



## Project Implementation Report

(1 July 2021 – 30 June 2022)

<b>Project Title:</b>	Greening the Scrap Metal Value Chain through Promotion of BAT/BEP to Reduce U-POPs Release from Recycling Facilities
<b>GEF ID:</b>	9222
<b>UNIDO ID:</b>	150186
<b>GEF Replenishment Cycle:</b>	GEF-6
<b>Country(ies):</b>	Thailand
<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>	N/A
<b>Stand-alone / Child Project:</b>	N/A
<b>Implementing Department/Division:</b>	ENV / IPM
<b>Co-Implementing Agency:</b>	N/A
<b>Executing Agency(ies):</b>	Department of Primary Industries and Mines, Ministry of Industry (DPIM-Mol), Pollution Control Department (PCD) and Department of Environmental Quality Promotion (DEQP), under Ministry of Natural Resources and Environment (MoNRE), Iron and Steel Institute of Thailand (ISIT)
<b>Project Type:</b>	Full-Sized Project (FSP)
<b>Project Duration:</b>	60
<b>Extension(s):</b>	1 year
<b>GEF Project Financing:</b>	USD 4,500,000
<b>Agency Fee:</b>	USD 427,500
<b>Co-financing Amount:</b>	USD 33,714,786
<b>Date of CEO Endorsement/Approval:</b>	1/11/2018
<b>UNIDO Approval Date:</b>	2/2/2018
<b>Actual Implementation Start:</b>	6/6/2018
<b>Cumulative disbursement as of 30 June 2022:</b>	USD 2,797,345
<b>Mid-term Review (MTR) Date:</b>	1/8/2021
<b>Original Project Completion Date:</b>	6/6/2023

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

Project Completion Date as reported in FY21:	6/6/2023
Current SAP Completion Date:	6/6/2023
Expected Project Completion Date:	6/6/2024
Expected Terminal Evaluation (TE) Date:	8/31/2024
Expected Financial Closure Date:	2/28/2025
UNIDO Project Manager <sup>2</sup> :	Carmela Centeno

## I. Brief description of project and status overview

Project Objective: The main objective of the project is to promote and introduce BAT/BEP measures in scrap metal recycling facilities in order to reduce or eliminate unintentional POPs releases		
Project Core Indicators		Expected at Endorsement/Approval stage
6	Greenhouse Gas Emissions Mitigated (metric tons of CO <sub>2</sub> e)	x
11	Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment	x
5	Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury, and other chemicals of global concern	Reduction of not less than 23 g TEQ/year of PCDD/Fs released from demonstration facilities

Baseline
<p>The metallurgical sector is an important part of Thailand's economy. This sector produces ferrous and non-ferrous metals such as steel, copper alloys and aluminium, which are needed for the development of the country's infrastructure. While accounting only to 4.7% of the manufacturing industry and about 1.4% of the country's GDP, the metal industry is important to Thailand's economy. The total release PCDDs/PCDFs from the ferrous and non-ferrous metal production was estimated at 119.84 g I-TEQ/year, accounting for 11.14 % of the total national release. Taking into account the magnitude of the U-POPs problem and given the absence of appropriate countermeasures, the releases to the environment of U-POPs and other pollutants of concerns from the secondary metallurgical industry is expected to increase substantially in the future. As a consequence of the expected increase of secondary metals production, the Government of Thailand places priority to the implementation of BAT and BEP measures to reduce U-POPs releases from the national metallurgical industry and efforts will include, review of the regulatory framework and capacity building. Likewise, awareness on the environmental issues among scrap metal recyclers is substantially absent.</p> <p>The project covers the incremental costs required to address and remove many of the technical and institutional barriers that until now have hindered the spread of environmentally sustainable approaches for a sound management of the recycling of scrap metal along the entire value chain. In line with this objective, the project aims to strengthen the institutional capacity (decision makers and private sector), to improve the legislative and regulatory framework, and to identify, implement and demonstrate, at selected demonstration sites, state-of-the art techniques which could be applied along the entire scrap metal value chain (collection, treatment, end-use) for reducing U-POPs formation and releases from the secondary metals production processes. The project will address these problems through an integrated approach that combines</p>

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

awareness raising, capacity building, technical assistance and investment.

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.

Overall Ratings <sup>4</sup>	FY22	FY21
Global Environmental Objectives (GEOs) / Development Objectives (DOs) Rating	<i>Moderately Satisfactory (MS)</i>	<i>Satisfactory (S)</i>
The attainment of the GEOs is severely impacted by the COVID-19 pandemic which resulted to co-financing partners not pursuing their investment as committed. This results to the delay in the attainment of the GEOs. Several possible pilot facilities have been assessed to ensure that GEOs will be fully achieved.		
Implementation Progress (IP) Rating	<i>Moderately Satisfactory (MS)</i>	<i>Satisfactory (S)</i>
Implementation of Component 3 activities on BAT/BEP demonstration is severely impacted by the COVID-19 pandemic. As virtual platforms were made available for Components 1 and 2, the activities under these components have been progressing well.		
Overall Risk Rating	<i>Low Risk (L)</i>	<i>Low Risk (L)</i>
The project is still rated as LOW RISK despite the delays and loss of committed investments. There are several pilot facilities that maybe assisted by the project to make up for the lost co-financing.		

## 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.

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY22
<b>Component 1 – Policy and regulatory framework</b>				
Outcome 1: Policy and regulatory framework strengthened and enhanced for the implementation of a sound management of metal recycling in compliance with the Stockholm Convention requirements.				
Output 1.1 One (1) database capturing various aspects of	Number of facilities identified/surveyed.	There is no comprehensive picture	At least 4 firms in the national scrap metal	Four demonstration facilities are fully engaged and baseline situation assessed.

<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

<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

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY22
the metal recycling chain, as a new tool for policy makers, compiled.	<p>Number of main industrial stakeholders interviewed/consulted.</p> <p>Survey data entered and validated in the database.</p> <p>Availability of the database as a new tool for policy makers.</p> <p>Number of beneficiary institutional stakeholders.</p>	<p>of the facilities involved in the scrap metal value chain. Data are scattered among different ministries/departments and industry associations</p> <p>There is no comprehensive database for the scrap metal value chain available in the country at the present time.</p>	<p>value chain fully assessed.</p> <p>At least 2 representative companies in the steel and aluminium value chain interviewed/consulted.</p> <p>A comprehensive database developed and functional.</p>	<p>UNIDO international experts' visited the partner facilities on 22-24 August 2018</p> <p>A survey of industrial facilities started in February 2020 and was completed in July 2020.</p> <p>The updated and in-depth information from generators, collectors, to consumers of scrap metal has been collected since December 2019 was completed in July 2020</p> <p>Survey data was entered and validated in the database.</p> <p>A comprehensive database is fully deployed and accessed online.</p> <p>The database has been introduced to PSC and during Annual Event in October 2020 and Closing Workshop of initial phase of Component 1 with participants from public and private sector.</p>
Output 1.2: Specific guidelines on environment, health and safety measures in the metal recycling chain value developed.	<p>Number of available national guidelines and technical manual on BAT/BEP.</p> <p>Number of training programmes developed for staff authorities</p>	<p>There is insufficient knowledge about U-POPs and BAT/BEP in the metal recycling chain.</p> <p>There is insufficient information system which provide insight to operators for the management of scrap metal</p>	<p>National guidelines and technical manuals drafted in coordination between governmental and industrial stakeholders and adopted.</p> <p>50 national authority staff trained on measures and technologies to reduce U-POPs releases from the metallurgical industry. Equal access to training for men and women ensured.</p>	<p>The Literature review on current concerns on Stockholm Convention and sound management of scrap metal supply chain in certain countries has been conducted since October 2019.</p> <p>The draft national technical guidelines and procedure manuals is being formulated and reviewed in August 2020.</p> <p>The national guidelines, technical manuals and training courses for national authority staff on measures and technologies to reduce U-POPs releases from the metallurgical industry was completed in December 2020.</p> <p>Training programmes have been developed as a result of survey on training programs needed by the relevant national authorities. During January -February 2021, 5 training modules were conducted and exceeded the project's targets for 50 national authority staff trained as set in Project Document as following:</p> <ul style="list-style-type: none"> <li>- Training programs for regulatory authorities, professionals, research institutions on technical measures based on BAT/BEP to prevent generation of U-POPs releases from the secondary metals producing industry.</li> </ul> <p>Module 1 Unintentionally-released Persistent Organic Pollutants (U-POPs) There were 44 representatives of relevant institutions with 61.22% women</p> <p>Module 2 Policies, Laws, and Regulations There were 43 representatives of relevant institutions with 63.33 % women</p> <p>Module 3 Scrap Metal Industry and U-POPs Emission There were 31 representatives of relevant institutions with 53.33 % women</p> <p>Module 4 Management of U-POPs in Scrap Metal Industry There were 29 representatives of relevant institutions with 75 % women</p>

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY22
				<p>Module 5 Technical Sampling and Analysis of U-POPs</p> <p>There were 38 representatives of relevant institutions with 57.89% women</p> <p>During 20 June - 1 July 2022, 5 training modules were conducted for the second round, Module 1 – 4 to the authoritative agencies, educational institution, research institutes and private sector through ZOOM online program due to the spread of the COVID-19. There was one day site visit to laboratory on the third day of Module 5. There were about 200 participants from both the central and regional areas to take the Pre-Post tests to assess the obtained knowledge and to evaluate the training management including the content of the courses that have been organized. Training Assessment Report for 19 Modules is to be submitted in October 2022</p>
Output 1.3: Improved and harmonized national policies and regulations for environmental and health protection from metal recovery activities.	Number of regulatory instruments, national guidelines and technical manuals based on BAT/BEP submitted and/or undergoing adoption by national authorities.	Number of regulatory instruments, national guidelines and technical manuals based on BAT/BEP submitted and/or undergoing adoption by national authorities.	New set of revised laws and regulations promoting the diffusion of BAT/BEP to reduce U-POPs releases from the secondary metals producing industry.	<p>Revision of existing laws and regulations, identification of gaps and development of additional regulatory measures to promote the diffusion of BAT/BEP in order to reduce emissions of UPOPs from the secondary metals producing industry has been conducted since October 2019 and the output of this revision was provided in August 2020 as policy framework for Thailand. It was recommended for further implementation among relevant agencies.</p> <p>New regulatory instruments, national guidelines and economic incentives has been initially drafted.</p>
<b>Component 2 – Information dissemination and capacity building</b>				
Outcome 2.1: Increased awareness on U-POPs and BAT/BEP concepts by relevant stakeholders, Outcome 2.2: Improved national capacity in the sound management of the recycling chain of scrap metal.				
Outcome 2.2: Improved national capacity in the sound management of the recycling chain of pre-consumer and post-consumer scrap metal				
Output 2.1: Awareness raising materials and awareness raising workshop developed and implemented.	<p>Development of awareness programs and materials.</p> <p>Number of awareness raising initiatives.</p>	Limited environmental and health awareness on scrap metal recycling and U-POPs issues in both the users and the general public.	<p>Development of at least 1 video material and 2 relevant publication on the issue of dioxin and BAT and BEP</p> <p>At least 2 awareness raising campaigns conducted for the users of scrap metal and the general public.</p>	<p>Contract for this component has been awarded in September 2019 and ended November 2021.</p> <p>Project website has been developed since October 2019 and fully completed, both dynamic and static information (<a href="http://www.GreenScrapMetalThailand.com">www.GreenScrapMetalThailand.com</a>) Both project website and FB fanpage (Green Scrap Metal Thailand) have been regularly updated on news, activities and other information from the project.</p> <p>Those 3 VDO clips were completed in Thai with English subtitle and uploaded to the project website while the final round contest clip were upload to YouTube channel 'Green Scrap Metal Project' which also contains the animation of BAT/BEP applications in metal scrap recycling facilities and other project videos.</p> <p>Awareness raising event and campaign for the general public and the workers on issues related to POPs, on environment and health issues of scrap metals recycling Program has</p>

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY22
				been developed and scheduled to be launched mid of 2020, however, due to COVID-19 pandemic this has been postponed to October 30, 2020. The second event 'Green Scrap Metal Thailand 2021: One Future Together' from 16 to 18 August 2021 in an online format.
	Number of participants (male/female) in the awareness raising campaigns.		At least 2 participants from the relevant stakeholders identified in the document participating in awareness raising campaigns. Equal access to training for men and women ensured.	At the first awareness raising event and campaign, there were 310 participants of which 50% are women with at least 2 participants from the relevant stakeholders identified in the document. For second event, 229 participants (consisted of 91 males and 138 females) had joined in the event via Zoom and FB Live on the first day of the event.
Output 2.2: Technicians and operators of the scrap metal sector are trained on BAT/BEP	Number of institutions involved in setting up training materials and providing training sessions.	Training materials for a sound management of scrap metal recycling is not available. Limited knowledge and limited technical capacity among collectors, recyclers, and users of scrap metal on BAT/BEP applicable to the scrap metal recycling chain.	Training on sound scrap metal management and BAT/BEP delivered to at least 100 trainees. Equal access to training for men and women ensured.	The 14 training modules and materials were fully developed in August 2020 by Chulalongkorn University in consultation with DPIM, PCD, DEQP and Department of Industry Works (DIW). Hence, Training on sound scrap metal management and BAT/BEP, modules 6, 7 and 11 were organized during 2-3 December 2020 and modules 8, 9 and 10 during 31 March- 1 April 2021 for collectors, recyclers, and users of scrap metal. Module 12-17 for Industry associations and operators of industrial facilities were conducted online during 17-18 August 2021 and Module 18-19 for Operators of scrap metal sector on 18 August 2021.
	Number of people (male/female) trained on BAT/BEP.  Availability of training reports.			There were 250 representatives of relevant institutions with 50.16% women.  There are training reports for Module 6-19 which were conducted during December 2020 – August 2021.
	Number of participants (male/female) to the Study Tour.  Number of companies visited during the Study Tour.			A visit to the recycling facilities with representatives from PSC members of the project was undertaken on September 17, 2019 in Rayong and Chonburi provinces in Thailand which resulted in strengthening the cooperation and experience on sound management scrap metal recycling in Thailand among relevant governmental institutions. There were 14 representatives of relevant institutions with 43% women. Study Tour on BAT/BEP Application in the Metallurgical Industries was held in Brescia, Italy on 23 - 27 September 2019 to learn about possible BATs and BEPs being applied in different metallurgical facilities in Italy. Hence, it resulted in the increase in awareness on U-POPs and BAT/BEP concepts among national stakeholders and project partners as well as the improvement of national capacity in the sound management of the recycling chain of scrap metal in Thailand. There were 6 facilities visited and the Study Tour group consisted of 23 participants of which 43% are women. Study tour on the application of U-POPs and BAT/BEP implementation in the scrap recycling facilities in advance technology in Asia will be proposed to PSC meeting in July 2022 for endorsement.

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY22
<b>Component 3 – Pilot project for the demonstration of BAT/BEP in selected metal recycling facilities.</b>				
Outcome 3. State-of-the-art primary and secondary measures for U-POPs release reduction in selected facilities identified and deployed				
Output 3.1: BAT/BEP measures identified and implemented for scrap collectors and scrap consumers	<p>Number of BAT/BEP identified, implemented and demonstrated.</p> <p>Amount of incremental investment made.</p> <p>Quantity of PCDD/F and other pollutant releases avoided, reduced or eliminated.</p> <p>Number of documents produced for each pilot case.</p>	BAT/BEP measures in thermal processes of the metallurgical industry have never been demonstrated in Thailand.	<p>Demonstrations and assessments of the BAT/BEP measure agreed with 4 enterprises carried out and completed at the selected pilot sites.</p> <p>Not less than 23 g-TEQ/year releases reduction by BAT/BEP introduction in the demonstration facilities.</p> <p>Incremental investment in USD reported.</p>	The preliminary monitoring campaigns for U-POPs and other pollutants of concern released into the environment under the current operating conditions in the selected demonstration facilities was conducted in 4 facilities during January - February 2020. Work plan for implementation was developed and reviewed in March 2020.
Output 3.2: Training of technical staff and other potentially interested local stakeholders (environmental authority, SMEs, scrap collectors, etc.) in the management of BAT/BEP undertaken	<p>Number of people (male/female) trained on BAT/BEP.</p> <p>Availability of training reports.</p>	Insufficient knowledge, experience and technical capability of industrial manager and technical staff on BAT/BEP for the reduction of U-POPs releases in the metal scrap recycling sector.	Training of at least 50 technical professionals on BAT/BEP applicable to the industrial sector. Equal access to training for men and women ensured.	<p>The following training program including training materials and the Draft technical guidance for The SMEs and recycling associations aimed to introduce BAT/BEP concept for sustainable scrap metal management and Industry associations and operator of industrial facilities aimed to introduce BAT/BEP concepts on measures, approaches, and technology to reduce U-POPs releases, have been developed and conducted Since December 2020 till August 2021. Those events exceed the project's targets for at least 50 technical professionals as set in Project Document.</p> <p>Module 6 Introduction to POPs, U-POPs released and Stockholm Convention There were 100 representatives of relevant institutions with 53.03 % women</p> <p>Module 7 Sustainable scrap metal management for the recycling associations and SMEs There were 50 representatives of relevant institutions with 58.82 % women</p> <p>Module 8 Source, formation, toxicity and emissions of U-POPs in RA&amp;SMEs There were 27 representatives of relevant institutions with 48.15% women</p> <p>Module 9 BAT/BEP strategies on scrap management; handling, collection, storage and pre-treatment There were 20 representatives of relevant institutions with 55 % women</p> <p>Module 10 BAT/BEP (Pre-treatment) in practice and implementation for the recycling associations and SMEs – Case study There were 27 representatives of relevant institutions with 33.33% women</p> <p>Module 11 Sustainable metal production (environmental management &amp; BAT/BEP) overview There were 26 representatives of relevant institutions with 38.46% women</p> <p>Module 12 Source, formation, toxicity and emissions of U-POPs in metal industry There were 33 representatives of relevant institutions with 72.73 % women</p>

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY22
				<p>Module 13 Pollution control &amp; Waste management in the metal industry There were 20 representatives of relevant institutions with 70 % women</p> <p>Module 14 BAT/BEP strategies in 2nd metal industries (Primary &amp; Secondary measures) There were 15 representatives of relevant institutions with 46.67 % women</p> <p>Module 15 BAT/BEP (Post-treatment): Technology, approach &amp; implementation in metal associates There were 26 representatives of relevant institutions with 57.69 % women</p> <p>Module 16 Estimation (Dioxin Toolkits), monitoring and analysis There were 19 representatives of relevant institutions with 57.89 % women</p> <p>Module 17 Laws and Regulations There were 18 representatives of relevant institutions with 55.56 % women</p> <p>Module 18 BAT/BEP Implementation (Pre-treatment) from technology and guideline There were 24 representatives of relevant institutions with 50 % women</p> <p>Module 19 BAT/BEP Implementation (Thermal process, post-treatment) from technology and guideline There were 29 representatives of relevant institutions with 62.07 % women</p> <p>- Training programs of BAT/BEP management for technical staff of the selected demonstration facilities have been developed for modules for 4 pilot facilities and were conducted online as pre-trained on 30 August 2021 as following;</p> <p>Module 20 An introduction to generation of U-POPs in the selected facilities</p> <p>Module 21 Application of scrap sorting and screening for reducing U-POPs However, the following modules is expected to be conducted onsite/at the facilities after the COVID-19 situation has become under control at the facilities in Q3Y2022 -Q2Y2023.</p> <p>Module 22 Reduction of U-POPs using BAT/BEP</p> <p>Module 23 Measurement and analyzing of U-POPs</p>
Output 3.3: Policy and regulatory framework	<p>Number of documents drafted and disseminated.</p> <p>National action plan for replication developed and approved.</p>	Currently, there is no action plan for replication.	A national action plan including estimates of costs and benefits to the adoption of BAT/BEP finalized and endorsed.	<p>Revision of existing laws and regulations, identification of gaps and development of additional regulatory measures to promote the diffusion of BAT/BEP in order to reduce emissions of UPOPs from the secondary metals producing industry has been conducted since October 2019 and the output of this revision was provided in May 2021 as national policy framework which should be further implemented by in-depth consultation among national institutions to be included in national action plan which indicates of costs and benefits to the adoption of BAT/BEP.</p> <p>National policy framework as project finding was disseminated to more than 10 relevant agencies under Ministry of Industry, Ministry of Natural Resources and Environment, Ministry of Public Health, Ministry of Labour, academia and also published via project website. Particularly, National focal point of Stockholm Convention in Thailand also</p>



Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY22
				enquired project information as input to formulate the second NIP-POPs of Thailand.
<b>Component 4 – Monitoring and evaluation; knowledge management and dissemination</b>				
Outcome 4: Effective monitoring and evaluation of project impact and sustainability implemented.				
Output 4.1: Project M&E designed and implemented.	<p>Timely project implementation.</p> <p>M&amp;E adequately conducted according to UNIDO and GEF standard.</p> <p>Timely availability of inception, annual (APRs, PIRs, AWP) and evaluation (mid-term and final) project reports.</p> <p>Documentary evidence of M&amp;E activities including but not limited to drafting TORs, selection and recruitment consultants and staff, review of substantial report.</p>	<p>Indicative Project Results Framework with outcome and output indicators and targets.</p> <p>Indicative M&amp;E plan, budget and timeframe.</p> <p>New staff dedicated to the project and most of the key stakeholders will require specific training on UNIDO and GEF M&amp;E procedures.</p>	<p>Inception workshop held within one month from project approval.</p> <p>Project management structure implemented and fully functional within 6-months from the approval of the project</p> <p>Training on monitoring procedures, including gender, and administrative processes held during Inception Workshop.</p> <p>Mid-term evaluation delivered within 3 years from project signature.</p> <p>Terminal evaluation report delivered within 3 months from project closure.</p>	<p>Inception workshop was held on 29 November 2018 in Bangkok with 157 participants of which 50% are women.</p> <p>The Project Management Unit (PMU) has been established at the DPIM building.</p> <p>Deputy Director-General of DPIM, Mr. Nirun Yingmahisaranon, was appointed as National Project Director (NPD) from DPIM and he also chairs the Project Steering Committee since October 11, 2018. In addition to that, Mr. Nirun assigned Mr. Sakol Anunwanitcha, Director of Innovation Raw Materials and Primary Industries Division from DPIM, was designated as National Project Coordinator (NPC) to oversee the activities of the project since December 25, 2018.</p> <p>Since October 11, 2018, the PSC was established, chaired by the National Project Director, Mr. Nirun from DPIM. The PSC comprises representatives from relevant agencies including, UNIDO, Department of Industrial Works (DIW), the Office of Industrial Economics (OIE), Pollution Control Department (PCD), Department Environmental Quality Promotion (DEQP), International Affairs Division under Office of Permanent Secretary of Ministry of Natural Resources and Environment (GEF-Operational Focal Point), and Federation of Thai Industries.</p> <p>PMU staff were trained on project administration, UNIDO gender policy, and procurement process from 29-31 January 2019 in Vienna, Austria.</p> <p>Since October 2018, there has been 9 PSC Meetings for endorsing TORs, consultant selections, budget allocation and annual workplan including establishing Technical Working Group from Component 1, 2 and 3 (TWG1, TWG2 and TWG3) and other project monitoring aspects such as acknowledged PIR, including of additional facilities to participate the project.</p> <p>The previous PSC Meeting was on 16 December 2021 in Bangkok.</p> <p>From 1 July 2020 to 30 June 2022, PMU has organized many coordinating meetings both formal and informal but not limited to</p> <ul style="list-style-type: none"> <li>- 15 TWG meetings to quarterly monitor the implementation and review the progress reports from consultants of each Component</li> <li>- 3 online consultations with project partners</li> <li>- 1 participation the post monitoring dioxin emission.</li> <li>- 8 coordination meetings among consultants regarding to project workplan, database, and training program development</li> </ul>

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY22
				Even during the COVID-19 outbreak, several IT meeting tools were used to communicate with those relevant institutions such as Zoom, MS Team, LINE, and WebEx. Applications.
Output 4.2: Lessons learnt disseminated	Implementation of a communication strategy for documenting and disseminating lessons learnt and project experiences.  Number of communications Materials and dissemination events conducted.	None	Communication strategy developed.  Lessons and experience documented and disseminated in at least 2 workshops/ conferences.	There was technical session during second event 'Green Scrap Metal Thailand 2021: One Future Together' on 16 August 2021 regarding to BAT/BEP application in Thai smelters. Representatives from 2 of 4 selected facilities which completed the production process improvement shared their experience to more 200 participants.

### 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.

	(i) Risks	(i) Risk level FY 21	(i) Risk level FY 22	(i) Mitigation measures	(ii) Progress to-date	New defined risk <sup>5</sup>
1	<b>Component 1. Policy and regulatory framework</b> Lack of coordination and cooperation between institutional stakeholders such as Mol and MONRE in the development of new or additional regulatory measures for environmental and health protection from metal recovery activities.	Low risk (L)	Low risk (L)	During the preparatory phase of the project proposal all key institutional stakeholders showed a strong commitment in addressing environmental issues and a positive working relationship between them. All institutional stakeholders will be represented in the Project Steering Committee in order to be able to express their ideas with respect to roles and responsibilities of their own institution and to participate in the development of new or additional legislation. Multi- and inter-ministerial interactions will facilitate consensus in legislative improvement	Key institutional stakeholders were appointed members of the Technical Working Group assessing the outputs of this component. Thus, it is expected that all members are informed of their tasks and responsibilities on the revisions/improvements and enforcement of the legislation.	<input type="checkbox"/>
2	The development of new or additional regulatory measures for metal recovery activities is being opposed by the private sector and thus not adopted.	Modest risk (M)	Modest risk (M)	The industrial sector has already expressed its commitment to participate in the project thus indicating its awareness of the problem posed by U-POPs. Possible risks to reconsideration by the industry will be mitigated by targeted training and awareness raising campaigns. Demonstration projects, benefiting from the advice of international experts, will present the feasibility of the implementation of BAT and BEP.	The private sector has been fully engaged in the project. The revised policies/regulation will be communicated to them.	<input type="checkbox"/>
1	<b>Component 2. Information dissemination and capacity building</b> Private stakeholders (recycling and industry)	Low risk (L)	Low risk (L)	Relevant target stakeholders will be identified and engaged early on in the project's implementation and encouraged to participate in capacity building and awareness raising activities. Training needs will be	Target stakeholders have been fully identified and will be engaged in the capacity building and training activities of the project.	<input type="checkbox"/>

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

	(i) Risks	(i) Risk level FY 21	(i) Risk level FY 22	(i) Mitigation measures	(ii) Progress to-date	New defined risk <sup>5</sup>
	associations, operators of industrial facilities, etc.) are not actively participating in the training components of the project.			assessed, and pre- and post-training analysis will be undertaken.		
2	Low participation and interest from the workers and the general public in the education program.	Modest risk (M)	Modest risk (M)	Public awareness activities will be carefully designed, and different methodologies and targeted materials will be developed to generate interest and participation. Issues broader than U-POPs will be addressed such as sound municipal waste management and waste separation and recycling. The dissemination of information on U-POPs, environment and health issues linked to scrap metals recycling will be addressed through a careful design of awareness raising products including the use of social media networks and with the assistance of professional organizations for the arrangement of promotional events and activities.	Public awareness activities have been carefully designed to attract relevant and high number of participants. However, activities have been delayed due to the pandemic.	<input type="checkbox"/>
1	<b>Component 3: Pilot project for the demonstration of BAT/BEP in selected metal recycling facilities.</b>  Low co-operation among scrap recyclers, smelter facilities and other stakeholders.	Modest risk (M)	Modest risk (M)	The success of the project depend directly on the support and co-operation of all stakeholders. These will be fully involved since the initial stages of the project implementation in order to identify all potential conflicting interest. The project will ensure the co-operation of the involved stakeholders via regular communication and outreach.	The project has fully engaged the private sector. It has inked MOUs with 4 demonstration partners and continuous dialogue is being undertaken. Contractual agreements have been finalized with two of the demonstration facilities.	<input type="checkbox"/>
2	BAT/BEP implementation is no longer supported by the private sector due to reduced commitment, economic and financial reasons linked to high investment and operating costs, unforeseen technical or environmental problems.	Modest risk (M)	Modest risk (M)	Private sector companies were involved during the PPG phase for the identification of possible demonstration activities that could be performed during the project implementation. Whenever possible, the effective and economic reduction of U-POPs releases was linked to energy efficiency and material efficiency improvements in order to improve profitability and thus encouraging them in the formulation of the demonstration projects. The possibility of having the support of international experience in planning and carrying out activities, the support in technology transfer and, last but not least, the financial assistance that GEF money provides are all incentives for an active participation of the private sector. The project specifically seeks to reduce the risk of abandoning the commitment through capacity building and awareness raising activities in order to help the private sector in identifying opportunities to participate and in finding potential benefits. This will enable enterprises to have a complete	This risk has been fully mitigated with MOUs signed between DPIM and the demonstration companies. However, pandemic impact their investment plan. Hence, close communication with those facilities has been done continuously such as technical support, consultations regarding environmental concern, invitations to be speakers or participate the developed training program, etc.	

	(i) Risks	(i) Risk level FY 21	(i) Risk level FY 22	(i) Mitigation measures	(ii) Progress to-date	New defined risk <sup>5</sup>
				understanding of the problem and to take a more general and long-term vision.		
3	BAT/BEP measures will not achieve the expected release reduction target.	Modest risk (M)	Modest risk (M)	Demonstration projects are always uncertain as to the final outcome due to their inherent complexity. This risk is also linked to the fact that the emission estimates in the current scenario and in the BAT-based final scenario are based on default emission values or, in some cases, on expert judgment. During the project, each demonstration site will undergo through in-deep assessment of technical feasibility, expected benefits, cost, and environmental and social impact. Design of projects will be adjusted as needed to account for conditions identified during these assessments. Demonstration projects will be built on techniques and practices recognized by the BAT/BEP guidelines/guidance developed under the Stockholm Convention, documents inspired by the EU regulation (BREFs) and other guidance documents on selection of suitable technologies.	This risk has been mitigated by providing technical consultation to each demonstrated facility. Post monitoring campaign after BAT/BEP measures were implemented at 3 facilities indicated the reduction of dioxin releasing significantly from suitable technology selection. It can be implied that the rest of select facilities which will complete their investment plan on BAT/BEP application next year will achieve the U-POPs reduction along with energy efficiency and more productivity.	
1	<b>Component 4: Monitoring and evaluation; knowledge management and dissemination</b>  Failure in achieving a long-term reduction of U-POPs releases because of the difficulty to replicate and sustain the project results.	Low risk (L)	Low risk (L)	The strengthening of the policy and regulatory framework and the promulgation of national standards, coupled with the raised awareness and the capacity transferred to the enterprises through the training activities should provide the basis for the sustainability of the outputs of the project in the long term. To mitigate the risk, the project will support close stakeholder consultation to accept and sustain national industry and environmental policies and motivate manufacturing companies to comply with these policies.	The project has formulated policy and regulatory framework in consultation with relevant agencies both public and private sector several from small group discussion to national workshop including public hearing via project website. Besides, the 23 developed training modules consist of the principles of U-POPs reduction and BAT/BEP application in scrap metal recycling industry were specifically designed for 4 target groups Module 1-5: Regulatory authorities, professionals, research institutions Module 6-10: Recycling associations and SMEs Module 11-17 Industry operators Module 18-23	

	(i) Risks	(i) Risk level FY 21	(i) Risk level FY 22	(i) Mitigation measures	(ii) Progress to-date	New defined risk <sup>5</sup>
2	Failure in achieving a wide (national, regional, global) dissemination of lessons learned and project results.	Low risk (L)	Low risk (L)	Adequate dissemination of lesson learned and project results is crucial to the replication and sustainability of project outcomes. This is strictly linked to the commitment of the managers of demonstration facilities to share experiences and results. The project recognizes that some enterprises are reluctant to get involved in sharing their own experiences for confidentiality reasons. Design of the knowledge management and dissemination will be adjusted as needed to account for identified situations of sensitivity and confidentiality of information. The awareness raising and capacity building activities integrated into the project design should ensure sufficient understanding to allow enterprises to assume a more open attitude.	and of industrial facilities on U-POPs, measures based on BAT/BEP to prevent generation of U-POPs from the secondary metals producing industry and based on strategies of sustainable production and consumption	
	Risk due to the Covid-19 pandemic	Low risk (L)	Low risk (L)	A catch up plan will be designed to ensure that delays are mitigated.	A catch up plan has been devised to ensure that delays will be fully mitigated. Use of virtual platforms on project discussion has been implemented	

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.

n/a

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

The outbreak of COVID-19 has affected project implementation. Due to economic uncertainties, the investment plans of the facilities were affected and some companies reduced their investment scope. The Project Management team has identified and involved other companies to ensure the achievement of the global environmental benefits. Assessment of these new companies is currently being carried out.

Awareness raising activities and project implementation with stakeholders have also been postponed. However, a catch up plan has been designed and will be implemented.

The project has suffered delays and it could be foreseen that an extension of 1 year to complete envisaged activities will be requested.

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

The project has implemented the activities to all 4 Components with challenges of facing uncertain situation of the spread of the COVID-19 and affected all 4 selected demonstration facilities to adjust their investment plans by reducing/postponing which eventually caused the project to postpone the environmental sampling and the in-depth assessment after the investment for budget allocations as well as having to postpone training for the technicians from all 4 selected demonstration facilities. This also resulted in finding the new factories to join the project.

Considering the current information and situation, it is to propose for a period extension of the project implementation for another year from 6 June 2023 to 6 June 2024 to complete the activities:

1. Additional investment in the promotion of BAT/BEP from existing and new participating factories.
2. Conduct post monitoring sampling in pilot facilities
3. Conduct Terminal Evaluation
4. Submission of relevant documents and transfer other project outputs such as databases, PR materials, training programs, etc. to DPIM as the main executing agency of project as well as other the project partners for further use.

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

Recommendations	Action Taken
1. Project represents good example for other countries, experiences can be used during the preparation and implementation of this type of project concerning to the U-POPs emission reduction and elimination.	Noted.
2. One of the important project outputs was the development of pilot projects to demonstrate new technologies to reduction of emissions of U-POPs in Thailand. The pilot projects have shown potential to attract investments for development of applicable environmental technologies to reduce U-POPs emissions and chemical pollution. A mechanism should be developed to catalyse investments in order to meet the targets of the National Implementation Plan of the SC on POPs and other relevant national strategic documents and approaches.	Project management team, regarding to PSC meeting resolution after acknowledging this intervention, Technical Working Group of Component 1: Policy and regulatory framework is working on development of mechanism to catalyse the investment as following, - Drafting legal and administrative measures necessary to promote BAT/BEP applications in metal recycling facilities as criteria for new facilities, requirement for staff to be trained about U-POPs and BAT/BEP in metal recycling facilities - Recommended values for national dioxin emission standards for metal recycling facilities and define procedure for enforcement - Drafting the economic incentives for private sector to improve their operations by BAT/BEP application to reduce or eliminate releases of U-POPs
3. It is necessary to continue the identification and inventory of all U-POPs emission sources. The inventory needs to be closely connected with similar inventories in other parts of the country and the on-going national inventory on persistent organic pollutants under the Stockholm Convention on POPs.	During drafting the 2 <sup>nd</sup> NIP/POPs of Thailand, all U-POPs emission sources was identified, and it caused in updated the POPs inventory of Thailand. Hence the result of environmental monitoring campaign both Pre and Post at the demonstrated scrap recycling facilities is certainly to be communicated with Stockholm Convention National Focal Point of Thailand (SC NFP) for updating the inventory.
4. The project has delivered a set of useful results valuable for future projects concentrated on tackling the environmental problems of Thailand. To make the project results and the positive experiences gained from its implementation available, the project management needs to ensure that results are communicated to all stakeholders, decision makers, the scientific community, and the broader public.	Regarding to sustainability of the project outcomes since the results of the project implementation have also been incorporated into national policies and plans due to one of PSC member is representative from SC NFP, Pollution Control Department (PCD). PCD has begun to formulate the new Pollution Management Plan (2022 - 2027) and is in the process of revising the 2nd NIP/POPs to be more complete before submitting it to the Secretariat of the Stockholm Convention in 2023. It was committed that, it is highly possible to the integrate with these Plans under the National Policy Framework that Component 1 provides in this NIP/POPs plan.
5. The project management should ensure, to the extent possible, that the project results, conclusions, and recommendations are used in the development of the National Implementation Plan of the Stockholm Convention on Persistent Organic Pollutants for Thailand.	

<p>6. As very useful tool of this project was the networking of academia and public institutions; it will be very useful to continue in this especially as far as continuation of the proposed training activities. Education and awareness raising are key elements of the successful implementation of the project conclusions and the Stockholm Convention on POPs measures.</p>	<p>The project has continued to conduct 19 training modules to various target groups related to metal scrap recycling supply chain in Thailand in 2022-2023 including research institutes and academia along with annual awareness raising events to disseminate the knowledge U-POPs, measures based on BAT/BEP to prevent generation of U-POPs from the secondary metals producing industry and based on strategies of sustainable production and consumption.</p> <p>Since those training modules was developed under the collaboration of various national tertiary education institutions it is foreseen that at least the following institutions; Chulalongkorn University, National Institute of Development Administration (NIDA), Thammasat University and Suan Sunandha Rajabhat University will include this topic in their curricular programs.</p>
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#### 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).

	Eenv ironmental & Social Impacts risk	Mitigation measures undertaken during the reporting period	Monitoring methods and procedures used in the reporting period
<p>(i) Risks identified in ESMP at time of CEO Endorsement</p>	<p>Risk of inappropriate maintenance and operation of established equipment/facilities and technology failure, which will result in excessive discharge of pollutants and environmental pollution.</p>	<p>1. Strict implementation of the project management system including adequate and appropriate maintenance, strict implementation of the operating manual, training of personnel on safety and operations.</p>	<p><b>Component 1 Policy and regulatory framework</b> - N/A</p>
			<p><b>Component 2. Information dissemination and capacity building</b> - N/A</p>
			<p><b>Component 3: Pilot project for the demonstration of BAT/BEP in selected metal recycling facilities.</b></p> <p>According to the Safety Occupational Health and Work Environment Act 2011 of Thailand, Section 16 requires the training of executives, supervisors and all employees on safety, occupational health and working environment.</p> <p>In addition, facilities also have to provide training to all new employees, in the case of entering a new job, changing jobs, changing workplace, or changing machinery or equipment which may endanger the employee's life, physical, mental or health.</p> <p>As the employers shall provide training for all employees before starting work in response to the intent of the said law. It is therefore necessary to educate all employees on safety and operations.</p> <p>PMU also revisited and observed their obligations and found that PPE wearing is required for all employee and visitors such as, facemask, high - visibility vest, gloves, safety helmet and shoes.</p>

	Environmental & Social Impacts risk	Mitigation measures undertaken during the reporting period	Monitoring methods and procedures used in the reporting period
<b>(i) Risks identified in ESMP at time of CEO Endorsement</b>			<p>Inclusion of additional facilities under Component 3 comes with safety management criteria. The latest visit was May 26, 2022, on occasion of Mr. Collen Vixen Kelapile, President of the United Nations Economic and Social Council (ECOSOC) joined the 78<sup>th</sup> Session of the Economic and Social Commission for Asia and the Pacific (ESCAP) in Bangkok and afterward had interest in visiting one of the project demonstrating facilities located in outskirts of Bangkok.</p>
		<p>2. Waste Management During the project there will be the provision of training on hazardous materials as well as adoption of official policies for dealing with disposal of materials and environmental pollution.</p>	<p><b>Component 1 Policy and regulatory framework</b> - N/A</p> <p><b>Component 2. Information dissemination and capacity building</b> - N/A</p> <p><b>Component 3: Pilot project for the demonstration of BAT/BEP in selected metal recycling facilities.</b> All pilot facilities have to comply with Hazardous Substances Act and Factory Act regarding to their industrial waste disposal must meet national guideline and submit the report to the Thai regulators at least once a year as a critical condition to renew factory license.</p>
		<p>3. The concentration of total suspended particles (TSP), NO<sub>x</sub>, non-methane hydrocarbon (NMHC)</p>	<p><b>Component 1 Policy and regulatory framework</b> - N/A</p> <p><b>Component 2. Information dissemination and capacity building</b> - N/A</p> <p><b>Component 3: Pilot project for the demonstration of BAT/BEP in selected metal recycling facilities.</b> All pilot facilities have to comply with Thailand National Environmental Quality Enhancement Act and Factory Act regarding to their effluence and emission must meet national standards so as the environmental impact assessment (EIA) monitoring report is required by law to submit to the Thai regulators at least once a year as a critical condition to renew business license.</p> <p>PMU also revisited and observed their obligations to EIA. During the reporting period, environmental monitoring was conducted in the additional facilities by sampling and analyze their emission and ambient according to Thai national standards to determine concentration of dioxin, PM10 and PM2.5.</p>
	Low participation rates of females in project implementation	<p>The project pursues thorough and gender responsive communication and ensure stakeholder involvement at all levels, with special regard to involving women and men, as well as civil society and non-governmental organizations promoting gender equality.</p>	<p><b>Component 1 Policy and regulatory framework</b> <b>Component 2. Information dissemination and capacity building</b> <b>Component 3: Pilot project for the demonstration of BAT/BEP in selected metal recycling facilities.</b></p> <p>All activities under 3 components was conducted with gender balanced participation, rationale rates of female, 30 – 65 percent of participants, such as PSC and TWGs members, key person of project partners and consultant teams. Project questionnaires, news and other PR media have been distributed to all stakeholders in scrap metal supply chain in Thailand by post, email, website and telephone communication. This includes the invitations to participate the project activities such as technical consultations, trainings, workshops, annual events and site visit those initial and additional facilities therefore the rate of female participation is highly moderate as indicated in Section II. Targeted results and progress to-date.</p>



	<b>Environmental &amp; Social Impacts risk</b>	<b>Mitigation measures undertaken during the reporting period</b>	<b>Monitoring methods and procedures used in the reporting period</b>
<b>(ii) New risks identified during project implementation (if not applicable, please insert 'NA' in each box)</b>	Covid-19 related risks to - Co-financing expenses of the BISW, NTS and TMA might not be met - implementation of Component 1 regarding to closing workshop of initial phase, and training	- Seek for new facilities with interest in the promotion of BAT/BEP	The PSC agreed to reallocate the budget and engage new facilities on September 24, 2020.  To date, one of initial and one of additional facilities have completed their BAT/BEP application and verification was already conducted by UNIDO expert. Consequently, their partially reimbursement for financial support from project was granted.  This results in more facilities contacted the project for consultation and opportunity to be project partners and those are being assessed.
	Component 2 regarding to the Second Annual national awareness raising on BAT/BEP and U-POPs reduction and training	- Social distancing, hand sanitizers and facial mask were used during closing workshop and trainings  - regarding to Centre for COVID-19 Situation Administration of Thai government, public event requires limited number of people participating due to the social distancing.	Provide alternative channels of participation to those who are interested to join the workshop in February 2021 by attending at the venue or via online meeting tools or live broadcast via internet.  The 2 <sup>nd</sup> Annual national event during 16-18 August 2021 was organized via online platform  Conduct the 19 training modules both online and onsite required all participants to show ATK result prior to their participation

## 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).

Relevant stakeholders have been fully engaged and committed to the delivery of project results. The project has constituted 3 TWGs, members of which are from different institutions and project partners, who provide technical inputs to project-related decisions. Additional scrap metal facilities have been engaged for ensuring the project target achievement.

Relevant stakeholders are continuously consulted and engaged as evidenced by the various meetings held on V.3.

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.).

It is recommended to continue the training arrangement for all stakeholders in metal scrap recycling supply chain to expand number of participants and institutions involved.

Regulators/enforcers of relevant polices would like to have practical enforcement procedures and incentives adaptable to national conditions while industrial enterprises would like to have practical regulations and policies and better technical and financial assistance in the application of BAT/BEP to reduce U-POPs emissions.

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

No.	D-M-Y	Activities/topics
1	7-Jul-2021	Project Steering Committee (PSC) Annual meeting with TWGs
2	21-Jul-2021	UNIDO experts meeting with ISIT DPIM PMU
3	1-Sep-2021	UNIDO experts meeting with ISIT DPIM PMU
4	2-Sep-2021	Technical Working group for Component 1 (TW G1) meeting
5	17-Sep-2021	Technical Working group for Component 3 (TW G3) meeting
6	20-Sep-2021	Technical Working group for Component 2 (TW G2) meeting
7	30-Sep-2021	UNIDO experts meeting with ISIT DPIM PMU
8	3-Nov-2021	UNIDO experts meeting with ISIT DPIM PMU
9	24-Nov-2021	Technical Working group for Component 1 (TW G1) meeting
10	25-Nov-2021	UNIDO experts meeting with ISIT DPIM PMU
11	25-Nov-2021	Technical Working group for Component 3 (TW G3) meeting
12	26-Nov-2021	Technical Working group for Component 2 (TW G2) meeting
13	16-Dec-2021	Project Steering Committee (PSC) Annual meeting with TWGs
14	26-Jan-2022	UNIDO experts meeting with ISIT DPIM PMU
15	17-Feb-2022	UNIDO experts meeting with ISIT DPIM PMU and Panyaraksa
16	1-Mar-2022	Technical Working group for Component 1 (TW G1) meeting
17	7-Mar-2022	Technical Working group for Component 2 (TW G2) meeting
18	14-Mar-2022	Technical Working group for Component 3 (TW G3) meeting
19	14-Mar-2022	UNIDO experts meeting with ISIT DPIM PMU
20	18-Mar-2022	Technical Working group for Component 1 (TW G1) meeting
21	24-Mar-2022	UNIDO experts meeting with ISIT DPIM PMU and Trident
22	11-Apr-2022	Technical Working group for Component 1 (TW G1) meeting
23	27-Apr-2022	UNIDO experts meeting with ISIT DPIM PMU
24	17-May-2022	Technical Working group for Component 2 (TW G2) meeting
25	19-May-2022	Technical Working group for Component 1 (TW G1) meeting
26	24-May-2022	Technical Working group for Component 3 (TW G3) meeting
27	30-May-2022	Consultation Meeting among ISIT DPIM PMU and Millcon regarding to additional information
28	1-June-2022	UNIDO experts meeting with ISIT DPIM PMU
29	21-Jun-2022	Technical Working group for Component 3 (TW G3) meeting

Relevant documentation maybe found in the following link.

<https://www.dropbox.com/sh/t5srwtzuguqxi5/AAAJnHDpVw7D9QcSeCEPOqpbpa?dl=0>

## 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 project fully complies with gender mainstreaming strategies as reflected in the project document ensuring participation of both men and women in the decision-making process and reporting of gender-sensitive indicators in its activities.

The project ensured around 40-60% women in the composition of its TWG. All relevant activities ensured equal access to opportunities and more inclusive participation despite the metallurgical sector being a male-dominated industry.

## 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.

Knowledge Management is being monitored by the PMU which is responsible for the safekeeping of all reports/knowledge products generated from project activities.

A project website has been designed and maintained where public information and documents are shared. Some of the knowledge management products developed under the project include the following:

9222\_ PR Videos, please access via project website ([www.GreenScrapMetalThailand.com](http://www.GreenScrapMetalThailand.com)) for

- Project introduction 1 minute
- Overview of Dioxin and BAT/BEP in Scrap Metal Supply Chain 3 minutes
- BAT/BEP Application in Scrap Metal Supply Chain to reduce Dioxin Generation 10 minutes

9222\_ VDO clips, please access via project YouTube Channel "Green scrap metal project" (<https://www.youtube.com/channel/UCt4WRQmEzfyBXSwqqXTY CmQ/videos>)

- 4 from final round contest as awareness raising campaign.
- Virtual prototype of BAT/BEP Application in scrap metal recycling facilities to reduce U-POPs generation
- VDO clips for Virtual exhibition of project and partners

9222\_VDO and other training materials of each module is being transferred to <https://dpimacademy.dpim.go.th>

9222\_ Wan Mai (New Day) Variety: Get to know "U-POPs", industrial pollutants, more harmful substances than PM2.5, this documentary was broadcast in ThaiPBS national television. <https://program.thaipbs.or.th/watch/SA010M>

9222\_ Final Report of Component 1: initial phase (2019-2021) and its annex 1- 5; Policy Framework, Technical Guidance, Training program for national authorities, Database Manual Operation, and Survey <https://1drv.ms/u/s!AjDNWe5pWajPv3zn M5nNJT1Zt-w?e=nCZvfA>

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

9222\_ Project website ([www.GreenScrapmetalThailand.com](http://www.GreenScrapmetalThailand.com))

9222\_ Interactive virtual prototype on BAT/BEP application in scrap metal recycling supply chain to reduce U-POPs releasing (<https://greenscrapmetalthailand.com/model>)

9222\_ Project Facebook page: โครงการจัดการเศษโลหะอย่างยั่งยืน Green Scrap Metal Thailand (<https://web.facebook.com/profile.php?id=100064815726446>)

These are tools/platforms developed by the project to access knowledge on U-POPs management and BAT/BEP application in scrap metal recycling supply chain from anywhere/anytime which can be continuously updated/added. The website and Facebook platform also allows the public/followers to obtain

the latest information from the project and can make comments or inquiry with PMU such as training program. The online KM Platforms are also used for registration and subsequent, follow-ups by interested stakeholders.

## 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.

Overall, all project components have been executed efficiently by national institutions contracted as service providers of the project in close collaboration with the PMU and DPIM. Please refer to progress to date on the respective project outputs.

The PSC and TWG member provide strong support on the project implementation and meets regularly to assess and provide recommendations to ensure the timely and effective delivery of project results.

The main challenge at the moment is the investment commitment of the demonstration facilities which has been heavily impacted by the economic issues associated with the Covid-19 pandemic. Additional project facilities have been engaged or are currently being evaluated for possible inclusion as project partner. This would ensure that the project attain its commitment in terms of the global environmental benefits.

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"/>	Results Framework	N/A
<input type="checkbox"/>	Components and Cost	N/A
<input type="checkbox"/>	Institutional and Implementation Arrangements	N/A
<input type="checkbox"/>	Financial Management	N/A
<input checked="" type="checkbox"/>	Implementation Schedule	The outbreak of COVID-19 has delayed the investment plan of demonstrated recycling facilities and their scope of BAT/BEP implementation. An extension of one year is considered.
<input type="checkbox"/>	Executing Entity	N/A
<input type="checkbox"/>	Executing Entity Category	N/A
<input type="checkbox"/>	Minor Project Objective Change	N/A
<input type="checkbox"/>	Safeguards	N/A
<input type="checkbox"/>	Risk Analysis	N/A
<input type="checkbox"/>	Increase of GEF Project Financing Up to 5%	N/A

<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%.

<input checked="" type="checkbox"/>	Co-Financing	<b>Additional scrap metal facilities have been engaged for ensuring the project target achievement.</b>
<input type="checkbox"/>	Location of Project Activities	N/A
<input type="checkbox"/>	Others	

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

The project currently has 62% implementation with a total expenditure of US\$ 2,797,345.03 as of June 30,2022. Activities under Components 1, 2 and partly 3 were subcontracted to reputable national institutions under open competition. Main expenditure envisaged is under Component 3 comprising of the subsidy to the partner companies on BAT/BEP investments in their facilities.

The details of the project disbursement are provided below:

 <b>PROJECT DELIVERY REPORT</b>		<b>Project:</b> 150186 - GREENING OF SCRAP METAL VALUE CHAIN THROUGH THE PROMOTION OF BAT/BEP TO REDUCE U-POPS RELEASES FROM RECYCLING FACILITIES	<b>Project Manager:</b> Carmela Centeno	<b>Project Validity:</b> Status: 01.06.2016 - 31.07.2024 Implement			
<b>Reporting Period:</b> 23.01.2016 - 30.06.2022	<b>Project Theme:</b> Energy and Environment	<b>Country:</b> Thailand	<b>Region:</b> Asia and Pacific				
<b>Sponsor Nr.</b>	<b>Sponsor</b>	<b>Grant</b>	<b>Grant Description</b>	<b>Fund</b>	<b>Currency</b>	<b>Grant Status</b>	<b>Grant Validity</b>
400150	GEF - Global Environment Facility	2000003353	GEF THAILAND	GF	USD	Closed	23.05.2016 - 31.01.2019
400150	GEF - Global Environment Facility	2000003014	U-POPS_THAILAND	GF	USD	Authority to implement	06.06.2018 - 06.06.2023

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)	
2000003914	Status: Authority to implement										
150186-0-01-01	Policy and Regulatory Framework										
1100	18,000.00	0.00	0.00	0.00	27,000.00	27,000.00	0.00	27,000.00	0.00	0.00	
1500	7,000.00	0.00	0.00	0.00	16,344.15	16,344.15	4,844.15	11,500.00	0.00	4,844.15	
1700	24,000.00	0.00	0.00	0.00	48,000.00	48,000.00	0.00	48,000.00	0.00	0.00	
2100	63,329.53	59,951.16	998.80	60,949.96	163,940.29	163,940.29	146,560.72	17,379.57	0.00	146,560.72	
3000	0.00	0.00	0.00	0.00	10,000.00	10,000.00	0.00	10,000.00	0.00	0.00	
4500	3,000.00	0.00	0.00	0.00	4,000.00	4,000.00	0.00	4,000.00	0.00	0.00	
5100	2,000.00	0.00	0.00	0.00	4,000.00	4,000.00	0.00	4,000.00	0.00	0.00	
9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14,383.45	14,383.45	
150186-0-01-01	<b>117,329.53</b>	<b>59,951.16</b>	<b>998.80</b>	<b>60,949.96</b>	<b>273,284.44</b>	<b>273,284.44</b>	<b>151,404.87</b>	<b>121,879.57</b>	<b>14,383.45</b>	<b>165,788.32</b>	
150186-0-01-02	Information Dissemination and Capacity										
1100	33,000.00	0.00	0.00	0.00	36,000.00	36,000.00	0.00	36,000.00	0.00	0.00	
1500	91,210.48	0.00	0.00	0.00	182,930.11	182,930.11	86,719.65	96,210.46	0.00	86,719.65	
1700	42,000.00	0.00	0.00	0.00	54,000.00	54,000.00	0.00	54,000.00	0.00	0.00	
2100	58,806.96	0.00	0.00	0.00	348,580.04	348,580.04	274,773.08	73,806.96	0.00	274,773.08	
3000	12,752.50	(4,426.38)	3,614.19	(812.19)	30,000.00	30,000.00	6,435.31	23,564.69	0.00	6,435.31	
3500	50,000.00	0.00	0.00	0.00	50,000.00	50,000.00	0.00	50,000.00	0.00	0.00	
4500	1,000.00	0.00	0.00	0.00	1,000.00	1,000.00	0.00	1,000.00	0.00	0.00	
5100	1,357.32	(1,053.90)	1,034.45	(10.45)	7,643.92	7,643.92	5,267.15	2,376.77	0.00	5,267.15	
9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35,453.58	35,453.58	
150186-0-01-02	<b>290,127.24</b>	<b>(5,480.28)</b>	<b>4,648.64</b>	<b>(831.64)</b>	<b>710,154.07</b>	<b>710,154.07</b>	<b>373,195.19</b>	<b>336,958.88</b>	<b>35,453.58</b>	<b>408,648.77</b>	

\* Does not include Unapproved Obligations



### PROJECT DELIVERY REPORT

<b>Project:</b> 150186 - GREENING OF SCRAP METAL VALUE CHAIN THROUGH THE PROMOTION OF BAT/BEP TO REDUCE U-POPS RELEASES FROM RECYCLING FACILITIES		<b>Project Manager:</b> Carmela Centeno	<b>Project Validity Status:</b> 01.06.2016 - 31.07.2024 Implement
<b>Reporting Period:</b> 23.01.2016 - 30.06.2022	<b>Project Theme:</b> Energy and Environment	<b>Country:</b> Thailand	<b>Region:</b> Asia and Pacific
<b>Sponsor Nr.</b>	<b>Sponsor</b>	<b>Grant</b>	<b>Grant Description</b>
400150	GEF - Global Environment Facility	2000003353	GEF THAILAND
400150	GEF - Global Environment Facility	2000003914	U-POPS_THAILAND
<b>Fund</b>	<b>Currency</b>	<b>Grant Status</b>	<b>Grant Validity</b>
GF	USD	Closed	23.05.2016 - 31.01.2019
GF	USD	Authority to implement	06.06.2018 - 06.06.2023

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)	
<b>150186-0-01-03</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	
1100 Staff & Intern Consultants	12,000.00	0.00	0.00	0.00	27,000.00	27,000.00	0.00	27,000.00	0.00	0.00	
1500 Local travel	10,340.56	(959.44)	316.11	(343.33)	25,000.00	25,000.00	316.11	24,683.89	0.00	316.11	
1700 Nat.Consult./Staff	48,000.00	13,934.00	10,591.48	24,525.48	120,000.00	120,000.00	24,525.48	95,474.52	0.00	24,525.48	
2100 Contractual Services	485,132.93	(549,578.14)	582,897.69	33,319.55	2,461,248.32	2,461,248.32	1,944,434.94	516,813.38	0.00	1,944,434.94	
3000 Train/Fellowship/Study	0.00	0.00	0.00	0.00	10,000.00	10,000.00	0.00	10,000.00	0.00	0.00	
4500 Equipment	0.00	0.00	0.00	0.00	404,000.00	404,000.00	0.00	404,000.00	0.00	0.00	
5100 Other Direct Costs	4,816.86	1,051.37	0.00	1,051.37	9,000.00	9,000.00	2,234.51	6,765.49	0.00	2,234.51	
9300 Support Cost	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	187,293.52	187,293.52	
<b>150186-0-01-03 Total</b>	<b>560,290.35</b>	<b>(535,252.21)</b>	<b>593,805.28</b>	<b>58,953.07</b>	<b>3,056,248.32</b>	<b>3,056,248.32</b>	<b>1,971,511.04</b>	<b>1,084,737.28</b>	<b>187,293.52</b>	<b>2,158,894.56</b>	
<b>150186-0-01-01</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	
1100 Staff & Intern Consultants	0.00	0.00	0.00	0.00	35,000.00	35,000.00	0.00	35,000.00	0.00	0.00	
1500 Local travel	0.00	0.00	0.00	0.00	11,427.22	11,427.22	4,427.22	7,000.00	0.00	4,427.22	
1700 Nat.Consult./Staff	11,774.09	8,807.95	19,366.53	28,174.48	240,497.20	240,497.20	231,897.59	8,599.61	0.00	231,897.59	
2100 Contractual Services	0.00	0.00	0.00	0.00	12,000.00	12,000.00	0.00	12,000.00	0.00	0.00	
3000 Train/Fellowship/Study	0.00	0.00	0.00	0.00	27,141.25	27,141.25	12,141.25	15,000.00	0.00	12,141.25	
3500 International Meetings	0.00	0.00	0.00	0.00	2,575.31	2,575.31	2,575.31	0.00	0.00	2,575.31	
4300 Premises	4,767.11	0.00	0.00	0.00	11,412.15	11,412.15	6,645.04	4,767.11	0.00	6,645.04	
4500 Equipment	(29.69)	0.00	9.90	9.90	13,103.78	13,103.78	8,143.37	4,960.41	0.00	8,143.37	
5100 Other Direct Costs	(2,074.13)	0.00	411.54	411.54	17,156.26	17,156.26	18,641.93	(1,485.67)	0.00	18,641.93	
9300 Support Cost	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27,024.97	27,024.97	
<b>150186-0-01-01 Total</b>	<b>14,437.38</b>	<b>8,807.95</b>	<b>19,787.97</b>	<b>28,595.92</b>	<b>370,313.17</b>	<b>370,313.17</b>	<b>284,471.71</b>	<b>85,841.46</b>	<b>27,024.97</b>	<b>311,496.88</b>	

\* Does not include Unapproved Obligations



### PROJECT DELIVERY REPORT

<b>Project:</b> 150186 - GREENING OF SCRAP METAL VALUE CHAIN THROUGH THE PROMOTION OF BAT/BEP TO REDUCE U-POPS RELEASES FROM RECYCLING FACILITIES		<b>Project Manager:</b> Carmela Centeno	<b>Project Validity Status:</b> 01.06.2016 - 31.07.2024 Implement
<b>Reporting Period:</b> 23.01.2016 - 30.06.2022	<b>Project Theme:</b> Energy and Environment	<b>Country:</b> Thailand	<b>Region:</b> Asia and Pacific
<b>Sponsor Nr.</b>	<b>Sponsor</b>	<b>Grant</b>	<b>Grant Description</b>
400150	GEF - Global Environment Facility	2000003353	GEF THAILAND
400150	GEF - Global Environment Facility	2000003914	U-POPS_THAILAND
<b>Fund</b>	<b>Currency</b>	<b>Grant Status</b>	<b>Grant Validity</b>
GF	USD	Closed	23.05.2016 - 31.01.2019
GF	USD	Authority to implement	06.06.2018 - 06.06.2023

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)	
<b>150186-0-53-01</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	
1100 Staff & Intern Consultants	7,334.93	0.00	0.00	0.00	65,000.00	65,000.00	12,665.07	52,334.93	0.00	12,665.07	
1700 Nat.Consult./Staff	5,902.85	0.00	0.00	0.00	25,000.00	25,000.00	4,097.15	20,902.85	0.00	4,097.15	
9300 Support Cost	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,593.50	1,593.50	
<b>150186-0-53-01 Total</b>	<b>13,237.78</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>90,000.00</b>	<b>90,000.00</b>	<b>16,762.22</b>	<b>73,237.78</b>	<b>1,593.50</b>	<b>18,355.72</b>	
<b>2000003914 Total</b>	<b>995,422.28</b>	<b>(471,973.38)</b>	<b>619,240.69</b>	<b>147,267.31</b>	<b>4,500,000.00</b>	<b>4,500,000.00</b>	<b>2,797,345.63</b>	<b>1,702,654.37</b>	<b>265,749.62</b>	<b>3,063,094.65</b>	
<b>2000003353 Status: Closed</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	<b>USD</b>	
1100 Staff & Intern Consultants	0.00	0.00	0.00	0.00	34.28	34.28	34.28	0.00	0.00	34.28	
1500 Local travel	0.00	0.00	0.00	0.00	8,346.06	8,346.06	8,346.06	0.00	0.00	8,346.06	
1700 Nat.Consult./Staff	0.00	0.00	0.00	0.00	59,626.00	59,626.00	59,626.00	0.00	0.00	59,626.00	
2100 Contractual Services	0.00	0.00	0.00	0.00	65,263.67	65,263.67	65,263.67	0.00	0.00	65,263.67	
3000 Train/Fellowship/Study	0.00	0.00	0.00	0.00	4,513.38	4,513.38	4,513.38	0.00	0.00	4,513.38	
3500 International Meetings	0.00	0.00	0.00	0.00	4,279.38	4,279.38	4,279.38	0.00	0.00	4,279.38	
5100 Other Direct Costs	0.00	0.00	0.00	0.00	5,713.81	5,713.81	5,713.81	0.00	0.00	5,713.81	
9300 Support Cost	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14,250.00	14,250.00	
<b>150186-1-01-01 Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>147,776.58</b>	<b>147,776.58</b>	<b>147,776.58</b>	<b>0.00</b>	<b>14,250.00</b>	<b>162,026.58</b>	
<b>2000003353 Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>147,776.58</b>	<b>147,776.58</b>	<b>147,776.58</b>	<b>0.00</b>	<b>14,250.00</b>	<b>162,026.58</b>	
<b>150186 USD Total</b>	<b>995,422.28</b>	<b>(471,973.38)</b>	<b>619,240.69</b>	<b>147,267.31</b>	<b>4,647,776.58</b>	<b>4,647,776.58</b>	<b>2,945,121.61</b>	<b>1,702,654.37</b>	<b>279,999.62</b>	<b>3,225,126.63</b>	

\* 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.

Outputs by Project Component	2019				2020				2021				2022				2023				GEF Grant Budget Available (US\$)
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
<b>Component 1 – Policy and regulatory framework</b>																					
Outcome 1: Policy and regulatory framework strengthened and enhanced for the implementation of a sound management of metal recycling in compliance with the Stockholm Convention requirements.																					
Output 1.1: Scrap metal value chain assessed and interventions identified.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	121,879.57
Output 1.2: One (1) database capturing various aspects of the metal recycling chain, as a new tool for policy makers, compiled.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Output 1.3: Specific guidelines on environment, health and safety measures in the metal recycling chain value developed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Output 1.4: Improved and harmonized national policies and regulations for environmental and health protection from metal recovery activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Component 2 – Information dissemination and capacity building</b>																					
Outcome 2: Outcome 2.1: Increased awareness on U-POPs and BAT/BEP concepts by relevant stakeholders, Outcome 2.2: Improved national capacity in the sound management of the recycling chain of scrap metal.																					
Output 2.1: Awareness raising materials and awareness raising workshop developed and implemented.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	336,958.88



Outputs by Project Component	2019				2020				2021				2022				2023				GEF Grant Budget Available (US\$)
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Output 2.2: Technicians and operators of the scrap metal sector are trained on BAT/BEP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>Component 3 – Component 3. Pilot project for the demonstration of BAT/BEP in selected metal recycling facilities</b>																					
Outcome 3: State-of-the-art primary and secondary measures for U-POPs release reduction in selected facilities identified and deployed.																					
Output 3.1: BAT/BEP measures identified and implemented for scrap collectors and scrap consumers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,084,737.28
Output 3.2: Training of technical staff and other potentially interested local stakeholders (environmental authority, SMEs, scrap collectors, etc.) in the management of BAT/BEP undertaken	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Output 3.3: Results of the implemented demonstration projects published and disseminated for replication through collaboration with existing financial institutions in the country.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Component 4 Project Management and Monitoring</b>																				85,841.46	

## X. Synergies

1. **Synergies** achieved:

N/A

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

N/A



## 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 yield 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 is <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.

Risk ratings	
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.