



## Project Implementation Report

(1 July 2021 – 30 June 2022)

<b>Project Title:</b>	Implementation of PCB Management Programs for Electric Cooperatives and Safe E-wastes Management
<b>GEF ID:</b>	9078
<b>UNIDO ID:</b>	150048
<b>GEF Replenishment Cycle:</b>	GEF-6
<b>Country(ies):</b>	Philippines
<b>Region:</b>	SA - Southeast Asia
<b>GEF Focal Area:</b>	Chemicals and Waste (CW)
<b>Integrated Approach Pilot (IAP) Programs<sup>1</sup>:</b>	NA
<b>Stand-alone / Child Project:</b>	NA
<b>Implementing Department/Division:</b>	ENV / IPM
<b>Co-Implementing Agency:</b>	NA
<b>Executing Agency(ies):</b>	Department of Environment and Natural Resources – Environmental Management Bureau (DENR-EMB Lead Executing Agency); National Electrification Administration (NEA); Natural Resources Development Corporation (NRDC)
<b>Project Type:</b>	Full-Sized Project (FSP)
<b>Project Duration:</b>	60 months
<b>Extension(s):</b>	One (1)
<b>GEF Project Financing:</b>	6,200,000.00 \$
<b>Agency Fee:</b>	589,000 \$
<b>Co-financing Amount:</b>	35,868,712 \$
<b>Date of CEO Endorsement/Approval:</b>	12/21/2016
<b>UNIDO Approval Date:</b>	01/13-16/2017

<sup>1</sup> Only for GEF-6 projects, if applicable

<b>Actual Implementation Start:</b>	1/27/2017
<b>Cumulative disbursement as of 30 June 2022:</b>	4,506,218 \$
<b>Mid-term Review (MTR) Date:</b>	1/10/2020
<b>Original Project Completion Date:</b>	1/27/2022
<b>Project Completion Date as reported in FY21:</b>	1/27/2022
<b>Current SAP Completion Date:</b>	1/31/2023
<b>Expected Project Completion Date:</b>	1/31/2024
<b>Expected Terminal Evaluation (TE) Date:</b>	10/1/2023
<b>Expected Financial Closure Date:</b>	6/30/2024
<b>UNIDO Project Manager<sup>2</sup>:</b>	Carmela CENTENO

## I. Brief description of project and status overview

<b>Project Objective</b>
<p>The objective of the project is the protection of human health and environment through sound management of PCBs and PBDEs in e-wastes. The project grant will support segregation of PBDE-contaminated plastic from the general e-waste stream, and its disposal. It also aims to subsidize the disposal of PCBs from rural cooperatives and to further enhance the suitability of the existing facility to treat all PCB-contaminated materials including solids and metallic parts. Transformer replacement program will be financed through a loan package from DBP. Overall, the project is expected to achieve effective management of POPs-PBDE from WEEE, and PCB wastes and PCB-contaminated equipment assisting the Philippines to meet its obligation to the Stockholm Convention on POPs.</p>
<b>Baseline</b>
<p>The Philippines is a Party to the Stockholm Convention on POPs and is obliged to comply with the targets designed to reduce or eliminate releases from POPs. The Philippines, through the DENR has developed the National Implementation Plan (NIP) in 2006 and updated the NIP in 2014. In the updated NIP 2014, priority action plans identified include the need for the development and implementation of incentives for rural electric cooperatives to comply with the phase out of PCBs and the management of PBDEs from WEEE stream in the country.</p> <p>The project has three major components, namely: Component 1 - Management of POPs in Waste Electrical and Electronic Equipment (WEEE), Component 2- Sound management of PCB-contaminated equipment, PCB wastes and stockpiles from electric cooperatives and Component 3- Institutional Strengthening, capacity building and awareness raising. The baseline situation is as follows:</p> <p>A. E-waste management</p> <p>The DENR has existing policies on hazardous waste management, wherein E waste (M506 and</p>

<sup>2</sup> Person responsible for report content

M507) are classified as hazardous waste, however, there are no specific policies with POPs – related provisions, nor guidelines on the preparation of “WEEE Management Plans”. Furthermore, while the formal sector handling e-wastes are regulated by the government, there are no clear regulations on the informal sector. With the lack of specific policies on e-waste management and lack of technologies for the destruction of e waste with possible contamination of POPs-PBDEs, current practices in the informal recycling sector include dumping of plastic components of e-waste, dumping of the glass part of CRT monitors, processing of integrated circuit boards from ewaste with proper PPEs and the lack of environmental awareness on the hazards of e-waste processing is also apparent in the informal sector.

#### B. PCB management

The existing infrastructure on PCB management includes sound regulatory framework and the PCB disposal facility which was established through a previous UNIDO project (GEF ID 2329) “Global Programmed to Demonstrate the 2 Person responsible for report content<sup>3</sup> Viability and Removal of Barriers that Impede Adoption and Successful Implementation of Available, Non-combustion Technologies for Destroying Persistent Organic Pollutants (POPs)”. With the existing DENR policies, all owners of PCBs are required to submit a PCB Management Plan. The facility is under the management of the DENR corporate arm – Natural Resources Development Corporation, and has the capacity to treat PCB oil but would need to be upgraded to be able to treat transformers. In the 2014 updated NIP, one of the identified priorities is the development and implementation of incentives for rural electric cooperatives (EC)s to comply with the phased out of PCBs. During the PPG phase, 26/116 Electric Cooperatives in the country submitted an approved PCB Management Plan with data of 852 tons of PCB equipment and PCB oil safeguarded in their premises.

#### C. Capacity Building and Awareness Raising Activities

There are limited awareness and technical capacity in both e-waste and PCB sectors, thus, the need for a more systematic and wider implementation of training and awareness raising initiatives are needed. On the e-waste component, the informal sector lack technical capacity for the ESM of potentially POPs contaminated e-wastes, and there is no existing knowledge management system in place for e wastes. It was also reported that although there is awareness on POPs on the level of academe and some institutions, there is still lack of awareness on POPs – PBDE, HBB and PFOs among waste recyclers, and the general populace.

On the PCB component, the need for a further training for technicians in electric cooperatives were recommended to be targeted, as there were issues observed in their actual handling of PCBs within their premises.

Please refer to the explanatory note at the end of the document and select corresponding ratings for the current reporting period, i.e. FY22. Please also provide a short justification for the selected ratings for FY22.

In view of the GEF Secretariat’s intent to start following the ability of projects to adopt the concept of adaptive management<sup>3</sup>, Agencies are expected to closely monitor changes that occur from year to year and demonstrate that they are not simply implementing plans but modifying them in response to developments and circumstances or understanding. In order to facilitate with this assessment, please introduce the ratings as reported in the previous reporting cycle, i.e. FY21, in the last column.

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<sup>3</sup> Adaptive management in the context of an intentional approach to decision-making and adjustments in response to new available information, evidence gathered from monitoring, evaluation or research, and experience acquired from implementation, to ensure that the goals of the activity are being reached efficiently

Overall Ratings <sup>4</sup>	FY22	FY21
Global Environmental Objectives (GEOs) / Development Objectives (DOs) Rating	<i>Moderately Satisfactory (MS)</i>	<i>Moderately Satisfactory (MS)</i>
Similar with FY 21 reporting period, the e-waste component has achieved most of its GEOs. The PCB component still faces political and administrative challenges that GEOs' delivery is delayed.		
Implementation Progress (IP) Rating	<i>Moderately Satisfactory (MS)</i>	<i>Moderately Satisfactory (MS)</i>
Implementation progress, similar with FY 21, is rated as MS due to the delays suffered under the PCB component of the project.		
Overall Risk Rating	<i>Moderate Risk (M)</i>	<i>Low Risk (L)</i>
A rating of M is given for this reporting period as project stakeholders and proponents still struggle with the continuation of the PCB disposal operations in the country.		

## II. Targeted results and progress to-date

Please describe the progress made in achieving the outputs against key performance indicator's targets in the project's **M&E Plan/Log-Frame at the time of CEO Endorsement/Approval**. Please expand the table as needed.

*Please fill in the below table or make a reference to any supporting documents that may be submitted as annexes to this report.*

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY22
<b>Component 1: Management of POPs in Waste Electrical and Electronics Equipment (WEEE)</b>				
<b>Outcome 1 Strengthened legislation and institutional capacity in implementing PBDE action plans</b>				
Output 1.1: Rationalized <i>National Policy on WEEE Management formulated including incentive packages and Extended Producers' Responsibility (EPR) initiatives.</i>	Number of expanded/strengthened regulation incorporating quantitative criteria for POPs in WEEE guidelines and elements of EPR. Number of policies revised/strengthened relevant to PCB management for electric cooperatives	Regulations on hazardous wastes (DAO 2013-22) existing where e-waste is classified as hazardous wastes; Guidelines on Environmentally sound management of WEEE drafted.	Incentive Packages and EPR initiatives formulated and approved The Basel convention criteria related to the classification and management of	<ul style="list-style-type: none"> <li>The draft Department Administrative Order (DAO) on the Technical Guidelines on the Environmentally Sound Management of WEEE has been endorsed by the EMB to the DENR and was deliberated by the DENR Policy Technical Working Group on 30 April 2021</li> <li>The Amendment on DAO 2010-06 (Guidelines on the Co-Processing of Alternative Fuels and Raw Materials) has been approved by the DENR Secretary on 24 May 2021 and issued as DAO 2021-14. The DAO allows co-processing of PBDE-contaminated plastics from e-waste. The amendment</li> </ul>

<sup>4</sup> Please refer to the explanatory note at the end of the document and assure that the indicated ratings correspond to the narrative of the report

			hazardous E-waste are integrated in the existing or new regulations and guidelines	<p>of the said DAO was one of the recommendations of the project, as co processing in a cement kiln is the identified option for the disposal of PBDE contaminated plastic casings. With the approval of the new policy, at least one (1) cement company has already been issued with a permit to accept PBDE plastic casings from e-wastes. With the approval of this policy, the project could already proceed with the preparations for the disposal of PBDE contaminated plastic casings.</p> <ul style="list-style-type: none"> <li>• The correlation study on bromine and PBDE prepared in early 2021 recommended a threshold as bromine XRF reading of 500 ppm instead of 1000 ppm to be more conservative.</li> <li>• Considering possible impacts to the plastic recycling industry, the EMB has sought the WTO's inputs/comments on the adoption of a bromine/PBDE standards for plastics or plastic casings that will be recycled. Currently, the 1000 ppm bromine content cut off is being applied in the MRF/TSD facilities, however, based on the correlation study undertaken, the cut off should be 500 ppm bromine instead of 1000 ppm.</li> <li>• A guidance document for PBDE was prepared by the UNIDO International Expert, for the DENR-EMB. The report includes the following: <ul style="list-style-type: none"> <li>○ Calculation of PBDE based on the correlation study of bromine and PBDE, bromine readings using XRF spectrometer - 563.kg of PBDE in 22,372 samples of plastic casings</li> <li>○ Limits for PBDE in articles and biota, in other countries and recommendations for standards to be adopted subject to risk assessment and cost benefit study</li> <li>○ It further recommended that plastic casings with bromine content lower than 500 pm could already be disposed or recycled, while those higher should be safeguarded for further disposal.</li> </ul> </li> </ul>
<b>Outcome 1.2 Reduction and eventual elimination of POPs PBDEs releases from WEEE to mitigate their health impact</b>				
Output 1.2.1 <i>Systematized and standardized system</i>	Number of men and women; boys/girls protected from potential harm of E-waste. Presence of a standardized system for	Absence or lack of consolidated and reliable data on generation, collection,	Equal opportunities to jobs generated in this outcome ensured.	<ul style="list-style-type: none"> <li>• The use of XRF spectrometer to determine bromine readings are integrated in the work instructions or operational procedures of the MRF/E wastes facilities.</li> </ul>

for inventory of POPPBDEs and HBB in WEEE in the country	inventory of POPs-PBDEs in the country including enhanced capacity for screening and laboratory analysis	disposal and management schemes, while environmental awareness on the hazards associated with WEEE is low. The absence of specific limits for the characterization of POPs containing plastic hinders their segregation for non POPs wastes.	<p>Equal access to training, awareness raising event and information for women and men ensured. Systematic inventory of POPs in E-waste established. ESM of POPs contaminated E-waste demonstrated.</p> <p>system for the monitoring and inventory of POPs in E-waste, based on practical handbook, sampling and analytical methodology, prepared and demonstrated through:</p> <ul style="list-style-type: none"> <li>□ at least 10,000 analysis with portable xrf;</li> <li>□ 5% of xrf analysis confirmed by GC/MS or GC ECD method</li> </ul>	<ul style="list-style-type: none"> <li>At least 2 XRF spectrometer purchased in 2021 were provided to the e waste facility and to IRI, and it was reported that, about 34,604 readings of bromine had been conducted and recorded and, 28,166 readings were undertaken during this reporting period. This exercise also enabled the facility to determine heavy metal readings for Pb, Cr, As, Hg, Cd. These are heavy metals that are regulated by EMB through Chemical Control Orders or CCO.</li> <li>The new operators (4 men and 2 women) in the new dismantling facility in Dampalit, Malabon were given theoretical and hands on training on procedures for the systematic inventory of bromine/PBDE containing plastic casings and proper management of CRTs and other e wastes. Part of the training was the operations of the XRF spectrometer and data management. Resource speakers from the EMB were invited to provide talk to the operators on the effects of the chemicals in e-waste, as well as required permits from EMB DENR.</li> <li>To ensure that the screening of bromine will continually be undertaken in all e wastes facilities, procurement of additional XRF spectrometer was initiated. Technical specifications for the procurement of additional XRF spectrometer (5 units), were developed and procurement is on -going using UNIDO procurement rules and regulations.</li> </ul> <p><u>E waste Collection Events</u></p> <ul style="list-style-type: none"> <li>To promote the collection of household e-wastes, several e waste collection events were organized in at least 3 sites namely: Barangay San Agustin, Barangay Ciudad Real and DENR – EMB premises. Since the regulator of hazardous waste management is the DENR-EMB, the project team proposed that an e waste collection event start within their own backyard. During the said activities, different types of e wastes were collected, while the importance of proper e wastes management at home was highlighted. The major takeaway imparted to the communities during these events was that there are existing e wastes sites that can handle your e wastes, instead of disposing of it as an ordinary waste.</li> <li>Through the e waste collection events, awareness of the population on the</li> </ul>
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				<p>importance of proper management of household e wastes are highlighted as well as information on the existence of MRF/TSD facilities for e-wastes.</p> <ul style="list-style-type: none"> <li>• The events lead to the collection of at least 2,800 e wastes, mostly cable wires, cellphones and CRT TVs and Monitors. Further, the preparatory works on e-waste management involved 72 men and 49 women from the conceptualization until the delivery of e-wastes, thereby protecting this population from the harms of improper e waste management.</li> <li>• The e waste collection events were undertaken in partnership with homeowners' association, local government unit through the barangays or in partnership with private entities i.e. Globe Telecom and Smart/PLDT. The said companies are the major phone/internet providers in the country who have corporate commitments to support the Sustainable Development Goals of the country.</li> <li>• The collection event in Barangay San Agustin was undertaken with UNIDO Country Office and Smart/PLDT through the e waste to e learn concept. The partner LGU selected to promote the e waste collection drive chose the schools which would be the recipients of Smart's School-in-a-Bag (SIAB) initiative – where they were given e-learning materials (i.e. laptops, tablets, broad bands and digital learning books) from Smart Communications. The SIAB contains the e-learning materials for both the teachers and the students. 2 SIABs were awarded to San Agustin Elementary School and Nova Daycare Center, and their teachers were given a training on how to use the inclusions of the SIAB.</li> </ul>
Output 1.2.2  BAT/BEP demonstrated for the sustainable sound management of WEEE at selected waste recycling facilities	Number of operators adopting systems for the segregation of POP-PDEs from WEEE recycling operations.	Collection and recycling of household WEEE largely in the hands of informal recyclers, with a limited presence of formal recyclers processing mostly WEEE from corporates and institutions.	Incentive mechanisms developed under 1.1.1 to promote the collection of household E-waste, and the association of informal recyclers into formal organizations	<p><u>Financial mechanism</u></p> <ul style="list-style-type: none"> <li>• As of this reporting period, IRI has completed the purchase and collection of 49,173 units of CRTs from the association of e waste dismantlers from the 4 project sites. At the same time, around 537 tons of Pb glass have been disposed through encapsulation. In July 2021, IRI contract was UNIDO to enable the project to complete the purchase of 45,000 CRTs. It was reported that with the increase of copper price in the market, the cost of CRTS also increased. Thus, the IRI requested adjustment in their contract price.</li> </ul>

			of collectors demonstrated.	<ul style="list-style-type: none"> <li>With the continued engagement of IRI, they are tasked to overlook the operations of the 2 waste facilities. At present, there are 7 operators in MRF/Bagong Silang, 15 e wastes busters in the 4 project sites.</li> </ul> <p><u>BAT/BEP in place in the e waste facilities</u></p> <ul style="list-style-type: none"> <li>The Cost benefit Study initiated in early 2021 for the establishment of a 2<sup>nd</sup> site for a TSD Facility for e-wastes in Malabon, Metro Manila was finalized in October 2021 after several site visits and consultations with the stakeholders in the 4 project sites, including the TWG and other experts in the project. The recommendations are as follows: a. Establishment of an e waste processing facility is technically, operationally and economically feasible. The following were recommended: a. barangay to draft ordinances that would ban informal dismantlers from processing e-wastes as well as instill in residents the importance of e waste management through campaigns b. A cooperative between the barangays must be formed to oversee the operations and maintenance of the facility, subject to further analysis of a financial consultant c. The cooperative must facilitate the transition phase (accepting other e wastes). The output of the study will also serve as input to the policies on the collection of e- wastes by the challenges and lessons learned from the MRF/TSD facility for e-wastes in Bagong Silang, Caloocan City will also be prepared as an input to the study.</li> <li>The e waste facility in Bagong Silang and IRI are compliant with all DENR environmental permits as required by the DENR-EMB i.e. Transport Permit, Manifest System and Treatment and Storage Permit.</li> <li>With the e waste facility, it was demonstrated that actual dismantling of e wastes can be undertaken in a safe and cost-effective manner. Prior to the facility, it took one worker at least 2 hours to dismantle one CRT (from TV and computer). With the pneumatic tools in place, it takes only 5 minutes for the dismantling. Thus, for the past 2 years, the facility was able to dismantle 33,328 units of CRTS.</li> <li>The workers are also involved in the actual loading of CRTs to the trucks. IRI has been collecting the CRT picture</li> </ul>
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				<p>tubes, plastic casings and dismantled parts (including the recyclables) for storage in their premises.</p> <ul style="list-style-type: none"> <li>• The recyclables collected from the dismantling facility include copper, printed circuit board, speaker, metal and plastic casings (lower than 1000 ppm bromine). From the 49,173 units of CRTs, a total of 172 tons of recyclables amounting to \$64,925.00 was generated. The earnings from the recyclables are earmarked for the sustainability phase of the project.</li> <li>• Video of the dismantling prior to the establishment of the facility and in the facility are included in the Knowledge Management part of this report.</li> <li>• Further, continuous trainings are provided to the operators, including the drivers in charge of the collection. The training of the driver and helpers is part of the requirement of EMB prior to the renewal of the Transport Permit, while the training of the facility's Pollution Control Officer is a requirement for the renewal of the TSD permit. The e waste facility has at least 2 Pollution Control Officers.</li> <li>• The current practice is that the CRTs collected in Longos, Malabon are stored in their houses, while dismantling of other e wastes such as refrigerators are done in the roads. For the 2<sup>nd</sup> e waste facility, acceptance and processing of e waste other than CRTs will already be included in the process. During the training of operators in the e waste facility in Dampalit, Malabon, the dismantling of other e waste was included. The training was undertaken in the facility in Bagong Silang.</li> <li>• The actual dismantling of other e wastes was featured by Iwitness and the role of IRI in the management of e wastes was likewise highlighted.</li> </ul> <p><u>Sustainability Plan</u></p> <ul style="list-style-type: none"> <li>• To ensure that the e waste collection events are institutionalized, a transition to the sustainability plan is being prepared, with the engagement of EcoWaste Coalition to prepare the plan in consultation with experts and different stakeholders. Agreements entered into by the project and the barangay, which aims to support the operations of the e wastes facility include the following: a. Agreement between Longos, Dampalit and Capulong b. Agreement of the</li> </ul>
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				<p>project with Globe Telecom to support their e wastes zero c. Agreement of 2 local communities</p> <ul style="list-style-type: none"> <li>• Further, several recommendations were provided by the experts in several reports and consultative meetings, which includes the adoption of a policy for the prevention of dismantling of e waste from households in several barangays.</li> <li>• In December 2020, an agreement was signed between Barangay Bagong Silang and Junkshop Owners in December 2020, wherein the organization of junkshop in Bagong Silang committed to support the project, with this agreement, the junkshops are no longer accepting CRTs (TVs/computers).</li> <li>• The e waste facility in Bagong Silang still has 7 operators coming mostly from the samahan which were formally employed, whilst 20 e wastes busters were also employed. In several meetings with the village chief, the designation of additional staff (i.e. driver) for the facility was committed as part of the sustainability plan.</li> <li>• Detailed financial study for the operations of the facility was prepared by a financial consultant, considering the outcome and lessons learned in the 1<sup>st</sup> e waste facility. In his report, it was recommended that an agreement be signed between the barangay and the TSD Operator as well as enforce barangay resolutions.</li> </ul> <p><u>2<sup>nd</sup> E waste facility</u></p> <ul style="list-style-type: none"> <li>• The MRF of Barangay Dampalit , comprises of a biodigester, and storage for municipal solid wastes that are recyclable, which includes cartons, papers and plastics and has been allocated by the Barangay captain as site for an e waste facility to be upgraded by the project.</li> <li>• Through an agreement with Barangay Dampalit, spearheaded by the EcoWaste Coalition, the barangay agreed to its existing MRF to be used as a 2<sup>nd</sup> e waste facility for the project. A resolution in the barangay supporting the e waste facility was issued.</li> <li>• Globe Telecom, Inc., one of the largest phone and internet service provider in the county, through its E waste Zero project, entered into a partnership with the project. which was forged through a Cooperation Agreement signed in</li> </ul>
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				<p>September 2021. With the agreement, Globe Telecom committed to support the operations of the 2<sup>nd</sup> E Waste Facility, located in the MRF facility in Dampalit, Malabon.</p> <ul style="list-style-type: none"> <li>• Environmental permits such as ECC were secured by the project prior to the construction of the facility. In November 2021, a Certificate of Non Coverage (CNC) was issued by EMB and this enabled the upgrading works to be undertaken. The upgrading included a storage for collected and dismantled e wastes, and the working area for the dismantlers. The actual construction was monitored by the office of the barangay Dampalit.</li> <li>• The MRF/TSD facility for e-wastes Brgy. Dampalit are compliant with all DENR environmental permits issued. For Brgy Dampalit, the CNC issued in November 2021 was revised into an ECC in May 2022 and TSD Permit was issued in June 2022.</li> <li>• The construction commenced in December 2021 and was completed in February 2022, with the inauguration witnessed by representatives of UNIDO, EMB, Globe Telecom, EcoWaste Coalition and the host Local government unit in March 2022.</li> </ul>
Output 1.2.3 Safe Disposal of material containing PBDE and other hazardous chemicals	Amount of waste containing POP-PBDEs segregated and disposed.	Technologies for the destruction of POPs PBDEs is missing in the country, and plastic from WEEE is frequently dumped or burnt in the open, with release of POP-PBDEs and U-POPs.	Two E-waste recycling plants upgraded to improve the identification and the segregation and safe storage of POPs of containing waste and preventing the exposure of workers to hazardous material and substances. At least 50,000 CRT computer monitors or TV recycled with identification and segregation	<ul style="list-style-type: none"> <li>• 49,173 units cathode ray tubes (CRTs from TVs and computers) were collected from households, the project target is 50,000 CRTs.</li> <li>• At least 97 tons of plastic casings were recovered from the 49,173 units of CRTs. 39 tons of which have bromine content &gt;1000 ppm and these are the PBDE contaminated plastics that will be disposed by the project. The said plastic casings were shredded and stored in Jbags in the partner company, Integrated Recycling Industries, Inc. 58 tons of plastic casings which contain less than 1000 ppm bromine are returned to the recycling stream.</li> <li>• As per the PBDE contamination, it was calculated that, about 563.2 kg of PBDE are found in 22,000 units of CRTs screened with XRF spectrometer (plastic casings with readings higher than 1000 ppm).</li> <li>• As an associated benefit, 536.15 tons of glass containing Pb were disposed through encapsulation.</li> <li>• The PSC in its meeting in February 2022, has already directed the TWG and the PMU to prepare the terms of</li> </ul>

			and disposal of PBDEs containing plastic containing 1,150 kg of PBDE	<p>reference for the disposal of the PBDE contaminated plastic casings through co-processing. Several meetings were undertaken with cement companies involved in co-processing and for laboratories who have the capability to determine brominated compounds from the flue gas/stack of the disposal site.</p> <ul style="list-style-type: none"> <li>The project has further engaged IRI and EcoWaste Coalition for the collection and disposal of additional 50,000 CRTs from the 4 project sites. This is to ensure that 1.12 tons of PBDE are identified and disposed and the sustainability phase of the MRF/TSD facility are implementable.</li> </ul>
<b>Component 2 – Sound Management of PCB-contaminated equipment, PCB wastes and stockpiles from electric cooperatives</b>				
Outcome 2.1: PCB management plans of selected rural cooperatives effectively implemented.				
Output 2.1.1 Screening criteria and financial mechanism formulated for subsidized funding for qualified electric cooperatives to implement PCB Management Plan	<p>Number of policies relevant to PCB management for electric cooperatives harmonized</p> <p>Number of man/women trained</p>	<p>The Chemical Control PCB legislation already in force in the Philippine. Around 119 electric cooperatives (ECs)</p>	<p>At least 20 Electric Cooperatives joining the project</p> <p>Policies of the DENR integrated in the policies of NEA and ERC</p>	<ul style="list-style-type: none"> <li>The Memo Circular on the recognition of the CISE for PCB screening was approved. With the adoption of the new policy, the concerns of the Electric Cooperatives on the prohibitive cost of analysis of PCB oil (for screening purposes) is expected to be addressed. The EMB project team has been using the CISE screening equipment in analyzing the PCB oil /equipment of ECs as part of their validation of their PCB Management Plans.</li> <li>As a follow up to the previous study on the “management of PCB transformers” by UNIDO international expert, the EMB requested for specific policies clarifying retro filling. The draft clarification was discussed during a UNIDO mission in March 2022 and the report was officially transmitted to EMB by UNIDO. The proposed policy was presented by EMB Chemicals Management Section to their counterparts in the EMB Regional Offices in May 2022. The presentation of the draft policy to EMB RO is part of the consultative process in the adoption of the proposed recommendations of the project on the management of PCB contaminated transformers.</li> <li>A business plan was prepared by a UNIDO national expert for NRDC. Based on the said business plan, NRDC prepared the financial forecast for 5 years, wherein it reported to the DENR-EMB in January 2022 that the operations of the facility is financially viable.</li> </ul>

				<ul style="list-style-type: none"> <li>Based on the approved Project Document, at least 852 tons of PCB oil and PCB containing equipment have been committed to the project from 26 ECs. For this reporting period, there are now 33 ECs that committed, 21 ECs (200 tons PCB) have signed contracts with NRDC. Subsidy issued by the EMB amounts to \$911,780.00 for 455 tons. From the 200 tons, amounting to a subsidy of \$400,000, the ECs per contract with NRDC will be paying an amount of \$4/kg as their co-financing expense for the disposal of their PCB oil.</li> </ul>
Output 2.1.2. The PCB disposal facility at Limay, Bataan upgraded for undertaking further disposal of 600 t of PCB equipment coming from the Electric Cooperative	Equipment for the treatment of low contaminated PCB transformers at the disposal facility in Bataan	The PCB Dechlorination facility built in 2014 under the GEF project 2329 is currently operational and is completing the disposal of 1500 t of PCBs as envisaged as Co-financed contribution for that project. This does not include the PCB equipment from the ECs.	The PCB dechlorination facility upgraded to treat also solid waste contaminated by PCB (transformers, insulating materials) in addition to PCB contaminated oil. 600 tons of PCB or PCB equipment safely disposed during the project	<p><u>Sampling of PCB oil and Equipment</u></p> <ul style="list-style-type: none"> <li>The PCB facility has its existing laboratory equipped with a GC ECD that can analyze PCB oil using the Kinectrics Method of Analysis</li> <li>The PCB facility has a PCB CISE analyzer that can be used for screening of PCB oil for purposes of inventory</li> <li>At least 82 samples of PCB oil were analyzed by both EMB and NRDC from ECs and no-ECs.</li> <li>At least 2 EMB Regional Offices have purchased their own PCB screening equipment and reagents for the sampling</li> <li>EMB Central Office personnel normally provided training to their counterparts in the Regional Offices. As of now, there are 13 EMB staff (8 women and 5 men) who received training on the use of PCB screening equipment.</li> </ul> <p><u>Maintenance of the Facility</u></p> <ul style="list-style-type: none"> <li>In preparation for the training to be given by Kinectrics, the project organized a series of lectures for the PCB facility personnel, with resources speakers from EMB and Occupational Safety and Health Office of the Department of Labour.</li> <li>Theoretical and hands on training by Kinectrics commenced in December 2021 and was completed in February 2022.</li> <li>Technical Work Instructions or operations manual were updated during the training in addition to the hands-on training. The training covered the following: <ul style="list-style-type: none"> <li>Metal Decontamination (PCB)</li> <li>Porous Material PCB Treatment</li> <li>Solvent Recovery (PCB)</li> </ul> </li> </ul>

				<ul style="list-style-type: none"> <li>○ PCB Contaminated Equipment Disassembly</li> <li>○ Health and Safety Procedures</li> </ul> <ul style="list-style-type: none"> <li>• During the hands-on training, 4 metric ton PCB contaminated equipment were treated. With the training undertaken, Non Com Pops facility personnel, in a span of 2 months could carry out treatment of PCB oil and (transformer). Number of trained personnel are 11 men and 3 women.</li> <li>• As part of the requirements of other government agencies (i.e. PNRI) for the PCB facility, Non com POPs personnel participated in trainings focused on the requirements on occupational safety and radiation safety course sealed sources in industrial devices. PNRI issues an annual permit for the GC ECD, as a radioactive material.</li> <li>• Upgrading works for the processing of PCB contaminated equipment have been completed in 2020, however, to ensure that protocols for the operations of the facility are updated, training provided by several service providers for 14 plant personnel were completed in November 2021.</li> <li>• Routine maintenance of the facility electrical system, pumps, motors, switches and several system in the facility are undertaken lead by Non Com POPs personnel supported Repairs are done as needed under the guidance of by UNIDO experts and local service provider.</li> </ul> <p><u>Permits from the DENR and other government permits</u></p> <ul style="list-style-type: none"> <li>• Transport Storage and Disposal (TSD) permit of the Non-Com POPs Facility has been renewed by the DENR- EMB.</li> <li>• The compliance of the facility to other government permits were also reviewed by the consultant preparing the project's adherence to ESMP. The ESMP report for the facility was updated by their designated PCO.</li> <li>• The facility has existing permits from the LGU, and the EMB.</li> <li>• In the early part of 2021, the facility was able to process at least 55 tons of PCB oil and equipment from companies who are not Electric Cooperatives. During that period, IPM Construction Development Corporation was the service provider of NRDC who lead the operations of the facility. From July – August, NRDC management considered to lead the succeeding operations of the</li> </ul>
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				<p>facility, instead of contracting a third party, thus, operators and chemist were hired and trained.</p> <ul style="list-style-type: none"> <li>• The PCB facility has been able to process 257 tons of PCB oil and equipment since its establishment.</li> <li>• However, in September 2021, Entry Permit for the PCB oil and equipment which will be part of the operations for September was not granted by PNOC Industrial Park, NRDC raised the concern to the DENR management and negotiations between the DENR and PNOC started in September 2021 and still on going as of present.</li> </ul>
Output 2.1.3. PCB wastes screened, transported, treated and disposed at the existing Non-Combustion Facility at Limay, Bataan	Amount of PCB wastes disposed of in an environmentally sound way.	During PPG, more than 852 tons of PCB contaminated equipment were identified from 26 ECs. Very limited amount of analytical data is available.	At least 600 tons of PCB containing equipment ready for disposal or treatment identified	<ul style="list-style-type: none"> <li>• In June 2021, the resumption of the operations of the facility was reported. About 36 tons of PCB oil were treated, and during the hands-on training of Non-Com POPs staff, they were able to treat 4 tons of PCB transformers.</li> <li>• Prior to the issues with PNOC, NRDC has signed contracts with 18 Electric Cooperatives (EC) for the disposal of at least 190 tons of PCB oil and equipment, and 128 tons from other companies (non- Electric Cooperatives). NRDC has pending contracts of 315 tons from ECs and 200 tons from non-ECs.</li> <li>• To ensure proper transport of the PCB oil/equipment from the Electric Cooperatives and other PCB owners, NRDC contracted the service of accredited transporter for PCB and subsequently, Transport Permits were secured for the ECs.</li> <li>• While awaiting the PNOC concerns to be resolved, NRDC continued to undertake marketing and sign contracts with the other ECs and no- ECs.</li> <li>• During this period, additional 4 Electric Cooperatives, from Region 1, 6 and 12 participated in the project, including those that were met by the EMB Regional Offices. EMB has at least 16 Regional Offices nationwide.</li> <li>• In 2021, the Regional Directors were requested to assist NRDC in identifying further companies (ECs and non- ECs) to support the PCB facility. NRDC and EMB Regional Offices continued to undertake marketing of the PCB Disposal facility through zoom meetings that were organized by both EMB and NRDC. At least 7 consultation meetings were organized by EMB Regional Offices, participated by 131 participants, 66 male and 65 female from ECs.</li> </ul>

				<ul style="list-style-type: none"> <li>Further, the EMB Chemicals Management Section incorporated in their regular function the monitoring of PCB owners, including Electric Cooperatives to ensure support to the PCB facility.</li> </ul>
<b>Component 3 AND COMPONENT 4 – Component 3: Institutional strengthening, capacity building and awareness raising</b>				
<b>Outcome 1: Outcome 3.1 Increased capacity for and awareness on sustainable and effective WEEE and PCB wastes management by relevant stakeholders</b>				
Output 3.1.2: Awareness programs on WEEE and PCB waste management formulated and conducted	<p>Presence of awareness programs and materials on WEEE and PCBs.</p> <p>Increase of the awareness on PCB and POPs in e waste of relevant stakeholders measured through interviews and questionnaires.</p>	<p>The awareness on POPs is mainly limited to the academic society and some institutions.</p> <p>PCB awareness is very limited among managers of ECs, although it increases in the last years thanks to GEF initiatives. The awareness on POP-PBDEs, HBB and PFOs among waste recycler is substantially absent.</p>	<p>Awareness program on WEE and PCB waste management broadcasted via television and the web.</p>	<ul style="list-style-type: none"> <li>The project's website has been updated by EMB and the IEC materials have been published (ewaste.emb.gov.ph)</li> <li>A total of 14 Press Releases were prepared and published during the PIR period highlighting most of the activities pertinent to the ewaste component of the project</li> <li>3 Story Feature Article on the Face of E-Waste</li> <li>The project's website has been updated by EMB and the IEC materials have been published (ewaste.emb.gov.ph)</li> <li>Fate of CRTs from the "Samahan ng Magbabaklas" was featured in the I-witness link: <a href="https://m.youtube.com/watch?v=tOehT6Zh1qQ&amp;feature=share">https://m.youtube.com/watch?v=tOehT6Zh1qQ&amp;feature=share</a></li> <li>The project has launched its own youtube channel where all the project videos are posted (<a href="https://www.youtube.com/channel/UCB1gNWNWtomdRJKI4vP_dg">https://www.youtube.com/channel/UCB1gNWNWtomdRJKI4vP_dg</a>)</li> <li>A total of 14 Press Releases were prepared and published during the PIR period highlighting most of the activities pertinent to the ewaste component of the project</li> <li>The "Kwentuhang E-waste Series" was launched as dismantlers and experts talk about their challenges and the intervention of the project. (100 participants and now reaches 1.1K in viewership) <ul style="list-style-type: none"> <li>1 podcast was posted in spotify featuring youth expert on ewaste management</li> <li>4 project short documentaries produced featuring the lives of dismantlers (women and men), junkshop owners, ASL students and elementary students and how the project has helped them know about ewaste management</li> </ul> </li> <li>Launching of the #Ewaste to #Elearn Initiative in partnership with Smart Communications, to elementary students of San Agustin Elementary School via an e-learning session vis-à-</li> </ul>



				<p>vis a conduct of an Ewaste Collection Event in Brgy San Agustin, Quezon City</p> <ul style="list-style-type: none"> <li>• For the youth in the 4 project sites, a Poetry Writing Competition on the Effects of E-waste to the Youth was organized and the winners were announced in December.</li> <li>• Conducted Learning Session with Elementary Students on E-Waste 101 under the E-waste to E-learn Initiative of the project</li> <li>• Invitation to be resource persons to the following seminars: <ul style="list-style-type: none"> <li>○ E-waste Webinar conducted by SyCipLaw Firm to discuss on E-waste Management at home and in the office. Attendees were mostly lawyers</li> <li>○ E-waste Seminar conducted by the Green Legal Aid Clinic of Andres Bonifacio School of Law in Dipolog City, to discuss the e-waste project and e-waste management to their LGU partners</li> </ul> </li> <li>• Baguio Seminar on Hazards and Impacts of WEEE (70 participants)</li> <li>• Conduct of webinars/forum and orientation with selected LGUs,</li> <li>• Conduct of Trainings on the following: <ul style="list-style-type: none"> <li>○ Technical Training for the Operators in the E wastes facilities, organized by the project (7 participants)</li> <li>○ Technical Training in the Non-Com POPs facility given by Kinectrics, I control and RMEV (14 participants)</li> </ul> </li> <li>• Conduct of Workshops on the following: <ul style="list-style-type: none"> <li>○ Virtual Workshop &amp; Consultative Meetings with EMB Regional Offices in selected Regions was held in August 2021, with the objective of developing marketing strategies for NRDC (30 participants)</li> <li>○ Year-end assessment workshop for its stakeholders and project partners (25 participants)</li> <li>○ Assessment Workshop on the operations of the TSD facility (25 participants)</li> </ul> </li> <li>• Establishment of Partnerships through Signing of Cooperation Agreements and MOAs, such as: <ul style="list-style-type: none"> <li>○ Cooperation Agreement of the project with Globe Telecom to support their e wastes zero</li> <li>○ Memorandum of Agreement between Longos, Dampalit and Capulong</li> </ul> </li> </ul>
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				<ul style="list-style-type: none"> <li>○ Memorandum of Agreement of 2 local communities (Barangay Bagong Silang and Barangay Ciudad Real) to support the operations of the TSD facility in Barangay Bagong Silang</li> <li>• Organization and conduct of 3 E waste Collection events in local communities (Barangays) and 1 within the DENR-EMB</li> <li>• 2 High-Level Events conducted in 2021, which are the following: <ul style="list-style-type: none"> <li>○ Groundbreaking Ceremony of the Proposed TSD Facility for Dampalit in September</li> <li>○ MoU Signing between Brgy Bagong Silang TSD Facility and Brgy Ciudad Real in November</li> </ul> </li> <li>• 2 High-Level Event conducted in 2022, which are the following: <ul style="list-style-type: none"> <li>○ The Turnover Ceremony of the E-waste Bins from Globe to DENR in February</li> <li>○ The inauguration of the Dampalit TSD Facility in March</li> </ul> </li> </ul>
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### III. Project Risk Management

1. Please indicate the overall project-level risks and the related risk management measures: (i) as identified in the CEO Endorsement document, and (ii) progress to-date. Please expand the table as needed.

*Describe in tabular form the risks observed and priority mitigation activities undertaken during the reporting period in line with the project document. Note that risks, risk level and mitigations measures should be consistent with the ones identified in the CEO Endorsement/Approval document. Please also consider the project's ability to adopt the adaptive management approach in remediating any of the risks that had been sub-optimally rated (H, S) in the previous reporting cycle.*

	(i) Risks at CEO stage	(i) Risk level FY 21	(i) Risk level FY 22	(i) Mitigation measures	(ii) Progress to-date	New defined risk <sup>5</sup>
1	Resistance from informal sectors involved in WEEE collection and dismantling to modify their operations	M	M	Partnering with NGOs with very specific experience in cooperating with informal sectors with the specific role to increase awareness and promote the shifting toward the establishment of formal waste collection operation, linking them to the formal network or providing alternative livelihood options	<ul style="list-style-type: none"> <li>• As a result of the MoA entered into by the Junkshop Cooperatives and Bagong Silang, the junkshop operators in Bagong Silang and Camarin stopped from receiving CRTS for dismantling, however, there are some junkshop owners who are not members of the Samahan ng Mangangalakal who were</li> </ul>	<input type="checkbox"/>

<sup>5</sup> New risk added in reporting period. Check only if applicable.

					<p>reported to resist buying or accepting e wastes.</p> <ul style="list-style-type: none"> <li>During a meeting organized by EcoWaste Coalition wherein the operations of the e wastes facility in Bagong Silang was assessed, the junkshop in Bagong Silang reiterated in the meeting that they will cooperate with the activities of the e waste facility, even if this is run by a Cooperative.</li> <li>In a dialogue with the Chairman of Bagong Silang in November 2021, the barangay was requested to issue a resolution or an executive order banning the junkshops from receiving e wastes (CRTs, refrigerators). Draft resolution was already prepared</li> </ul>	
2	Segregation scheme impractical or not sustainable	L	L	<p>The technical and financial support from the GEF is aimed to cover the incremental cost associated with the segregation of POPs containing E waste. Technical and financial analysis of segregation scheme tailored to the specific recycler will</p> <p>Beyond the project calculations (2 to 5 years) showed positive revenues in the continuous operation of the TSD facility with the assumption that the e-waste volume is doubled, disposal costs are doubled, and operational expenses have 10% increase per year</p>	<ul style="list-style-type: none"> <li>For the transition phase to sustainability, of the e waste facility in Bagong Silang which collected at least 35,000 CRTs (TVs and computers), a feasibility study/financial forecast was prepared taken into consideration the data from the operations. The input of IRI, and other experts were incorporated in the financial study and in the operational strategy developed. Recommendations incorporated in the Operational Strategy are as follows: a. agreement between the Barangay unit and the TSD Operator be considered. B. Project to turn over the operations to the Parties c. project to provide seed funds to finance the operations.</li> <li>Using the input from the financial experts and the lessons learned during the operations, the civil society was tasked to ensure that specific actions leading to the sustainability of the e wastes facility is achieved.</li> </ul>	<input type="checkbox"/>

					<ul style="list-style-type: none"> <li>• Several dialogues had been arranged with IRI, barangay Bagong Silang, the project team and the experts, wherein it was relayed that the Samahan would like to avail of a vehicle for the transport of e wastes using the income from recyclables as seed money. The said seed money is being safeguarded by IRI. The barangay has committed to provide counterpart staff for the operations from 2023 onwards.</li> <li>• Barangay Bagong Silang has prepared an Executive Order banning dismantling on the roads</li> <li>• Prior to the establishment of the 2<sup>nd</sup> e waste facility, a cost benefit study was undertaken. The recommendations include the following: a. the barangay must draft ordinances that would ultimately ban informal dismantlers from processing ewaste, b. instill in residents the importance of e-waste management through campaigns. C. In partnership with Globe Telecom, the project could be provided with more initial funding and its impact could be further increased through promotions by Globe Telecom communities. Co-financing in cash was infused by Globe/Telecom for the operations of the E waste facility in Dampalit, Malabon</li> <li>• Although the UNIDO international expert recommended a cut off of 1000 ppm bromine content for plastic casings, instead of 500 ppm as used now, EMB requested the World Trade Organization's comment, as this may have an impact to trade</li> </ul>	
3	POPs contaminated E-waste not	M	M	Although this risk cannot be completely excluded due to the fact the inventory are based on	<ul style="list-style-type: none"> <li>• Based on the correlation study of bromine and PBDE and the 22,372 bromine</li> </ul>	<input type="checkbox"/>

	reaching the project target			indirect measurement of POPs, it is very likely that the inventoried POPs contaminated E wastes are an underestimation of the actual situation	<p>readings done by the project, it was calculated that the amount of PBDE in the plastic casings is at 563 kg. The project has a target of 1.12 tons and half is already achieved.</p> <ul style="list-style-type: none"> <li>The PBDE content of the remaining plastic casings will be calculated.</li> </ul>	
4	Disposal technology for POPs contaminated plastic not available in the country or too expensive compared to available funds	L	L	Market research will be undertaken to ensure that all possibilities have been studied	<ul style="list-style-type: none"> <li>During an international for a, the disposal of PBDE contaminated plastics was one of the topics, and it was confirmed by the international experts that there are limited options for the disposal, it is either through incinerator or co-processing in a cement kiln, In a study prepared for the project in 2019, co-processing using cement kiln was recommended, however, it was called by the international expert of the project that the Philippines does not allow co-processing of e wastes.</li> <li>A policy allowing co processing of e wastes was issued by EMB.</li> <li>The PSC directed the preparation of the Tor for the disposal of plastic casings and a mission was undertaken in March to enable the project to develop the ToR for the disposal of plastic casings and ToR for environmental monitoring.</li> </ul>	<input type="checkbox"/>
5	Disposal cost not competitive	M	M	An international bidding to improve the capacity of the plant will be held so that the technology improvement adopted will fulfill strict and financial requirements. The project will subsidize disposal costs for the ECS to ensure the competitiveness of disposal services	<ul style="list-style-type: none"> <li>The project did not see the need to undergo international bidding as there were service providers in the country who were capable to upgrade the capacity of the PCB facility. UNIDO international and national experts were requested to prepare the ToR for the upgrading of the equipment.</li> <li>The subsidy being offered by the project is considered by the ECs as an incentive, however, due to budgetary constraints e.g. brought</li> </ul>	<input type="checkbox"/>

					about by typhoon, at least 4/30 ECs withdrew from the project.	
6	Low participation and interest from the stakeholders to participate in awareness raising activities or training	L	L	Different methodologies and targeted materials will be developed to generate interests among stakeholders	<ul style="list-style-type: none"> <li>E waste stakeholders particularly the informal sector participate in trainings, despite their limited access to internet connection and zoom platform.</li> <li>The EMB has tapped its counterparts in the Regional Offices to continuously meet with ECs and NRDC. For this Reporting Period, the project has conducted 7 Consultation Meeting with NRDC, the ECs and EMB Regional Offices. An excel file to monitor the progress of contracts with Electric Cooperatives are updated on a weekly basis by the NRDC project team and presented during project team meetings.</li> </ul>	
7	Climate change associated risks	L	L	The Philippines is a country prone to natural disasters associated with climate change. The disposal facility is, however, located in an area with very low hydrologic risk. The project will reduce the environmental effect of flood by removing sources of POPs	<ul style="list-style-type: none"> <li>Bataan is always frequented with rain and storm, repairs in the Facility were undertaken by NRDC in September 2021.</li> <li>An emergency repair of the roof of the Non Com POPs facility was undertaken to mitigate the following risks: <ul style="list-style-type: none"> <li>Damages to equipment especially in the metal decontamination, porous treatment, and perchloroethylene storage area. Instruments and equipment that are found in this area are pumps, jib crane, indicators, and valves.</li> <li>Fire hazard in the sodium room if leaks extend to that area.</li> </ul> </li> <li>The 2<sup>nd</sup> e wastes facility located in Malabon is prone to flood, thus, this was incorporated in the actual upgrading ensured that the area is elevated. The road going to the facility though is flooded during high tide. The schedule of hauling is</li> </ul>	

					harmonized with the weather conditions.	
8	Activities stalled due to the lockdown brought about by COVID 19	L	L	Some activities could be delayed or could no longer be implemented.	<ul style="list-style-type: none"> <li>• Metro Manila was placed on strict lockdown until October 2021 causing delays in the hauling of e wastes from Barangay San Agustin, and Ciudad Real.</li> <li>• The lockdown also affected the works done by EcoWaste Coalition who has to undertake face to face meeting with the Samahan and other organizations. Works continued after the lockdown, taking into consideration the catch-up plan prepared by the project.</li> <li>• Sampling activities with ECs and non- ECs needed to be scheduled after the restrictions nationwide due to COVID were lifted. Sampling and validation are being undertaken by EMB and NRDC.</li> <li>• As part of the IATF protocol which is observed in the facility, exposure to a COVID infected personnel entailed the closure of the entire facility for at least 2 weeks. This affected the hauling and sampling activities scheduled during the period, at least 11 tons of PCB oil and equipment were not hauled from one of the clients.</li> <li>• Non Com POPs personnel were not allowed to enter the premises of the facility during the lockdown due to some personnel being infected with COVID.</li> </ul>	

2. If the project received a sub-optimal risk rating (H, S) in the previous reporting period, please state the actions taken since then to mitigate the relevant risks and improve the related risk rating. Please also elaborate on reasons that may have impeded any of the sub-optimal risk ratings from improving in the current reporting cycle; please indicate actions planned for the next reporting cycle to remediate this.

Based on the implementation progress of the activities under the PCB component, it is likely that a 2<sup>nd</sup> extension of 1 year (until 30 January 2024) will be requested.

3. Please indicate any implication of the **COVID-19** pandemic on the progress of the project.

Component 1

- In the TSD facility for e-wastes, safety protocols were adopted, so as for the operations to proceed despite the COVID 19- pandemic. For the informal waste sector, they continued to collect e-waste despite the pandemic, as they were on a “hand to mouth” situation. In several meetings, they emphasized that the presence of the “financial incentive mechanism” enabled them to have a regular income, and focus their work only on the collection of e-wastes, instead of also “dismantling” the e wastes/TVs.
- The 7 operators in the TSD facility, IRI staff undertaking the hauling, informal sector delivering e-wastes, are wearing masks and face shield and are complying with the COVID 19 management protocol. In addition, staff from IRI are required to take a weekly medical clearance.

Component 2

- There was a training for the operators by Kinectrics, however, due to the Covid situation, the training was conducted via zoom and a national expert on the operations was engaged to assist NRDC in the hands on training. Further to this, there were several materials for the laboratory (i.e. standards, isooctane) that were required by Kinectrics for the training, however, this could not easily be delivered on time due to the lockdown and restriction in Bataan in August. 2021. NRDC had to loan some chemicals from the EMB laboratory (i.e. hexane). Entry into Bataan was allowed only in October 2021.
- With the pandemic, all validation works could only be done in January 2022 after the lockdowns in 2021 which lasted from June to October 2021. In Bataan, entry were restricted until October 2021, so trips to the facility were limited to the residents of Bataan unless clearance from IATF were obtained.
- The validation or sampling of transformers from the ECs were requested prior to their signing of contracts with NRDC.
- Hauling activities were derailed after one of the Non Com POPs personnel was found to be positive. This resulted in the non pull out of at least 11 tons of PCB transformers from NGCP.
- In September 2021, when the NRDC raised to the DENR that they encountered issues with the PNOC and the entry permit for PCB oil and equipment were disapproved, the DENR management requested face to face meetings with the principals of PNOC. In the viewpoint of the DENR management, negotiations through face to face meetings rather than virtual are more formal.
- There were changes in the PNOC management, as a result of the pandemic, and the new management brought in a different perspective from the previous management, hence, additional negotiations of the Locator’s Agreement between NRDC and PNOC were needed, which is now the cause of the delay of the resumption of the operations.
- PCB disposal is not limited to PCB oil from the Electric Cooperatives, but would also be dependent on the inventory of EMB and marketing strategies of NRDC. The economic standing of many companies were affected, thus, some companies who initially committed to PCB treatment backed out.

Component 3

- E waste collection in the communities were delayed due to the lockdowns that occurred in Metro Manila from July –October 2022. In the case of Barangay San Agustin and Ciudad Real, the collection of their e wastes stored in their temporary storage sites were delayed for at least three (3) months until the covid restrictions were lifted.
- The lockdown also affected the works done by EcoWaste Coalition who has to undertake face to face meeting with the Samahan and other organizations. Works continued after the lockdown, taking into consideration the catch-up plan prepared by the project.

Component 4

- Site visits to monitor the operations of the e waste facility and Non-Com Pops facility, meet with stakeholders could only be undertaken after September 2021, after the restrictions in all parts of the Philippines were lifted.



**4. Please clarify if the project is facing delays and is expected to request an **extension**.**

In September 2021, a one-year extension of the project was granted to achieve major target activities such as disposal of PBDE contaminated plastics, treatment of 600 tons of PCB oil and PCB contaminated plastics, and establishment of the TSD Facility in Malabon City.

However, the project is yet to accomplish the target for the disposal of plastic casings and treatment of PCBs. These activities were not undertaken due to: a) Continued imposition of restrictions due to the COVID-19 pandemic which restricted the movement of project partners to implement project activities, b. delays in the environment permits issued to the 2<sup>nd</sup> TSD facility for e wastes, which is expected to process additional 15,000 of CRTs c) delay in the engagement of the service provider to undertake the disposal of plastic casings; and d) Issues with PNOC relative to the entry of PCBs into the Non-Com POPs Facility.

Measures have been undertaken to resolve the issues:

- The Terms of Reference for the disposal of plastic casings has been approved by EMB and has been endorsed to UNIDO HQ for the procurement of the service provider.
- Concerns with the ECC have been resolved with the EMB
- Series of meetings were conducted between the top management of DENR and PNOC to settle the issue on the repayment of the PhP172 M obligation.
- DENR and NRDC currently identifying sources of funds to reimburse the PhP172 M.

However, based on the implementation progress of the activities stipulated above, it is likely that a 2nd extension of 1 year (until 30 January 2024) will be requested.

**5. Please provide the **main findings and recommendations of completed MTR**, and elaborate on any actions taken towards the recommendations included in the report.**

*If the project has undergone a Mid-Term Review, please summarize the outcome and elaborate on specific actions taken towards implementing the recommendations included in the report.*

*NB: The information provided in this section will be used by the GEF Secretariat to measure the project's ability to adopt an **adaptive management approach**. This will be measured through the assignment of a **project-level proactivity index**.*

To UNIDO:	Status as of 30 June 2022
1 Due to numerous challenges faced by the project, the PCB component has suffered significant delays in the achievement of activities. At midterm, the non-combustion facility has not yet started the treatment of PCBs. To allow for the smooth and successful completion of activities, the evaluation recommends a project extension of one year.	Extension until 31 January 2023 granted by the GEF
To UNIDO, DENR, PSC:	
2 Upon the recommendations of an expert, further <b>analyses</b> were required to be able to correlate the levels of bromine (determined by the portable XRF spectrometer) and PBDE in plastic casings of CRTs and other e-wastes. As a result, the sound disposal of PBDE-containing plastics has not yet started, given that their PBDE content could not be	Correlation study and calculation of PBDE based on the correlation study completed,  Calculation of PBDE based on the correlation study of bromine and PBDE, bromine readings using XRF spectrometer - 563.kg of PBDE in 22,372 samples of plastic casings  UNIDO Report recommended that plastic casings with bromine content lower than 500 pm could already be disposed or

<p>confirmed by the ERF device. The <b>analyses</b> are still ongoing. The evaluation recommends that the project should closely monitor these <b>analyses</b> as they are key for the identification of PBDE in plastic casing by the XRF devices.</p>	<p>recycled, while those higher should be safeguarded for further disposal.</p>
<p>3. A policy recognizing the use of PCB screening equipment for inventory purposes has been drafted and submitted to EMB for approval since June 2020, but this has yet to be finalized. It is recommended that EMB take the necessary actions to approve and implement this policy as the PCB screening equipment is key for the validation / confirmation of the presence of PCB in the safeguarded equipment at the ECs.</p>	<p>Memorandum Circular policy recognizing the use of PCB screening equipment adopted by EMB</p>
<p>4. A project website, which contains relevant information about the project and results produced so far, was created by Ecowaste Coalition in October 2018 and handed over to EMB in April 2019. However, this website, which is key to showcase, share, and disseminate project results to partners and the wider community, is not currently functioning. The evaluation recommends that the project take the necessary actions for its good functioning, and suggests the nomination / appointment a focal point for its management.</p>	<p>Publications of the project incorporated in the EMB website and facebook pages of EMB and EcoWaste Coalition</p>
<p><b>To UNIDO, DENR, NRDC, NEA, PSC:</b></p>	
<p>5. Currently, with the project subsidy of 2\$ per kg of PCB treated, the proposed treatment cost (about \$5.1 per kg) at the non-combustion facility is competitive compared to disposal cost at dedicated international facilities (about \$4 inclusive of packaging and shipment costs). To remain competitive after project closure, the project partners should review the disposal cost at the non-combustion facility. Otherwise, there is the risk that PCB owners would prefer to export their PCB stockpiles for disposal.</p>	<p>NRDC in the 7<sup>th</sup> pSC meeting already agreed to review the cost of disposal for the ECs and included a provision in the contract with ECs that price can be adjusted.</p> <p>Cost will be reviewed/business plan after the facility resumes operations.</p> <p>Aside from disposal cost, NRDC should be able to tell PCB owners their competitive advantage over other companies processing PCB wastes.</p> <p><i>PSC instructions to NRDC:</i></p> <ol style="list-style-type: none"> <li>Financial plan to be revisited by NRDC (Identify add on for companies who will patronize the facility instead of availing of other services)</li> <li>Review the existing Business plan of NRDC for presentation to the PSC, NRDC and EMB to discuss strategies for the operations beyond 240 tons</li> <li>Financial consultant engaged to update the Business Plan</li> </ol>

<p>6. Many ECs indicated that the phasing-out, sound disposal, and replacement of PCB equipment constitute a financial burden for their institutions. The evaluation recommends that the project, in consultation with the relevant stakeholders, consider the most appropriate and feasible of the three proposed options to relieve the financial burden that the phasing-out of PCBs represent to the ECs: (i) to increase the kWh rate by an adequate quantum (to be determined during the consultation) and that would be acceptable all (e.g., less 10 centavos per kWh); (ii) national banks (e.g., DBP) to grant ECs with long-term soft loan, and the ECs could spread the cost to the consumers over a long period; and, (iii) possibility for ECs to apply for CAPEX funds to the ERC.</p>	<p>Concerns of Electric Cooperatives</p> <p>a. <i>DBP reviewing the eligibility requirements for the soft loan;</i></p>
<p><b>To UNIDO, DENR, TSD facility, IRI, PSC:</b></p>	
<p>7. The e-waste collectors of three of the four project sites indicated that lack of space for storage of CRTs was creating problems. In particular, some were apprehended by their local authorities. The evaluation recommends that the project, in consultation with the relevant authorities and project partners, try to find a solution to this storage issue. Alternately, IRI could consider increasing the frequency of its collection trips to the three concerned barangays.</p>	<p>From January 2021, adjustments were undertaken to address the concerns including the increase of hauling frequency</p> <p>Schedule of transport of e wastes from the MRF/TSD facility to IRI has been undertaken regularly, with the frequency increased by IRI.</p> <p>To ensure regular hauling, CRTs were dismantled according to the facility's operational protocol.</p>
<p>8. One e-waste association indicated that IRI comes to their area to collect the CRTs once weekly. However, about 30% of the collectors cannot wait as they depend on these for their daily income and subsistence. Thus, they still dismantle the CRTs in their homes / local communities and sell the recyclable parts for their daily income. In order to stop this, the evaluation recommends that the project, in consultation with the relevant project partners, should put in place a financial mechanism such that these 30% e-waste collectors get paid in advance before IRI comes to collect their CRTs.</p>	<p>With the increase in the collection capacity of IRI, the issue on the financial mechanism was already addressed.</p> <p>Amendment of contract of IRI approved by the PSC to address the price adjustments</p>

#### IV. Environmental and Social Safeguards (ESS)

1. As part of the requirements for **projects from GEF-6 onwards**, and based on the screening as per the UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP), which category is the project?

☐ Category A project

☐ Category B project

☐ Category C project

(By selecting Category C, I confirm that the E&S risks of the project have not escalated to Category A or B).

*Notes on new risks:*

- *If new risks have been identified during implementation due to changes in, i.e. project design or context, these should also be listed in (ii) below.*
- *If these new/additional risks are related to Operational Safeguards #2, 3, 5, 6, or 8, please consult with UNIDO GEF Coordination to discuss next steps.*
- *Please refer to the [UNIDO Environmental and Social Safeguards Policies and Procedures \(ESSPP\)](#) on how to report on E&S issues.*

Please expand the table as needed.

	<b>E&amp;S risk</b>	<b>Mitigation measures undertaken during the reporting period</b>	<b>Monitoring methods and procedures used in the reporting period</b>
<b>(i) Risks identified in ESMP at time of CEO Endorsement</b>			
<b>Waste Dismantling/Collection</b>			
	Accidental release of hazardous wastes (spill or leaks) which may lead to air, water and soil contamination	Spill Containment System in the storage area to prevent leakage of to the environment <ul style="list-style-type: none"> <li>• Regular inspection of container and equipment used in handling wastes</li> <li>• Emergency and Preparedness &amp; Response Plan</li> </ul> /Contingency Program	<ul style="list-style-type: none"> <li>• Emergency preparedness and response activities during floods and earthquakes are included in the usual fire, evacuation and chemical spill response drills for both the TSD facility for e-waste and the Non Com POPs facility.</li> <li>• PCB Facility has an updated Fire Safety permit from Bureau of Fire Protection – Mariveles, Bataan</li> </ul>
	Exposure of workers to physical, chemical and biological hazards	PPE Program <ul style="list-style-type: none"> <li>• Signage must be available on working areas</li> <li>• First Aid Stations</li> </ul>	<ul style="list-style-type: none"> <li>• PCB Facility and e waste facility are complying with IATF on COVID management.</li> </ul>

	Indirect exposure of residents nearby	Conduct Information and Education (IEC) to raise awareness to the toxicity of e-wastes	<ul style="list-style-type: none"> <li>Continuous awareness raising activities were done in the communities where the e waste facilities are located</li> <li>For the PCB facility, the facility is located in an Industrial Park, away from the residents and the sources of PCBs (Electric Cooperatives) have their own safety measures in place. The ECs have their Pollution Control Officers accredited by the EMB and have corresponding storage and disposal permits issued by the EMB on an annual basis; corresponding Permit to Transport and Manifest system are also in place</li> </ul>
	Loss of livelihood of informal waste pickers	Establishment of incentive packages to alternate livelihood	<ul style="list-style-type: none"> <li>Financial incentive mechanism was put in place</li> <li>Transition to sustainability of the operations were prepared</li> <li>At least 15 man and women from the informal waste pickers were hired as e-waste busters, while others in the operations of the MRF/TSD facility for e-wastes.</li> <li>Project has already established 2 MRF/E waste sites.</li> <li>Assessment Workshop of the operations of the facility held</li> </ul>
	Generation of solid wastes	Solid Waste Management Program	<ul style="list-style-type: none"> <li>MRF/TSD facilities and Non Com Pops facility have existing solid waste management collection system</li> </ul>
	Reduced health risks for the workers	PPE Program • IEC	<ul style="list-style-type: none"> <li>Health and Safety protocols are in place in the PCB and E waste facility</li> </ul>
	Increased capacity of ECs in disposing their PCB stockpiles	Financial assistance	<ul style="list-style-type: none"> <li>Thirteen (13) ECs with a total PCB waste volume of 193.8 tons, have signed contracts with NRDC to have their PCB waste treated as of June 2022.</li> <li>Subsidy amounting to \$400,000 has been issued</li> </ul>

			<p>by EMB and 387,600\$ of this were availed of by the ECs</p> <ul style="list-style-type: none"> <li>• FUSE program of DBP and NEA are options for the ECs to avail of other possible counterpart expense on the disposal</li> <li>• NEA facilitates the approval of the Revised Work and Financial Plan of ECs to include disposal of PCBs</li> </ul>
	Enhanced capacity of PCB owners in formulating PCB management plan	<p>IEC</p> <ul style="list-style-type: none"> <li>• Trainings/workshops</li> </ul>	<ul style="list-style-type: none"> <li>• 26 ECs submitted approved PCB management plan during the PPG phase, and an EMB-approved PCB Management plan is a requirement for the EC to participate in the project</li> <li>• Participation in the project would enable them to have access to subsidy for the disposal of their PCB stockpile</li> <li>• Awareness Raising activities of PCB stakeholders are organized by the project.</li> </ul>
	Increased awareness on sustainable and effective WEEE and PCB wastes management by relevant stakeholders	<p>Training/workshops</p> <ul style="list-style-type: none"> <li>• IEC</li> </ul>	<ul style="list-style-type: none"> <li>• At least 114 ECs participated in the Webinars undertaken by the project</li> <li>• Training for the operators of the TSD facility were given (use of XRF spectrometer and basic Hazardous waste management</li> <li>• Awareness raising activities are continuously being undertaken in the project sites by Ecowaste Coalition. At least 584 members (174 women 410 men) of the Samahan are adopting proper management of e wastes</li> </ul>
Waste transport			
	Accidental release of hazardous waste (spill or leakage)	<p>Check waste containers prior to transfer</p> <ul style="list-style-type: none"> <li>• Vehicles must be equipped with spill clean-up kit</li> <li>• Emergency and Preparedness &amp; Response Plan</li> </ul> <p>/Contingency Program</p>	<ul style="list-style-type: none"> <li>• Safety procedures are incorporated in the Non Com POPs facility Technical Work Instructions</li> <li>• E waste facility is limited to dismantling and does not generate any liquid wastes which would cost spill or leakages</li> </ul>

			<ul style="list-style-type: none"> <li>PBDE contaminated plastic casings are stored in IRI</li> </ul>
	Vehicle breakdown and accidents	Proper and regular maintenance of vehicles <ul style="list-style-type: none"> <li>All drivers must be properly trained</li> <li>Vehicles must have hazard warning panels</li> </ul>	<ul style="list-style-type: none"> <li>Transport is sub-contracted by NRDC and EMB requires Permit to Transport for the hauling of PCB oil and DT</li> <li>IRI has appropriate Permit to Transport from EMB (for e-wastes)</li> <li>Drivers for the e waste facilities and some workers attended a training as a requirement for all transporters of hazardous wastes</li> </ul>
	Traffic issues	Must have approved route from the waste generator to TSD facility to avoid densely populated areas	<ul style="list-style-type: none"> <li>Traffic concerns are part of the requirement of the Transport Management Plan in the application of Permit to Transport</li> </ul>
	Exposure of workers to physical, chemical and biological hazards	First Aid Kit must be available in the vehicle <ul style="list-style-type: none"> <li>PPE Program</li> </ul>	<ul style="list-style-type: none"> <li>First Aid Kit is included in the Emergency Preparedness Response of the TSD facility and PCB facility</li> </ul>
	Fire/Explosion	Vehicles must be equipped with fire-fighting equipment <ul style="list-style-type: none"> <li>Emergency and Preparedness &amp; Response Plan</li> </ul> /Contingency Program	<ul style="list-style-type: none"> <li>This is part of the requirements of EMB in the issuance of Permit to Transport</li> </ul>
(ii) New risks identified during project implementation (if not applicable, please insert 'NA' in each box)			
	The operational safeguards that were reported to be applicable to the project during the PPG phase include the following: OS1 Environmental and social assessment OS8 Information Disclosure OS9	Environmental and Social Management Plan was strictly implemented to reduce and mitigate the risks outlined in the ESMF. The continuous stakeholders' engagement; project consultation, presentation and status update were implemented. No complaint was received to this date. The continuous IECs and consultation led to the stakeholders' buy-in of the	<ul style="list-style-type: none"> <li>Revisit the ESSMP and assess if indicated mitigating measures are implemented. Number of IEC activities being tracked, attendance of target participants and materials generated are being uploaded in the website or rolled out. Number of complaints Number of NOV's Number of incidents and accidents</li> </ul>

	Accountability and Grievance Systems	project together with their dedication and commitment to meet the targets and objectives of the Project	
	Resistance from informal sectors involved in WEEE collection and dismantling to modify their operations	Partnering with NGOs with very specific experience in cooperating with informal sectors with the specific role to increase awareness and promote the shifting toward the establishment of formal waste collection operation, linking them to the formal network or providing alternative livelihood options EWC engagement; Financial feasibility and Continuous consultative meetings and focus group discussions with the officials of the “association of informal workers or magbabaklas” are being undertaken by EcoWaste Coalition, immediate concerns of the group are immediately elevated to the PMU 15 engagement with stakeholders’ with the assurance that the implementation of the project will follow a financial model that their current income from collecting waste will not be hampered plus the benefits of managing WEEE in an environmentally sound manner.	<ul style="list-style-type: none"> <li>Continuous consultative meetings and focus group discussions with the officials of the “association of informal workers or magbabaklas” are being undertaken by EcoWaste Coalition, immediate concerns of the group are immediately elevated to the PMU</li> </ul>
	Covid-19 related risks to operation of the facility and meeting the required targets for treatment	Review and revise operational procedure to include DOLE/IATF requirements such as social distancing and temperature/daily health check Operational safety controls such as disinfection procedure and additional PPEs shall be implemented Employ virtual communication process for the delivery and hauling of PCBs and WEEE	<ul style="list-style-type: none"> <li>Project will issue an advisory to project partners to comply with IATF requirements by reviewing installed protocols and operational controls such as PPEs, acceptance procedures and communication plan</li> </ul>

#### ESMP in the E waste facility in Bagong Silang

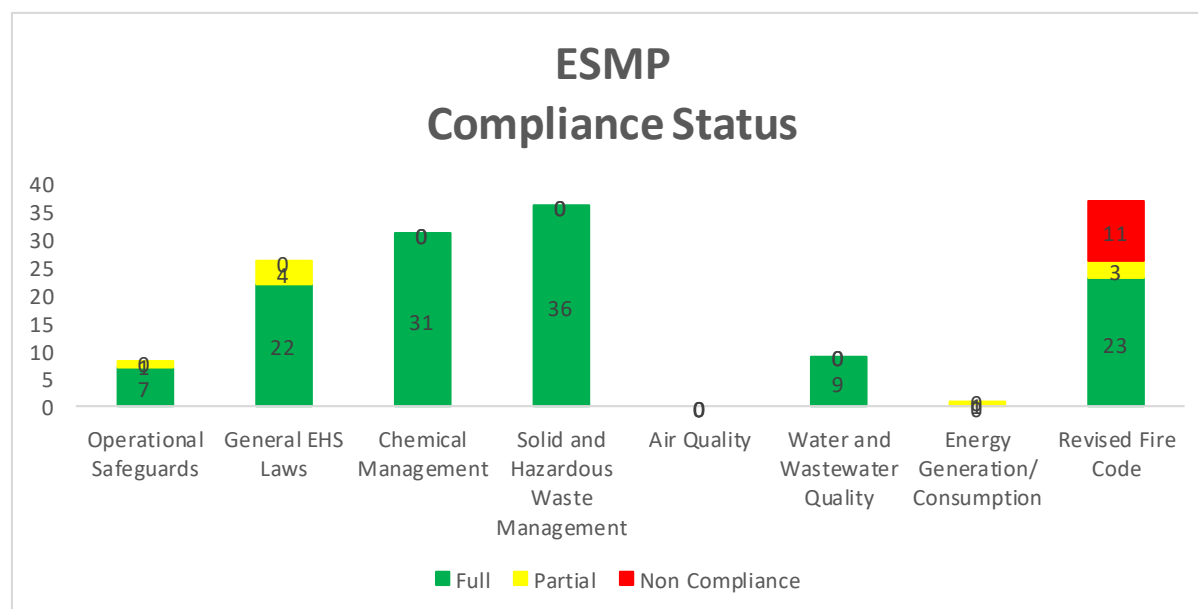


The ESMF checklist used for the facility covers eight (8) laws and provisions namely: Operational Safeguards; General EHS Laws; Chemical Management; Solid and Hazardous Waste Management; Air Quality; Water and Wastewater Quality; Energy Generation/Consumption; and Revised Fire Code.

As summarized, the TSD facility has 89.53% compliance rate for the assessment conducted for this quarter 2022 as compared to 80.06% over the same period last year 2021.

Classification	Full	Partial	Non Compliance
Operational Safeguards	7	1	0
General EHS Laws	22	4	0
Chemical Management	31	0	0
Solid and Hazardous Waste Management	36	0	0
Air Quality	0	0	0
Water and Wastewater Quality	9	0	0
Energy Generation/ Consumption	0	1	0
Revised Fire Code	23	3	11
<b>TOTAL</b>	<b>128</b>	<b>9</b>	<b>11</b>

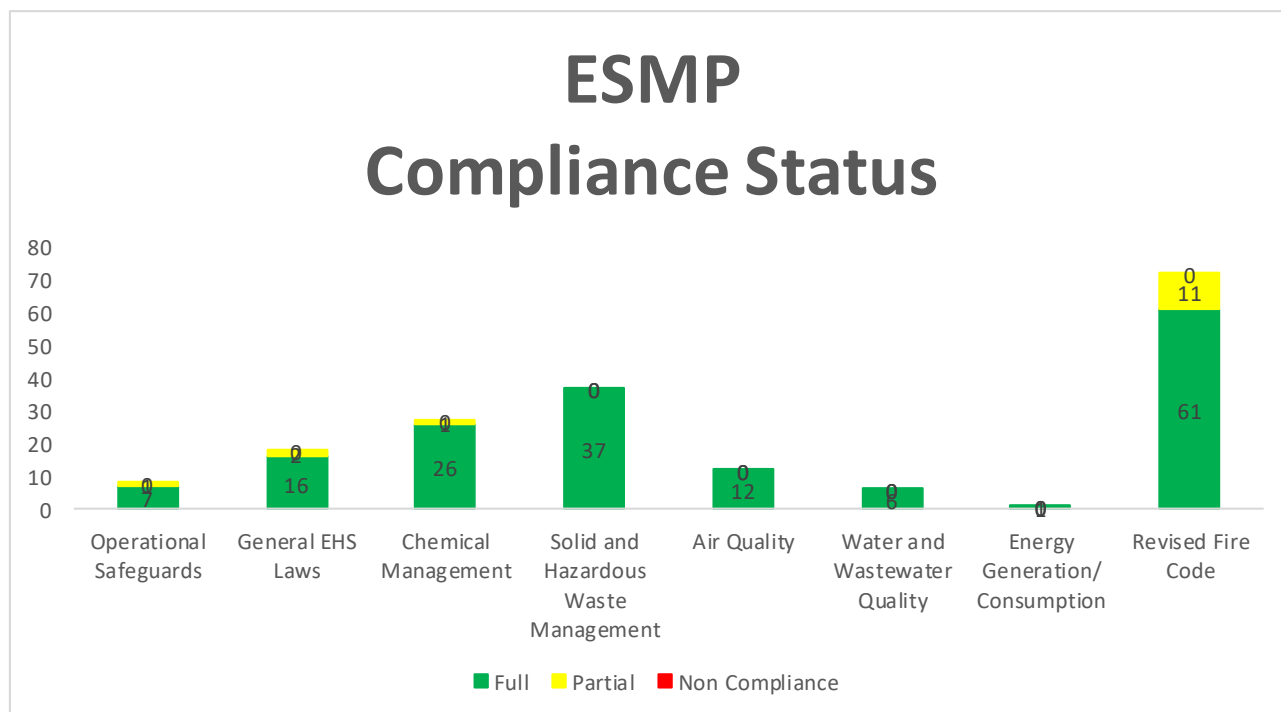
Status of Compliance	Compliance Items
Full Compliance (F)	128
Partial Compliance (P)	9
Noncompliance (N)	11
<b>TOTAL</b>	<b>148</b>
$\frac{(F \times 1) + (P \times 0.5)}{(F + P + N)}$	<b>89.53%</b>



#### ESMP in the PCB Facility

Classification	Full	Partial	Non Compliance
Operational Safeguards	7	1	0
General EHS Laws	16	2	0
Chemical Management	26	1	0
Solid and Hazardous Waste Management	37	0	0
Air Quality	12	0	0
Water and Wastewater Quality	6	0	0
Energy Generation/ Consumption	1	0	0
Revised Fire Code	61	11	0
<b>TOTAL</b>	<b>159</b>	<b>14</b>	<b>0</b>

Status of Compliance	Compliance Items
Full Compliance (F)	167
Partial Compliance (P)	15
Noncompliance (N)	0
<b>TOTAL</b>	<b>182</b>
$\frac{(F \times 1) + (P \times 0.5)}{(F + P + N)}$ <b>% Compliance</b>	<b>95.88%</b>



The ESMP compliance report prepared for the project in 2021 included several recommendations and the progress of implementation in the E waste Facility and PCB facility are included below:

Recommendations	Progress in the PCB Facility
I. Inclusion of secondary KPIs for facility-specific social (employee data, attrition rates, benefits,	Monitoring has not been formalized but there is existing monitoring of the following:

	among others); environmental (water consumption, wastewater generation, energy consumption, waste generation) and Safety (number of incidents, first aid, medical treatment, safe man days, lost time injury among others) metrics to be monitored regularly. These data requirements will be helpful in their reportorial compliance such as the Self Monitoring Reports (SMR), Compliance Monitoring Report (CMR) and Occupational Safety and Health (OSH) Report	1. water consumption 2. wastewater generation 3. energy consumption 4. waste generation 5. Safety (number of incidents, first aid, medical treatment, safe man days, lost time injury among others)  Baseline has yet to be established for item 1 to 4 as there are no regular production in the facility.
II.	Continuous use and updating of the Environmental and Social Compliance Checklist, with ready summary in tables and graphs, to enhance compliance including COVID-19 management, Fire Code of the Philippines and OSH. This also ensures that all permits are updated and valid. Tracking of water consumption, waste generation and power/fuel consumption shall be continued since these are quantitative measures in calculating Greenhouse gas (Ghg) emissions especially for Scopes 1, 2 and 3. These resource efficiency targets may be included in the Environmental and Social dashboard as shown in Annex 3.	ESMP has been updated.  Facility is complying with IATF on COVID management.  Facility has an updated Fire Safety permit from Bureau of Fire Protection – Mariveles.  Water consumption and generation are being tracked.  Fuel consumption is being monitored.
III.	Environmental and social safeguards are embodied in the processes, however, these may be reiterated by the issuance of commitment or policy by the operators or management of the PCB and e-waste facilities. Among these policies, but not limited to, are the following: a. no forced labor b. no child labor c. no discrimination and equal opportunities d. quiet resilience e. business continuity and sustainability	Non Com POPs Facility at the minimum, complies with existing labour laws. (No force labor, no child labor, no discrimination and equal opportunities)

## V. Stakeholder Engagement

1. Using the previous reporting period as a basis, please provide information on **progress, challenges and outcomes** regarding engagement of stakeholders in the project (based on the Stakeholder Engagement Plan or equivalent document submitted at CEO Endorsement/Approval).

The project continued to engage different various stakeholders throughout the implementation of the project and has received their full support and commitment. Project-wide stakeholders include the Department of Environment and Natural Resources/Environment (DENR) - as implementing agency, Environmental Management Bureau (EMB) Development Bank of the Philippines (DBP) as part of the financial institutions, Natural Resource Development Corporation (NRDC), National Electrification Administration (NEA) are all represented in the Project Steering Committee and chaired by the Undersecretary or Vice Minister of Environment. Project workplan and major agreements are cleared by the PSC, at least 14 meetings had been organized. The Technical Working Group supporting the PSC is lead by the EMB and participated in by the technical staff from DENR, NEA, NRDC,, EcoWaste Coalition which represents the civil society, MRF/TSD facility which came from the Local Government Units (LGUs) and Integrated Recycling Industries, Inc. (IRI) which is the private sector partner.

### **Component 1- E waste Management**

The success of the 1<sup>st</sup> e waste facility (Barangay Bagong Silang MRF/TSD facility), lead to the interest of major telecom network proposing to participate in the project, thus, another e waste facility was

established in another site. Globe Telecom is one of the largest network in the county and is currently implementing an e waste zero in support to UN SDG 12 – Responsible consumption and production. With their participation in the project they would like to demonstrate a close loop management of all materials used in the production of mobile phones. Thus, their partnership with e waste disposal facilities.

Furthermore, the role of the civil society in engaging several stakeholders was highlighted by Dr. Centeno during the 13<sup>th</sup> PSC Meeting. In the meeting, dr. Centeno said “On behalf of UNIDO, I would like to thank Ecowaste Coalition for an excellent job as the project has visibility with their efforts and even the UNIDO management is appreciative of their outputs.” Their “on the ground” approach and steadfast consultation with different stakeholders resulted in the expedited establishment of the 2<sup>nd</sup> e waste facility with support from the City of Malabon. The presence of the highest local government official (Mayor of Malabon) and Vice Mayor during the ground breaking of the MRF/TSD facility in September 2021 and the ground breaking ceremonies in March 2022 showed the support of the different stakeholders to the 2<sup>nd</sup> e waste facility. The Cooperation Agreement further resulted in Globe Telecom’s donation of vehicle, 6 ewaste bins to the DENR and 2 ewaste bins to the MRF/TSD facilities. resulted into Globe Telecom providing in cash and in kind support to the operations of the MRF/TSD facility in Malabon. The DENR and EMB in their commitment to raise awareness of e waste collection within their own employees requested the installation of e waste bins in the lobbies of their offices.

Part of the process was the proposed MRF/TSD facility in Dampalit to undergo the EIA process. During this period, at least two (2) focus group discussions were organized by the civil society in January 2022. Discussions included the target collection for each group which are the proposed deliverable for MRF/Dampalit. The aforementioned activities involving the different stakeholders resulted in the establishment of the 2<sup>nd</sup> e waste facility in Dampalit, Malabon Metro Manila.

For the existing e waste facility in Bagong Silang, continued commitment of the stakeholders is necessary to ensure the sustainability of the facility. Thus, several meetings were organized by the EcoWaste Coalition, namely:

- a. Consultative meeting with the LGU  
This was attended by a total of 11 participants (2 females and 9 males) last September 7, 2021 at the Barangay Bagong Silang TSD Facility. The purpose of the meeting was to discuss with the barangay the concerns of the workers in the TSD facility
- b. TSD Facility Assessment and Workshop  
Discussions focused on the following: (1) Assessment of the achievements and challenges that TSD facility encountered for e waste project; (2) Proposals for continuity of the facility per stakeholder and their respective roles; (3) the responses from the consultant, IRI, and DENR; and (4) the Proposed activities in the next 3 months.

At this point of the project, the sustainability phase of the e waste facilities is being emphasized. Thus, more partners are being identified by the project to support the transition phase to the sustainable operations of the MRF/TSD facility in Bataan. Amongst the activities initiated by the project are as follows:

- a. Partnership with LGU (Ciudad Real and Bagong Silang) for further e waste collection, the said barangay is situated 7.3 km away from the Bagong Silang and has introduced awareness raising activities amongst its resident.
- b. Ewaste to Elearn activity with Smart/PLDT and UNIDO CO – through the said activity, 415 units of ewaste were collected in Barangay San Agustin, Quezon City, and 2 schools received a School-in-a-Bag (SIAB) from Smart Communications. The activity was featured by the UNIDO Field office in their quarterly newsletter. The SIAB contains e-learning materials and gadgets such as 1 laptop, 10 tablets, USBs and 50 units of wifi. The beneficiary schools are San Agustin Elementary School and Nova Daycare Center in Barangay San Agustin.
- c. Initial meetings with Edispo – this private entity is negotiating possible business partnership with the facility.
- d. Formation of a Cooperative to operate the facility

EcoWaste Coalition to ensure that the CRTs from households are collected from the informal waste sector and if possible identify where the supply chain for household e waste can be cut and policy from the EMB

be introduced to ensure that the facility will be sustainable even without the financial mechanism provided for by the project,

For the sustainability phase of Bagong Silang, at least 2 dialogues were undertaken with the Barangay Chairman to ensure that the proposed actions for the sustainability will be supported by the local government unit beyond the project intervention. The chairman on the other hand commented that “He will still be the champion of proper e waste management, considering that their facility is the pilot demonstration phase”. The agreement that he has signed with another LGU only shows that project through the civil society partners are engaging LGUs and homeowners associations.

The coverage undertaken by Iwitness, one of the biggest TV network in the country resulted in several queries of the public with IRI on the where their household e wastes can be disposed.

In several for a, the project team appeared and engaged in discussions with several LGUs and institutions. A forum in Dipolog, Zamboanga City resulted in the preparation of an action plan on e- waste management by the different barangays in Dipolog. Discussions with Globe telecom on how their ewaste zero and project interventons can compliment each other for activities outside Manila. The 2 e waste facilities in Metro Manila will serve as pilot facilities for the country.

Turn Over Ceremony of E-waste Bins. The ceremony was successfully conducted last February 23 at Makiling 1, Park Inn Radisson Hotel in Quezon City. Among those who attended the ceremony are representatives from Barangay Dampalit, Barangay Bagong Silang, Globe Telecom, EMB, DENR, Ecowaste Coalition, and UNIDO. In the event, Engineer Vizminda A. Osorio recognized the support of all stakeholders for the success of the Safe PCB and E-waste Management Project. Meanwhile Ms. Apple Evangelista, OIC for Sustainability and Social Responsibility of Globe Telecom Inc., and Dr. Carmela Centeno, Project Manager, UNIDO gave their messages during the activity. DENR and UNIDO formally accepted the e-waste bins from Globe Telecom. Meanwhile Mr. Dante Lista of Barangay Bagong Silang and Punong Barangay Carlo Dumalaog of Barangay Dampalit reaffirmed their commitment to support the project. Ms Aileen Lucero, Ecowaste Coalition National Coordinator facilitated the activity. The e waste bins are now displayed in the different offices of the DENR/EMB.

## **Component 2 – PCB Management**

The stakeholders identified In the PPG are the NRDC, PHILRECA and NAGMEC (National association of General Managers of ECs), the DBP, ERC and the 26 Electric Cooperatives (ECs). However, the project has reached out to other Electric Cooperatives. Moreover, all EMB Regional Offices had been requested by the DENR and EMB management to support the project, through regular updating of the PCB inventory, facilitating the permits of ECs prior to the actual transport and providing other support to the NRDC and the EMB. The facility is owned by the DENR-EMB and the NRDC acts as the operating entity.

The Field offices of the DENR-EMB had been engaged in the project as a result of the instructions to them by the PSC chairman of the project who is also an Undersecretary, several EMB Field offices organized meetings with PCB owners, EC and non-EC alike.

In the facility, continuous meetings with the transporters, service providers are undertaken. With the delay in the hauling and treatment of PCB oil from the ECs (200 tons contracted by NRDC), a meeting was arranged by the project to enable them to explain the delays in the hauling. The ECs agreed to the revised schedule of the transport plan.

**2. Please provide any feedback submitted by national counterparts, GEF OFP, co-financiers, and other partners/stakeholders of the project (e.g. private sector, CSOs, NGOs, etc.).**

During the PIR reporting period, several Webinars, Awareness Raising Activities and Stakeholder's meetings were organized, the stakeholders were requested to provide feedback on the impact of the project to their business, community or their livelihood.

In July 2021, the documentary of reporter Atom Auralio of I-Witness – Baklas was aired. Said documentary narrates the lives of Informal Waste Sector, especially women, in making a living from e-waste dismantling. The full episode of the video documentary can be accessed in this link: [youtube.com/baklas](https://www.youtube.com/baklas)

In a speech of Mr. Rofil Magto from Globe Telecom during the Cooperation Agreement Signing between UNIDO, DENR, Brgy Dampalit LGU, Ecowaste Coalition, and Globe Telecom last June 2021, he said, "We are very thankful for this program as we are aligned to SDG 12 – Responsible Consumption and Production and e-waste recycling is a part of this. Globe is not new to e-waste management. Since 2014, Globe has a program called E-waste Zero and we currently have safely recycled 1.4M kg of e-waste coming from internal and external partners. To sustain our commitment, we are participating in this program because we know that managing e-waste cannot be done by only one institution. We need to help one another in solving the problems brought about by improper management of e-waste and you can trust that Globe Telecom will continue to support the project."

During the Inauguration of the Dampalit E-waste Facility in March 2022 – 9 months after the Cooperation Agreement Signing Event, Ms. Abelyn Evangelista (Apple), head of Sustainability and Social Responsibility at Globe Telecom said in her speech, "We are very happy to be here with the community. As said before, Globe has already recognized the hazardous effects of simply throwing away e-waste since 2014. Now, Globe has about 120 drop off points for the e-waste bins and have recycled more than a million kilograms of e-waste, but we can still do more. That is why we are pushing for more TSD Facilities in the communities like Brgy. Dampalit. We hope to inspire more barangays to do the same. This milestone will not only bring safety to our environment, but it will open jobs and improve the livelihoods of our waste pickers."

In the same event, Malabon City Vice Mayor Bernard Dela Cruz said, "Today, we have a lot to celebrate as today is also International Ewaste Pickers Day. We are thankful to our partners who are supporting Malabon and for giving us this facility which will be good for the safety of the community of Brgy Dampalit."

Further, Ms. Joanna Amican from the Association of IWS in Longos, Malabon said, "*Unang una sabi nga po ni Ms Ai, Kami ay mga illigal dismantler, opo totoo po yun, eto ang aming ikinabubuhay. kaya nagtataka rin po kami kung bakit nagagalit rin sa amin si Cenro, yan ang mga nangangalakal na yan, ganito yan, ganyan yan, nagkakalat yan..Ngayon po, noong nakilala namin sila Sir Jover, dun po namin nalaman kung gaano kami nagkakalat sa kapaligiran, kung paano kami nagiging dahilan. Sana po isipin din natin ang ating mga anak ba, pag lumaki na o naglalakad na, o may pamilya na rin sila, meron ba silang puno, hangin at kapaligiran.*" (At first, Ms. Ai told us that we were illigal dismantlers and that was true. That was our livelihood and it made us wonder why the CENRO was mad at us. When we met Mr. Jover and the project, we realized how we were carelessly polluting the environment and that we were the cause. I hope that we think of our children. When they grow old, or can walk or even have their own families, will they have trees or clean air in their surroundings?)

Ms. Cristina Marte of Brgy 108 in Tondo, Manila said, "*Mapagpalang umaga po sa ating lahat, ang aming pong Barangay 108 sa pangalang po aming Chairman, Rudirick Simbiling ay taos puso pong nagpapasalamat at aming Barangay ay napasama sa proyektong eto. Alam naman po natin na nasabi ng marami na delikado ang pagbabasag ng mga e-waste sa kalusugan at kapaligiran. Lalo na po sa aming Barangay kung saan sa highway po ang baklasan. Ngayon po ay nabawasan na ang pagbabaklas dahil po sa proyektong eto. Kaya kami po ay patuloy na makikiisa sa pagsusulong ng proyekto. Marami pong salamat*" (Greetings to all. Our Barangay Chairma Rudirick Simbiling is wholeheartedly thanking the project for having our barangay be a part of this endeavour. We all know the effects of improper ewaste management to our health and environment, especially in our barangay where we used to dismantle on the highway. Now, the dismantling there has significantly decreased because of this project. We will continue to support the project)

During the IWS Training conducted for the operators of the 2 TSD Facilities in Bagong Silang and Dampalit, the following were the feedback of the women operators:

Unice Tillerba, Batch 4:

"*Mas magaan at madali ang pagbabaklas, hindi makalat kapag na TSD at tama lamang na magkaroon ng ganito, ligtas ang mga bata, anak ko at mga tao sa amin.*"

(Dismantling is easier, cleaner and safer when done properly in a TSD facility such as this. It is better to have such facilities as I know that my children and the people at my home are safe)

Emelda Espinosa, Batch 5:

*“Ang sarap sa pakiramdam noong natuto na kami sa paggamit ng mga kagamitang bago sa pagbabaklas, ligtas na ligtas kami kasi sa amin sa Capulong, sa kalsada at loob ng bahay kami nagbabaklas, tapos di gaanong matrabaho kesa sa ginagawa namin.”*

(It was a great feeling when we were taught how to properly dismantle e-waste and we feel safe as compared to our place in Brgy Capulong where we used to dismantle on the streets or in our houses. Here, the work is not that hard to do)

### 3. Please provide any **relevant stakeholder consultation** documents.

Gdrive Link: [https://drive.google.com/drive/folders/1mc0jyDuMVj58ctRjEV1d12XW9\\_X-v8DG?usp=sharing](https://drive.google.com/drive/folders/1mc0jyDuMVj58ctRjEV1d12XW9_X-v8DG?usp=sharing)

Project Steering Committee Minutes – prepared by UNIDO PMU and noted by DENR-EMB:

- 9078\_MOM\_11th PSC Mtg\_July 08 2021
- 9078\_MOM\_12th PSC Mtg\_Dec 07 2021
- 9078\_MOM\_13th PSC Mtg\_Feb 23 2022
- 9078\_MOM\_14th PSC Mtg\_Jun 13 2022

Project Status Report (PSR) – prepared by DENR-FASPS and noted by DENR-EMB

- 9078\_PSR PCB-WEEE\_3rd Qtr 2021
- 9078\_PSR PCB-WEEE\_4th Qtr 2021
- 9078\_PSR PCB-WEEE\_1st Qtr 2022
- 9078\_PSR PCB-WEEE\_2nd Qtr 2022

Memorandum of Agreements (MoA) and Cooperation Agreements (CA) Signed

- 9078\_Brgy Dampalit and Barangay 108 MoU
- 9078\_Brgy Dampalit and Malabon Liga MoU
- 9078\_Brgy Dampalit Board Resolution
- 9078\_Brgy Dampalit TSD Facility Coop Agreement

Project Annual Report – prepared by DENR-EMB

- 9078\_EMB 2021 Annual Report

## VI. Gender Mainstreaming

1. Using the previous reporting period as a basis, please report on the **progress achieved on implementing gender-responsive measures and using gender-sensitive indicators**, as documented at CEO Endorsement/Approval (in the project results framework, gender action plan or equivalent),.

The main objective of the project is to protect environment and human health, with the disposal of plastic casings that are contaminated with PBDE, a known POPs and one of the associated benefits is the disposal of glass from the cathode ray tubes (glass containing Pb). The upgrading of a Materials Recovery Facility to an e-waste facility, enabled the informal e-waste sector collecting household e-waste be integrated into a formal sector brought about by the engagement of several stakeholders namely: the government (Department of Environment and Natural Resources – Environmental Management Bureau), local government unit (Barangay Bagong Silang and Barangay Dampalit), the private sector – a recycler of e waste, the informal waste sector, civil society and the UNIDO.

In several stakeholders' meetings, the beneficiaries highlighted the positive impact of the establishment of the TSD facility for e-wastes and the financial mechanism to their livelihood. At the same time, the trainings provided by the private sector enabled them to learn new techniques in dismantling. Further, after participating in several awareness raising activities lead by the civil society, the informal waste sector in the project sites, became advocates of proper e waste management. The project has adopted the motto "ewaste to iwasto" which means, proper management of e waste.

#### ***"E-waste to E-Learn" Campaign***

In September 2021, the E waste to E Learn campaign was introduced to the community, the youth and the academe of Brgy San Agustin in Quezon City to raise awareness on e-waste management. An e-waste collection was held in the Barangay and in return, they were given an opportunity to donate e-learning materials to their chosen beneficiary schools during an awarding event held in October 2021. Through Smart Communications/ PLDT, a School-in-a-Bag (SIAB) package was each awarded to San Agustin Elementary School and Nova Day Care Center, which were chosen by the barangay. Each SIAB included a LearnSmart Bag, Smart LTE pocket Wi-fi, and a 32G USB storage containing learning contents. With the goal of democratizing access to technology for distance, the LearnSmart kits and "School-in-a-Bag" packages provides access to technology, connectivity, content and pedagogy during this pandemic, especially for the last mile schools. As part of the holistic approach in awareness building of this initiative, a commencing lecture to participating communities, highlighting the importance of proper e-waste management, and the environmental consequences of the persistent organic pollutants (POPs) and PBDE present in E-waste, were held. Recipients included 64 elementary students from Grade 1 - 7 (16 males and 48 females) and 35 teachers (16 males and 19 females). Furthermore, Smart Communications conducted a training session with the teachers on how to utilize the gadgets contained in the SIAB.

#### ***Spoken Poetry Writing Competition and Awarding Ceremony***

In November 2021, a spoken poetry writing competition was held among the 4 project sites. There was a total of 49 participants (31 females and 18 males) composed of elementary and ALS Students. The event started with an online lecture on the Brief Project Orientation, Background and Objective of the Competition, Lecture on Electronic Waste and the importance of proper e-waste disposal and its harmful effects to the environment and its people, and the Spoken Poetry Contest Mechanics. At total of 8 groups joined the contest, 2 groups are from the community (2 from Longos and 2 from Capulong) and 4 groups are from the schools (2 from Gabriela Silang Elementary School and 2 from ALS students of the Camarin High School). In December 2021, the awarding for the spoken poetry contest was held, both face-to-face and was shown via fb live and was joined by 66 participants (36 females and 30 males) composed of the winning groups and their parents. The Grand Prize Winners are official from the Gabriela Silang Elementary School and the Camarin High School (ALS) based on the judges scores of the groups' performances. The 2 Grand Prize winners each received a complete computer set and P 1,000.00 cash prize and a P 1,000.00 cash prize each for the non-winning teams. Ten (10) refurbished computer set from Integrated Recycling Industries (IRI) and a wi-fi set each for the 4 project sites will also be provided for barangays and schools that joined the contest.

#### ***International Women's Day Celebration 2022***

During the International Women's Day, and using the theme "Gender equality now for a sustainable tomorrow", the project organized a virtual forum participated in by woman members of the Samahan ng Mangangalakal who act as e waste busters. The forum aimed to be an avenue to show how women are disproportionately affected by the climate crisis and their role in achieving the global mitigation and adaptation plans. During the forum, the women e-waste workers shared their own struggles in juggling the various burdens and responsibilities placed upon them such as keeping the home, taking care of the children and their husband, working in the e-waste sector to help put food on the table, and being an active part of the community. Their personal history on how they started as e-waste workers, challenges they've faced,



and aspiration for the entire informal e-waste workers were also discussed in depth. Other topics that were touched on were: women e-waste work discrimination, general challenges women face in a male dominated field, daily motivation to the work, and recommendations on programs and policies programs that will promote and uplift the rights and welfare of women and informal e-waste workers. The forum was shown via face book live and has reached a viewing of more than 300 views. The project was also able to post posters of women dismantlers and a quote from Dr. Carmela Centeno, the project manager from UNIDO headquarters.

Mainstreaming gender in the activities of the project lead to poverty reduction and protection of children and women from the negative effects of improper e waste management. The pride in the work of the women e waste busters/waste pickers were apparent as shown in the interviews they had during the International Woman's Day. For the past 3 years, the women workers were looking forward to specific activities organized by the project to highlight the International Women's Day and their role in the community.

The project continued to monitor the progress of gender responsive measures and gender sensitive indicators in the regular reports. The number of participants to project activities (i.e. webinars, meetings, trainings, orientations and awareness raising activities) for both Component 1 and Component 2 are summarized as follows:

Year	No. of Participants	Male	Female
2020	108	70	38
2021	733	428	305
2022	2766	838	928
Sub-Total	3607	1336	1271

The increase in the reach of the project in 2022 was attributed to the use of social media (such as the FB Lives, Youtube Lives and Online Meeting Platforms such as Zoom and Google meet) for most of the activities which has allowed for more people to have an access to the IEC materials and awareness raising activities of the project.

The engagement and commitment of the right stakeholders are key to ensuring the successful implementation of the project. The project has managed to bring together the informal sector, the CSOs, the local government, the private sector and the national government. As a result of this, the project was selected by UNIDO to be one of the nominees for the GEF Good practices.

## VII. Knowledge Management

### 1. Using the previous reporting period as a basis, please elaborate on any **knowledge management activities / products**, as documented at CEO Endorsement / Approval.

Similar to the previous PIR submission, the knowledge management implemented by the project includes a platform containing all generated reports of project contractors, consultants and monitoring reports. This includes as well the products of the Awareness Raising Component of the project for information dissemination.

Among the knowledge activities/products compiled by the project are the following:

#### Component 1 – E-waste

- Publication and adoption of the Policy on the DAO 2014-21
- Reports and Recommendations by UNIDO consultants based on E-waste Management
- Sustainability of the Operations of the 2 TSD Facilities (Bagong Silang and Dampalit)
- Continuous training and capacity building for operators provided by IRI and the project team.

- Compilation of bromine and heavy metals (i.e. Pb, Hg, Cr, As, Cd) readings using XRF spectrometer from at plastic casings
- Compilation of technical and financial data of the management of e wastes (i.e. quantity and cost of recyclable materials, disposal cost of glass containing Pb and management of plastic casings contaminated with PBDE)
- Compilation of baseline environmental data of bromine, PBDE and other flame retardants and heavy metals in soil, water, air in the project sites
- Awareness Raising activities pertinent to E-waste management

#### Component 2 - PCB

- Compilation of PCB Management Plans of Electric Cooperatives who participated in the project with their inventory of PCB oil and PCB contaminated equipment, which include results of analysis of their PCB stockpile
- Publication and Adoption of MC 2022-01 on the analysis of PCB oil using the PCB screening equipment (CISE)
- Reports and Recommendations by UNIDO consultants based on PCB Management
- Compilation of technical and financial data of the management of PCBs such as PCBs disposed by the facility and PCB stockpiles from PCB owners including Electric Cooperatives

#### Component 3 - IEC

- The Quad-media tools in awareness raising- videos, comics, training materials, workshops, activity reports, posters, infographics, website postings, newspaper articles, among others.

As we are adjusting to life during the pandemic, the virtual communications and interactions via zoom, webinar, Facebook live among others are more utilized in order to have a wider reach of audience.

## 2. Please list any **relevant knowledge management mechanisms / tools** that the project has generated.

Gdrive Link: [https://drive.google.com/drive/folders/1o0lgChehzNJNPv-JS3-n9ys\\_y06PX7IM?usp=sharing](https://drive.google.com/drive/folders/1o0lgChehzNJNPv-JS3-n9ys_y06PX7IM?usp=sharing)

#### Policies

- 9078\_DAO-2021-14\_Co-Processing
- 9078\_EMB MC 2022-001\_PCB Screening Method

#### Project Consultant Reports

- 9078\_Cost-Benefit Study\_Dampalit TSD\_Dr Ballesteros
- 9078\_ESMP Compliance Report\_Dr. De Sales
- 9078\_Operation and Assessment of Bagong Silang TSD\_Dr Ballesteros
- 9078\_PBDE Analysis Report\_Dr Lupi
- 9078\_PBDE Waste Computation\_Dr Lupi
- 9078\_Proposed PCB Policy\_Dr Lupi
- 9078\_Report on PBDE Policies\_Dr Lupi
- 9078\_Transition of Oprn TSD Facility and Eval of PCB Facility\_Mr Ebrada

#### Project Partner Technical Reports

- 9078\_Contract No 3000083327\_1st Progress Report\_IRI
- 9078\_Contract No 3000083327\_2nd Progress Report\_IRI
- 9078\_Contract No. 3000049926\_Detailed Workplan\_EWC

- 9078\_Jan-Jun 2022 Report\_Ecowaste
- 9078\_Jul-Dec 2021 Report\_Ecowaste
- 9078\_Q3 2021 Report\_Ecowaste
- 9078\_Thematic Evaluation Report\_FASPS

#### Event Posters

- 9078\_Intl Ewaste Day
- 9078\_Intl Womens Day\_Dr Centeno Quote
- 9078\_Womens Day Webinar
- 9078\_Kwentuhang Ewaste 0 (Podcast)
- 9078\_Kwentuhang Ewaste 1 (Ash Presto Quote)
- 9078\_Kwentuhang Ewaste 2 (Ewaste Picker)
- 9078\_Kwentuhang Ewaste 3 ("Panapon Mo,Hanakbuhay Ko!)
- 9078\_Kwentuhang Ewaste 4 (Teaser Poster)
- 9078\_PCBWEEE Youtube Channel Launch
- 9078\_Ewaste Behind the Call
- 9078\_Labor Day

#### Infographics

- 9078\_ewaste infographic 1 (Who handles e-waste in the Philippines?\_1)
- 9078\_ewaste infographic 2 (Who handles e-waste in the Philippines?\_2)
- 9078\_ewaste infographic 3 (Why should we reduce e-waste?)
- 9078\_ewaste infographic 4 (What is e-waste?)
- 9078\_infographic\_Follow us
- 9078\_infographic\_Project
- 9078\_PBDE infographic 1 (What are PBDEs?)
- 9078\_PCBs infographic 1 (What are PCBs?)
- 9078\_POPs infographic 1 (What is the Stockholm Convention on POPs?)

#### Project Website

- [www.ewaste.emb.gov.ph](http://www.ewaste.emb.gov.ph)

#### Press Releases and FB Live Links (File name: 9078\_Press Releases/ FB Live Links)

##### FB Lives

- 9078\_ E-waste to E-Learn: E-waste-101 for Kids!
- 9078\_ E-waste to E-learn: Awarding Ceremony
- 9078\_ Poetry-Writing Contest Awarding Ceremony & Solidarity Night
- 9078\_ Dampalit TSD Inauguration and Turn Over of Vehicle
- 9078\_ E-waste Webinar: Juanang Mangangalakal, Tagapaglikha ng Pagbabago at

## Tagapagtaguyod ng Kalikasan!

- 9078\_ Kwentuhang E-waste Podcast!

## Press Releases

- 9078\_ Setting-up of the TSD Facility for E-waste in Malabon
- 9078\_ Women Dismantlers in Brgy Longos, Malabon featured in GMA's I-witness
- 9078\_Ewaste to Elearn
- 9078\_Groundbreaking Ceremony: Ewaste Facility in Malabon through Globe, UNIDO, DENR Partnership
- 9078\_ Dampalit TSD Inauguration and Turn Over of Vehicle
- 9078\_ Interview by Faith Argosino for Manila Bulletin Feature Article
- 9078\_ Interview with ALS Student

## High Quality Photos

## PCB-WEEE

- 9078\_ Year-End Assessment Workshop
- 9078\_ 13<sup>th</sup> PSC Meeting

## WEEE

- 9078\_ Ciudad Real-Bagong Silang MOU Signing
- 9078\_ Dampalit Inaguration Ceremony
- 9078\_ Dampalit Oprns
- 9078\_ Donation of Ewaste Bins
- 9078\_ Ewaste Collection Ciudad Real
- 9078\_ Ewaste Collection DENR
- 9078\_ EwastetoElearn Brgy San Agustin
- 9078\_ Groundbreaking Dampalit
- 9078\_ IWS Training Dampalit
- 9078\_ Poetry Competition
- 9078\_ Site Visit Capulong & Longos

## PCB

- 9078\_ Kinectrics Training
- 9078\_ PCB Validation R1 CAR
- 9078\_ PCB Validation R5 1

## Newsletters

- 9078\_ UNIDO PH Newsletter Q3 2021
- 9078\_ UNIDO PH Newsletter Q4 2021
- 9078\_ UNIDO PH Newsletter Q1 2022

## Workshop & Training Reports

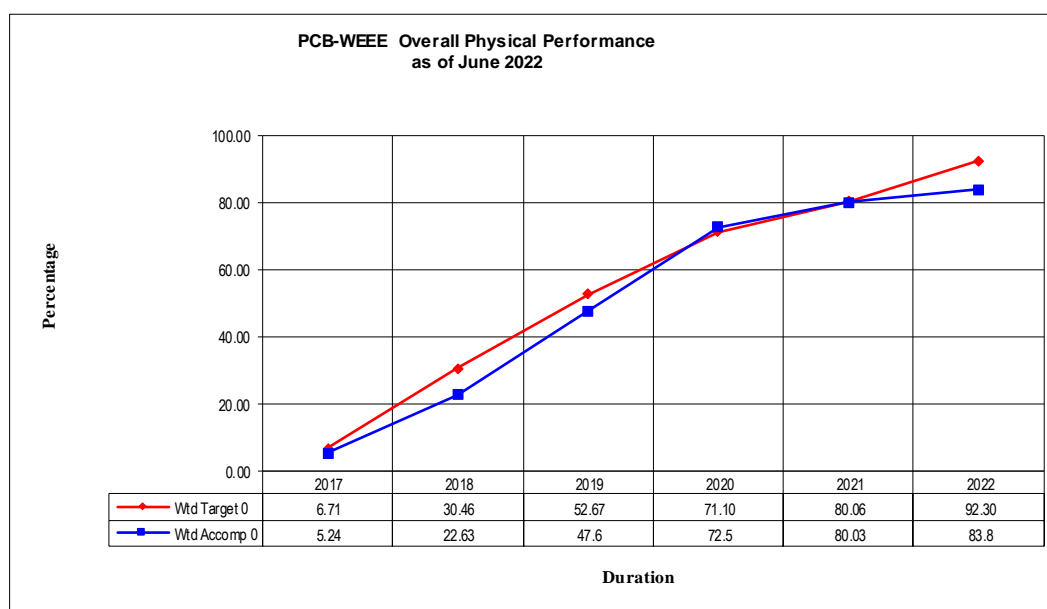
- 9078\_Year-End Assessment Workshop\_24-26 Nov 21
- 9078\_Training Dampalit IWS
- 9078\_Workshop EMB ROs on PCB Owner Identification

## VIII. Implementation progress

1. Using the previous reporting period as a basis, please provide information on **progress, challenges and outcomes achieved/observed** with regards to project implementation.

### Progress

As of June 30, 2022, weighted accomplishment of the project is pegged at 83.80% against the weighted target of 92.30% or a slippage of 8.50%. Minimal progress was achieved by the Project as implementation of the major targets such as disposal of plastic casings and disposal of 600 tons of PCB oil and PCB-contaminated equipment has not yet commenced. These targets were not met as considerable time was also spent during the quarter in resolving internal concerns of the DENR with PNOC relative to the repayment of the Php172 M, the facility is located in PNOC Industrial Park. A series of meetings between the DENR/EMB/NRDC and PNOC were held to discuss and agree on the provisions of the Memorandum of Agreement (MOA) and the Locator's Agreement. The said documents have been finalized and transmitted to PNOC for their concurrence. The overall project accomplishment is presented below:



Below is the status of the project expected outputs per component:

As of the 2nd quarter of 2022, the project has accomplished 83.80% out of the targetted 92.3%. This translates to about 8.5% slippage. 41.68% of the 43.47% target this quarter was accomplished. This translates to a total slippage of 1.79%. This is an increase in slippage from 0.54% in the 1st qtr. Among the contributing factors in the increased slippage are: (a) training and technical assistance to customs officers. Three (3) trainings/workshops were planned and 2 targetted by this quarter, however, no workshops has been conducted yet. This is about 0.9% of component 1's activities; (b) At least 2,122 tons of E-Wastes which may be contaminated with PBDE was expected to have been collected and delivered to recycling factories. However, as of this quarter, about 49,173 units of CRT monitors collected. This is about 1229 tons of CRT monitors collected. This contributed to about 0.38% from the total slippage of the component; (c) About 150 tons of PBDE contaminated plastics containing about 0.56 ton of PBDE should have been disposed this quarter. However, no disposal yet has been done. The project has achieved the identification of at least 1.150 tons of PBDE per project document and is expected to dispose the PBDEs

in 3 months time, through co-processing. For this quarter, engagement with possible co-processing companies were done. As of this reporting, the TOR for Holcim has already been drafted and is for signing of EMB and Holcim. Other sources of slippage are the activities for CCTFI, however since they will no longer be part of the project, it was compensated by the TSD activities in Brgy. Dampalit which is currently already in operation. Based on the correlation study of bromine and PBDE undertaken by the project, and the report of the project that 22,372 casings had bromine content higher than 1000 ppm (based on XRF readings), it was calculated that there are 563 kg of PBDE collected by the project. The target of the project is 1.12 tons, coming from 50,000 CRT units. The Expert's Report were prepared with the following findings and recommendations: a. analysis of PBDE using XRF spectrometer resulted to a calculated 563.kg of PBDE in 22,372 samples of plastic casings. b. environmental limits for PBDE in the environment, in other countries. It further recommended that plastic casings with bromine content lower than 500 pm could already be disposed or recycled, while those higher should be safeguarded for further disposal.

In April 2022, UNIDO has contracted IRI to support the operations of the project's 2nd TSD facility located in Barangay Dampalit, Malabon City and the MRF/TSD facility in Barangay Bagong Silang Caloocan City. The EcoWaste Coalition was also engaged by UNIDO to prepare the transition/sustainability phase of the MRF/TSD facility in Bagong Silang. The sustainability plan includes the approval of several resolutions by the barangay, engaging other barangays/groups to organize e-waste collection events. E-waste collection events organized during this period lead to the collection of e-wastes other than CRTs. E-waste bins were installed in different Offices of the DENR Compound.

One of the challenges encountered in the upgrading of the MRF of Dampalit was the delay in the issuance of the ECC by the EMB. Initially, a certificate of non-coverage was issued, however, with CNC, the facility cannot secure a permit as an TSD facility for e wastes. Under existing regulations, the facility should undergo a comprehensive EIA process, however, this will not be sustainable nor easily replicated by other MRF in the country who would need to set up their e waste facilities in their respective communities. This is a gap that was identified that still needs to be addressed by EMB to fully integrate the informal sector to the formal sector.

Further, to ensure continuous supply of e wastes (other than CRTs) to the e waste facilities, a policy or local ordinance has to be issued by EMB or barangay to address this concern. The proliferation of other dismantlers (outside the Samahan ng Mangangalakal) would not promote the competitive advantage e-waste facilities, as this is not regulated by the government.

#### Outcome 1.1 Strengthened legislation and institutional capacity in implementing PBDE action plan

While the policy on Extended producer's responsibility which is part of the Technical Guidelines on the Environmentally Sound Management of WEEE has been drafted and being reviewed by the Department, the amendment of an existing DENR policy providing guidance on the co-processing of alternative fuels and raw materials has been adopted by the DENR. With this approval, the Terms of Reference (ToR) for the disposal of PBDE contaminated plastic casings using co-processing was developed. Similarly, the TOR on the performance testing or environmental monitoring for brominated compounds in the residues and flue gas was prepared, to ensure that the co processing is environmentally sound and safe.

Correlation study of bromine and PBDE in plastic casings to determine PBDE and other flame retardants, PBB and HBCD in plastic casings has been completed. The study will be used as input to the waste management guidelines on bromine and PBDE that will be developed within the year. Based on the study and the actual data generated by IRI in the management of PBDE contaminated plastic casings, about 40% of plastic casings coming from cathode ray tubes (from TVs and computers) have more than 1000 ppm bromine content. The plastic casings with less than 1000 ppm bromine readings are returned to the recycling stream while those with bromine content higher than 1000 ppm are for disposal. Considering that lowering the cut off to 500 ppm would lead to more plastic casings for disposal instead of for recycling, the recommendations of the project was referred to the World Trade Organization (WTO) for their comments. Further, since the disposal of plastic casings with bromine content higher than 1000 ppm is on the project, the EMB is looking into the sustainability aspect of the facility.

The EMB has no existing guidelines on bromine nor PBDE in products and in the environment, thus, the project was requested to provide them guidance documents as basis for their adoption. The report, prepared by an international expert presented PBDE in articles and substances and environmental limits on water

and biota and recommended that EMB could adopt the standards (temporarily), subject to risk assessment and cost benefit analysis.

With the implementation of cut off for plastic casings, one difficulty would be the need for all plastic to be monitored using XRF spectrometer. At this point, the consultant in his report did not recommend the use of XRF spectrometer as an indicator of PBDE, unless some conditions are met.

#### Other concerns

EMB lack specific policies for the issuance of ECC for MRF/TSD facility with a limited capacity. The proposed EIA process in EMB's policy was appropriate for TSD facilities processing at a higher capacity. This option is not an option for the project as this means it has to undergo a very comprehensive process which would entail at least 3 months and which would include the convening of experts. Considering that an EIA permit was issued to Barangay Bagong Silang in 2019, the project requested consideration on the permitting procedures. The aim of the facility is to cater to the management of household ewastes which are being dismantled and dumped in the roads.

PBDE contaminated plastic casings were estimated to be 39 tons and these are stored in the premises of the Integrated Recyclers Industries, Inc. (IRI) in j bags. The ToR for the disposal and corresponding environmental monitoring or performance testing have already been developed and awaiting endorsement from the DENR-EMB. Furthermore, as a result of the correlation study on bromine and PBDE in the plastic casings, 563 kg of PBDE have has been calculated from the plastic casings safeguarded by IRI.

As an associated benefit, the project will ensure the safe disposal, through encapsulation, of around 225 tons of lead containing glass from CRTs and picture tubes. As of this quarter around 536.95 tons were already collected and disposed through encapsulation. These lead containing glass usually end up in creeks before the project intervention which posed a risk of contaminating water bodies and exposure of residents.

#### Outcome 1.2 Reduction and eventual elimination of POPs-PBDEs releases from WEEE to mitigate the health impact

As of June 30, 2021, 29,286 units of CRTs were collected from Barangays Bagong Silang and Camarin, Caloocan City, through the MRF/TSD facility in Bagong Silang, Caloocan City and from Longos, Malabon and Capulong, Tondo. From 4,917 units of CRTs collected in June 30, 2020, 24,369 units were collected during this period. The increase in the collection of CRTs is attributed to the implementation of the financial incentive mechanism and the operations of the TSD facility in Bagong Silang. The facility for e-wastes coming from households collected by the informal waste workers "Samahan ng Magbabaklas" was operational in November 2020, and at least 15,054 units of CRTS were dismantled in the MRF/TSD facility.

The Integrated Recycling Industries, Inc. (IRI) was engaged to collect at least 45,000 units of CRTs from the MRF/TSD facility and 2 other project sites. Further, they will oversee the operations of the TSD facility and ensure the disposal of 600 tons of glass containing Pb from the CRTs.

During the initial phase (November – December 2020) of the implementation of the financial mechanism incentives, problems encountered were delays in the payment to the informal sector, and not enough space for the storage of CRT, however, the procedures of payment was ironed out by IRI, while the concern on the storage was addressed by IRI increasing the frequency of transport and use of bigger vehicles for the collection.

As a result of the success of the TSD facility in Bagong Silang, another MRF is being upgraded to a TSD facility in Malabon with Globe Telecom, Inc. as a new partner. Globe is a telecom company who is in partnership with GSMA, wherein one of their advocacy if the proper management of used mobile phones. The partnership was launched at the end of June, the MRF is expected to be upgraded by December 2021.

The actual disposal of the plastic casing contaminated with PBDE has not commenced, however, 37 tons of crushed PBDE contaminated plastic casings are safeguarded in IRI.

#### Outcome 2.1 PCB management plans of selected rural cooperatives effectively implemented

600 tons of PCB oil and contaminated equipment from the Electric Cooperatives could not proceed as there were issues encountered with the PNOC, the owner of the industrial park where the PCB facility is located. Negotiations with the DENR senior officials and the PNOC senior officials commenced in April 2022 and at this point, the Memorandum of Agreement between the 2 parties had been signed, however, the Locator's Agreement between the NRDC, who is the operating entity for the facility and PNOC still has to be signed.

The project aims to treat 600 tons of PCB oil and PCB containing equipment. Contracts with the Electric Cooperatives were secured by the NRDC.

Since 1<sup>st</sup> quarter of 2022, NRDC has been ready to resume operations of the Non-Com POPs Facility. However, PNOC has refused to sign the NRDC Board approved Locator Agreement, and therefore does not issue entry permits for the PCB-contaminated oil and equipment, until it gets assurance of the DENR's obligation to PNOC amounting to P172M. The focus of attention for the second quarter for this component is on resolving the issue of the recoupment of Php 172 M investment of PNOC and the issuance of entry permit for the PCB contaminated equipment and oil. In this regard, there was still no production or processing in the Bataan Non-Com POPs facility during the second quarter. With the guidance of the PSC Chair, a MOA was drafted to pay the Php 172 Million in 5 years which will be sourced from the operations of the Non-Com POPs facility. Other sources have been proposed by NRDC and are also being considered. Along with the signing of the MOA is the signing of PNOC's newly proposed Locator's Agreement between NRDC and PNOC. These two were the pre-requisites for the issuance of entry permit. At this point, the MOA has already been approved by DENR and PNOC. However the proposed amendments to the locator agreement requires to be cleared with the NRDC Board of Directors. At this point, 300Tons of PCB contaminated equipment should have already been treated. However, due to the issues pointed out, there has not been any treatment yet. This accounts for 3.31% of the total slippage of the component. While there are no operations yet, the project team continues to interface with the Regional Offices for other ECs which may be interested in the project subsidy. Table 1 shows the status of contracts with Electric Cooperatives.

The NRDC, the corporate arm of the DENR, is headed by a Board of Directors who approve all activities including procurement plans. For the period of 2022, the NRDC requested the EMB, as the Facility owner and lead project implementor, to approve its Work and Financial Plan for 2022. Once approved by EMB, the procurement plans may be approved by the NRDC Board of Directors. Procurement of necessary items shall be completed once the procurement plans have been approved by the NRDC Board of Directors and sufficient revenue has been generated by the Non-Com POPs Facility.

A total of 191.32 Tons of PCB contaminated equipment and oil has been contracted from 16 Electric Cooperatives and 314.04 Tons from 33 ECs are still pending contracts. This totals to 505.36 tons of identified PCB contaminated equipment and oil for disposal.

The project team continues its validation activities for ECs, at least 39 samples were collected for PCB analysis.

Other sources of slippage is connected with the actual disposal of PCB. They are development of production plan and transport management plan. There are also pending ECs for validation (Region 9) and those new ECs expressing interest in the subsidy of the project. Moving forward, the project team is targeting July 2022 for the resumption of operation of the Bataan Non-com POPs facility.

Outcome 3.1 Increased capacity and awareness on sustainable and effective WEEE and PCB waste management by relevant stakeholders

Regular coordination and consultation meetings were conducted for the sustainability of the TSD facilities as well as in support of EMB policies on the management of hazardous wastes. One (1) collection event from April to June 2022 was held to supplement the collection of WEEE for the two pilot sites in Brgy Bagong Silang and Dampalit. Earth Day Celebration was also part of the output of component 3 in April 2022. Information and Education Campaign on PCB and WEEE continues through different media. The project team has been in coordination with the LGU of Bagong Silang, Caloocan City



Component 3 hits the target with no slippages. This means that the target 6.29% of activities planned in the quarter 2 were all accomplished. EcoWaste Coalition continues to coordinate with the pilot sites (Bagong Silang and Damplalit). They have conducted 4 consultative meetings this quarter with the samahan ng mangangalakas and Barangay community to monitor dismantling activities and address potential issues that may hamper production. One collection event was held to supplement the collection of WEEE / CRT / Monitors to be processed at the TSD facility. Specifically, 219 different types of e-waste (3 old TV sets and 2 LCD TV sets) from the San Agustin Collection last April 2022 were obtained. Further as part of their IEC program

Output 4.1 The project and all its stakeholders are able to monitor and evaluate the project's progress allowing for the implementation of the National framework plan.

**2. Please briefly elaborate on any **minor amendments**<sup>6</sup> to the approved project that may have been introduced during the implementation period or indicate as not applicable (NA).**

Please tick each category for which a change has occurred and provide a description of the change in the related textbox. You may attach supporting documentation, as appropriate.

<input type="checkbox"/>	<b>Results Framework</b>	N/A
<input type="checkbox"/>	<b>Components and Cost</b>	N/A
<input checked="" type="checkbox"/>	<b>Institutional and Implementation Arrangements</b>	MDM, an identified partner in the project document withdrew
<input type="checkbox"/>	<b>Financial Management</b>	N/A
<input checked="" type="checkbox"/>	<b>Implementation Schedule</b>	Project was extended until January 31, 2023
<input type="checkbox"/>	<b>Executing Entity</b>	N/A
<input type="checkbox"/>	<b>Executing Entity Category</b>	N/A
<input type="checkbox"/>	<b>Minor Project Objective Change</b>	N/A
<input type="checkbox"/>	<b>Safeguards</b>	N/A
<input type="checkbox"/>	<b>Risk Analysis</b>	N/A
<input type="checkbox"/>	<b>Increase of GEF Project Financing Up to 5%</b>	N/A
<input checked="" type="checkbox"/>	<b>Co-Financing</b>	There are additional entities which provided co financing expenses
<input type="checkbox"/>	<b>Location of Project Activities</b>	Additional project sites were identified
<input type="checkbox"/>	<b>Others</b>	N/A

**3. Please provide progress related to the **financial implementation** of the project.**


As of June 30, 2022, the project's total disbursement of US\$ 4,506,218.36 out of the US\$ 6,200,000.00 budget indicated in the Project Document. This is equivalent to approximately 72.68% disbursement as

<sup>6</sup> As described in Annex 9 of the *GEF Project and Program Cycle Policy Guidelines*, **minor amendments** are changes to the project design or implementation that do not have significant impact on the project objectives or scope, or an increase of the GEF project financing up to 5%.

compared to the previous PIR submission. Major expenditures of the project during the reporting period were contributed by the following:

- Component 1, with a cumulative disbursement of US\$ 1,635,685.92 – with the issuance of amendments to the following contracts:
  - i. UNIDO-IRI Contract for the Collection and Transportation of 45,000 units of CRTs Monitors/TVs and Oversee the operations of the TSD Facilities and the Safe Disposal of 600 tons Pb Glass
  - ii. UNIDO-Ecowaste Contract for the continuation of awareness raising activities in the project sites and the collection of 50,000 CRT Monitors/TVs
- Component 2 with a cumulative disbursement of US\$ 2,286,065.53 – with the issuance of the contracts between UNIDO and Kinectrics for the conduct of Technical Training for the Plant Operators of the Non-Com POPs Facility.

The project has a cumulative US\$ 1,693,781.64 remaining funds which will be utilized for the remaining activities, with the major bulk allocated for the safe and sound disposal of the PBDE contaminated plastic casings under Component 1 and the disposal of PCB Oil from the Electric Cooperatives under Component 2. These activities are expected to begin by the 3<sup>rd</sup> Quarter of 2022.



PROJECT DELIVERY REPORT

Project:

150048 - MANAGEMENT OF NEW POPs IN THE WEEE RECYCLING STREAM AND IMPLEMENTATION OF PCB MANAGEMENT PROGRAMS FOR ELECTRIC COOPERATIVES

Project Manager:

Carmela Centeno

Project Validity:

01.09.2015 - 31.01.2023

Status:

Implement

Reporting Period:

14.01.2015 - 30.06.2022

Project Theme:

Energy and Environment

Country:

Philippines

Region:

Asia and Pacific

Sponsor Nr.

Sponsor

Grant

Grant Description

Fund

Currency

Grant Status

Grant Validity

400150

GEF - Global Environment Facility

2000003127

PPG PHI

GF

USD

Closed

14.07.2015 - 31.12.2018

400150

GEF - Global Environment Facility

2000003568

IMPLEMENTATION PCB

GF


USD

Authority to implement

27.01.2017 - 31.01.2023

		Current Year				Cumulative to Date					
	Description	Released Budget Current Year (a)	Obligations Current Year (b)	Disbursements Current Year (c)	Expenditures Current Year (d=b+c)	Total Agreement Budget (e)	Released Budget (f)	Obligations + Disbursements (g)	Funds Available* (h=f-g)	Support Cost (i)	Total Expenditures (j=g+i)
150048-1-01-03	PCB Management	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD
1100	Staff & Intern Consultants	12,986.56	959.16	9,197.14	10,156.30	46,000.00	46,000.00	43,169.74	2,830.26	0.00	43,169.74
1500	Local travel	39,847.08	(1,598.62)	3,272.65	1,674.03	58,708.85	58,708.85	20,535.80	38,173.05	0.00	20,535.80
1700	Nat.Consult./Staff	(8,032.37)	(2,398.67)	5,941.84	3,543.17	165,685.35	165,685.35	177,260.89	(11,575.54)	0.00	177,260.89
2100	Contractual Services	182,381.80	(33,682.65)	38,627.72	4,945.07	1,731,194.95	1,731,194.95	1,553,758.22	177,436.73	0.00	1,553,758.22
3000	Train/Fellowship/Study	5,596.18	0.00	0.00	0.00	22,378.50	22,378.50	16,782.32	5,596.18	0.00	16,782.32
4500	Equipment	50.16	0.00	99.09	99.09	465,848.57	465,848.57	465,897.50	(48.93)	0.00	465,897.50
5100	Other Direct Costs	1,518.29	0.00	178.35	178.35	10,000.00	10,000.00	8,661.06	1,338.94	0.00	8,661.06
9300	Support Cost	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	217,176.37	217,176.37
150048-1-01-03	Total	234,347.70	(36,720.78)	57,317.79	20,697.01	2,499,816.22	2,499,816.22	2,286,065.63	213,750.59	217,176.37	2,503,241.90
150048-1-01-04	Awareness raising and Capacity Building	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD
2100	Contractual Services	21,647.83	0.00	0.00	0.00	362,772.83	362,772.83	301,125.00	61,647.83	0.00	301,125.00
3000	Train/Fellowship/Study	908.09	0.00	0.00	0.00	2,075.34	2,075.34	1,167.25	908.09	0.00	1,167.25
3500	International Meetings	13,204.33	0.00	0.00	0.00	18,516.89	18,516.89	5,312.56	13,204.33	0.00	5,312.56
4300	Premises	0.00	0.00	0.00	0.00	2,666.27	2,666.27	2,666.27	0.00	0.00	2,666.27
4500	Equipment	5,530.70	0.00	9.90	9.90	11,195.84	11,195.84	5,675.04	5,520.80	0.00	5,675.04
5100	Other Direct Costs	7,866.27	0.00	0.00	0.00	20,000.00	20,000.00	2,133.73	17,866.27	0.00	2,133.73
9300	Support Cost	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30,217.55	30,217.55
150048-1-01-04	Total	49,157.22	0.00	9.90	9.90	417,227.17	417,227.17	318,079.85	99,147.32	30,217.55	348,297.40

\* Does not include Unapproved Obligations

		PROJECT DELIVERY REPORT		Project:	150048 - MANAGEMENT OF NEW POPs IN THE WEEE RECYCLING STREAM AND IMPLEMENTATION OF PCB MANAGEMENT PROGRAMS FOR ELECTRIC COOPERATIVES		Project Manager:	Carmela Centeno		Project Validity:	Status: 01.09.2015 - 31.01.2023 Implement	
Reporting Period:	14.01.2015 - 30.06.2022			Project Theme:	Energy and Environment		Country:	Philippines		Region	Asia and Pacific	
Sponsor Nr.	Sponsor	Grant	Grant Description	Fund	Currency	Grant Status	Grant Validity					
400150	GEF - Global Environment Facility	2000003127	PPG PHI	GF	USD	Closed	14.07.2015 - 31.12.2018					
400150	GEF - Global Environment Facility	2000003568	IMPLEMENTATION PCB	GF	USD	Authority to implement	27.01.2017 - 31.01.2023					
	Description	Current Year				Cumulative to Date						
		Released Budget Current Year (a)	Obligations Current Year (b)	Disbursements Current Year (c)	Expenditures Current Year (d=b+c)	Total Agreement Budget (e)	Released Budget (f)	Obligations + Disbursements (g)	Funds Available* (h=f-g)	Support Cost (i)	Total Expenditures (j=g+i)	
150048-1-01-03	PCB Management	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD	
1100	Staff & Intern Consultants	12,986,56	959,16	9,197,14	10,156,30	46,000,00	46,000,00	43,169,74	2,830,26	0,00	43,169,74	
1500	Local travel	39,847,08	(1,598,62)	3,272,65	1,674,03	58,708,85	58,708,85	20,535,80	38,173,05	0,00	20,535,80	
1700	Nat.Consult./Staff	(8,032,37)	(2,398,67)	5,941,84	3,543,17	165,685,35	165,685,35	177,260,89	(11,575,54)	0,00	177,260,89	
2100	Contractual Services	182,381,80	(33,682,65)	38,627,72	4,945,07	1,731,194,95	1,731,194,95	1,553,758,22	177,436,73	0,00	1,553,758,22	
3000	Train/Fellowship/Study	5,596,18	0,00	0,00	0,00	22,378,50	22,378,50	16,782,32	5,596,18	0,00	16,782,32	
4500	Equipment	50,16	0,00	99,09	99,09	465,848,57	465,848,57	465,897,50	(48,93)	0,00	465,897,50	
5100	Other Direct Costs	1,518,29	0,00	179,35	179,35	10,000,00	10,000,00	8,661,06	1,338,94	0,00	8,661,06	
9300	Support Cost	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	217,176,37	217,176,37	
150048-1-01-03	Total	234,347,70	(36,720,78)	57,317,79	20,597,01	2,499,816,22	2,499,816,22	2,286,065,63	213,750,69	217,176,37	2,503,241,80	
150048-1-01-04	Awareness raising and Capacity Building	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD	
2100	Contractual Services	21,647,83	0,00	0,00	0,00	362,772,83	362,772,83	301,125,00	61,647,83	0,00	301,125,00	
3000	Train/Fellowship/Study	908,09	0,00	0,00	0,00	2,075,34	2,075,34	1,167,25	908,09	0,00	1,167,25	
3500	International Meetings	13,204,33	0,00	0,00	0,00	18,516,89	18,516,89	5,312,56	13,204,33	0,00	5,312,56	
4300	Premises	0,00	0,00	0,00	0,00	2,666,27	2,666,27	2,666,27	0,00	0,00	2,666,27	
4500	Equipment	5,530,70	0,00	9,90	9,90	11,195,84	11,195,84	5,675,04	5,520,80	0,00	5,675,04	
5100	Other Direct Costs	7,866,27	0,00	0,00	0,00	20,000,00	20,000,00	2,133,73	17,866,27	0,00	2,133,73	
9300	Support Cost	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	30,217,55	30,217,55	
150048-1-01-04	Total	49,167,22	0,00	9,90	9,90	417,227,17	417,227,17	318,079,85	99,147,32	30,217,55	348,297,40	
* Does not include Unapproved Obligations												

\* Does not include Unapproved Obligations

## PROJECT DELIVERY REPORT

Project:

150048 - MANAGEMENT OF NEW POPS IN THE WEEE RECYCLING STREAM AND IMPLEMENTATION OF PCB MANAGEMENT PROGRAMS FOR ELECTRIC COOPERATIVES

Project Manager:

Carmela Centeno

Project Validity:  
Status:


01.09.2015 - 31.01.2023  
Implement

Reporting Period:	14.01.2015 - 30.06.2022	Project Theme:	Energy and Environment	Country:	Philippines	Region	Asia and Pacific
Sponsor Nr.	Sponsor	Grant	Grant Description	Fund	Currency	Grant Status	Grant Validity
400150	GEF - Global Environment Facility	2000003127	PPG PHI	GF	USD	Closed	14.07.2015 - 31.12.2018
400150	GEF - Global Environment Facility	2000003568	IMPLEMENTATION PCB	GF	USD	Authority to implement	27.01.2017 - 31.01.2023

		Current Year				Cumulative to Date					
	Description	Released Budget Current Year (a)	Obligations Current Year (b)	Disbursements Current Year (c)	Expenditures Current Year (d=b+c)	Total Agreement Budget (e)	Released Budget (f)	Obligations + Disbursements (g)	Funds Available* (h=f-g)	Support Cost (i)	Total Expenditures (j=g+i)
		USD	USD	USD	USD	USD	USD	USD	USD	USD	USD
150048-1-51-01	Monitoring										
1500	Local travel	13,063,31	0,00	0,00	0,00	24,869,17	24,869,17	11,805,86	13,063,31	0,00	11,805,86
1700	Nat.Consult./Staff	75,092,87	0,00	969,81	969,81	80,000,00	80,000,00	5,876,94	74,123,06	0,00	5,876,94
3500	International Meetings	15,000,00	0,00	0,00	0,00	15,000,00	15,000,00	0,00	15,000,00	0,00	0,00
4500	Equipment	(2,749,94)	0,00	0,00	0,00	262,08	262,08	3,012,02	(2,749,94)	0,00	3,012,02
5100	Other Direct Costs	1,459,65	(27,02)	603,66	576,64	10,000,00	10,000,00	9,116,99	883,01	0,00	9,116,99
150048-1-51-01	Total	101,865,89	(27,02)	1,573,47	1,546,45	130,131,25	130,131,25	29,811,81	100,319,44	0,00	29,811,81
150048-1-51-02	Project Management										
1100	Staff & Intern Consultants	47,95	0,00	0,00	0,00	95,90	95,90	47,95	47,95	0,00	47,95
1500	Local travel	20,531,45	0,00	1,080,13	1,080,13	24,952,05	24,952,05	5,500,73	19,451,32	0,00	5,500,73
1700	Nat.Consult./Staff	129,153,70	29,354,11	33,771,83	63,125,94	265,889,62	265,889,62	124,861,86	141,027,76	0,00	124,861,86
2100	Contractual Services	5,000,00	0,00	0,00	0,00	5,000,00	5,000,00	0,00	5,000,00	0,00	0,00
3000	Train/Fellowship/Study	5,000,00	0,00	1,136,72	1,136,72	5,000,00	5,000,00	1,136,72	3,863,28	0,00	1,136,72
4500	Equipment	4,932,78	0,00	0,00	0,00	7,055,19	7,055,19	2,122,41	4,932,78	0,00	2,122,41
5100	Other Direct Costs	(81,68)	0,00	612,26	612,26	5,000,00	5,000,00	5,693,94	(693,94)	0,00	5,693,94
9300	Support Cost	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	13,239,70	13,239,70
150048-1-51-02	Total	164,584,20	29,354,11	36,800,94	65,955,05	312,992,76	312,992,76	139,363,61	173,629,15	13,239,70	152,603,31
150048-1-53-01	Evaluation										
1100	Staff & Intern Consultants	(14,95)	0,00	0,00	0,00	50,115,80	50,115,80	13,463,24	36,652,56	0,00	13,463,24
1700	Nat.Consult./Staff	(14,95)	0,00	0,00	0,00	19,820,46	19,820,46	2,248,26	17,572,20	0,00	2,248,26
5100	Other Direct Costs	0,00	0,00	0,00	0,00	348,56	348,56	348,56	0,00	0,00	348,56
9300	Support Cost	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1,525,71	1,525,71
150048-1-53-01	Total	(29,90)	0,00	0,00	0,00	70,284,82	70,284,82	16,060,06	54,224,76	1,525,71	17,588,77
2000003568	Total	1,326,265,08	496,908,22	214,829,88	711,738,10	6,200,000,00	6,200,000,00	4,506,218,36	1,693,781,64	425,258,99	4,931,477,35

\* Does not include Unapproved Obligations

\* Does not include Unapproved Obligations

 <b>PROJECT DELIVERY REPORT</b>		Project:	150048 - MANAGEMENT OF NEW POPS IN THE WEEE RECYCLING STREAM AND IMPLEMENTATION OF PCB MANAGEMENT PROGRAMS FOR ELECTRIC COOPERATIVES	Project Manager:	Carmela Centeno	Project Validity:	01.09.2016 - 31.01.2023
Reporting Period:	14.01.2015 - 30.06.2022	Project Theme:	Energy and Environment	Country:	Philippines	Region	Asia and Pacific
Sponsor Nr.	Sponsor	Grant	Grant Description	Fund	Currency	Grant Status	Grant Validity
400150	GEF - Global Environment Facility	2000003127	PPG PHI	GF	USD	Closed	14.07.2015 - 31.12.2018
400150	GEF - Global Environment Facility	2000003568	IMPLEMENTATION PCB	GF	USD	Authority to implement	27.01.2017 - 31.01.2023

	Description	Current Year				Cumulative to Date					
		Released Budget Current Year (a)	Obligations Current Year (b)	Disbursements Current Year (c)	Expenditures Current Year (d=b+c)	Total Agreement Budget (e)	Released Budget (f)	Obligations + Disbursements (g)	Funds Available* (h=f-g)	Support Cost (i)	Total Expenditures (j=g+i)
2000003127	Status: Closed										
150048-0-01-01	Project Document prepared	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD
1100	Staff & Intern Consultants	0,00	0,00	0,00	0,00	25,697,16	25,697,16	25,697,16	0,00	0,00	25,697,16
1500	Local travel	0,00	0,00	0,00	0,00	13,272,03	13,272,03	13,272,03	0,00	0,00	13,272,03
1700	Nat.Consult./Staff	0,00	0,00	0,00	0,00	61,110,42	61,110,42	61,110,42	0,00	0,00	61,110,42
2100	Contractual Services	0,00	0,00	0,00	0,00	14,603,28	14,603,28	14,603,28	0,00	0,00	14,603,28
3000	Train/Fellowship/Study	0,00	0,00	0,00	0,00	5,063,45	5,063,45	5,063,45	0,00	0,00	5,063,45
3500	International Meetings	0,00	0,00	0,00	0,00	14,698,16	14,698,16	14,698,16	0,00	0,00	14,698,16
4500	Equipment	0,00	0,00	0,00	0,00	8,459,31	8,459,31	8,459,31	0,00	0,00	8,459,31
5100	Other Direct Costs	0,00	0,00	0,00	0,00	14,621,56	14,621,56	14,621,56	0,00	0,00	14,621,56
9300	Support Cost	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	15,200,00	15,200,00
150048-0-01-01	Total	0,00	0,00	0,00	0,00	157,525,37	157,525,37	157,525,37	0,00	15,200,00	172,725,37
2000003127	Total	0,00	0,00	0,00	0,00	157,525,37	157,525,37	157,525,37	0,00	15,200,00	172,725,37
150048	USD Total	1,326,265,08	496,908,22	214,829,88	711,738,10	6,357,525,37	6,357,525,37	4,663,743,73	1,693,781,64	440,458,99	5,104,202,72

\* Does not include Unapproved Obligations

## IX. Work Plan and Budget

1. Please provide **an updated project work plan and budget** for the remaining duration of the project, as per last approved project extension. Please expand/modify the table as needed.

*Please fill in the below table or make a reference to a file, in case it is submitted as an annex to the report.*

Outputs by Project Component	2022		GEF Grant Budget Available (US\$)
	Q3	Q4	
Component 1 – Management of POPs in Waste Electrical and Electronics Equipment (WEEE)			1,013,066.61
Outcome 1.1: Strengthened legislation and institutional capacity in implementing PBDE action plans			
Output 1.1.1: A rationalized National Policy on WEEE Management formulated including incentive packages and Extended Producers' Responsibility (EPR) initiatives			
Outcome 1.2: Reduction and eventual elimination of POPS-PBDEs releases from WEEE to mitigate their health impact.			
Output 1.2.1: Systematized and standardized system for inventory of POP-PBDEs and HBB in WEEE in the country,			
Output 1.2.2: BAT/BEP demonstrated for the sustainable sound management of WEEE at selected waste recycling facilities			
Output 1.2.3: Safe disposal of PBDE-containing plastics			
Component 2 – Sound Management of PCB-contaminated equipment, PCB wastes and stockpiles from electric cooperatives			213,176.37

Outcome 2.1: PCB management plans of selected rural cooperatives effectively implemented.			
Output 2.1.1: Screening criteria and financial mechanism formulated for subsidized funding for qualified electric cooperatives			
Output 2.1.2: Preparation of the production plan for the facility based on the availability of different kinds of PCB waste			
Output 2.1.3: PCB wastes screened, transported, treated and disposed at the existing Non-Combustion Facility at Limay, Bataan			
Component 3 – Institutional strengthening, capacity building and awareness raising			99,147.32
Outcome 3.1: Increased capacity for and awareness on sustainable and effective WEEE and PCB wastes management by relevant stakeholders			
Output 3.1.1: Training programs on PCB and WEEE management for relevant stakeholders designed and implemented			
Output 3.1.2: Awareness programs on WEEE and PCB waste management formulated and conducted			
Component 4 – Project Monitoring and Evaluation and Implementation			100,319.44
Outcome 4.1: The project and all its stakeholders are able to monitor and evaluate the project's progress allowing for the implementation of the National framework plan.			
Output 4.1.1: The project and all its stakeholders are able to monitor and evaluate the project's progress allowing for the implementation of the National framework plan			

## X. Synergies

### 1. Synergies achieved:

The civil society has an existing project with the USAID wherein the possible synergy amongst the output of the project in Longos, Malabon and Capulong, Tondo are being proposed.

### 3. Stories to be shared (Optional)

In July 2021, the documentary of reporter Atom Auralio of I-Witness – Baklas was aired. Said documentary narrates the lives of Informal Waste Sector, especially women, in making a living from e-waste dismantling. The story also shared the intervention of UNIDO, through the Integrated Recycling Industries, Inc. who was engaged by UNIDO to provide training and assistance on the establishment and operations of the TSD facility. The full episode of the video documentary can be accessed in this link: [youtube.com/baklas](https://youtube.com/baklas).

The project has also been nominated by EMB for an ASEAN award on the works it has done for the informal sector.

## EXPLANATORY NOTE

1. **Timing & duration:** Each report covers a twelve-month period, i.e. 1 July 2021 – 30 June 2022.
2. **Responsibility:** The responsibility for preparing the report lies with the project manager in consultation with the Division Chief and Director.
3. **Evaluation:** For the report to be used effectively as a tool for annual self-evaluation, project counterparts need to be fully involved. The (main) counterpart can provide any additional information considered essential, including a simple rating of project progress.
4. **Results-based management:** The annual project/programme progress reports are required by the RBM programme component focal points to obtain information on outcomes observed.

Global Environmental Objectives (GEOs) / Development Objectives (DOs) ratings	
<b>Highly Satisfactory (HS)</b>	Project is expected to achieve or exceed <u>all</u> its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. The project can be presented as “good practice”.
<b>Satisfactory (S)</b>	Project is expected to <u>achieve most</u> of its <u>major</u> global environmental objectives, and yields satisfactory global environmental benefits, with only minor shortcomings.
<b>Moderately Satisfactory (MS)</b>	Project is expected to <u>achieve most</u> of its major <u>relevant</u> objectives but with either significant shortcomings or modes overall relevance. Project is expected not to achieve some of its major global environmental objectives or yield some of the expected global environmental benefits.
<b>Moderately Unsatisfactory (MU)</b>	Project is expected to achieve <u>some</u> of its major global environmental objectives with major shortcomings or is expected to <u>achieve only some</u> of its major global environmental objectives.
<b>Unsatisfactory (U)</b>	Project is expected <u>not</u> to achieve <u>most</u> of its major global environmental objectives or to yield any satisfactory global environmental benefits.
<b>Highly Unsatisfactory (HU)</b>	The project has failed to achieve, and is not expected to achieve, <u>any</u> of its major global environmental objectives with no worthwhile benefits.

Implementation Progress (IP)	
<b>Highly Satisfactory (HS)</b>	Implementation of <u>all</u> components is in substantial compliance with the original/formally revised implementation plan for the project. The project can be presented as “good practice”.
<b>Satisfactory (S)</b>	Implementation of <u>most</u> components is in substantial compliance with the original/formally revised plan except for only few that are subject to remedial action.
<b>Moderately Satisfactory (MS)</b>	Implementation of <u>some</u> components is in substantial compliance with the original/formally revised plan with some components requiring remedial action.
<b>Moderately Unsatisfactory (MU)</b>	Implementation of <u>some</u> components is <u>not</u> in substantial compliance with the original/formally revised plan with most components requiring remedial action.

<b>Unsatisfactory (U)</b>	Implementation of <u>most</u> components in <u>not</u> in substantial compliance with the original/formally revised plan.
<b>Highly Unsatisfactory (HU)</b>	Implementation of <u>none</u> of the components is in substantial compliance with the original/formally revised plan.

<b>Risk ratings</b>	
Risk ratings will assess the overall risk of factors internal or external to the project which may affect implementation or prospects for achieving project objectives. Risk of projects should be rated on the following scale:	
<b>High Risk (H)</b>	There is a probability of greater than <b>75%</b> that assumptions may fail to hold or materialize, and/or the project may face high risks.
<b>Substantial Risk (S)</b>	There is a probability of between <b>51%</b> and <b>75%</b> that assumptions may fail to hold or materialize, and/or the project may face substantial risks.
<b>Moderate Risk (M)</b>	There is a probability of between <b>26%</b> and <b>50%</b> that assumptions may fail to hold or materialize, and/or the project may face only moderate risk.
<b>Low Risk (L)</b>	There is a probability of up to <b>25%</b> that assumptions may fail to hold or materialize, and/or the project may face only low risks.