - Up scaling the success of projects by disseminating the best practices to other locations - Sharing the collected data and analysed results among stakeholders - Exchange demonstration farmers in different location. - Create production group and encourage direct exchange between farmers and middle man

Group#	Thematic/Sector	Best Practices and Successful Experiences	Challenges and unsuccessful approaches	Lessons learnt	Recommendation
		<ul style="list-style-type: none"> - Establishment of Project Steering Committee; - Vulnerability assessment: health, agriculture, food, social network; - Home garden arrangement in 10 high schools in 4 provinces (training and practices) - Farm garden, composting, (training at school and practice in their community) - Soil improvement in Kg. Cham, BTB, K. Thom by applying cover cop; - Forming Farmer Water User Group (FWUG) in Chong Kal, OMC - Monitoring equipment: weather station, and water level 			

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		<ul style="list-style-type: none"> - Monitoring the vector and water bone diseases (4 province: SR, BMC, Kandal, Kg.Cham) 			
2	Water, sanitation and health	<ul style="list-style-type: none"> - Access to safe water, safe food, before, during, and after disaster (drought, flood, heat wave), by using Chloramine in water; - public awareness on safe water, and food demonstration, posters/leaflets - Public awareness raising on safe water before, during and after disaster, flood proofing well and Latrine demonstration - Installed Giant Tanks for irrigation (cropping, livestock, cooking) by using Solar water pump. 	<ul style="list-style-type: none"> - Poverty driven, people did not interested on health, safe water. They are more focused on their income generation than sanitation/safe water, careless of people. - Most of rain water harvest at school has been broken without maintenance (project can offer new one). - Two of four sites selected for project targeting could not apply for rain water harvesting because of not available ground water sources and Arsenic contaminated. 	<ul style="list-style-type: none"> - Most of rain water harvest and latrine at schools has been broken without maintenance (project can offer new one). - Poverty driven and migration (working with poor household is very difficult). - Solar water pumping: establish water user group and hand over it to Commune Council for managing those projects (increase ownership). 	<ul style="list-style-type: none"> - Project formulation process must be fully consultation and sufficient data support; - Cooperate with MoEYS to allocation national budget for maintenance school facilities; - Integrated water and sanitation in new NSDP 2019-2023 and sector strategic plan; - Increase budget for support rural water and sanitation; - Guideline for safe water management related to climate

Group#	Thematic/Sector	Best Practices and Successful Experiences	Challenges and unsuccessful approaches	Lessons learnt	Recommendation
					<p>change and disaster;</p> <ul style="list-style-type: none"> - Sharing data of water borne and victor borne diseases for NCDM's Camdi-database. - Scaling up project related to solar power water supply system to remote area.
3	Education and awareness raising,	<ul style="list-style-type: none"> - Vulnerability map, but it is hard to apply and understandable. It does not upload to web yet; - Guideline on climate change resilient infrastructures, e.g. rural road, wells, but no testing this new guideline; - Network and awareness raising on climate change at communities; - Pilot, 8 wells (combined well), rain harvesting; 	<ul style="list-style-type: none"> - Opening project bank account, (MOE and MIH); - Project proposal has been formulated by consultant, but the implementation is other staff from govt. It is difficult to understand the approach of project. - Project staff (gov't) switching/moving to other departments - Travelling to the project sites at remote area with dangerous road; - Alignment of implementation with partners' work plan. 	<ul style="list-style-type: none"> - Being flexible in implementing the project activities; - Strong ownership because MRD actively involved since the project formulation until implementation. - Provide solar to schools which are very helpful to the remote schools (electricity supply); - Understand the real needs/issues of communities. - Improve communications skill of MoInfo 	<ul style="list-style-type: none"> - Provide supplement (salary/incentive) to the gov't counterparts - Ask partners to have joint proposal development, implementation schedule and budget - Build trust in cooperation between DP and government - CCCA to create a roaster of experts both consultant

Group#	Thematic/Sector	Best Practices and Successful Experiences	Challenges and unsuccessful approaches	Lessons learnt	Recommendation
		<ul style="list-style-type: none"> - Capacity building to MoInfo (private, public journalists and media broadcasters); - Awareness raising, i.e. Round table discussion, video features - To raise awareness on the agriculture and livestock that adopt to CC for community - Produce CC and Gender mainstreaming guideline for schools - Training to schools and provided equipment; - Pilot eco-schools (10 schools) - Develop CC textbook for grad 10 to 12; - Mainstreaming to national general education curriculum; - System for GHG inventory (drafted) - Guideline for cleaner productions (drafted) - Pilot Eco-school, 5 schools; 	<ul style="list-style-type: none"> - Busy schedule of project staff from government because they don't get incentive/salary - Difficult to hire consultants and local contractors because the CC topic is new 	<ul style="list-style-type: none"> - Partnership with private sector; - Good cooperation with partnership, - We need to have clear TOR with NGOs partner. - Good cooperation between MOWA with MOEYS because there is a MOU. 	<ul style="list-style-type: none"> - and local contractor. - Improve CCCA knowledge sharing amongst grantees.

Group#	Thematic/Sector	Best Practices and Successful Experiences	Challenges and unsuccessful approaches	Lessons learnt	Recommendation
		<ul style="list-style-type: none"> - Pilot E-bikes for MoE department - Public awareness, media 			
4	Renewable energy and energy efficiency,	<ul style="list-style-type: none"> - Medium size bio digesters are successful implemented in pig farm for energy , fertilizer and environment improvement. - Use of WAB for wood substitutions is possible and potential - Strategy on solid waste & damp site management is a good start for waste management. - Solar energy is clean and resourceful in Cambodia - Green hotel leads resources & energy saving and solid waste management and Awareness raising - Solar (no battery) for irrigation - Awareness is necessary for 	<ul style="list-style-type: none"> - Available of technologies in local market - High upfront investment cost - Availability of database - Cheap price and availability of wood - Lack of resources (consultant oriented approach) - Coordination among stakeholders - Limited availability of solar irradiation - Quality of battery - Expensive technology - Lack of participation and awareness of stakeholders - Updated database of industry or SME - Lack of technical knowledge and expertise 	<ul style="list-style-type: none"> - Size of budget needs to be increased - Awareness of climate issue and add into budget planning - WAB can used instead of wood for energy generation - Medium bio-digesters can produce energy, save GHG, make fertilizer and improve the environment 	<ul style="list-style-type: none"> - W2E is possible should be promoted. - Forest wood tax or certification scheme should be developed - Waste segregation and composting are great potential for city waste management leading to GHG saving and fertilizer production - Integrate CC best practices in NSDP or ministerial plan - More support to complete the cycle of project (value chain) - Participation from private is

Group#	Thematic/Sector	Best Practices and Successful Experiences	Challenges and unsuccessful approaches	Lessons learnt	Recommendation
		participation and success			necessary to ensure success
5	Eco-system base approach, Livelihood, forestry and disaster management	<ul style="list-style-type: none"> - Appropriate Price Housing Projects; - Installed safety water and pond; - Strengthening health Officials on public health protection during disaster; - Water data management system; - Trained green community - Established remote sensing for monitoring forest cover 	<ul style="list-style-type: none"> - Difficult to find construction material and equipment at project location including technician and engineer - Limited women participation - Limited cooperation among project beneficiaries - lack of electricity supply in project target - Topological mapping 	<ul style="list-style-type: none"> - Construction site - Community contribution and participation - Caritas Cambodia's support CC adaptation and resilience - Successful project at Prey Veng and Bantay Mean Chey; - Strongly support from national government leaders and sub national government; - Disaster/vulnerable mapping - Involved from stakeholders in project implementation. 	<ul style="list-style-type: none"> - Technical framework preparation; - Trained to community technician ; - Oriented climate change to engineering and construction designers; - Training to women in health sector; - Expend construction which included DPs and private sector; - Completed technical equipment; - Strengthening green community capacity

SESSION II: STRATEGIES TO SUSTAIN AND SCALE-UP SUCCESSFUL APPROACHES

In this session, each group requires to use the 2017 event recommendations as a basis, grantees need to reflect on progress made to implement these recommendations, and to update their strategies if needed to ensure the sustainability of their approach, replicate and scale up (with public investment or private sector approach), and influence public policies. Grantees will also be asked to update their needs for research or partnerships.

Following guidance of Mr. Julien Chevillard, it was divided into five groups to discuss on the same sector /thematic (follow session I) as following:

Group#	Thematic Area	Facilitators
1	Agriculture and/or irrigation	Mr. Yem Sokha
2	Water, sanitation and health	Mr. Ung Soeun
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4	Renewable energy and energy efficiency,	Mr. Nun Sophanna
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The results of each group discussion was summarized to put into the flip chart and reporting template as follows:

- Sustainability strategies that need to be updated/changed from last year (explain why/ challenges)
- Key cases of progress made towards sustainability and scaling-up
- Research needs

Key reflection areas/questions:

- *Please review the previous list of sustainable strategies for your project in 2017 (as provided) to see whether they are still valid or there are any needs for updates on the list of sustainable strategies. If any changes are needed, explain what challenges you faced and why you need to change your approach;*
- *Share examples of successful strategies from your project to attract public investment funds (government or donor investment funds) to support your successful approaches? What challenges do you face?*
- *Share examples of successful strategies from your project to attract private investment funds (community or private sector) to support your approaches? What challenges do you face? Is there evidence of uptake/up-scaling by communities and local institutions of techniques demonstrated?*
- *What are the recommendations for future action?*
- *Please review the previous list of research needs or partnership in 2017 (as provided) to see whether there are any needs for updates on the list of research needs or partnership.*

SUMMARY KEY RESULT OF GROUP DISCUSSION IN SESSION II

Group#	Thematic Area	Sustainability strategies that need to be updated/changed from last year	Challenges/Solutions	Key cases of progress made towards sustainability and scaling-up	Research needs
1	Agriculture and/or irrigation	<p>Public Fund</p> <ul style="list-style-type: none"> - MAFF: Organize more farmer visits to other targeted provinces or similar project or under the same CCCA funded project or different DP; - MAFF: Strengthening the knowledge of the owner of agro-clinic in order to provide proper advice and solution to famers (insect, pest, fertilizer,). - GDA: support farmers to produce cover crop seed - MOWRAM: the technical officers at PDoWRAM are capable in collecting and maintain the hydro-meteorological equipment <p>Private Fund</p> <ul style="list-style-type: none"> - MOWRAM: the irrigation canal has been transferred to water farmer user group (FWUG) in Chong Kal. - CRDT: Increasing potential of agricultural market 	<p>Public Fund</p> <ul style="list-style-type: none"> - MAFF: PDAFF in the target site should adopt the successful practices from IR-CSA project to other project which grant from other donor (Aspire, Padee...etc). - GDA: farmer has limited capacity in producing cover crop seed and lack of skillful officers to facilitate farmers. Need more capacity building both farmer and staffs. - MOWRAM: the monitoring equipment get broken and the spare-part are not available. Thus, the project should maintain reserved spare part 	<ul style="list-style-type: none"> - MOWRAM: MOWRAM has increased monitoring station to other provinces. The collected data should share with relevant data users - PDE-Stung Treng: apply the approach to other communes in Ramsar site - CRDT: integrate the project approach into commune development plan - MAFF/GDA: Cooperate with PDAFF to disseminate technology to other farmers. 	<p>MOWRAM: Increase the research sites on water availability for sustainable use including groundwater reserve and recharge</p>

Group#	Thematic Area	Sustainability strategies that need to be updated/changed from last year	Challenges/Solutions	Key cases of progress made towards sustainability and scaling-up	Research needs
		<ul style="list-style-type: none"> - PDE-Steung Treng: constructed 4 drilling in Ramsar site for M&E and training 	<p>during the course of project.</p> <p>Private Fund</p> <ul style="list-style-type: none"> - MOWRAM: FWUG has to collected membership fee for maintain their canals - CRDT: Establish more agriculture cooperative and mobilize them to invest for agriculture business. Collaborate with relevant authorities in Kratie Province to promote the agriculture fair more often. - PDE-Steung Treng: FWUG needed to be created and the wells can be sustainably maintained through their membership fee. 		
2	Water, sanitation and health	<p>Public Fund</p> <ul style="list-style-type: none"> - MPWT: MPWT: integrate climate change into MPWT 	<p>Public Fund</p> <ul style="list-style-type: none"> - MPWT: lack of policy/strategic in MPWT. Need to be 	<ul style="list-style-type: none"> - MoH: Trained on victor and water born disease to medical staff, and physician. 	<ul style="list-style-type: none"> - MoH: Climate change, health, and vulnerability

Group#	Thematic Area	Sustainability strategies that need to be updated/changed from last year	Challenges/Solutions	Key cases of progress made towards sustainability and scaling-up	Research needs
		<p>policy and strategic plan 2019-2023, BSP, as well as PIP. Updated CCAPs for Transport sector.</p> <ul style="list-style-type: none"> - MoH: Integrated health impact of climate change into graduated /university curriculum - MoH: Trains the planning staff to integrate the cc in the national budget plan. - MoH: Awareness to general public on victor and water born disease which is caused by climate change. - MRD: Upgrade scoping of MRD vulnerable mapping to be regional and national wide. - MRD: Update and testify the guideline for climate resilience for rural road and water and sanitation. - MRD: Develop climate change adaptation manual for rural development practitioners. 	<p>drafted and high commitment of MPWT Senior Minister.</p> <ul style="list-style-type: none"> - MoH Challenges: Political wills of MoH leaderships on CC integration. - MoH Solution: Need to be update every 3 years of education curriculum system in Cambodia. - MoH: Rely on gov't/DPs fund to support this activities - MRD: Need technical and financial support (developer and operator). Ensure the data are consistence and align with all stakeholders. - MRD: Rely on Inputs from external expertise and do not applicable. As solution, ministry need to take a led the guideline formulation 	<ul style="list-style-type: none"> - MPWT: Draft public and transport policy and strategic plan which is integrated low carbon emission and sustainable transport. - MRD: Finalized vulnerable mapping in Kg Thom. - MRD: Piloting climate adaptive home gardening 	<p>assessment (new)</p> <ul style="list-style-type: none"> - MRD: Rural community adaptation need assessment (coastal, upland, central plain) - MRD: Adoptive technology for Water and San and Home Gardening

Group#	Thematic Area	Sustainability strategies that need to be updated/changed from last year	Challenges/Solutions	Key cases of progress made towards sustainability and scaling-up	Research needs
		<ul style="list-style-type: none"> - MPWT: Development partners/fund 	<ul style="list-style-type: none"> - process with funding support from DPs. - MRD: Not yet develop CCA manual for rural sectors. 		
3	Education and awareness raising,	<p>Public Fund</p> <ul style="list-style-type: none"> - MOEYS: Issue a policy guidance on how to implement the national eco-school guideline. - MoEYS: Integrate the CC into the national curriculum - MOWA: Now working with the UN-Women - Monfo: Expand the training to provincial staff - Moinfo: Continue to broadcast (periodically) <p>MOE</p> <ul style="list-style-type: none"> - Cost-benefit analysis of E-bike and the survey market potential on E-bike - GHG emission e-bike compared to conventional motorcycle - Issue policy recommendation to promote e-bike 	<p>Public Fund</p> <ul style="list-style-type: none"> - Need high school teacher with a right knowledge/skill to teach CC and eco-school. - Re-train the teachers, TOT - Cooperate between MOE and MOEYS to promote the eco-school. - Establish a comment to mobilize fund to promote Eco-school - No follow-up the eco-schools - There are 24 provinces, difficult to follow-up with them. 	<ul style="list-style-type: none"> - Mainstreaming to eco-school concept into the national education system - Set priority actions to promote CC in the ministry strategic plan, budget plan, and the next NSDP. 	<ul style="list-style-type: none"> - Assessment the impact of CC on gender and establish a database on CC impact on gender - CC impact on the education sector, e.g. how many schools are affected by flood. - Cost-benefit analysis on e-bike compared with conventional motorcycle

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		<p>Private Fund MOEYS</p> <ul style="list-style-type: none"> School could mobilize resource from private/individuals to support the eco-school implementation. <p>MOE</p> <ul style="list-style-type: none"> Try to obtain the fund from National Environmental Fund (?) 	<p>Private Fund</p> <ul style="list-style-type: none"> A School in Kampot has asked support from local firms and former students Need to understand the national environmental fund 		
4	Renewable energy and energy efficiency,	<p>Private Fund</p> <ul style="list-style-type: none"> Use the private solar system suppliers. Engage the power production license holders to adopt technology for electricity generation 	<p>Challenges</p> <ul style="list-style-type: none"> Lack of after sale service Lack investment from HH <p>Solutions</p> <ul style="list-style-type: none"> Capacity building for local electrical repair shops. Establish common after sale services Subsidy from government <p>Challenges</p> <ul style="list-style-type: none"> Constrain on legal framework especially solar regulation 	<ul style="list-style-type: none"> Use the private solar system suppliers. Engage the power production license to adopt technology for electricity generation Solar suppliers are already there in the fields as business as usual Use of EDC and other donor fund to scale up the use of standalone solar for house hold. EDC has already mobilized fund for REF every year. Integrate activities into Ministerial plan, NSDP and NDC 	<ul style="list-style-type: none"> Use of roof top for solar power system Vs ground mounted system research Offshore wind potential of Cambodia

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		<p>Public Fund</p> <ul style="list-style-type: none"> - Use of EDC and other donor fund to scale up the use of standalone solar for house hold. - Integrate activities into Ministerial budget plan, NSDP and NDC - 	<ul style="list-style-type: none"> - Grid capacity adsorption solar energy is still limited. - Maximum load is at night <p>Solutions</p> <ul style="list-style-type: none"> - Revise solar regulation - Use of storage technology 	<ul style="list-style-type: none"> - Already integrated into NDC and ministerial budget plan - Capacity building of local resources - Develop standard construction guideline and standard operating procedure. - Soft loan - Attract private fund - Conduct market survey of system demand in national level. - Develop awareness raising materials (Leaflet, video, case study) - Increase dissemination workshop - Establish private company to offer the service. - Develop awareness raising materials (Leaflet, video, case study) - Integrate the activities into ministerial plan - Divide the activities into small action 	

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5	Eco-system base approach, Livelihood, forestry and disaster management	<p>Private Fund</p> <ul style="list-style-type: none"> - MLMUPC: Affordable houses which people can be built by their own money <p>GERES</p> <ul style="list-style-type: none"> - Market approach <ul style="list-style-type: none"> - <i>Analyze future market trend (5-10yrs) e.g. raw material availability, energy price, new technology,</i> - <i>Build up technical pilots with minimal support e.g. showcasing to convince Bricquet for garment factories technical feasible and financial profitable</i> - <i>Awareness raising:</i> <p>Public Fund</p> <p>WCS</p> <ul style="list-style-type: none"> - On-going and series of training to the department of inspectorate and law enforcement, staff and provincial DOEs - Monitor the needs of MOE staff - Develop the manual for using the tool 	<ul style="list-style-type: none"> - Limited knowledge on climate change/limited budget - Build up technical pilot, need more technical expertise to demonstrate technical and economic feasibilities. - Awareness raising about illegal and unsustainable woods for garment factories - Data/information for developing guidelines/handbook (working with stakeholders)/limited budget for publication - Lack of participation/limited knowledge (contractors in the communities) - No budget for awareness raising activities - Coordination 	<p>MLMUPC project</p> <ul style="list-style-type: none"> • Drafting guidelines and handbook • Plan of model houses approved by Senior Minister to apply national wide <p>GERES</p> <ul style="list-style-type: none"> - Financial/technical support from international brand (H&M) - Pilot project with one garment factory (using rice husk briquette) and rice miller (producing rice husk briquette) - On-site testing (demonstrate technical and economic feasibility) <p>NCDM</p> <ul style="list-style-type: none"> - Completed - Replicate this project to provinces/communities (financial support from development partners/donors) <p>MOT</p> <ul style="list-style-type: none"> - Training workshop to community members (Peam Krasoap, Koh Kong) 	19- Research on construction materials that can be adapted to climate change impact (bamboo reinforcement concrete, and reinforcement soil for floor and wall and roof)

Group#	Thematic Area	Sustainability strategies that need to be updated/changed from last year	Challenges/Solutions	Key cases of progress made towards sustainability and scaling-up	Research needs
		<p>MLMUPC (Kratie, Tbong K'hum, PS)</p> <ul style="list-style-type: none"> - Develop guidelines and handbook for distribution - Training to district housing officers and constructors how to build resilient house - District housing officers can be supported and awareness to community. <p>Public Fund NCDM – Kampot and and Keb</p> <ul style="list-style-type: none"> - Transfer and handover two Safe Water Stations to commune council to take ownership - Community Pond handover to commune - Integrate community planning for DRR and CCA to CIP/CDP plan - Ensure that DRR and CCA should be common principle to apply all projects related to climate change 	<ul style="list-style-type: none"> - Limited resources - Lack of collaboration from private sector (hotel) - Limited budget. 	<p>Nexus</p> <ul style="list-style-type: none"> - Waste Management Strategy and Action Plan 2018-2035 developed and submitted to PPCA. 	

Group#	Thematic Area	Sustainability strategies that need to be updated/changed from last year	Challenges/Solutions	Key cases of progress made towards sustainability and scaling-up	Research needs
		<ul style="list-style-type: none"> - MOE shall coordinate with MEF to allocate cc fund for line ministries who request climate change proofing in their sector - Replicate this project to provinces/communities (financial support from development partners/donors) <p>Nexus</p> <ul style="list-style-type: none"> - Waste Management Strategy and Action Plan 2018-2035 - Implementing strategy and action plan (next step) Eg. (1) landfill management (waste to energy) - (2) Implementing different-level composting practices. 			

SESSION III: GRANTS MANAGEMENT & FINANCIAL MANAGEMENT

Mr. Lim Veng, Financial Management Officer provided a guidance of group discussion that has divided into 04 groups by theme/sector to identify the most emerging best practices and lessons learnt the project has done, identify the main challenges the project has faced and how it could be addressed? exchange experiences among projects on the successes/challenges raised, and any support needed from CCCA. Group composition is following:

Group #	Participants for Group Work	Facilitators
1	<ul style="list-style-type: none"> - Ministry of Health (MOH) - Ministry of Water Resources and Meteorology (MoWRAM) - Ministry of Public Work and Transport (MPWT) - Ministry of Rural Development (MRD) - National Committee for Disaster Management (NCDM) 	Mr. Yem Sokha
2	<ul style="list-style-type: none"> - Ministry of Agriculture, Forestry and Fisheries (MAFF) - Ministry of Education, Youth and Sport (MoEYS) - General Directorate of Agriculture (GDA/MAFF) - Provincial Department of Environment-Stung Treng (PDoE-ST) - Ministry of Women Affairs (MoWA) 	Mr. Ung Soeun
3	<ul style="list-style-type: none"> - Ministry of Mine and Energy (MME) - Ministry of Information (MoInfo) - Ministry of Tourism (MoT) - Ministry of Land Management and Urban Planning (MLMUPC) - Ministry of Industry and Handicraft (MIH) - Ministry of Environment (MoE) 	Mr. Va Vuthy
4	<ul style="list-style-type: none"> - Cambodia Rural Development Team (CRDT) - Group for Environment, Renewable Energy and Solidarity (GERES) - National Bio-digester Programme (NBP/MAFF) - NEXUS for Carbon Development (NEXUS) - Wildlife Conservation Society (WCS) 	Mr. Long Sona

The session focused on the following themes:

- Administrative and financial management issues/guidelines
- Project Management and Implementation
- Capacity Development/institutional strengthening
-

Each group appointed a rapporteur and note taker that was summarized the discussion on the flipcharts and then putted them in reporting template as provided for plenary discussion. Flip chart formatted focused challenges, Best Practices and Lessons Learnt, and Recommendations.

Key reflection areas/questions:

- a. *What are the challenges and solutions on administrative & financial management, procurement & human resource management and project management, capacity development, operational aspects identified during project development and implementation?*
- b. *What is important to develop effective partnerships for project implementation?*
- c. *Did you find particular challenges in the financial management of climate change projects? Any solutions?*

- d. What are the main emerging best practices and lessons learnt from capacity development, administrative and financial management and project management?*
- e. What are recommendations or suggestions for improving the financial management, procurement and human resource management issues/guidelines, capacity development, project management & implementation and strengthening institutional sustainability?*

SUMMARY THE RESULT OF GROUP DISCUSSION IN SESSION III

Group #	Challenges	Solutions	Best Practices and Lessons Learnt	Recommendations
1	<ul style="list-style-type: none"> - MRD: Restructure of MRD management - MRD: GIG Procurement: quotation for small item, the sailors don't have standard form quotes/receipt.... - NCDM: lack of human resources in financial management - MOWRAM: delay in equipment procurement 	<ul style="list-style-type: none"> - MRD: wait for new management team - MRD: Group item of material to reach threshold number. And prepare sample quotes - NCDM: Use external resources - MOWRAM: implementing staffs directly contact supplier in Thailand 	<ul style="list-style-type: none"> - MOH: provided a guideline on project design - Frequently seek advice for responsible CCCA staffs (phone or email) - well understood about procedure and guideline CCCA - Project management experience - Continuous learning and sharing workshop 	<ul style="list-style-type: none"> - Identify threshold, right in decision making on working management - Provide more refresher trainings
2	<ul style="list-style-type: none"> - MoEYS: Government staff (one person only) in charge for banking of project (take time to get bank statement or any bank transaction). - PDoE-ST: Limited financial management for government staff that need to consult with CCCA staff - Admin and finance staff is one staff that make slow progress . - Project implementation staff provide incomplete support documents (internal) 	<ul style="list-style-type: none"> - Provide more training on financial and administrative work to project staff. - Separate staff for in charging admin and finance unit - Standard proposal /budget template (category, sub-category) - Strengthening sub grantees on admin and finance management 	<ul style="list-style-type: none"> - Budget for specific activities always made a difficult to allocate for other sub activities and follow up. - Accounting/finance staff should be three people in charge. 	<ul style="list-style-type: none"> - Strengthening capacity for finance and administration staff both national and sub national - Admin and finance staff should be separate staff/unit. - Standard template for budget and proposal that could be allocated budget for sub activities/follow up activities.

Group #	Challenges	Solutions	Best Practices and Lessons Learnt	Recommendations
	<ul style="list-style-type: none"> - Sub grants to graduated school (10 schools) is take time to get their financial report and limited staff capacity. - Budget plan is outputs based (specific budget for specific activities) is difficult for flexible spending for follow up activities. Budget template does not flexible. 			
3	<ul style="list-style-type: none"> - Guideline for bidding is difficult to fulfil the requirement - Cash flow problem happens when a large procurement is due but cash in account is low but not yet below 20% to request to CCCA for next disbursement - Tax registration; finance staff needs to understand the tax regime - Quote for audit: Response from the audit firms is low - Travel rate of CCCA is lower than govt travel rate 	<ul style="list-style-type: none"> - Refer to the MEF guideline 2012 and the MME procurement process - Request for bidding proposal from bidders and evaluate the proposals. - Request for help from CCCA on - Tax registration procedure, which could be included in the GIG - Training on tax system. - Postpone - Follow CCCA guideline 	<ul style="list-style-type: none"> - Tax registration as state entity. Attached documents with 101 form are project document, LOA, ministry decision, MEF Account opening and bank statement, etc. - Tax declaration. The finance officer has to understand which tax regime that project has to follow. 	Request to CCCA to assist in tax registration and training on tax system

Group #	Challenges	Solutions	Best Practices and Lessons Learnt	Recommendations
4	<ul style="list-style-type: none"> - Change budget line 15% need to get approval from CCCA - The date the submit report (narrative and finance) each quarter is day 10 of next month following the quarter - Some procurement can't compliance with procurement guideline - Admin cost is not sufficient for operation the project. 	<ul style="list-style-type: none"> - CCCA should accept justification on the procurement on pure biogas power generator 	<ul style="list-style-type: none"> - CCCA follow and adopt with grantee's policy - Has clear guideline, manual and templet - Has clear orientation and training - Good communication - Grant manual and AF similar to grantee system 	<ul style="list-style-type: none"> - Increase percentage of the Admin cost - Flexible for the procurement such as the number of supplier to biding process - Increase percentage of the ceiling of the budget amendment from CCCA

FINAL SESSION

On behalf of H.E Minister of Environment and Chairman of NCSD and H.E Tin Ponlok, Secretary General of NCSD, **H.E Chuop Paris**, Deputy Secretary General of NCSD delivered closing remark. He expressed highly appreciated and effort of grantee project implementation and providing inputs in group discussion. Following the workshop wrap up from Mr. Julien Chevillard and Mr. Sum Thy, he noted that has four challenges need to be address in the future:

- Access to new technology related to renewable energy and energy efficiency;
- Limited data sharing related to climate change;
- Limited institutional capacity;
- Accessing to Green Climate Fund (GCF).

In last his remark, he provided four specific recommendation to participants as following:

- Improve coordination between sector ministries and grantees as well as internal coordination of sector ministry;
- Increase liaison with private sectors to finding the resource support (technical and fund) for project related to renewable energy and energy efficiency;
- Climate change mainstreaming into sector strategic plan and NSDP 2019-2023 in order mobilize international and domestic resources;
- Using climate change technical working group mechanism (CCTWG) to improve the data and information sharing for better climate change mainstreaming in sector ministries and new NSDP.

He thankful participants and highly appreciated actively participations, discussion and inputs during two day workshop particularly CCCA donors (EU, UNDP and Sweden) supported this event.

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ANNEX I : EVENT AGENDA

EXPERIENCE-SHARING WORKSHOP FOR CLIMATE CHANGE PROJECTS KHEMERA HOTEL, BATTAMBANG PROVINCE, 20-21 JUNE 2018

Wednesday, 20 June 2018		DAY 1	Facilitator/Speaker
08:00-8:15	Registration		Admin Team, CCCA
08:15-08:20	National Anthem		Ms. Kien Danary Admin Officer, CCCA
08:20 -08:30	Welcome remarks		Mr. Julien Chevillard, CCCA Trust Fund Administrator UNDP
08:30-08:45	Opening remarks		Mr. Sum Thy, Director of DCC/GSSD
08:45-09:00	General overview of the workshop and brief introduction of participants		Mr. Ung Soeun Coordination Officer, CCCA
Session One: Identification of best practices and lessons learnt to date			
09:00-10:30	Group work session on emerging best practices and lessons learnt from grant projects (guidance)		Mr. Julien Chevillard, Trust Fund Administrator CCCA/UNDP (10 min)
	Followed by group work (5 groups by theme/sector): presentation of projects to each other, identify the most emerging best practices and lessons learnt the project has done, identify the main challenges the project has faced and how it could be addressed (do you need anything from other stakeholders?), exchange experiences among projects on the successes/challenges raised.		G1: Mr. Yem Sokha G2: Mr. Ung Soeun G3: Mr. Va Vuthy G4: Mr. Nun Sophanna G5: Mr. Lim Veng (1h20 min)
10:30-10:45	Coffee break		
10:45-12:00	Presentation of group work results in plenary – 10 min followed by 5 min Q/A per group		Mr. Yem Sokha, CCCA (1h15 min)
12:00-13:30	Lunch		
Session Two: Strategies to sustain and scale-up successful approaches			
13:30-15:00	Group work session on strategies to replicate, sustain and scale-up successful approaches (guidance)		Mr. Julien Chevillard (10 min)
	Followed by group work (5 groups): Using the 2017 event recommendations as a basis, grantees will be asked to reflect on progress made to implement these recommendations, and to update their strategies if needed to ensure the sustainability of their approach, replicate and scale up (with public investment		G1: Mr. Yem Sokha G2: Mr. Ung Soeun G3: Mr. Va Vuthy G4: Mr. Nun Sophanna G5: Mr. Lim Veng

or private sector approach), and influence public policies. (1h 20 min)
 Grantees will also be asked to update their needs for research or partnerships.

15:00-15:15	Coffee break	
15:15-16:30	Presentation of group work results in plenary – 10 min followed by 5 min Q/A per group	Mr. Sum Thy (1h15 min)
18:00	Dinner	

Thursday, 21 June 2018 DAY 2

Session Three: Grants Management & Financial Management

08:30-08:40	Summary of Day 1 and programme for Day 2	Mr Long Sona (10mn)
08:40-09:00	Presentation on best practice from grantee on CCCA financial management.	Ms. Chea Kunthea Finance Officer, MRD (20mn)
09:00-10:10	Group work session on management, implementation and administrative and financial management for CCCA grantees (guidance) Followed by group work (04 groups by theme/sector): identify the most emerging best practices and lessons learnt the project has done, identify the main challenges the project has faced and how it could be addressed (do you need anything from other stakeholders?), exchange experiences among projects on the successes/challenges raised, and any support needed from CCCA.	Mr. Lim Veng (10mn) G1: Mr. Yem Sokha G2: Mr. Ung Soeun G3: Mr. Lim Veng G4: Mr. Long Sona (1h)
10:10-10:30	Coffee break	
10:30-11:30	Presentation of group work results in plenary – 10 min followed by 5 min Q/A per group	Mr. Sum Thy, Director, DCC (1h)
11:30-11:50	Final Q&A Next steps and closing remarks	H.E. Tin Ponlok
11:50-13:00	Lunch	
Afternoon	Team meeting for DCC/CCCA staff only	

ANNEX II: GUIDANCE NOTES FOR GROUP WORK

Group work Session 1: Identification of best practices and lessons learnt to date (Max. 90 mn)

The session will focus on identifying lessons on specific adaptation techniques and measures that have been piloted by the grant projects.

Each group will focus on one sector/themes:

Group 1: Agriculture and/or irrigation

Group 2: Water (except irrigation) / sanitation

Group 3: Educational and Awareness Raising

Group 4: Renewable energy and energy efficiency

Group 5: Ecosystem based approaches, disaster risk management, livelihoods and/or forestry

Before starting the discussion the group appoints a rapporteur and note taker that will summarize the discussion on the flipcharts and then put them in reporting template as provided for plenary discussion

The results of each group discussion will be summarized to put into the flip chart and reporting template as follows:

- a. Best Practices and Successful Experiences
- b. Challenges and unsuccessful approaches
- c. Lessons learnt
- d. Recommendation

Key reflection areas/questions:

1. What project key achievements/results have been produced so far?
2. What were the key challenges in implementing project and ensuring effective implementation of adaptation and mitigation actions? How do you address those key challenges?
3. Based on the pilot activities carried out, are there examples of adaptation and mitigation measures and techniques that have a good potential? What are specific adaptation or mitigation techniques successful in reducing vulnerability and/or reducing GHG?
4. Are there any approaches that did not work and should be avoided in the future?
5. What are the key best practices and lessons learned from project implementation?
6. What were the key challenges in implementing and ensuring sustainability of adaptation and mitigation actions? How do you address those key challenges?
7. What are recommendations for future action?

Group work Session 2: Strategies to sustain and scale-up successful approaches (Max. 90 mn)

The session will focus on follow-up on the opportunities and strategies identified in 2017 for sustainability and scale-up.

Each group will focus on one sector/themes:

Group 1: Agriculture and/or irrigation

Group 2: Water (except irrigation) / sanitation

Group 3: Educational and Awareness Raising

Group 4: Renewable energy and energy efficiency

Group 5: Ecosystem based approaches, disaster risk management, livelihoods and/or forestry

Before starting the discussion the group appoints a rapporteur and note taker that will summarize the discussion on the flipcharts and then put them in reporting template as provided for plenary discussion

The results of each group discussion will be summarized to put into the flip chart and reporting template as follows:

- a. Sustainability strategies that need to be updated/changed from last year (explain why / challenges)
- b. Key cases of progress made towards sustainability and scaling-up
- c. Research needs

Key reflection areas/questions:

1. Please review the previous list of sustainable strategies for your project in 2017 **(as provided)** to see whether they are still valid or there are any needs for updates on the list of sustainable strategies. If any changes are needed, explain what challenges you faced and why you need to change your approach.
2. Share examples of successful strategies from your project to attract public investment funds (government or donor investment funds) to support your successful approaches? What challenges do you face?
3. Share examples of successful strategies from your project to attract private investment funds (community or private sector) to support your approaches? What challenges do you face? Is there evidence of uptake/upscaling by communities and local institutions of techniques demonstrated?
4. What are the recommendations for future action?
5. Please review the previous list of research needs or partnership in 2017 **(as provided)** to see whether there are any needs for updates on the list of research needs or partnership.

Group work Session 3: Grants Management & Financial Management (Max 70 mn)

The session will focus on the following themes:

1. Administrative and financial management issues/guidelines
2. Project Management and Implementation
3. Capacity Development/institutional strengthening

Before starting the discussion the group appoints a rapporteur and note taker that will summarize the discussion on the flipcharts and then put them in reporting template as provided for plenary discussion

The results of each group discussion will be summarized to put into the flip chart and reporting template as follows:

- a. Challenges
- b. Best Practices and Lessons Learnt
- c. Recommendations

Key reflection areas/questions:

1. What are the challenges and solutions on administrative & financial management, procurement & human resource management and project management, capacity development, operational aspects identified during project development and implementation?
2. What is important to develop effective partnerships for project implementation?
3. Did you find particular challenges in the financial management of climate change projects? Any solutions?
4. What are the main emerging best practices and lessons learnt from capacity development, administrative and financial management and project management?
5. What are recommendations or suggestions for improving the financial management, procurement and human resource management issues/guidelines, capacity development, project management & implementation and strengthening institutional sustainability?

ANNEX III: TO BE UPDATED LIST OF SUSTAINABLE STRATEGIES IN 2018

Project Acronym	Sustainability Public/private		Actions recommended to ensure sustainability	Who does the project need to engage to ensure sustainability
	Mostly through public funds	Mostly through private funds		
IR-CSA	Public Funds (donor)		<p>When the CSA demonstration activities prove to be successful, the project will influence the policy makers within MAFF resulting in the final year of the project implementation;</p> <p>In the future, the implementation of CSA will be integrated in the program budgeting within Provincial Department of Agriculture, Forestry, and Fisheries (PDAFF);</p> <p>Conduct more awareness campaigns or farmer field days to broadcast the success story to attract other farmers;</p> <ul style="list-style-type: none"> - Agro-Clinic will serve as the center providing the one stop service for farmers and sellers to get consultation advice and solutions on the issues. 	<ul style="list-style-type: none"> - IFAD, ADB, and EU.
EISOFUN	✓		<ul style="list-style-type: none"> - Ensure the profitability: cost & benefits - Ensure the environmental quality - Acknowledgement of the activities that they (farmers) have done: farmers' field days. - Establish the CASC as the center for research & extension on conservation agriculture 	<p>The whole value chains:</p> <ul style="list-style-type: none"> A. Public sector: Governmental-Level, local authorities B. Private sectors: service providers, middle man, agri-input retailers, agri. Cooperatives, individual farmers
FAO	✓		<ul style="list-style-type: none"> - Integrate info to commune investment plan - GSA curriculum, CSO 	PDOE, GDA.,
		✓	<ul style="list-style-type: none"> - Solar pumping irrigation system: 	<ul style="list-style-type: none"> - Water business model (social enterprise). The

Project Acronym	Sustainability Public/private		Actions recommended to ensure sustainability	Who does the project need to engage to ensure sustainability
	Mostly through public funds	Mostly through private funds		
CRDT			Financial management system for water user groups created. The money collected will use for system maintenance, system operation and community development and for new investment to other area in the commune.	water system will be operated by village operators and technical support by CRDT and PDoA
		✓	- Cyclical farm development: Develop model farm business plan and provide the capacity/techniques to model farmers to manage the cyclical farms	Eco-Farm business model. It is a social enterprise and stay supported by CRDT and PDOA
		✓	- AC members invest by themselves for their own business	Register with PDOA
	✓		- Climate change: Mainstreaming to commune council	Integrate planning into commune investment
MoEYS / DCD	✓ Mostly from donors		<ul style="list-style-type: none"> - Enhance the capacity of 10 eco-schools and eco-clubs - Explain clearly the advantages of eco-schools and eco-clubs - Integrate the CC into the national curriculums for high school - Enhance the vertical report of process from schools/principals to MoEYS 	<ul style="list-style-type: none"> - Students, Teachers, and principals - Communities - MoEYS / secretariat of DRR - MoEYS / CC working group - Inter-ministerial working group <ul style="list-style-type: none"> - MoE and GSSD
MoWA / Project unit (from	✓ Mostly from donors		<ul style="list-style-type: none"> - Continue to pilot and monitor the project - Enhance the capacity of school committee on DRR and CC that include the participations of women 	<ul style="list-style-type: none"> - Local authority - Teachers and principals - Community

Project Acronym	Sustainability Public/private		Actions recommended to ensure sustainability	Who does the project need to engage to ensure sustainability
	Mostly through public funds	Mostly through private funds		
many departments)			<ul style="list-style-type: none"> - Mainstreaming Knowledge on CC and gender to teachers and principals - Creating Investment Committee responding CC: Engagements from provincial departments and local private sector in the community to find market - Develop a pedagogy manual for mainstreaming CC and Gender for teaching and awareness raising at community - Integrate the curriculum on CC and Gender to the regional teacher training centers 	<ul style="list-style-type: none"> - MoEYS, NCDM, MAFF and their provincial departments
WCS	<ul style="list-style-type: none"> ✓ Mostly from Govn't		<ul style="list-style-type: none"> - On-going and series of training to the GIS department and staff - Monitor the needs of MOE staff - Develop the manual for using the tool 	<ul style="list-style-type: none"> - MOE - GSSD - GDANCP
MoInfo / National TV	<ul style="list-style-type: none"> ✓ Mostly from donors		<ul style="list-style-type: none"> - Build capacity of the provincial staff - Monitor the activities after the training to provincial staff 	<ul style="list-style-type: none"> - MOE and - Provincial departments of MoInfo
MoH / Preventive Medicine Department (Window 3 project)	<ul style="list-style-type: none"> ✓ Mostly from gov'n't		<ul style="list-style-type: none"> - Build capacity of staff and health professional - Train the planning staff to integrate the CC in the budget plan - Raise awareness to the public - Integrate the results into the curriculums at university level 	<ul style="list-style-type: none"> - Engage all stakeholders and public - Doctors and medical staff at hospitals

Project Acronym	Sustainability Public/private		Actions recommended to ensure sustainability	Who does the project need to engage to ensure sustainability
	Mostly through public funds	Mostly through private funds		
MPWT project:	✓		<ul style="list-style-type: none"> - Gov't budget via climate mainstreaming - Donor funding such as CCCA grant - Private funding: <ul style="list-style-type: none"> ✓ CCCAP but need to update CCAP and ✓ Develop climate change policy in transport sector - Public Investment Program for transport mitigation action 	<ul style="list-style-type: none"> - MEF & MOE - Donors working on CC mitigation e.g. JICA, CCCA, EU
NBP project:	✓	✓	<ul style="list-style-type: none"> - Public fund from gov't and donor to subsidize cost for project scaling-up - Build business model via Data collection and economic analysis e.g. cost, profitability, reimbursement period - Field visit of farm owners - Group organization of suppliers - Monitoring system - Resource mobilization e.g. loan from MFI and bank with low interest rate 	<ul style="list-style-type: none"> - Private sectors e.g. material suppliers, banks, MFIs, CP group, Pig raising association GD of animal production and health, provincial departments of agriculture Gov't policy support Donors e.g. CCCA for subsidies, and extension <ul style="list-style-type: none"> - Farm owners e.g. cost reimbursement plan, generators from CP Group
GERES project:		✓	<ul style="list-style-type: none"> - Market approach - Analyze future market trend (5-10yrs) e.g. raw material availability, energy price, new technology, - Build up technical pilots with minimal support e.g. showcasing to convince Bricquet for garment factories technical feasible and financial profitable - Awareness raising: 	<ul style="list-style-type: none"> - Investors: in this business e.g. brick and garment factories - International brand putting pressure on garment factories

Project Acronym	Sustainability Public/private		Actions recommended to ensure sustainability	Who does the project need to engage to ensure sustainability
	Mostly through public funds	Mostly through private funds		
				<ul style="list-style-type: none"> - Govn't support/law enforcement on protected forest: Fuelwood harvested freely from natural forest e.g. VAT exemption from Ministry of Economy
MME project:	✓		<ul style="list-style-type: none"> - Funding from gov't and donors - Scaling-up from pilot to national project - Capacity building of gov't staff - Donors/consultants - Build Long-term plan to get gov't support - Strong commitment to low carbon development from policymakers and line ministries e.g. electricity production 	<ul style="list-style-type: none"> - Remote villages without electricity/off-grid - Remote health centre, schools and learning at night time - Mini-grid and solar power to
MIH Project:	✓		<ul style="list-style-type: none"> - Technical guideline of clean production and environmental management - Transfer into ministerial action plan - Capacity building via training, women and young entrepreneur - Award for clean production program (e.g. production cost, energy efficiency, - Delegating this tasks to provincial departments - Gov't and donors funding 	Ministry Donors <ul style="list-style-type: none"> - Private sectors: e.g. NBP project, GERES project
MRD	Donor, Govt,		<ul style="list-style-type: none"> - Vulnerable Mapping on Climate Change Impact at Kampong Thom. - Testify guideline for climate resilience for rural road construction 	Line ministries and relevant stakeholder particularly decision makers Private sectors Community and local authority

Project Acronym	Sustainability Public/private		Actions recommended to ensure sustainability	Who does the project need to engage to ensure sustainability
	Mostly through public funds	Mostly through private funds		
			<ul style="list-style-type: none"> - Related to adaptive capacity to climate change, we have to develop CCA manual for common use and capacity development purpose. - climate adaptive home gardening should be scaling up - Market Price and value chain system 	
MoWRA M	Donor, Govt,		<ul style="list-style-type: none"> - Hand over projects result (irrigation, metrological station and water user group) to PDoWRAM to manage and maintenance. - All rehabilitation, new irrigation system always transfer PDWRAM (Operation and Maintenance), Water User Community have to establish. Role of community ensure that sustainable fund for O&M - Government have allocated budget for O&M for all kind of funded project (grant and loan) 	PDWRAM MOWRAM <ul style="list-style-type: none"> - Community
NCDM	Donor, Govt, Private Sector		<ul style="list-style-type: none"> - Transfer and handover two Safe Water Stations to commune council to take ownership - Community Pond handover to commune - Integrate community planning for DRR and CCA to CIP/CDP plan - Ensure that DRR and CCA should be common principle to apply all projects related to climate change - MOE shall coordinate with MEF to allocate cc fund for line ministries who request climate change proofing in their sector 	<ul style="list-style-type: none"> - NCDM at all level
MoH	Donor, Govt,		<ul style="list-style-type: none"> - Awareness to general public/people on victor born disease which is caused by climate change; 	<ul style="list-style-type: none"> - MoH and line departments

Project Acronym	Sustainability Public/private		Actions recommended to ensure sustainability	Who does the project need to engage to ensure sustainability
	Mostly through public funds	Mostly through private funds		
			<ul style="list-style-type: none"> - Evident base advocacy: All result of projects should be publicly access and documentation. 	
PDE-Stung Treng	Donor, Govt,		<ul style="list-style-type: none"> - DPE-ST has resource persons to conduct a research on vulnerable assessment within Ramsar area (wetland) for project/policy development purpose - Data of vulnerability mapping is available for PDE-ST to use for future planning and development 	<ul style="list-style-type: none"> - PDE-ST - MoE - BD link company
MLMUPC project	DP/ Donors	Private	<ul style="list-style-type: none"> - Develop guidelines and handbook for distribution - Training to constructor how to build resilient house - Cheap house which people can be built by their own money - District office can be supported and awareness to community. 	<ul style="list-style-type: none"> - GDH, Partners, Consultant - House constructor and local people, communes/authorities - Local people. - District Housing officer
MOT	Donors	Private sector	<ul style="list-style-type: none"> - Develop guidelines and awareness - Participations (contributions) - Building capacity to community how to clean up city 	<ul style="list-style-type: none"> - MoE, Consultant - CHA, CCATA, CRA - Local community, 4P
MEF	10%-90% 20%-80% 30%-70%		<ul style="list-style-type: none"> - Complementary between government and DP - Cost efficiency and effectiveness, result based and sustainable. 	<ul style="list-style-type: none"> - MEF, DP. - Relevant ministers.
MOE	PB – DP/Donors 20%-80% 40%-60%		<ul style="list-style-type: none"> - Mainstreaming echo school into school curriculum - Develop video clip, documentary, leaflet for re-printing - Role model for garbage collection - Growing Tree - Mainstreaming climate change budget into program budget 	<ul style="list-style-type: none"> - School Director, teachers, students, relevant - MoINFO, Media and relevant ministries

Project Acronym	Sustainability Public/private		Actions recommended to ensure sustainability	Who does the project need to engage to ensure sustainability
	Mostly through public funds	Mostly through private funds		
			<ul style="list-style-type: none"> - MOE will be generated income from Carbon credit and land concession. 	<ul style="list-style-type: none"> - Delegate to commune/sangkat, integrate plan with NCDDDS with rule and regulations. - Hand over to school - Each ministry will be submitted their budget plan for climate change action to MEF for integrated in to the program budget. - MOE and MEF (rule and regulations 90% to MEF and 10% for MOE).

ANNEX IV: TO BE UPDATED LIST OF RESEARCH NEEDS IN 2018

RESEARCH PRIORITIES

Area	Research and Innovation Focus	Additional item	Priority
Greenhouse Gas (GHG) Mitigation and Inventory	1. Research & Development of low-cost, low carbon, appropriate technologies for energy, industry and waste management (including policy and market frameworks)		Yes
	2. Decoupling development from carbon-reducing uncertainties in estimating national greenhouse gases (GHGs) emissions and removals from key emitting sectors (including energy, industry, agriculture, land use, land use change and forestry, waste management) and assessing and testing scalable cost-effective mitigation options to enhance energy security		Yes
	3. Improving activity data and emission factors for the key sources of national GHG Inventory		Yes
	4. Assessment of green building standard and clean city on GHG mitigation/resilient capacity	Yes	Yes
Adaptation	5. Climate resilience of food production systems for increased food security		Yes
	6. Policy-relevant health risk assessment from short and medium-term climate variability and the effects of gradual climate change (with a focus on vulnerable groups exposed to climate hazards)		Yes
	7. Understanding the role of social protection and early warning schemes in reducing vulnerability to climate variability and change (including analysis of the gender dimension)		Yes
	8. Developing bottom-up, participatory approaches to community/ecosystem-based adaptation		
	9. Developing methodologies for assessing adaptation technologies and the costing of adaptation measures for local level planning		
	10. Quantifying ecosystem services – methodological contributions to the establishment of natural resource accounting systems in the context of climate change		
	11. Effects of El Niño on water and sanitation in Cambodia	Yes	Yes
	12. Identify technology/method to reduce water loss for medium-large scale irrigation system	Yes	Yes
	13. Study on groundwater availability for sustainable use	Yes	Yes

Area	Research and Innovation Focus	Additional item	Priority
	14. Research methodology and VA approaches cost-benefit / adaptation costs analysis	Yes	Yes
Adaptation/ GHG Mitigation	15. Understanding the role of land use planning in climate change adaptation and mitigation responses		
	16. Understanding urban resilience – technical and policy recommendations for low carbon urban resilient development (including governance, management, planning and design dimensions)		
	17. Assessment of sustainable land use management	Yes	Yes
	18. Assessment of green building standard and clean city on GHG mitigation/resilient capacity	Yes	Yes