





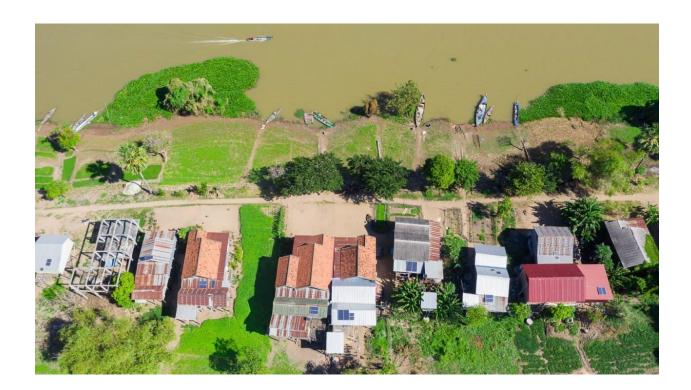






QUARTERLY PROJECT PROGRESS REPORT

Reporting Period: 01 January - 31 March 2021



Project Name: Building an Enabling Environment for Sustainable Development

(BESD)

Project ID: 00093203 Award ID: 0085640

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ACRONYMS AND ABBREVIATIONS

ADF Archaeology & Development Foundation

APA Archeological Protected Areas

BESD Building an Enabling Environment for Sustainable Development

CBNRM Community-Based Natural Resources Management

CPA Community Protected Areas
DBD Department of Biodiversity
GDE General Department of Energy

GDLC General Directorate of Local Community

GDEP General Directorate of Environmental Protection

MME Ministry of Mines and Energy MoE Ministry of Environment

NCDD-S National Committee for Democratic Development Secretariat

NCSD National Council for Sustainable Development

NIM National Implementation Modality
NRM Natural Resources Management
NTFP Non-Timber Forest Products
PES Payment for Ecosystem Services

PDoE Provincial Department of Environment

RECOFTC Regional Community Forestry Training Center

RUPP Royal University of Phnom Penh

SEAC Solar Energy Association of Cambodia

SHS Solar Home System

TCO Trailblazer Cambodia Organization

UNDP United Nations Development Programme

UNDP TRAC Target for Resource Assignment from the Core Fund

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BASIC PROJECT INFORMATION

Project ID:	0085640	Reporting	01 January – 31 March 2021				
E. II T'AL.	D. H.P. a. a. Faablaa	Date/Quarter:	alla Danala annual (DECD) in Carala alia				
Full Title:	Building an Enabling Environment for Sustainable Development (BESD) in Cambodia						
Start Date:	1/1/2019	Completion Date:	30/6/2021				
Total Project Budget:	US\$ 3,184,952.32 (With budget extension)	Annual Project Budget:	US\$1,686,776.19 (US\$ 470,880 for tree planting as a Covid-19 response was injected in August 2020)				
Implementing Partner(s):	The National Council	for Sustainable Develop	ment (NCSD)				
Donor/s:	Penh (Sweden) – US\$ Co-financed by:	2,904,840.06 get for Resource Assign	opment, Embassy of Sweden in Phnom ment from the Core Fund – US\$280,000				
Responsible	Government Agenci	es:					
Parties:	 The General Depart The General Direct (MoE) The General Direct NGOs & Academia: Archaeology & Description Energy Lab Regional Commu Trailblazer Cambo Solar Energy Asso Royal University of Man Private Company: Okra Solar Company 	 The National Committee for Democratic Development Secretariat (NCDD-S) The General Department of Energy, Ministry of Mines and Energy (MME) The General Directorate of Local Community (GDLC), Ministry of Environment (MoE) The General Directorate of Environmental Protection (GDEP), MOE NGOs & Academia: Archaeology & Development Foundation (ADF) Energy Lab Regional Community Forestry Training Center (RECOFTC) Trailblazer Cambodia Organization (TCO) Solar Energy Association of Cambodia (SEAC) Royal University of Phnom Penh (RUPP) University of Management (NUM- newly added in last quarter of 2020) Private Company: 					
Project Description:	 The overall project objective is to strategically position Cambodia's path towards achieving the Sustainable Development Goals related to 1) natural resources management (NRM); 2) circular economy; and 3) clean, affordable and sustainable energy. The project designs and tests innovative environmentally sustainable models in the targeted areas through public and private partnerships and further identifies venues for scaling-up workable models. The project will attain the following three outputs: Output 1: CBNRM institutions strengthened and financial resources mobilised for sustainable NRM Output 2: Waste reduced, recycled and reused through application of circular economy models Output 3: Improved access to clean, affordable, and sustainable energy for the rural poor 						

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Target Areas:	This project targets three provinces: Siem Reap (for PES), Kep (for circular economy), Preah Sihanouk (for PES). However, for circular economy and solar energy challenge funds will cover nationwide to leverage its impact funds in these sectors and promote innovation incubation.
Target Group:	Civil society organizations, the private sector, academic institutions, local communities, indigenous peoples and women, with particular attention to the rights of socially marginalized groups.

SUMMARY OF KEY RESULTS

This report covers key project results during the project period between Jan-Mar 2021.

Area 1: Community Based Natural Resources Management (CBNRM) and Payment for Ecosystem Services (PES)

1.1 CBNRM

The Department of Community Livelihoods (DCL) has completed a series of activities follows:

- Strengthening of community institutions and networks
 - Three skills trainings were provided to 100 members (3 women) on chicken raising, basket making, etc.
 - o The DCL jointly reviewed a five-year management plan and proposed an annual action plan, participated by **155 attendees, of which 19 were women**. Additionally, another session was conducted to build a CPA network and an annual learning forum. There were 80 participants, of which 6 were women.
- Resource assessments and boundary demarcation
 - A 800 ha area was officially expanded for CPA Po Pel.
- Improving the livelihoods of communities
 - A community-based ecotourism center was constructed and equipped with fundamental tourist information of the areas in English and Khmer. The opening ceremony has been delayed to due to Covid restrictions.

1.2 PES

- The Department of Biodiversity (DBD) has achieved the following results as follows:
- Designing of two PES pilots
- Three draft Prakas on the establishment of PES fund governance structure are under review by the project director and awaiting the minister's approval
- National PES policy
- The national PES Roadmap in Khmer is being edited by the DBD.

1.3 Tree Planting (New)

• In this quarter, the survival rate was monitored and the rate of planted trees varies depending on the implementing partner site and tree species, ranging from 65% to 90%. However, the overall average survival rate is approximately 70%. Additionally, at least 5,400 seedlings were (re)planted to replace dead trees under the maintenance stage within this reporting period.

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- A nursery was established with local species to expand a flooded reforestation programme in the conservation area of the Tonle Sap Lake. Almost 60,000 flooded tree seedlings of 5 local species have been produced and will be planted in May-June on 50 Ha in 3 districts of Siem Reap province. 96% of the produced seedling survived and are growing healthy.
- 2,448 people of 1,723 vulnerable families affected by Covid-19 pandemic crisis were engaged
 and benefited from the tree planting as cash for work. Today, at least USD 173,595 has been
 paid as cash salary for work to the affected communities during the hard time.
- From 15-18 February 2021, a field mission for tree planting monitoring with CPA members in Stung Thmey was conducted. The 5-month extension plan (January to May 2021) through the BESD. The DCL team also monitored the survival rates of the tree plantation.

1.4 Programming and resource mobilization

• No new proposals relating to this output were developed within this quarter.

Area 2: Circular Economy

2.1 Piloting new business approaches for municipal waste management in Kep

- <u>Enabling regulatory and policy work for CE in Kep</u>. The municipal Deka on waste collection pricing by the waste management unit was drafted and waiting for an approval in the next quarter.
- <u>Development of CE business models in Kep.</u> Five waste separation stations were selected in Kep to promote waste segregation at source, recycling behavioral change and public awareness.

2.2 Design new business approaches to industrial waste with private sector

- The Department of Solid Waste Management has drafted a guideline for on-site incinerators.
- Mapping of on-site waste-to-energy boilers for garment factories in Cambodia is being conducted so the preliminary findings to inform the development of technical guideline will be ready in the next reporting period.

2.3 Strategic communication and awareness raising

Awareness raising materials were jointly developed with the Marine Plastic Project to increase
awareness on plastics impact to human health, marine ecosystems and the economy. A music
video and animation will be disseminated in the next quarter.

2.4 Development of Enabling Policy and measures for Circular Economy (CE)

- National CE strategy development
 - The Circular Economy Strategy and Action Plan (CESAP) has been finalized in English and Khmer version. The CESAP will be officially launched in late May.

Regulations on plastic

- The department of Solid Waste Management has drafted a **sub-decree on plastic management**. MoE suggests narrowing down this regulatory scope to ensure this sub-decree is implementable. Doing so, guided measures applied for different types of plastic in Cambodia need to be further developed and will be ready in the next reporting period.
- o The DGE team has worked with the circular economy consultant and produced a draft of

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zero plastic guidelines for hotels and guesthouses.

2.5 Design and implement private sector engagement

- Design of Circular Economy Platform
 - A database was developed to document circular economy best practices by the private sector in Cambodia
 - Contents for a website including 10 awareness raising posters, and 6 blog posts were developed to increase awareness on actions private sector business can take in promoting circular economy options along with the information of organizations and businesses that can provide support interested businesses for the transition.
 - Launch of the platform will be done in late May 2021 together with the CESAP.

• Rewards and Incentives

 A handbook for implementing CE practices in hospitality businesses was developed based on a model resort in Kep province.

2.6 Programming and resource mobilization

• No new proposals were developed within this quarter.

Area 3: Energy

3.1. Solar energy for improving energy access and increase resilience of rural communities

- Installation of DC-Micro Grids at Kampong Chhnang
 - o In March, the average daily consumption has increased to almost 500Wh/day per household from around 250 Wh/day in December 2020. The households have started using more electric appliances for productive uses. For example, 48 households now use electric cookers, electric powered sewing machines, drills and power tools.
 - o Fifty five (55) households in Ta Daok Village have requested the GDE and Okra to upgrade their energy package from Entry A/B to General A/B because of increases in their electricity consumption. This also included installation of streetlighting. An update of this request will be provided in the next reporting period.
 - The establishment of a community committee for the management of solar micro-grids system for Steung Chrow and Ta Doak Villages has been completed, but formal signing of the documents is pending due to COVID-19 travel restrictions. However, Okra has been working closely with the committee members through local maintenance agents.
- Setting the right business model for solar microgrid as an off-grid solution
- A proposal for installation of solar mini-grid in an indigenous community in Ratanakiri Province was proposed to the project board.
- Completed installation of an AC off-grid system with 32 kW capacity and energy storage of 86.4 kWh in Sre Ampil Community, Kampong Chhnang Province. The panels were provided by MOE.
- Clean Energy Incubator

 The progress of four business ideas under the Clean Energy and Agriculture Incubator programme and associated LVG contract with EnergyLab was extended until 30 April 2021.
 Final reports including financial statements are expected to be received within this due date.

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3.2. Building technical capacity for installation of solar, and their maintenance

- Guideline report on Efficient Energy code is completed (Phase 2)
- Four GDE officials received hands-on training on pico-hydro assessment from UNDP energy advisor during the field assessment in February 2021 in Ratanakiri province. This also included assessing site potential for hybrid system development, including solar as part of the solution in addressing energy access gap.

3.3. Strategic communication and awareness raising

• Two promotional video clips on off-grid solar energy and efficient energy building and educational materials were developed and are being finalised.

3.4. Development of enabling policies and measures for solar

- A localized energy efficiency design guideline is under development
- A pilot demonstration of energy efficiency solutions in a public building is under process

3.5. Programming and resource mobilization

None for this quarter.

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PROGRESS ON PLANNED ACTIVITIES AND RESULTS FOR THE PERIOD FROM JANUARY – March 2021 AGAINST INDICATORs

UNDP Strategic Plan Output Alignment: 1.4.1 Solutions scaled up for sustainable management of natural resources, including sustainable commodities and green and inclusive value chains

CPD Outcome Alignment:

- 2.1: Targeted cities and urban centers prepare and operationalize solid waste management plans to reduce environmental pollution impact from solid waste.
- **2.3**: Rules and regulations formulated and adopted for forest/natural resource management and market solutions developed for conservation and renewable energy.

CPD Output Alignment:

- **3.2.3:** The extent to which natural resources are protected, conserved and sustainably managed as measured in: (i) Percentage of forest cover; (ii) Percentage of protected area
 - (i) Baseline (2016): 48.14% Target (2023): TBD; (ii) Baseline (2018): 41% Target (2023): TBD
- **3.3.1:** Number of multi-sectoral policies, legislation, plans and strategies relevant to sustainable production and living, which are developed/updated Baseline (2018): 7 Target (2023): 15

CPD Output Indicator(s) Alignment:

Output 1.4.1: Solutions scaled up for sustainable management of natural resources including sustainable commodities and green and inclusive value chain

- Indicator: Natural resources that are managed under a sustainable use, conservation, access and benefit sharing regime: a) Area under sustainable forest management (hectares)
- Baseline (2017): 776.046 ha (under CF and CPAs); Target (2020): 1 million ha

Output 1.5.1: Solutions adopted to achieve universal access to clean, affordable and sustainable energy

- Indicator: Number and proportions of households benefiting from clean, affordable and sustainable energy access disaggregated by a) women-headed, b) in rural areas, c) in urban and peri urban areas
- Baseline (2017): 0; Target (2020): a) 50 HH, b) 200 HH, c) NA

baseline (2017): 0, Tanget (2020): a) 30 Titl, b) 200 Titl, c) Titl.			
Output Indicators	Baseline (2018)	Target (2020)	Status (Achievements and Challenges)
Output 1: CBNRM institutions streng	gthened and	d financial reso	ources mobilized for sustainable NRM
1.1.Extent to which CBNRM institutions are strengthened		Target: 1	Since January 2021, the Department of Community Livelihood (DCL) has conducted a series of activities as follows:
Measured on a three-point scale: 1= Some extent:	0	Result: 2	 From 15-17 January 2021, DCL conducted meetings with CPA members in Kulen National Partk, Siem Reap Province. The activity aimed to review a five-year management plan and proposed an annual action

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2= Moderate extent:			plan There were 155 menticinants including 10 warmen
			plan. There were 155 participants including 19 women .
3=Great extent:			 From 26-29 January 2021, DCL/DGLC team facilitated and invited key members in CPA to attend the meeting on Community Protected Area Network and Annual Learning Forum. There were 80 participants including 6 women attended. They were from the North Tonle Sap Community Protected Area Community Network Committee.
			 On 23 January 2021, DCls met with CPA management committee and members and selected 25 CPA members, including 4 women to be provided the training on chicken raising. In Khlar Khum village, a newly expanded area for CPA Po Peal (800ha) were officially endorsed and being regularly patrolled by Kulen Park rangers. A community-based ecotourism center was constructed and equipped with fundamental tourist information of the areas in English and Khmer. The center is aimed to be opened by March, but it is now delayed because of the Covid-19 community transmission event on 20 February. Tourist tracks connecting 4 unvisited waterfalls were updated.
1.2. Number of total and female			Seven households are raising pigs and chickens, there will be 5 more
headed households benefit			households signed up in the next quarter.
from CBNRM			 Through DCL work, two vocational training on chicken raising and basket making skills were provided to at least 100 participants, of which 30 were women.
		Target: 30	o From 24 February 2021, the DGLC provided the training on Chicken
		_	Raising to CPA members in Kulen National Park. The overall objectives of the leaning forum are to: to provide additional knowledge,
	N/A	Results: 100 (30 women)	experiences and interaction among facilitators and participants on above topics to additional income and improve nutrition of family members. There are 20 participants includes 2 women . o From 05-06 March 2021, Field work for meeting with CPA members to select member for vocation training in Kulen National Park. The objective of this activity are: Select member for vocational training on Basket, food and organic farm and Build knowledge to CPA member and Improve local livelihood. There are 80 participants included 28

			women.
1.3. Extent to which pilot PES approaches are operationalised for Kulen Mountain Measured on a three-point scale as below: 1=Some extent: Initial fund collection and distribution mechanism agreed 2= Moderate extent: PES operational mechanisms (including fund collection & management, implementation strategies and arrangements, and monitoring system) designed 3=Great extent: PES operational mechanisms implemented	N/A	Target: 2 Result: 1	 Private Champion Companies to fund PES is under negotiation in Kulen. Three Prakas for establishing PES governance structures are under development and waiting an approval from the Minister. Covid-19 has caused some financing options to be re-assessed and willingness-to-pay study also requires an update. The team is reviewing the need to monitor the quality of ecosystem service. Tools for assessing the water quality of Kulen and Kbal Chhay will be purchased in the next reporting period.
1.4 Extent to which pilot PES approaches are operationalized for Kbal Chay Measured on a three-point scale as above.	0	Target: 2	Based on the results from the conceptual design and result framework, PES could be implemented as above.
1.5 Extent to which a national PES policy is developed Measured on a three-point scale: 0= None: No initial drafts 1= Moderate extent: Initial assessment and analysis 2= Great extent: final draft of policy ready for endorsement	0	Target: 1 Result: 2	 A PES Mechanism for PES in PKNP and KCMUA is listed as below: Three Prakas on PES governance structure were drafted and awaiting an approval from the Minister of Environment. Those include the governing board and its secretariate and at the national level and two PES Provincial Technical Working Groups are aimed to be established by the local governments of Siem Reap and Preah Sihanoukville provinces Online surveys for wiliness to pay are under process. PES Roadmap (2021-2030) drafted in English and Khmer translation are being reviewed by the focal points.

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 1.6 Extent to which gender concerns are integrated into the proposed policy measures Measured on a three-point scale: 1= Some extent: relevant policy documents refer to their possible impacts on men and women 2= Moderate extent: relevant policy documents refer to their possible impacts on men and women and include some measures to ensure positive impacts 3=Great extent: relevant policy documents include full measures and budget to ensure positive impacts 	0	Target: 2 Result: N/A	Gender is centrally considered in most of the project activities, for example we mainstream this capacity building in tree planting activities. During the tree maintenance in 2021, 80 women-headed households out of 498 household participated in this work. At the skills training session, over 50% were female participants.
1.7 Volume of financial resources mobilized to support proposed measures, measured in USD	0	Target: 0	 No additional PES fund generated to support the two targeted protected areas has been mobilized this period. PES has been prioritized as one of the finance solutions in the Phase II Biodiversity Finance Initiative (BioFin). The goal is to be a strategic resource mobilization for the protected areas in the future.
1.8 Number of people with improved awareness on benefits of biodiversity and PES approach Measured by the number of people outreached by communication materials	0	Target: NA Results: 4,500 reaches	The number of social media reaches is only generated from the UNDP Facebook page when a post on conserving biodiversity to prevent future pandemic.

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1.9.1 Number of families being enrolled in income generating activities such as tree-planting, maintenance of forest plantation and nursery development (activity 1.8)	0	Result: 1,723- Over target	 2,448 people of 1,723 families have been enrolled in income generating activities which include tree planting, planted tree maintenance and flooded tree nursery development and maintenance. Additionally, at least 1,000 seedlings were planted to replace dead trees under the maintenance stage within this reporting period.
1.9.2 Number of Hectares new tree-plantation and number of Ha maintained	0	Target: 140 ha Result: 131.93ha - under target	 This quarter is focused on the maintenance of the tree plantation (131.94Ha) and ensuring the tree survival. The survival rate of planted tree varies depending on implementing partner site ranging from 65% to 75%. However, the overall survival rate is approximately 70%. At least 5,400 seedlings were planted to replace the dead trees during the maintenance stage in this quarter. 9 local species were planted and germinated include 1) Beng (<i>Afzelia xylocarpa</i>) (Kruz.), 2) Koki (<i>Hopea helferi</i>), 3) Yeng (<i>Dipterocarpus alatus</i>), 4) Kroghoung (<i>Dalbergia cochinchinensis</i> Pierre), 5) Thnong (<i>Pterocarpus Macrocarpus Kurz</i>), 6) Kokosh(<i>Sidora cochinchinenensis</i>), 7) Ang kanh (<i>Cassia siamensis Lam</i>), 8) Phdiek (<i>Anisoptera costata Kort</i>), and 9) Chheuteal (<i>Dipterocarpus alatus Roxb</i>) In Siem Reap, the survival rate of the tree plantation varies from 20% to 90%. In four plantation areas in Phnom Kulen National Park, the survival rate was estimated at approximately 20%, while the three plots in Chankran Roy Biodiversity Conservation Corridor could reach 90%. In Pursat, the tree plantation under the support from GDLC and RECOFTC, the survival rates are varied by tree species ranging from 45% to 65% depending on different species. The flooded tree seedlings (almost 60,000) at Tonle Sap have been well maintained and seedlings are healthy. The plots for planting the seedlings are identified and waiting to be planted in late May or early June 2021, when the rainy season starts. Currently, Covid-19 has restricted our movement from one area to another, but the team is also preparing a tree plantation billboard to be installed on the site and tree planting workers were also selected.

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1.9.3 Dollars paid out as cash compensation for work under activity 1.8 Output 2: Waste reduced, recycled and	reused t	Target: USD 210,000 Result: USD 173,595 – under the target	To date, USD 173,595 has been paid to vulnerable people/tree planting workers. It is estimated that another payment tranche (USD 60,000) is also set aside for the cash for work in the 2 nd quarter of 2021. Ation of circular economy models
2.1. Extent to which a pilot is designed and implemented (municipality) Measured on a three-point scale: 0= None extent: Pilot is not designed 1= Moderate extent: Business model for pilot is designed, proposed, and consulted on with stakeholders 2=Great extent: Pilot is designed and implemented, with a business model tested and resulting data collected.	0	Target: 1 Result: 1	 Under the NCDDS section, there are a number of results achieved. These results help lay the foundation which needs to be in place for a circular economy model. Exchange visit from Battambang waste management to learn how the municipal authority has played an important role in waste management Establishment of a Deka on waste pricing still remains a challenge, but it could be endorsed by the early May. Five municipal waste separation depots in Kep were endorsed, including two permanent stations and three mobile waste stations. The construction will be completed in late May or early June.
2.2.Extent to which a circular economy pilot is designed and implemented (industry) Measured scale as in 2.1 indicators & targets j	0	Target: 1 Result: 1	 Guidelines for on-site incinerators have been drafted and under a consultation process to reflect the recommendations from the assessment of garment's on-site incinerators. Surveys to map out the waste-to-energy boilers in garment factories were under assessment.
2.3. Number of people outreached for raising awareness on appropriate waste management Measured by number	0	Target: 400 Results: DMC: 9.000-	 Outreach campaigns have been carried out with various responsible partners as below: Under NCSD/MoE, the Department of Green Economy (DGE) and the Department of Solid Waste Management (DoSWM), the following points are some key results: The script of the Two videos CE actions in Battambang and 5 Rs are drafted

2.4.Extent to which enabling policy measures are developed for the support of circular economy Measured on a three-point scale: 0= None: 1= Moderate extent: an initial set of policy measures are proposed 2= Great extent: agreed set of measures receive government endorsement	Target Result: Achiev	are under the design phase and will be installed in the next reporting period. • Department of Media and Communications (DMC), RUPP • The new grant agreement with the DMC for a plastic campaign signed and the detailed plans for social media campaign was developed. The DMC students have posted three media items, including Re-five Logo with fabric mask, Poster: About Covid19, and "We are back poster", reaching 9,000 readers. • National University of Management (NUM): • A new grant agreement is under development and will be finalized in April. Under this campaign, NUM is committed to increase two more buildings to become plastic bottle free. Together with Combatting Marine Plastic Project, a music video and animation on plastic waste were developed. This will be launched in late May. • The Circular Economy Strategy and Action Plan (CESAP) in English and Khmer was finalized. • The department of solid waste management (DoSWM) has drafted a sub decree on plastic management.
2.5 Extent to which a private sector engagement strategy is	Target	• Private sector platform is almost finalized and will be publicly launched in the next reporting period.
designed and implemented	Result	, 5,
Measured on a three-point scale:	Achiev	
0= none		
1= Moderate extent: Strategy is		
designed but not implemented		

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2= Great extent: Strategy is operationalized including an online platform and pilot initiative 2.6 Volume of financial resources mobilised to support proposed waste management measures, measured in USD Output 3: Improved access to clean,	0 affordable .	Target: US\$500K Result: N/A and sustainab	No new projects developed. e energy for the rural poor
3.1 Solar PV energy business models or new technologies developed to provide electricity, incl. for productive use Measured by number of business models/technologies	0	Result: 1 technology for solar access; 1 business model and 4 business ideas selected – Over target	 Solar based DC microgrid equipped with Okra smart mesh-grid technology provides 24/7 clean energy to communities for productive appliances from refrigeration to electric cooking. This business model is to demonstrate the power of renewable off-grid energy solutions DC microgrid is a sustainable business model to electrify the remote off-grid communities. BESD has recruited a consultant to analyze and develop a business model for off-grid electrification using microgrids in Cambodia.
3.2 Number of rural households benefit from solar PV system installed for access to energy incl. for productive use Measured by number households (male and female headed)	0	Target: 100 Result: 140 – over target	 The DC microgrid electrifies 140 households across three villages. Status on the upgrade of system for 55 households including streetlighting will be reported in the next reporting period. Completion of the installation of the 32.64kW solar off-grid system at Sre Ampil community, Teuk Pous District, Kampong Chhnang Province with newly procured off-grid inverters and battery storage (86.4kWh). When the transmission line is constructed, it will connect at least 60 households of this village. With the remaining budget from activities that cannot conducted due to Covid-19, BSED project has decided to support the development of off-grid

		1	
			solar based AC mini grid in Pa Tang Village. Eighty five (85) households with
222			341 people will benefit from this investment.
3.3 Number of female headed			No new record added for this period.
households benefit from solar PV		Target: 25	
system installed for access to	0		This is the accumulated figure form the past: 19 female headed households to
energy, water and productive use	· ·	Result: 19 –	benefit from DC based micro-grid in Kampong Chhnang province.
Measured by number of households		Under	
(female headed only)		target	
3.4 Number of technicians with			No new numbers added for this period.
enhanced capacities to design,		Target: 20	
install and maintain solar PV as per			
installation standards/guidelines	0	Result: 73	
(to be prepared)		(21	
Measured by number of male and		females) -	
female technicians		Achieved	
3.5 Number of community		Target: 20	No new numbers added for this period.
members with improved			·
awareness on benefits of solar and		Result: 95	
appropriate use of solar	0	(34	
technologies		females) –	
Measured by number of community		Over target	
members			
3.6 Number of National quality			SHS guideline was finalized and approved by MME. The guideline was
standards/guidelines for solar PV		Target: 1	endorsed by waiting to be published due to the Covid February 20 event.
technologies developed	0		Energy efficiency design guideline is under development, led by GDE. The EE
Measured by national quality		Result: 1 -	code is the design guideline for improving energy efficiency in building, that
standards/guidelines		Achieved	will be integrated in the building technical regulation being led by MLMUPC.
3.7 Studies and papers prepared to		Target: 4	No new numbers added for this period.
support RGC in evidence-based		Result:	'
policy making towards a balanced,	0	achieved;	
low-carbon intensive energy mix		four policy	
with a secure supply of power		briefs	

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Cross-cutting activity: Project Management Over this reporting period, the following results include:

The project board meeting was not conducted, instead the e-mail approval was carried out for budget revision version (G05).

Project Monitoring and Evaluation

• Two consultants are on board

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QUALITY OF RESULTS

QUALITY OF RESULTS	
Sustainability: Do the benefits of the achieved results have potential to last past this quarter?	The overall project management and arrangements of task division were working well as per agreed steps and actions. In addition, strategic communication for Component 2 has been conducive to create behavioral changes in the long run among target stakeholders. Plastic management has been incorporated well with a new 2.5year Project "Combatting Marine Plastic (2021-2023)". This quarter, several joint CE related products were developed between BESD and the Marine Plastic Project. Microgrid was setup with a community management on operation and maintenance with technical support from supplier, to ensure the
	microgrid will run smoothly and sustainably.
National Capacity: How do the project results help strengthen national institutions and service delivery?	As this project is implemented under NIM, most activities are planned and implemented by key government partners. On-the job training 'learning by doing' has helped them improve their knowledge and skills. Additional technical assistance and quality assurance have been provided by UNDP CO to enhance the national capacity for effective service delivery, partnership and regulation development or amendment where applicable.
	DGE took a leading role in facilitating consultations for the CE strategy and action plan. While GDE/MME has been providing technical inputs on the preparation of the solar home system guideline, bidding for microgrid, community setup, awareness raisings and training workshops.
Gender Equality and Women's Empowerment: How does the project contribute to promoting gender equality and women's empowerment?	Gender equality has been a key goal in every planned activity. This ranks from staff recruitment to local participants in the project activities. Gender assessment was conducted in the first quarter of 2019 and continue to be monitored over the implementation period. The project has reached gender targets for Component 2. While the other two components have contributed more as well. For example, women and children have access to a water system in Popel village. The social and environment was rapidly assessed for COVID-response activities when recruiting the workers for planting trees and building a tree nursery. At least 47% of recipients are women in these field and local partners and authorities realize the importance of women's empowerment in the implementing and monitoring the project activities.
	p.ceg and morning the project detivities.
Youth Engagement: How do the project results support youth in contributing to sustainable human development and peace? *optional*	A good example of youth engagement has been done through RUPP student led plastic free campaigns. Video competition will result in products of youth-led solutions to plastic waste management. During the water festival, over 9 million viewers, mainly youth have followed plastic campaigns.

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	The Youth has played a central role in the clean energy incubator programme and act as local technical agent for the solar DC microgrid (received training from Okra)
Climate Change: How do the project results help increase resiliency and reduce vulnerability to climate change? *optional*	The project has contributed to the outcome of climate change. This is done through reducing pressure to natural carbon stock in the projected areas through restoration of degraded ecosystems, building resilience for the rural communities and waste generation and emissions from fuel-based energy.
	Delivering the microgrid helps off-grid communities to use electronic cooker, water boiler, lighting and even refrigerator as well as productive use for home gardening. This helps reducing indoor air pollution and need of firewood.
No One Left Behind: In what way	The project's target groups include women-headed, vulnerable
do the project results help left	households and rural households who lack access to rural electrification.
behind communities and	
individuals? *optional*	

INNOVATION

What innovation initiatives have been implemented in the project?

What innovative methods	☑ Alternative Financing	☐ Mobile-Based Feedback Mechanism
were applied or tested this	☑ Behavioral Insight	☐ New and Emerging Data (e.g. Big Data)
quarter?	☐ Blockchain	☐ Positive Deviance
	☑ Challenge Prizes	☑ Private Sector Partnership
	☐ Crowdsourcing	☐ Randomized Control Trial/Parallel
	☐ Crowdfunding	Testing
	☐ Foresight	☐ Real-Time Monitoring
	☐ Games for Social Good	☐ Remote Sensing/Unmanned Aerial
	☐ Hackathon	Vehicles (UAVs)
	☑ Human-Centered	☐ Other (specify below)
	Design	
	☑ Innovation Lab	
	☐ Micronarratives	
If 'Other' was selected, please sp	pecify what innovative initiativ	e was implemented and what the result of
the initiative was:		

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SOUTH-SOUTH AND TRIANGULAR COOPERATION

Describe how South-South and Triangular Cooperation has contributed to your project?

Was South-South and Triangular Cooperation promoted and utilized	
through the project?	
If yes, briefly explain how.	For circular economy model, the project has explored the applicable
List countries engaged.	solutions with Asian nations as well as from western world.
	For PES, MOE is pursuing its collaboration with Costa Rica and exploring
	some practical lessons in the region, including China.

COMMUNICATIONS, KNOWLEDGE MANAGEMENT AND VISBILITY

The following communications results are listed below:

Knowledge Product Produced this year	Туре	Date Published /Produced	Target audience (# people reached)	Link (if available)
Zero plastic lover (MDC student-led campaigns)	Awareness	3/01/21	Youth and the public (Reach: 4,000 likes: 51)	https://www.facebook.com/watch/?v=69 6206357924403
Model primary school gardening	Awareness	11/01/21	Primary school children (Reach: 27.5K, likes: 346)	https://www.facebook.com/14130163593 6966/posts/3840579326009160/
A two-day consultative workshop on sub- decree for plastic management	Workshop	18/0121	Public (Reach: 2.8K, likes: 75)	https://www.facebook.com/14130163593 6966/posts/3859370840796675/
Featuring MOE Under Secretary of State's quote for shifting toward circular economy	Awareness	18/01/21	Public (Reach: 3.2K, likes: 109)	https://www.facebook.com/14130163593 6966/posts/3859782977422128/
Featuring UNDP Policy Specialist, Climate Change and	Awareness	20/01/21	Public (Reach: 5.1K, likes: 165)	https://www.facebook.com/14130163593 6966/posts/3862594807140945/

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	1	1	1	
Environment's quote				
for shifting toward				
circular economy				
Exchange visit to	Awareness	21/01/21	Public	https://www.facebook.com/14130163593
Battambang with			(Reach:	6966/posts/3864944826905943/
NCDDS team to			13.2K, likes:	
learn from municipal			233)	
waste management				
and plastic recycling				
Annual learning	Workshop	28/01/21	Project	https://www.facebook.com/14130163593
forum BESD Project			partners and	6966/posts/3885023308231428/
2020			public	
			(Reach: 3.5K,	
			likes: 114)	
Featuring lesson on	Awareness	28/01/21	Project	https://www.facebook.com/14130163593
Circular economy by			partners and	6966/posts/3885025424897883/
UNDP DRR			public	
			(Reach: 2.5K,	
			likes: 89)	
Guest speaking	Awareness	15/02/21	Project	https://www.facebook.com/14130163593
session by featuring	, wareness	13, 62, 21	partners and	6966/posts/3933473530053072/
H.E. Dr. Hor Peng,			public	0300, 5000, 0300, 170000000000000000000000000000000000
Rector of			(Reach:	
the National			17.3K, likes:	
University of			152)	
Management on			132)	
commitment for				
zero-plastic bottle				
building				
Tried out session at	Awareness	16/02/21	Youth,	https://www.facebook.com/14130163593
Kampong Chhnang	Awareness	10/02/21	teachers and	6966/posts/3935906776476414/
				0900/posts/3933900770470414/
on Greener Thursday			the public	
Programme with Ministry of			(Reach: 4.2K,	
,			Likes: 153)	
Education, Youth				
and Spots Access to clear and	Awaranas	14/02/21	The public	https://www.facebook.com/UNDDCarebo
	Awareness	14/02/21	The public	https://www.facebook.com/UNDPCambo
productive power at			(Reach: 4.2K,	dia/posts/3931125823621176
Kampong Chhnang			Likes: 130)	
Foaturing access	Awaranass	11/02/21	The public	https://www.facebook.com/UNDPCambo
Featuring access	Awareness	11/02/21	The public	
solar energy at			(Reach: 3.3K,	dia/posts/3923231527743939
Kampong Chhang			Likes: 94)	
Conserving	Awareness	02/03/21	The public	https://www.facebook.com/UNDPCambo
biodiversity reduce		, , , , , , , ,	(Reach: 4.5K,	dia/posts/3978749138858844
			Likes: 130)	1
	J	L		

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risk to future pandemic				
Plastic learning session	Awareness	05/03/21	The public (Reach: 2.6K, Likes: 80)	https://www.facebook.com/UNDPCambodia/posts/3984355288298229
Featuring plastic waste recycling in Battambang	Awareness	16/03/21	The public (Reach: 6.9K, Likes: 126)	https://www.facebook.com/UNDPCambodia/posts/4015053041895120
Plastic recycling	Awareness	18/03/21	The public (Reach: 2.6K, Likes: 50)	https://www.facebook.com/UNDPCambodia/posts/4018935024840255
Featuring business model on solar panel	Awareness	24/03/21	The public (Reach: 2.4K, Likes: 62)	https://www.facebook.com/UNDPCambodia/posts/4038383859562038
Refive Logo with fabric mask (led by DMC students)	Awareness	27/3/21	Youth and the public (Reach: 1054)	https://www.facebook.com/ReFiveCambodia/posts/20843950773 9239:0
Poster: About Covid19	Awareness	28/3/21	Youth and the public (Reach: 964)	https://www.facebook.com/ReFiveCambodia/posts/20915284433 4572
We are back poster	Awareness	29/3/21	Youth and the public (Reach: 7541)	https://www.facebook.com/ReFiveCambodia/posts/20992248759 0941
Featuring productive use and solar	Awareness	30/3/21	Youth and the public (Reach:2.5K, Likes: 62)	https://www.facebook.com/UNDPCambodia/posts/4056594777740946

Was the project	Battambang city as a role model for municipal waste management,
cited/quoted/featured in media	published at Phnom Penh Post and Khmer newspaper, Reaksmey
reports/articles?	Kampuchea
If yes, please provide link to	
article/video.	Plastic recycling in Battambong, published in ThmeyThmey

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PROJECT IMPLEMENTATION CHALLENGES

a. Updated Project Risks and Actions

See Annex 1 below for newly identified risks and actions.

b. Updated Project Issues and Actions

See Annex 2 below for newly identified project issues and actions.

KEY LESSONS LEARNT

- 1. Adaptive management is key to become COVID resilient and successful project implementation. To ensure some activities are moving, repurposed plans need to be rapidly developed in consultation with responsible parties to de-risk the implementation of some affected activities. It is important to work with key focal points of board members while seeking a written approval from the board.
- 2. Repurposed activities should be long-lasting and aligning with other projects. Investing in community infrastructure or testing new business model like DC/AC microgrids could be a good example of the repurposed activities that will have a longer-term impact.
- **3.** Preparedness is an important consideration in the project's implementation, especially for the time constraint situation. For specific case, TCO has prepared themselves to cope with the unpredictable climate (rainfall) in order to be able to plant the flooded seedlings in June timely. The land preparation is key to cope with unpredictable rainy season.
- **4.** Sustainability of project result usually is a challenge during the project's implementation. There has been a good example that RECOFTC and GDLC have intentionally prepared a plan with key stakeholders which include CPA, Samkos Wildlife Sanctuary, PDoE, and local authority. Then, to continue maintenance of the planted trees before their project phasing out.
- **5.** Having effective provincial partner is more important than ever to be successful and have timely implementation of the project on the ground because of COVID-19 travel curfew.

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Table 1: Contribution Overview (01 January 2019–31 March 2021)

	Contributions (USD)			Cumulative			
Donor Name	Committed in 2020	Received	Total Received	Expenditure	Balance	Remarks	
						Refer to AWP budget	
Sweden	2,904,840.06	2,904,840.06	2,904,840.06	2,234,155.65	670,684.41	revision G05	
UNDP [TRAC]	316,238.78	279,998.78	279,998.78	279,998.78	36,240.00		
Total	3,221,078.84s	3,184,838.84	3,184,838.84	2,514,154.43	706,924.41		

Table 2: Cumulative Expenditure Report (01 January 2021- 31 March 2021)

Activities - Description	Annual Budget (BREV/G05)	Cumulative Expenditure			Balance	Delivery [%]
		Gov't [Disbursed]	UNDP [Disbursed]	Total		
Output 1: C BNRM institutions strengthened and financial resources mobilized for sustainable NRM	261,668.67	51,638.55	86,325.08	137,963.63	123,705.04	53%
Output 2: Waste reduced, recycled and reused through the application of circular economy model.	294,241.58	26,523.96	40,935.21	67,459.17	226,782.41	23%
Output 3: Improved access to clean, affordable, and sustainable energy for the rural poor	290,166.84	-	70,808.70	70,808.70	219,358.14	24%
Project management (PMC)	134,108.17	23,170.34	28,182.33	51,352.67	82,755.50	38%
Total	980,185.26	101,332.85	226,251.32	327,584.17	652,601.09	33%

Note: The total expenditure excludes the 2021 commitment of US\$ 38,910

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Table 3: Cumulative Expenditure Report (01 January 2019 - 31 March 2021)

Autotica Bassinia	Total Budget [2019-	Cumul	Balance	Delivery		
Activities - Description	2021] G05	Gov't [Disbursed]	UNDP [Disbursed]	Total	Balance	[%]
Output 1: CBNRM institutions strengthened and financial resources mobilized for sustainable NRM	1,104,878.68	420,643.29	557,687.09	978,330.38	126,548.30	89%
Output 2: Waste reduced, recycled and reused through the application of circular economy model.	852,540.47	127,267.92	493,389.70	620,657.62	231,882.85	73%
Output 3: Improved access to clean, affordable, and sustainable energy for the rural poor	832,961.30	165,136.65	403,436.31	568,572.96	264,388.34	68%
Project management (PMC)	430,698.38	120,991.60	225,601.87	346,593.47	84,104.91	80%
Total	3,221,078.84	834,039.46	1,680,114.97	2,514,154.43	706,924.41	78%

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Table 4: NCSD in kind contribution report for period 01 January 2020-31 March 2021

Item	Unit	Unit Cost (US\$)	No of Unit	Number of months	Total
Staff's Time					
Government Officer	Person-Month	400	8	3	9,600
+ DBD/GSSD					
Meng Monyrak, Deputy Secretary General	Person-Month	400	1	3	1,200
Chhin Sophea, Vice Chief Office	Person-Month	400	1	3	1,200
+DGE/GSSD					
Taing Mengeang , Director	Person-Month	400	1	3	1,200
Keo Vanthoeun, Chief Office	Person-Month	400	1	3	1,200
+DCL/GDLC					
Kung Seakly, Director	Person-Month	400	1	3	1,200
Meas Sothunvathanak , Chief Office	Person-Month	400	1	3	1,200
+DSWM/GDEP					
Dy Kiden, Director	Person-Month	400	1	3	1,200
Dek Vimeanreaksmey, Deputy Director	Person-Month	400	1	3	1,200
Government NPD, DNPD	Person-Month	1200	2	3	7,200
Tin Ponlok , Secretary General of NCSD and BESD Director	Person-Month	1200	1	3	3,600

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Ma Chansethea , Director of DAPF and BESD Manager	Person-Month	1200	1	3	3,600
Coordination at ministry level	Person-Month	100	1	3	300
Office and Building/utilities					
Meeting rooms	LS-Time	400	1	3	1,200
Working space	LS-Month	1,000	1	3	3,000
Electricity and water	LS-Month	400	1	3	1,200
Grand total					22,500.00

ANNEX 1: RISK LOG

#	Description	Date Identified	Туре	Impact & Probabilit y	Countermeasure s / Management response	Owner	Submitted, updated by	Last Update	Status
1	Progress of activities to be implemented by SEAC is very slow. SEAC has difficulties in appointing new board members and recruiting the required staff. If no progress achieved by end of 2019.	02 December 2019	Organizati onal	P=3 I=4	The contract with SEAC might need to be terminated and unused fund needs to be reimbursed.	UNDP Energy Team	Visal Veng	P=2 I=2	Implemented
2	Impact of the COVID- 19 Pandemic	March 2020	Others	P=1 I=5	Repurposed project activities	UNDP Energy Team	Butchaiah Gadde	P=1 I=3	Implemented

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3	Impact of community transmission of COVID-19 in Nov 20	The 4 Nov event	Others	P=1 I=5	that were impacted by the pandemic – activities such as study tours, workshops etc. As above and conduct small groups (<20 pax) and virtual meetings	UNDP, NCSD, NCDDS and MME	PMU	P=1 I=3	Implemented
4	Impact of community transmission of COVID-19 in 20 February 2021	20 Feb 2021	Operational	P=2 I=5	Repurposed plans among IPs and RPs conducted and board approve the plan	UNDP, NCSD, NCDDS and MME	UNDP/PMU	P=1 I=3	Implementing
5	Unspent budget up to 80% with NCSD RPs	April 2021	Operational	P=2 I=4	Split the NEX advance in two tranches and keep monitoring NCSD's RPs to report Q1 expenditure Prepare Note To File for CO	UNDP/PMU	UNDP	P=1 I=4	Implementing
6	Rainy season is coming in Ratanakiri, which could cause difficulty to access to village to install solar	April 2021	Operational	P=3 I=3	Speed up the procurement and implementation	UNDP Energy Team	Vuthy and Butch	P=3 I=3	Implementing

7	Consultants for	April	Operational	P=3	More follow-ups	UNDP Energy	Vuthy,	P=3	Implementing
	Energy code and			I=2	with consultants	Team	Butch and	I=2	
	piloting EE measure						Sarasy		
	could not deliver								
	result								
8	During first quarter of	Jan 2021	Operational	P=4	IPs should apply	Tree planting	Kunka and	P=3	Implemented
	the year 2021, it has			I= 3	watering to sites	partners	IP's on tree	I=2	
	been very dry which				where is critical		plantings		
	would lead to more				and replaced the				
	newly planted trees				dead planted				
	die				trees with new				
					seedlings				

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ANNEX 2: PROJECT IMPLEMENATION ISSUES AND ACTIONS

Component	Issues	Action taken	By whom	By when	Status
1) NRM and PES	The revised workplan against COVID-19	Followed up and take action in accordingly and repurposed budget and workplan was reflected in October and notified the board	PMU/NCSD	July-Nov 2020	Implemented
	The field monitoring/ donor visit to tree planting sites was planned to conduct for 23-26 February 2021 to Siem Reap and Pursat	 Further monitoring to the rest of the tree plantations Keep close follow-up on the planting schedule of the flooded tree with an eye to ensure closure by 	BESD project team BESD project team	30 March 2021 30 April 2021	Implemented Implemented
	provinces. Because of the Covid-19 outbreak in the community (20 February Community Event), the visiting team could not finish and decided to finish the visit after completing activities on 24 February 2021.	project end date in June 2021			
	PES Piloting should have more strong support from the ministerial level	 DBD has submitted the proposed PES mechanism and fee collection options, and governance structure to the minister of environment Repurposed unimplementable fund from workshop/meetings to strategic media campaign in Kulen Host Technical Working Group (TWG) on biodiversity to seek inputs for PES roadmap, PES fund governance mechanism, and fee structure. 	Consultants and BESD project team	July-Dec 2020	Ongoing
	The additional tree activities require more institutional arrangements	Sought the BESD board members' endorsement of this virtually.	PMU/NCSD Sony Oum, Sovanna	July-Dec 2020	Implemented

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Component	Issues	Action taken	By whom	By when	Status
	outside the existing BESD project	 Coordinated with newly engaged partners via other UNDP contact persons from the REDD Project. Transparently communicated with key implementing partner and mapping key implementation steps/solutions. LOA and grant agreement co-signed and extended for 2021 	Nhem, Leif Holmberg and Pinreak Sou		
2) Circular Economy	There was a delay in signing LOAs between NCSD and two departments: 1) Green Economy and 2) Solid Waste Management due to difficulties in creating bank sub-accounts and focal points for implementing the projects.	 Conducted a series of meetings with the NCSD PMU and respective departments to speed up the process. Support the PMU with inter-department LOAs 	Sony Oum and Sreykhuoch Kim and NCSD PMU	Nov-Dec 2020	Implemented
	Delay in piloting municipal waste management in Kep by NCDD-S due to mainstream the plan into 3-rolling plan	Conducted follow-up meeting with NCDDS team and revised the workplan to reflect the reality.	Sony Oum and Sreykhuoch Kim and NCDDS focal points	Nov 2020	Implemented
3) Solar Energy	Delay in the issuance of purchase order (PO) for selected vendor to implement solar micro- grid	Decoupled O&M of DC micro-grid so that PO could be issued soon	Vuthy Va, Sarasy Chiphong (MME focal point)	June 2020	Implemented
	Delay in the advertisement of ITB for second village	Discuss with MME to finalise second village the soonest	Vuthy Va, Sarasy Chiphong	June 2020	Implemented

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Component	Issues	Action taken	By whom	By when	Status
			(MME focal point)		
	Delay in the field level activities for implementation of solar mini-grid in Ratanakiri because of lockdowns and travel restrictions	MME/UNDP will issue letter(s) as required to permit travel of the contractor team to field	Vuthy Va, Sarasy Chiphong (MME focal point)	May 2021	COVID-19 related situation was rapidly changing

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