UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

SUSTAINABLE DEVELOPMENT GOALS

Project Implementation Report

(1 July 2021 – 30 June 2022)

Project Title:	*Transforming the Leather Processing Industries towards Low Emissions and Climate Resilient Development Paths in Pakistan*
GEF ID:	*9585*
UNIDO ID:	*160069*
GEF Replenishment Cycle:	*GEF-6*
Country(ies):	*Pakistan*
Region:	*EAP - East Asia and Pacific*
GEF Focal Area:	*Climate Change Mitigation (CCM)*
Integrated Approach Pilot (IAP) Programs[1]:	*N/A*
Stand-alone / Child Project:	*Stand-alone*
Implementing Department/Division:	*AGR / RJH*
Co-Implementing Agency:	*N/A*
Executing Agency(ies):	*Ministry of Climate Change (MOCC);* *Pakistan Tanners Association - Southern Zone PTA (S.Z) Environmental Society.*
Project Type:	*Medium-Sized Project (MSP)*
Project Duration:	*36 months*
Extension(s):	*01*
GEF Project Financing:	*USD 2,000,000*
Agency Fee:	*USD 190,000*
Co-financing Amount:	*USD 7,233,950*
Date of CEO Endorsement/Approval:	10/16/2018
UNIDO Approval Date:	4/28/2017
Actual Implementation Start:	1/23/2019
Cumulative disbursement as of 30 June 2022:	1,524,729
Mid-term Review (MTR) Date:	1/10/2020
Original Project Completion Date:	1/15/2021
Project Completion Date as reported in FY21:	1/23/2022

[1] Only for **GEF-6 projects**, if applicable

Current SAP Completion Date:	1/23/2024
Expected Project Completion Date:	1/23/2024
Expected Terminal Evaluation (TE) Date:	1/23/2024
Expected Financial Closure Date:	7/23/2024
UNIDO Project Manager[2]:	*Mr. Ivan Kral*

I. Brief description of project and status overview

Project Objective

The objective of the project is to transform the Korangi Leather Area (KLA) industrial zone in Sindh province through the widespread adoption of low-carbon technologies. The project will contribute to strengthening the technical and management operations of the KLA cluster in production processes, cleaner production facilities, sector level facilities (such as the CETP for KLA and proper waste management) and technical and professional capacities will be established and/or optimized to improve tannery efficiency and reduce GHG emissions. If identified during project implementation, feasible add-ons will be initiated to further reduce GHG emissions.

In line with the GEF-6 Climate Change Mitigation focal area strategy, the project will:

I) Contribute to the support of integrated approaches combining policies, technologies, and management practices with significant climate change mitigation potential.

II) Promote innovation, technology transfer, and supportive policies and strategies;

III) Demonstrate mitigation options with systemic impacts;

IV) And foster enabling conditions to mainstream mitigation concerns into sustainable development strategies.

Project Core Indicators		Expected at Endorsement/Approval stage
1	Indicator 1: Total Lifetime Direct and Indirect GHG Emissions Avoided (Tons CO2eq)	1,360,000
2	Indicator 2: Lifetime Energy Saved (Million Joules)	3,600,000

Baseline

The tanning industry of Karachi is primarily concentrated in Korangi since most of the operating tanneries are located there. The leather sector in Karachi comprises of two types of manufacturing activities: wet processing factories (tanneries); and value addition units (garments making and stitching). Total leather exports are comprised of ~ 48% tanned leather and ~52% value added products. Tanneries are involved in processing the raw material partially or fully to finished leather (from raw hide or skin to finished leather, the tanning unit might process only from raw to wet blue, or from wet blue to finished leather, or from raw to finished). There are about 170 tanneries in Karachi, almost all of them located in one cluster – sector 7/A of Korangi Industrial Area.

The tanning process requires large quantities of water. The Karachi Water and Sewerage Board is not able

[2] Person responsible for report content

to supply an adequate quantity of water to the tannery areas. Currently, the treated effluent from the CETP (Central Effluent Treatment Plant) is discharged in a storm water drain, ultimately reaching the Arabian Sea. Recycling of treated effluent will help to fulfil the water requirements of the tannery areas. It will also decrease the operational expenses of the CETP as less quantities of dilution water would be required.

Unregulated disposal of solid wastes from leather processing activities and illegal landfill sites without any appropriate measures presents a high risk of groundwater pollution. At present, there is practically no Recycling and/or reusing of solid wastes in industrial zones. Obsolete and defective waste air purification Technology and inappropriate production processes mean that leather industrial units emit significant Quantities of harmful substances.

Overall Ratings[3]	**FY22**	**FY21**
Global Environmental Objectives **(GEOs)** / Development Objectives **(DOs)** Rating	*Satisfactory (S)*	*Satisfactory (S)*
The reporting Year 2021-22 also testify the progress on following GEOs and Development Ratings (Dos) in KLA project on Strengthening the Guiding framework for the transformations towards Low Emission And Climate Resilient Industrial Processing, It is being implemented in partnership with the SEPA (Sindh Environmental Protection Agency-Govt. of Sindh) on discussion for Cleaner Production Policy for Sindh Province. Project is providing technical input for leather sector in (i) establishing green policy at the municipality level through all industries in Sindh and (ii) assisting with the existing consultation with all stakeholders particularly the environmental and social dimensions. Hence, rating remains unchanged.		
Implementation Progress **(IP)** Rating	*Satisfactory (S)*	*Satisfactory (S)*
While the project's overall accumulated achievement against set targets for 2021-2022 was largely met, for instance component 1 met with one policy intervention with the involvement of Government institute i-e SEPA (Sindh Environmental Protection Agency-Govt. of Sindh) and component 3 accomplishing 50% procurement as per mandated and approved work plan for 2021-22, the level of achievement differs from component to component, ranging from zero (Output 1.1) to twofold for Indicator 2.1. On average, the accumulated level of success across three components for the year 2021-2022 of KLA project remains with good pace despite of COVID-19 pandemic. Hence, rating remains satisfactory.		
Overall **Risk** Rating	*Low Risk (L)*	*Low Risk (L)*
The year 2021-22 marked the second full year of KLA Project implementation. Capitalizing on the work done in 2021 and putting in place the building blocks for future achievement, KLA project has made significant progress on its intended outcome of strengthening integration of GHG emission reduction phenomenon, Cleaner Production and environment climate objectives into the policies, plans, regulations for project partners to accelerate delivery of the approved work plan by project board. The outcome is tracked through three interrelated components. Beneficiaries volunteer participation, regulatory authorities' interest, and stakeholder engagement proved the overall Risk Rating as Low.		

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.

[3] 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 to-date
Component 1 – Strengthening the guiding framework to facilitate the transformations towards low emission and climate resilient industrial processing				
Outcome 1.1: The Government of Pakistan adopts the Corporate Carbon Footprint (CCF) approach for the tannery sector and begins to establish the national CCF framework for leather processing and mechanisms to promote the uptake of waste-reducing technology and practice				
Output 1.1.1: Tools and guidelines for the Leather Environmental Footprint and Carbon Footprint Calculation methodology for the local leather industry reviewed/developed	# of Product Environmental Footprint (PEF) toolkits produced	0	1	**Reporting period: 01** The project has produced the PEF toolkit during this reporting period. Provincial Government, with the support of MoCC, have agreed to incorporate the PEF toolkit into the draft Cleaner Production Policy. The project has increased awareness amongst multiple stakeholders from various industries (leather, textiles, paint), and importantly SEPA, about the toolkit as a key method to understand and ultimately reduce GHG emissions. The PEF toolkit was used by PTA (SZ)-ES to develop the comprehensive solid waste management plan for KLA. **Deliverable**: PEF toolkit, which has been incorporated into the draft of the Cleaner Production policy (Annex AE) **Total: 01**
Output 1.1.2: Guidelines and documentation on improvements and extensions of existing regulations encompassing the application of innovative clean-and-low-carbon waste technologies and practices	# of reports providing international best practice recommendations to enhance the solid waste management act	0	1	**Reporting period: 01** The project successfully completed technical study in Dec 2021, which provided international best-practice recommendations based on appraised energy efficiency opportunities, waste-to-energy technologies, and associated carbon footprint reductions for tanneries to be located in and around the Korangi Leather Area (KLA). The recommendations from the report were incorporated into the draft Cleaner Production policy within the leather processing industries of Sindh Province. **Deliverables**: Detailed study shared with all stake holders (Report Annex AA) **Total: 01**
Output 1.1.3: Responsible regulatory authorities are informed on core elements and benefits of the CCF approach and sound waste management.	# of people from regulatory authorities trained on CCF approach and sound waste management	0	50 (25 females)	**Reporting period:** 17 (**13** females) Capacity building provided to participants from SEPA, KATI, PTA (Central), SSWMB, Bahria University. (**36% female participation**) on CCF concepts, Cleaner productions and waste management through 03 workshops. The SSWMB, KATI and Leather Research Centre from PCSIR also joined in technical session on Solid Waste Management. **Total**: 413 participants (13 females) were trained
Output 1.1.4: Guideline on the enhanced utilization of waste streams for industrial applications developed	# of guidelines for enhanced utilization of waste streams for industrial applications produced by 2022	0	1	Reporting period: **01** Guidelines elaborated on the enhanced utilization of Agri-food by-products and waste streams for industrial applications. The guideline included Energy Efficiency, Methodology And Actions Plan For Korangi Leather Area based on study conducted by M/S SIGRA group. The outcomes were shared with the leather community in a workshop arranged on **16th Feb 2021. F**ollowing the outcome of workshop and guidelines on waste reutilization, the coordination committee of PTA (SZ)-ES agreed to adopt the results of business model presented in guidelines, so far, 03 proposals have been discussed and initial consultation started in **May 2022**:

				-Establishment of Tallow recovery plant for sector 7-A-korangi. - Assessment and feasibility of Waste water re-utilization -Solar powered operations for combined Effluent Treatment plant to minimize industrial, environmental and carbon footprints built up. The guidelines were integrated into the solid waste management plan and are being used by all members of PTA as part of the broader solid waste management system. The guidelines were also used to improve the design and properly reconstruct the conveyance system and drains to ensure that effluent during peak loads are suitably carried, thus reducing pollution. In addition, the guideline provided the foundation to finalize the MoA between SMWB and SEPA, who agreed to adopt and disseminate the guideline to other industries. See Annex AE for the full guideline **Total: 01**
Component 2 – CAPACITY BUILDING ON THE CCF APPROACH FOLLOWING THE DETERMINED GUIDELINES AND INFORMATION DISSEMINATION ON PROPER WASTE MANAGEMENT INITIATIVES				
Outcome 2.1: Institutional capacities to integrate the Leather Environmental Footprint, CF and CCF approach into firms is strengthened and key players are able to technically assist leather processors towards complying with standards, improving waste management and reducing GHG emissions				
Output 2.1.1: Capacity building delivered to decision-makers, BMOs' representatives, and other stakeholders on best practices in leather production to minimize industrial, environmental and carbon footprints	# of people trained on best practices in leather production	0	50	**Reporting period: 143** Project facilitated in providing trainings and capacity building program throughout the year, **5** sessions have been conducted so far, in which 143 technical managers, supervisors and tannery owners were trained on CCF concepts, sustainable leather processing and solid waste management. **Total: 143** Training reports and attendance sheets attached as (**Annex AL)**
	# of training manuals adapted into curriculum for institutions	0	5	**Reporting period: 01** Training manual for internship program has been designed by PTA (SZ)-ES and shared with Bahria University, the said university made this program a part of Research course for final year students for field experience in Environmental domain. **Deliverable:** Training manual and internship report is attached as **Annex AG** **Total: 01**
Output 2.1.2: Tailored training tools on CF-related guidelines and toolkits are developed and introduced into institutions and the leather industry is informed on environmentally sound management of solid waste and by-products as an alternative to unregulated disposal	# of training tools (curricula and training manual) for on-line and blended training courses on Leather Environmental footprint and Sustainable Leather Manufacturing including solid waste developed	0	5	**Reporting period: 0** In total three studies will be conducted (1 completed so far), which will be used to adapt the training curricula and manuals according to the different members at PTA. Curricula and training manuals have been develop for i) Sustainable leather manufacturing and ii) leather efficiency **Total: 0**
	# of tannery technicians and managers trained on applying project-developed	0	350	**Reporting period: 17 (13 females)** Capacity building provided to participants from SEPA, KATI, PTA (Central), SSWMB, Bahria University. (**36% female participation**) on CCF concepts, Cleaner productions and waste management through 03 workshops. The SSWMB,

	guidelines and tools related to CF			KATI and Leather Research Centre from PCSIR also joined in technical session on Solid Waste Management. **Total: 431**
	# of people attending awareness workshops on BAT/BEP for leather processing waste management	0	200 (20 Females)	**Reporting period: 13** Training provided to 13 managers, supervisor, students and Technical personals on BAT/BEP for sustainable leather processing. **Total: 143** Consolidated Training Report is attached Annex AN
	# of project-developed toolkits uploaded to leatherpanel.org for dissemination to platform users (30-40k)	0	2	**Reporting period: 0** Toolkits will be uploaded upon finalisation **Total: 0**
Output 2.1.3: Support provided to train associations' representatives on the use of CF-related tools and guidelines and on National Environment Quality Standards (NEQS) and Punjab Environmental Quality Standards (PEQS) compliance to disseminate among associations' members	# of association representatives trained as trainers (ToT) on the use of CF-related tools and PEQS compliance	0	150 (5 females)	**Reporting period: 143** The project has completed 05 training programs, which has trained mainly managers, supervisors and technical staff of tannery units. These staff members are trained personal of their units and capable to train on safety from H2S (key for PEQS compliance), GHG reduction through handling solid waste management as per Sindh Provincial Quality Standards approved for industries. **Total: 143**
	# of training curricula for local institutions produced	0	2	**Reporting period: 0** **Total: 0**
Component 3 – PILOT OF CCFS AND SOUND WASTE MANAGEMENT AND PRACTICES WITHIN KLA				
Outcome 3.1: Solid waste is reduced among KLA members through the adoption of the CCF approach and improved waste management systems and technologies; interest from other tannery clusters in reducing solid waste increases.				
Output 3.1.1: Carbon Footprint emission reduction options are refined:	# of reports outlining possible options for CF reduction and recommendations developed by 2021	0	1	**Reporting period: 01** Project conducted study on sustainable leather processing and GHG reduction through Energy Efficiency and waste to Energy options. **Deliverable**: final report from M/S SIGRA group is attached as **Annex-AA** **Total: 01**
Output 3.1.2: Low-carbon waste technologies and practices selected and demonstrated within tanneries in KLA and training in by-product use is conducted	# (types) of tools and equipment for collection, handling, storage and transport of solid waste deployed	0	2	**Reporting period: 03** Tools – Waste collection bins (1 tool); Equipment – Garbage compactor and sludge suction machine (2 types of equipment). One of the major milestones of the project is the MoA between SSWMB and PTA (SZ) on the allocation of one dedicated landfill site for tannery waste. Based on this agreement, for reduction in GHG emission, project along its project partners launched complete solid Waste Management system in Korangi Sector 7-A on 1 April 2022. The following items were deployed: **- 275** small bins of 0.8m3 and **45** Bins of 5m3; - 01 Garbage compactor - 02 sludge suction machines. All have been handed over to SMWMB through a machinery equipment handover agreement. Tanneries were briefed on the system ahead of the deployment.

				Multiple consultations with PTA (SZ) and members, SMWMB, SEPA, MoCC guided the procurement of these items. Awareness/wider consultation with Tannery owners for participation and inclusion in Waste Bins system. The project also facilitated PTA in designing and construction of Solid Waste Facilitation Centre, which has space for all equipment, facilities for complete operation and maintenance, parking space and an office. As a result of the deployment of these tools and equipment, **350** tons of waste have been collected and properly disposed of. **Equipment Inventory Sheet as Annex AL** **Total: 03**
	# of technologies transferred to targeted leather processors	0	2	**Reporting period: 02** 1. Use of the RF ID system to enter the landfill site and allow automatic calculation of waste. This is making operations more efficient and allocates charges specifically according to the waste being dumped. 2. Online/mobile system that allows tanneries to pay fees for waste online. All PTA members are being briefed on this new system. **Total: 02**
	# of pilot demonstrations to reduce solid waste completed	0	2	**Reporting period: 01 (waste bins)** The first pilot demonstration for waste bins was implemented at one tannery prior to the official start of solid waste management system operations. After officially starting, 69 Waste Bins have been supplied to 47 active tanneries as a larger pilot for daily front door waste collection from sector 7-A. So far, 03 awareness sessions have been conducted to raise awareness of the specific use of the bins and the solid waste management system. **Total: 01 (waste bins)**
	# of solid waste management sites introduced in KLA	0	1 collection 1 Dumping	**Reporting period: 01 collection, 01 dumping** Collection site has been introduced in April 2022 where all waste from is transported to for collection and ultimate disposal. Identifying ultimate disposal and dumping site is a **major milestone achieved by the project**. Initially no landfill site were pre identified by project partners, which were also indicated in Mid-Term review as the big hurdle in implementation of Solid Waste Management for Korangi. In Feb 2022, PTA (SZ)-ES signed with SSWMB for systematic implementation of Waste collection, transport and disposal at proper engineered landfill site near Korangi sector 7-A. This will ensure compliance of both National and international regulation of handling waste management. From April – June the leather community has collected and transported around **350 tons** of solid waste from leather Area to government's designated Garbage Transfer Station for landfill site. All active members of Korangi Leather Area Sector 7-A became part of agreement with Sindh Solid Waste Management Board's MoA with PTA (SZ)-ES. **Total: 01 collection, 01 dumping**

	# of employees in the leather production process and sector-level facilities including the CETP trained on possible techniques to minimize solid waste	0	350	**Reporting period: 200** Project conducted 23 Consultations sessions, 05 Trainings/Workshops, Exposure visits both at National and International level, Information exchanged through visit to similar project components, direct meetings with line ministries like SEPA, MoCC, LER etc. **Total: 200**
Output 3.1.3: Feasibility plans for clean and low-carbon waste technology for possible access to financing prepared	# of feasibility studies with investment options for solid waste utilization including CF comparison produced	0	1	**Reporting period: 02** Based on the outcome of the EE Methodology & CO2 calculation, two studies have been commissioned and are ongoing. **Total: 02**
	# of solid waste management plans produced	0	2	**Reporting period: 01** UNIDO-GEF project technically facilitated PTA (SZ)-ES in developing comprehensive Solid waste Management plan to be complaint with all regulations. **Total: 01**
COMPONENT 4: PROJECT MONITORING AND EVALUATION (M&E)				
Output 4.1.1: Quality control and effective monitoring of project activities, impacts and results implemented	# of PSC meetings held	0	4	**Reporting period: 01** **Total: 02** 02 project Steering Meetings (PSC) have been conducted so far, first Project Steering Committee Meeting held in **Feb 2019** and Second Project steering meeting conducted on **Sep 2020.**
	# of site visits carried out by UNIDO Project Manager	0	5	**Reporting period: 0** On-site visit did not materialize due to COVID and travel restrictions. **Total: 02**
Output 4.1.2: Mid-term and terminal evaluations conducted	Mid-term review, project terminal report and final independent evaluation completed on time	N/A	N/A	Reporting period: N/A Total: MTR completed on time. A mid-term review (MTR) was conducted in 2020-21

III. Project Risk Management

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

	(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[4]
1	Lack of incentive of industrial owners to shift to climate resilient development as this brings thoughts of additional costs to be added to their investments	Low-Medium	Low-Medium	The project, through its awareness raising and capacity building initiatives will try to shift the thinking by introducing the private sector to the incentives of shifting towards greener and cleaner production. The project will be implemented with a strong national ownership and as such, national governmental stakeholders will champion the awareness raising activities. Also, the baseline project's financial contributions	Continuous meetings and consultations brought positive attitude in industry like: -A big achievement of inclusion of all tanning units in implementation of Solid Waste management, although, none of the industry is being benefitted on monetary basis but the commitment of project tends to bring them in domain for waste collection and disposal in order to make climate more resilient.	☐

[4] New risk added in reporting period. Check only if applicable.

	(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[4]
				will reduce the pressure from land owners to pay high development costs associated with treatment facilities establishment	-All industrial units of Sector 7-A shall be issued certificate of waste collection by Government department i-e, Sindh Solid Waste Management board, SSWMB which shall suffice their compliance both at national and international level.	
2	Risks related to climate changes	High	High	As effect of climate changes may have an impact on Karachi (sea level rising, erosion, rise of temperature), experience from the GEF project in Sialkot addressing Climate Change Adaptation will be included into the project implementation.	Karachi being metropolitan city facing lack of municipal and infrastructural capability to counter 'Climate related changes, the reported Impact of climate change in Karachi are Rainfall impacts, rise in temperature is itself an important factor, Monsoon winds are another features that influence the climate of Karachi, in the year 2020-21, the city has faced urban flooding and heavy rainfall in which industries faced lot of damages. This year, PTA (SZ)-ES in contract with Sindh Solid Waste Management Board and district Administration on removal of solid waste that may be a problem during heavy rainfall and urban flooding. This is being implemented from April 2022 before monsoon season to clean the storm drain as well as garbage collection points worked to collect garbage and lifted waste to clear designated Bins to avoid blockage during urban flooding.	☐
3	There could be a risk of limited availability of female population within the engineering sector, and low participation rate of female candidates.	Medium-High	Medium-High	The project will pursue thorough and gender responsive communication and ensure stakeholder involvement at all levels, with special regard to involving women and men, as well as CSOs and NGOs promoting gender equality and mainstreaming, and a gender expert. This shall mitigate social and gender related risks, promote gender equality, create a culture of mutual acceptance, and maximize the potential contribution of the project to improving gender equality in the productive sectors.	In relation to the gender gaps identified during the MTR, the project changed its approach to increasing female participation rates in the leather sector. Based on an assessment, the strategy chosen was to create linkages that offer practical implications and clear win-wins for industry and female engineers. Firstly, the PIU took over the ownership of mitigating this risk and identified stakeholders to partner with to enhance the school-to-work pipeline. A total of three academic institutions were assessed. Secondly, as a result of the assessments and consultations, the project introduced a female internship programme and training manual at the University of Bahria, Karachi as a practical way to increasing inclusion of female students in the leather sector. This is not only done to provide females with work experience, but also to expose tannery personnel to female workers, their engineering education and to develop a clear and feasible track for potential employment.	☐
4	Investment and operational costs for common facilities (e.g. Central effluent Treatment Plant, Solid Waste Conversion) higher than expected.	Low-Medium	Low-Medium	The project partners will work on an appropriate business model to cover necessary operational costs for common facilities. Experience gained from similar project and facilities will be used to find an appropriate model for this.	Drawing on lessons learned from other experiences, UNIDO PMU supported PTA (SZ)-ES in drafting ToRs for selecting third party for collection, transport and dumping of waste to keep costs down. -ToRs approved and 02 parties were invited to present their candidatures. 04 meeting held at PTA (SZ)-office in which waste collection companies were invited to present their operational model for leather sector at Korangi.	☐

	(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[4]
5	Challenging project coordination: establishment of leather industries' cluster is a challenging project and requires a lot of coordination and involvement of many stakeholders. Slow response of some key actors may hinder the project implementation.	Low-Medium	Low-Medium	All project stakeholders are committed and understand the project objective. UNIDO has broad experience in implementing similar projects and leather industry clusters and this may help to overcome possible problems with the project planning and implementation. In order to coordinate and execute the project smoothly, a project steering committee will be created as early as possible to coordinate all stakeholders and take into account the needs of all groups (industry, agriculture, communities, women, NGOs etc.). Also, Green Productivity Teams will be established for each industrial cluster.	3+ dialogues sessions have been reported in current year on, coordination with public entities for comprehensive solid waste Management in Korangi Leather Area. UNIDO-GEF project has provided capacity-building trainings and consultations to more than 5 government institutes as part of the work plan in implementation process, resulting in better coordination and engagement at the national and subnational levels. In March 2022, SSWMB designate 02 officials from their operations to receive training on leather related waste and waste optimization. Through this training, SSWMB became aware on how to mechanize waste collection system in more technical way instead of dealing with other industrial waste. This allowed SSWMB to lead technical discussions and develop a sense of local ownership, which has helped to gain commitment of other stakeholders. For the first time, SSWMB made contract in Mar 2022, with private entity PTA (SZ)-ES for Solid Waste collection, transport and disposal from Korangi district. In addition, it is the kind of unique collaboration for other industrial sectors where machinery, Waste Bins and equipment is being provided Furthermore, the established PSC has proven to be an effective and efficient mechanism for project coordination with exchange of information amongst stakeholders that has led to improved decision-making and greater stakeholder commitment. For instance , SSWMB being government organization have limited sources to provide industry based waste bins and specialized machinery , but the case of PTA (SZ)-ES stood exemplary for other sectors also where leather sector showing commitment by contributing all related equipment and resources to collect and dispose all waste to designate place.	☐
6	Delays due to challenges with production and transport of the equipment/technology required for the project activities (Covid pandemic).		Medium-high	The project will seek to localise production of equipment, and plan ahead where possible to account for delays due to COVID-19 e.g. design, tenders, etc.	Project proactively arrange the meetings with vendors via online medium. Main product for solid waste operations were the provision of Waste Bins, its design approval, durability tests and approval of sample at factory site. Project team requested the M/S Strongman to fabricate/Manufacture Waste Bins in their local plant at Karachi instead in Faisalabad. The company agreed to fabricate sample in their local factory in Karachi, project team visited and approve the design. Later in last week of Dec 2021, after relaxation in COVID-19 relaxation, waste Bins were prepared and delivered at project site. As the result of mitigation steps for fulfilling procurement of operational Machinery for Solid Waste Machine, the project successfully acquired all waste bins as per plan:	☒

	(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[4]
					Size of Bins / Quantity / Status 0.8 m3 / 275 / Arrived 5 m3 / 45 / Arrived	

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.

During reported period from Jul 2021-Jun 2022, most of the field activities have been halted due to third and fourth wave of COVID-19 respectively. Continuous lockdown and closure business of tanneries impacted the one component i-e capacity development, training activities and outreach to leather community. However, project has kept the pace and excel in other areas as well. Initially, from Dec 2021 to onwards, project has designed activities which requires on-field presence, like trainings on Cleaner production, Awareness on Carbon Footprints, Water utilization, Awareness on Solid Waste Management etc. previously the third and fourth quarter faced lot of impact and activities considered risky have been postponed or delayed, while the first quarter of 2022, mobilization of our partner networks and the implementation of digital tools (very limited scale) now make it possible to slowly and comprehensively convey information on prevention and awareness-raising. Procurement of Solid Waste Operational Machinery for PTA (SZ) is one of the main component of KLA project even lauded by all government agencies refereeing current scenario in Korangi. This procurement processes is slowed due to limited availability of vendors due to lockdown and closure of business, on-site visit to vendors for inspecting SWM items remains near to impossible. Major achievements contract with Sindh Solid Waste Management Board, execution of waste collection system, 05 training (on-site) to leather community, procurement of machinery are almost done in this regards.

It is expected that, if situation prevails like Sep 2021 till-date, the proposed activities can be completed in stipulated timeline.

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

N/A

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**.*

Main findings

A detailed review of the project document revealed that the Project Design was Moderately Unsatisfactory. A review of the project objective revealed that it is highly ambitious compared to the resources available to the project. In particular, the project geographic scope being restricted only to the KLA in Karachi for the leather processing industry doesn't reflect the project objective to "transform industrial processing zones in Sindh Province through the widespread adoption of low-carbon technologies". Moreover, stakeholder and Gender assessments were missing during both the PPG phase and inception phase which undermines the project's effectiveness. An analysis of the project's logical framework also revealed considerable overlap between project outputs, between and across project outcomes especially with regards to capacity building. Finally, the project outcomes, outputs, or activities do not hint at Gender Mainstreaming and the indicators and targets are not gender disaggregated.

The MTR team found the project Relevance to be Satisfactory to the development context of the tannery industry in Karachi as well as the priorities of the federal and provincial governments, the UN, and GEF.

The project's Effectiveness and Progress towards Results was assessed and found to be Moderately Satisfactory. For its Outcome 1, the project initiated dialogue with relevant stakeholders and capitalized on the opportunity of incorporating CCF in the under development provincial policy on Cleaner Production. However, other important activities including the review of existing regulations and tools addressing CCF, development of the Leather PEF Toolkit and CCF training delivery mechanism have not been initiated yet. For the capacity building activities comprising Outcome 2, the project has undertaken several trainings, workshops and also launched an awareness campaign. However, the lack of having undertaken a formal Training Need Assessment, a documented training and capacity building strategy, and a lack of systemic follow up on benefits of and challenges with adoption has hampered the effectiveness of the project outcome. With regards to Outcome 3, the MTR found that the project has already identified a solid waste management strategy and initiated the process of setting up a system; but it was observed that the strategy lacks stipulations for the safe disposal of solid waste generated by the tanneries as well as the missed opportunity of incorporating the results of the recycling study into the planning of the SWM system. The MTR found the Financial Performance of the GEF fund to be Satisfactory. However, the co-financing from UNIDO and GOP has significantly lagged behind, with total expenditure amounting to 23.6% and 0.72% of the committed funds.

The project's management of GEF fund was seen to be efficient in terms of timeliness and selection of activities, etc. In terms of project management, all key project staff have been associated with the project either since the time of design or inception. Based on this assessment, the MTR team assessed the project's Efficiency as Moderately Satisfactory.

Overall the Project Management was found to be Moderately Satisfactory. Due to the past experience of PTA-SZ with CETP operations, it is anticipated that the organization will be effective in implementing the SWM system in the KLA. Moreover, as most of the members of the 'UNIDO Coordination Committee at PTA-SZ' comprise of large tanneries, an element of elite capture was observed in activities such as on-site demonstration of CP practices.

The MTR team determined that the Sustainability of key project interventions after project end is Moderately Satisfactory with the operation and management of the solid waste management system being supported by the project the most likely outcome to continue beyond the project duration. Conversely, the project has yet to initiate an assessment of the gaps and tools in policy and tools for LEF/CCF concepts. The capacity of training institutions upon which the project was to rely for continuing training and awareness raising activities regarding CCF and CP technologies and practices is very weak and building this capacity is beyond the project programmatic scope.

While the project has been making efforts for mainstreaming CCF/LEF in relevant policy documents, raising awareness about cleaner production practices in the tannery sector, and working to reduce emissions through the implementation of a solid waste management system in the KLA, the lack of a strategy for safe disposal of waste at the landfill is likely to reduce the planned environmental and social benefits to be derived from the project. Accordingly, the MTR team found that the Environmental and Social Safeguards incorporated in the activities conducted by the project thus far have been Moderately Satisfactory.

Main recommendations and actions taken towards implementing the recommendations included in the report

Recommendation for PTA-SZ:

1. **Outsourcing Waste Management:** PTA-SZ conduct a thorough review of other successful waste management models in the country such as the Sundar Industrial Estate in Lahore and adapt them to the context of the KLA before starting the solicitation process for contracting the SWM to a private contract. In addition it is recommended that the selected contractor and its staff are also trained in order to ensure their compliance with the established plan for waste management developed for the KLA. This is particularly important as most waste collection and management operations in the city are currently operated without following proper guidelines.

Follow-up actions during the reporting period:
During 2020-21, PTA (SZ)-ES intended to acquired services of third party for collection, transport & disposal of Waste from leather sector, 02 parties have been interviewed but the ultimate disposal of official Garbage Transfer station and landfill site was missing. In Aug 2021, PT A(SZ)-ES approached government body, Sindh Solid Waste Management Board and after many deliberations, final contract was made in effect in April 2022. This is one of the major milestones of the project during this reporting period.

Recommendation for PTA-SZ:

1. **Activity Prioritization:** The MTR team recommends prioritizing certain activities such as the review of existing regulations and tools addressing CCF, development of the Leather PEF Toolkit, and CCF training delivery mechanism as they have not been initiated yet. The project must also prioritize the LEF Toolkit development as it will serve as the basis of capacity building and awareness activities on the subject matter.

Follow-up actions during the reporting period:
In pursuance of MTR findings on inclusion of CCF and PEF toolkit, the project prioritised the production of the toolkit by The project has produced the PEF toolkit during this reporting period. Provincial Government, with the support of MoCC, have agreed to incorporate the PEF toolkit into the draft Cleaner Production Policy.

The project has increased awareness amongst multiple stakeholders from various industries (leather, textiles, paint), and importantly SEPA, about the toolkit as a key method to understand and ultimately reduce GHG emissions.

The PEF toolkit was used by PTA (SZ)-ES to develop the comprehensive solid waste management plan for KLA.

2. **Training of Tanneries on SWM System:** To ensure operations start smoothly, trainings on the utilization of the SWM system to tanneries are delivered immediately upon finalization of the plan and selection of contractor to mitigate the risk of inadvertent misuse of the system.

Follow-up actions during the reporting period:

Altogether, 05 sessions have been conducted so far for tanning units of Solid Waste Mechanism and its implementation planning in KLA sector 7-A. 04 meetings have been done with SSWMB in Feb-Mar 2022 to devise a particular strategy for leather sector and in the end contract with SSWMB was made in affect from April 2022.

3. **Safe Disposal of Solid Waste**: The MTR team recommends that the project, at the very least, should conduct a feasibility study of establishing a cell at the GTS dump site with technical support from UNIDO while PTA-SZ seeks financing from other sources to implement a solution for the ultimate safe disposal of the solid waste.

Follow-up actions during the reporting period:
the continuous consultation with SSWMB finally resolved the matter of allocation on GTS dump site and proper landfill site for tannery waste disposal. The contract with SSWMB allowed PTA (SZ)-ES to dump their waste in their designate GTS within diameter of 2km for transportation to landfill site. The collection of waste is properly collected and fee invoices are being issued to units. The allocation of GTS bins is not

only solved the authenticity of waste dumping but also engrossed by SEPA and in longer run suitable for international compliances as well.

4. **Monitoring and Reporting**: It is recommended the logical framework is reviewed to rectify the gaps identified including resolution of duplications in outputs and inclusion of gender indicators. Additionally, in accordance with the revised logical framework, a monitoring framework be developed comprising of a monitoring matrix, risk assessment and impact assessment methods, outlining who, what, when, where and how data is collected and analysed.

Follow-up actions during the reporting period:
Taking the recommendations into account, the Logical framework was revised and officially endorsed during the PSC meeting in September 2021. A monitoring matrix has also been prepared, while risks are being followed up on by the team on a regular basis. Capacity building on M&E and the development of data collections tools is ongoing.

5. **Capacity Building:** To further enhance the effectiveness and sustainability of capacity building initiatives, the following measures are recommended:

    a) For the remaining duration of the project, a Capacity Building Strategy or Framework is developed and future capacity building activities are undertaken in accordance with the goals, objectives, workplan, and targets outlined in the document.
    b) Develop a sustainable exit strategy for the capacity building component as there is a high risk of discontinuation due to the lack of organizational setup and financial resources. Such an exit strategy could include measures such as the delivery of a TOT and/or development of a certification program linked to LWG.
    c) It is recommended that attendance or adoption of capacity building activities and trainings is linked to some sort of incentive such as industry awards, subsidized participation in a trade fair since almost 80 percent of the tanneries in Karachi are MSME's for whom it is difficult to spare productive workforce or invest time.

Follow-up actions during the reporting period:
In compliance of effective capacity building activities for leather community, Project turned its approach into more inclusive. The project reached to academia for internship (completed in Oct 2021), 06 trainings for staff of Tanneries on Solid Waste Management, Energy Audits, 01 Training of ToT (Training of Trainers) done in May 2022. ToT training proved to be the sustainable option for PTA (Sz)-ES as exist strategy, once project is completed, the PTA (SZ)-shall be in position to continue project intervention as status quo with trained staff. Furthermore, the project is making it clear to trainees that the incentive for training and implementation of good practices learned from training sessions is that they will more likely to lead to compliance with standards, and therefore be able to enter difference markets.

6. **Gender**: It is recommended that the project develops a Gender Engagement Strategy based on a thorough Gender Assessment. It is also recommended that in order to mainstream women's role in the waste management sector, the project set up a business idea competition challenge and supports ideas that promote women's engagement in the waste sector. Meetings with KATI and PTA (Central) are proposed

Follow-up actions during the reporting period:

Progress has been made in incorporating gender into KLA project enhancement processes after the outcome of second project steering committee meeting held on 1st Sep 2021. PTA (SZ)-ES conducted a gender analysis to gain a deeper understanding of gender issues in the leather value chain and thereby devise a strategy to address the identified approached more gender focused. Specifically, the gender analysis aimed to assess the representation, participation, and decision-making of women and men employees in sector 7-A and stressed to initiate on-site trainings as well as awareness programs. As a result, internship module prepared and universities with Environmental and sustainable production degrees were considered to bring them in training programs.

03 Academic institutes were assessed and initial meetings have been done so far. The purpose of these

meetings were to enhance Academia-Industrial relationship and engage gender as much as possible into leather technology, Cleaner Production, best practices in Solid Waste Management. 16 female researcher of Environmental departments graduates from Bahria University-Karachi, as part of internship program based on gender analysis, the project provided 15 days intensive trainings on above mentioned areas in leather sector. The year 2021 marked a break-through for the UNIDO-GEF funded project for Korangi Leather Area project. PTA (SZ)-ES and UNIDO-PMU introduced complete manual of training for academia targeting gender inclusive programs through which different employment opportunities can be created for them, The project also introduced different fields where these women can be employed.

Stakeholder Engagement: The current project and the UNIDO-implemented project in Sialkot have had informal and unofficial coordination. It is recommended that the two projects develop a regular coordination mechanism to exchange observations and lessons learned.

Follow-up actions during the reporting period:
Project had already in coordination with Sialkot Tannery Zone project, following the MTR finding, the project engaged and consulted technically on CETP issues. The first zoom meeting with STZ project was held in Oct 2022, where the Chrome recovery plant was the meeting agenda. Later the expert from Sialkot tannery project was engaged in PTA (SZ)-ES internship program in Oct 2021.

7. **Future Capacity Building of Institutions:** It is therefore recommended that PTA-SZ partners with a relevant agency with experience in industrial/vocational capacity building, such as UNIDO, GIZ, or JICA, to enhance the capacity of these institutions as well as develop their practical linkages with the industry.

Follow-up actions during the reporting period:
PTA (SZ)-ES took proactive approach in contacting UN sister agencies for industrial sustainable solutions. In this regards, ILO (International Labour Organization) EU funded project ILES (international Labour and Environmental Standard) project team visited in Nov 2021. PTA(SZ)-ES appraised their SCORE (Sustaining Competitive and Responsible Enterprises) program and wished to initiate it for Korangi Leather Area too. Meeting is still awaited from ILO Islamabad office.

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).

Please expand the table as needed.

	E&S risk	Mitigation measures undertaken during the reporting period	Monitoring methods and procedures used in the reporting period
(i) Risks identified in ESMP at time of CEO Endorsement	Main environmental risk is that the situation with solid waste and solid waste management will not improve and will	All project stakeholder direct/indirect engaged as new approached after the ease of business from Sep 2021. Big achievements are the inclusion of Government departments which endorsed the project outcomes and	17 meetings have been conducted with SEPA and SSWMB, on site visits by their experts to solid waste facilitation centre and endorsed the quality and mandate of project. the regulatory

	E&S risk	Mitigation measures undertaken during the reporting period	Monitoring methods and procedures used in the reporting period
	remain same	made contract to implement one of the component of project	authorities appraised the procurement process and equipment purchased for the implementation of GHG reduction through SW management
	Improper implementation of solid waste management (collection; utilization; treatment)	This was the main finding of MTR as well as main discussion of 2nd project steering committee meeting regarding success of Solid Waste management component. Since inception in 2019, the project partners didn't qualified any proper landfill site for waste ultimate disposal. The Project took lead in Sep 2021 and after 17 focused group discussion, consultation session and successful dialogues, convince the government of Sindh through SSWMB to designate proper landfill site to PTA (SZ)-ES and it materialized on **22 March 2022,** where SSWMB became partner with PTA (SZ)-ES to collect, transport and disposal waste to designated landfill site.	The Memorandum of Agreement (MoA) with Sindh Solid Waste Management testifies the implementation of solid waste component in which, tanneries are supplied UNIDO-GEF funded waste Bins, operational machinery is used and operated through solid waste facilitation centre. Daily logbook of machinery and waste bins supplies are updated, the response of members (tanning units) is overwhelming.
	Infrastructure developed is vulnerable to climate change risks	The project facilitated in construction of a infrastructure/facilitation centre to cater complete mechanism of solid waste management, mechanism and day to day operations, service, maintenance. The infrastructure is dedicated to support waste management and planned in a way to serve during heavy rain/urban flooding. Admin Manager/support staff is appointed to look after the centre.	This infrastructure is being monitored by PTA (SZ)-ES's coordination committee for keeping standards.
	Low participation rates of females in project implementation	Gender as cross cutting area of Project document is being implemented in pursuance of feedback received from Project Steering Committee Meeting held in Sep 2021. This interventions paved a way to create an Academia-Industrial Relationship. Three reputable institutes of Karachi have been approached during last quarter of 2021. The Bahria University of Karachi agreed to partnership PTA (SZ)-ES to expand gender-sensitive climate awareness and sustainable environmental tools in Leather productions. The effort is made in order to intend researchers from academia and create opportunities for females in Leather and its associated businesses. The industrialist enhanced support to female learners by demonstrating that addressing the gender gap in Leather business will bring development benefits through improved processes, GHG reduction concepts and employment creations. First Internship batch initiated and 16 female students of Master Degree from Environmental Science Department got trained in theory and practical with knowledge of CETP, Solid waste Management and Cleaner production concepts.	The year 2021-22, witnessed the more gender intensive planned activities like paid internship, skill development, and women economic empowerment opportunities like finishing jobs in tanneries. Internship report, visit reports are tools to assess the progress.

	E&S risk	Mitigation measures undertaken during the reporting period	Monitoring methods and procedures used in the reporting period
	Project developments involve alteration, damage or removal of any critical physical or cultural heritage	Not applicable at the moment	
	Property ownership	As per agreement of PTA (SZ)-ES with SSWMB, it is decided to have ownership of all equipment of UNIDO-FEF funded shall remain the property of PTA (SZ)-ES. It is decided that PTA (SZ)-ES shall distribute the available stock of bins through the project funded by GEF implemented by UNIDO. They shall be responsible for maintenance and repairing of bins as and when required. PTA (SZ) ES shall handover their mechanical sweeper, garbage compactor, arm hooklifter and excavator to SSWMB which will be operated by SSWMB Contract Firm Staff but will remain the property of PTA (SZ) ES and will be parked at their Facility Center/Workshop/Yard of PTA (SZ) ES. However, fuel and human resource shall be the responsibility of SSWMB	Agreement with SSWMB, daily logbook, Bins distributions list updated and reviewed.

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).

Due care has been taken to integrate all stakeholders into the project, therefore Project Steering Committee (PSC) is conceptualized .As per advice from project document and project board, the constitution of PSC team matters for the implementation of project, therefore, regulatory authorities like SEPA and SSWMB were made part of PSC board and their input on all components have been used timely and more efficiently in these connection.

To date, **02** Project Steering Committee meetings have been conducted so far. A majority of decisions have been taken in consultation and approval of implementing Partners, Ministry of Climate Change-Govt. of Pakistan, MoCC. Despite continued delays due to COVID-19 impacts, nearly all activities conducted as per time line and project intend to execute approved work plan for the year 2021-22.

Outcomes:

For proper implementation, the project has adopted participatory approach and engaged project partners like SEPA, SSWMB, and NILT in implementation especially in proper implementation of very important component of waste management. Major achievement which project sought with cooperation of SSWMB is the allocation of designated landfill site for leather waste dumping. The lack of landfill site was also major finding of MTR also and with coordination with SSWMB and SEPA, one designated Landfill site allocated in April 2022 for Sector 7-A waste. The role of SSWMB during reported period remains vital as the **Memorandum of Agreement (MoA)** with PTA (SZ)-ES, advices on selection on operational machinery and contract with each tannery attests their active involvement in the project. Hence, the execution of Solid Waste collection program on 01st April 2022 brought results for leather community and project has collected and transported around **380 tons of solid waste** so far in three months from Apri-Jun 2022) It played a critical role in project monitoring and evaluations by assuring the quality of these processes and associated objectives. Specific monitoring from Sindh Environmental protection Agency's role is also remain considerable during reported period.

Results are already being seen in areas of Solid Waste Management component, Capacity development, knowledge sharing and Change in attitude. Leather communities believe in using cleaner productions techniques and reduction in GHG emission through comprehensive solid Waste management. In **Sep 2021**, the volunteer contribution of three tanneries, M/S King leather, M/S Hafiz Tannery and M/S Pelle Classic in UNIDO-GEF's assisted studies for data collection of energy efficiency, waste optimization and energy audits, paved a way for another study encompassing more than 25 tanning units. The project has issued 02 contracts in **Jun 2022 to conduct same parameter with large group of tanneries.** Several key lessons learned have emerged from consultations including the need for high level political engagement and to connect the local government's narrative on combined system for waste collection.

Challenges: Several common trends on the challenges to the delivery of the mandated tasks. Unsurprisingly, the most significant impact, by far, remains the COVID-19 pandemic. About 40% activities reported on the impact of the pandemic and in many ways the spread of the second and third waves are more severe. This continues to impact the activities required to advance enhancement, as well as political prioritization of the implementation process. Given that government operations are impacted by the COVID-19 crisis, further coordination within governments is also slowing down the process in some way, including review and validation of draft proposal on Cleaner production policy, challenging task of waste collection contract with leather community.

The challenges posed by the COVID-19 pandemic also decrease from **Nov 2021**, the level of inclusive participation in the awareness and capacity development activities increasing , particularly with regards to engaging with local communities where online consultations were not possible. In addition, vendors for specific machine fabricators increasingly reported the business closure with affe ct the delivery of machines as well as waste Bins.

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 2nd Project Steering committee meeting, board members actively considered the previous year's progress and pointed out their concerns on following avenues:

- Member MoIP (Ministry of Industries and Production) appraised that all industrial waste should be categorized hazardous and collections should be done separately. PT (SZ)-ES responded that none of the tannery waste is hazardous and hence collected by informal sector. Therefore, after UNIDO-GEF project's complete implementation would handle the waste in more technical way.
- Chair PSC, Sec. MoCC showed concerns on the Gender based activities and Leather sector is said to be man -based area being hardship, whereas PTA (SZ) Coordination member replied in response that, now a day, many female are encouraged to join in finishing, designing and environmental compliances departments of different tanneries. Chair PSC praised and stressed to include role of Academia in this context.
- One of the most important feedback received from SSWMB regarding selection on operational Machinery for Leather Sector, the project has shared list of equipment procured and in planning stage. SSWMB technical team advised to consult before procurement. As the results of these interventions, project reviewed its procurement plan and after consu ltation include 02 important machines (Jetting and Mechanical Sweeper) for the year 2022.
- The project sets out the progress mainly based on the feedback received from its stakeholders. The implementation of the components as per Work plan devised for 2020-21 with the coordination and consultation of all project partners and other associate actors. From Jan 2022 onwards, 11 meetings with Sindh Solid Waste Management Board have been conducted so far. Based upon the outcome of these consultative meetings, the internal mechanism of implementation of Solid waste Management is changed and diverted as discussed. Major changes based on these inputs from partners are:
- The contract with SSWMB, as being government authority responsible to handle solid waste from all industrial as well as municipal waste, initially PTA (SZ)-ES was in process to hire the services of any other third party to collect, transport and dispose the waste.
- The change in procurement of solid Waste Operational Machinery, previously, the project h as had list of equipment for implementation of waste management, but after consultation and feedback from SSWMB, list have been revised and proposed equipment are now being procured in reported period 2021-2022
- Waste Bins distribution and Placement. The major change in waste bins distribution occurs with the feedback of leather and associated organization like SEPA, PTA (central) and Korangi Association of Trade and Industry (KATI). All tanning units were agreed to accept the model for qualifying waste bin s distribution. Only those members shall be issued waste bins who are members of PTA (SZ)-ES and should be a tannery owner or related business.
- The meeting with Bahria University and LRC paved a way to be more focused on the
- Inclusion of CCF concept along capacity development, solid waste Management and business plan therein. Importantly, Collection, Transport and disposal of waste from Sector 7A is of prime factor. It is followed with equipment, infrastructure and self-sufficiency, regulatory measures, legacy issues, implementation initiatives, guidance & awareness and Plan. The principal owners responsible for implementation and monitoring of the project is PTA (SZ)-ES. the Sindh Environmental Protection Agency (EPA) and Local Authorities, each with distinctive roles and responsibilities. Considerable progress has been made on the implementation of the project activities which are in progress or completed, and most of the remaining actions on-track to be progressed within the timeframe of the plan. Areas of note include: For instance The PTA (SZ)-ES in the area of waste collection, has consulted all members in advising solid waste equipment/machinery and facilitation centre, based on recommendation received on **18th Sep 2021** session. Based on these feedback, procurement list revised, waste Bins planning made more precis and above all Charging and recovery module were finalized The project also facilitated its members and coordination committee to have learning with best available experiences for its execution of project activities. For this purpose, technical visit is arranged to Quid-a-Azam Industrial state Lahore has been arranged on **22nd Oct 2021**, members were trained on Solid Waste Management, and types of Waste Bins used, Recovery and billing methods and contracts modality. The feedback received from this visit was to finalize hiring of third party for waste collection, Bins placement planning, categorizing the tanning unit and certification from any regulatory authority for waste disposal.

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

2nd Project Steering Committee Meeting Minutes

Annual Progress Report 2021

Study on Energy Efficiency and Waste-to-Energy Solutions for the Pakistani Tannery Industry

Memorandum of Agreement with Sindh solid Waste Management Board

Training workshop Report

Minutes of Meetings

Solid Waste Management Meeting Reports

Workshop Report on Energy Efficiency for Leather sector

Internship Report

Agreement with Tanning units for solid Waste Management

Solid Waste Machinery Handover Contract

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 partners took feedback from PSC on serious note and after UNIDO Coordination committee meeting, the PTA (SZ)-ES reviewed gender analysis to have a deeper understanding of gender issues in the leather value chain and thereby devise a stra tegy to address the identified approached more gender focused. Specifically, the gender analysis aimed to:

Assess the representation, participation, and decision-making of women and men employees in sector 7-A and stressed to initiate on-site trainings as well as awareness programs. As a result, Internship module prepared and universities with Environmental and sustainable production degrees were considered to bring them in training programs. 03 Academic institutes were assessed and initial meetings have been done so far. The purpose of these meetings were to enhance Academia-Industrial relationship and engage gender as much as possible into leather technology, Cleaner Production, best practices in Solid Waste Management.

16 female researcher of Environmental departments graduates from Bahria University-Karachi, as part of internship program based on gender analysis, the project provided 15 days intensive trainings on above mentioned areas in leather sector. The year 2021 marked a break-through for the UNIDO-GEF funded project for Korangi Leather Area project.

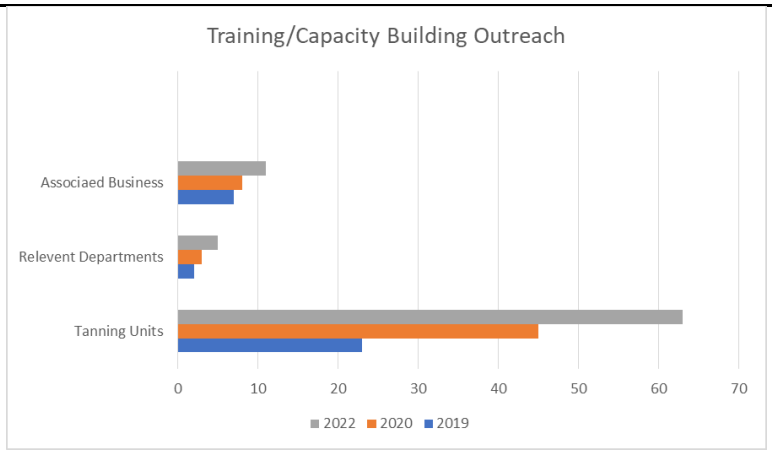
In pursuance to address the finding of MTR conducted in 2021, project identified different gender related activities which includes internship program for female researchers of universities. PTA (SZ)-ES and UNIDO-PMU introduced complete manual of training for academia targeting gender inclusive programs through which different employment opportunities can be created for them, The project also introduced different fields where these women can be employed.

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.

UNIDO-GEF project provided learning, training and knowledge-sharing services to more than 63 tanneries owners, managers, supervisors and related technicians in 2021-22, representing a 46 per cent increase from 2020-21 figures, as shown in chart below. The UNIDO PMU delivered 52 per cent of the beneficiaries (63/120). UNIDO project reached out more than Ninety seven per cent of beneficiaries which are associated leather business and were trained in different training events having specific learning outcomes. This increase is attributed largely to the continued delivery of the capacity/awareness campaigns, Cleaner Production knowledge and solid Waste Management targeting all tanneries; the introductory e-Learning course on Safety From hydrogen Sulphide administered in partnership with UNIDO HQ claimed the increase in participants enrolled. The proportion of participants from broader knowl edge-sharing and other events (e.g. conferences, public lectures, and meetings) remain constant in 2021.

06 session contents are designed on the idea to impart basic knowledge of using UNIDO's E-Learning module as UNIDO believe that the occupational safety & Health specifically related to leather operations is a valuable addition for each internee in local scenario. With the unique UNIDO's E-learning training module on safety from H2S gas, specialized training can be provided, which makes sure that all learners can act adequately and swiftly in real life rescue operations at great height. At the end of the session participants were expected to get certified on H2S safety course online and would appear as trained rescuers for better operations.



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

The project's knowledge management approach is to collaborate with various stakeholders to develop different knowledge products and disseminate them widely through means tailored to the target audiences. It was intended for the project to develop various publications like awareness material on Preservation of skin and Hides, Social media campaign for Eid on Skin collection, Distribution of safety from H2S gas both in English and Urdu for better reach, guidelines, introduction of UNIDO's newly launched course on Sustainable Leather making, training manuals and technical reports as well as build institutional capacities to deliver training. The project sought to capitalise on the existing and widely-used leather panel website (www.leatherpanel.org) to disseminate information and knowledge, and training (e-Learning).

In order to increase the project visibility, it has produced some communication materials (e.g. videos, interviews, pictures) that have been broadcasted widely. In reported year, the project has adopted a strategy for wider impact through:

Awareness Raising Material

-Banners

-Posters

-Brochures

13 hot spots are identified where such highlighted banners were placed for spreading awareness Preservation of Skin and Hides, Specific massages for Skin Collection and Storage.. Main Korangi Industrial Road, Shan Chowrangi (Crossroads), Brooks Chorangi, KATI office complex, Sector 7C and any other area as identified by PTA (SZ)-ES

Online sessions

03 Onsite and 02 Online Sessions were conducted in July 2021 where experts delivered lectures through interactive sessions, , the focus audience are Skin/Hides collectors, Organizations, NGO etc. from Karachi city to provide them proper training and aware ness about preserving skins in a timely and efficiently manner so that they could be processed for preservation.

Sensitization video

01 video is subjected to be provided all stakeholders in which skin/hides collectors will be given knowledge on sound knowl edge of basic principles of hygiene and sanitation during preservation of hides and skins

Simple & Knowledgeable Audio

This time simple audio massage is prepared with PTA Central for Butchers/ Cold Storage owners, and collectors on How to prese rve Skin/Hides for spreading through Social Media (WhatsApp), Facebook, etc.

Awareness on Solid Waste Management component:

PTA (SZ)-ES worked hard to infuse awareness of Solid Waste Management through UNIDO-GEF funded project into its members, as mentioned earlier, waste was not properly disposed off, Project awaked its members through consultation, training on waste management, practical demonstration of Waste Bins collection and dumping process and invited all members on every decision regarding Charging, and recovery module

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.

KLA Project Implementation Progress

The following analysis draws on the activities performed in reported period with information from all components performed.

Overall, the implementation of UNIDO-GEF's project is progressing well, with 45% of activities already completed and 55% more on track.

Progress is more advanced in the Solid Waste Management component, with 30% completed activities and fewer delayed activities compared to other components. The planned activities are also on track, while more activities in the Energy audits, capacity development and introduction of Carbon footprints concept expecting completion during specified time period. Short delays could be primarily attributed to changes in local contexts and impacts of the COVID-19 pandemic.

The followings are the main activities conducted during the reporting period:

1. **The completion of common facility center at project site for catering Solid Waste Operations:**

One of the most relevant results of the inception phase of the project was the identification of suitable areas for the establishment of the common facility center for solid waste Management for Korangi leather Area project; the project area is located in the CETP site of Korangi. The project partners PTA (SZ)-ES allocated total area of 280 x 80 Sq feet to be used as common center for execution of waste management. In addition, office facilities, permanent parking, mechanical workshop and cleaning facility are provided. The center is completed and handed over to PTA (SZ)-ES in last reporting period 30th **June 2021.**

Status:

Infrastructure: 100% completed in June 2021

Facilities (Machinery Parking, service station, Mechanical Workshop, Puncture station, Admin Block): 100% completed in June 2021

Appointment of Admin Officer with Support Staff: 100% completed in April 2022

2. **Waste Bins placement planning:**

UNIDO-GEF project facilitated PTA (SZ)-ES in assessing waste bins placemen planning in sector 7A. There are 100+ functional tanneries operating and hence planning based upon the category wise. 11 meetings have been done so far with all members of PTA (SZ)-ES in which all tanneries are categorized and decided that each tannery is liable to request waste bin as per their waste generation both in on and off season.

Status: Waste Bins placement finalized with SSWMB in **Feb 2022**

3. **Provision of customized Waste Bins for Korangi Leather Area**.

After detailed assessment and technical reviews, the project recommended customized waste bins specified for tannery solid waste. In depth knowledge about the rusting, corrosion and coating have been used in specification vetted by experts. Bids were called upon and after evaluation appropriate firm (M/S Strongman) is After advertisement and selection of appropriate firm (M/S Strongman), the project procured waste bins as below:

Waste Bins for Tanneries (0.8m3)	Waste Bins for streets (5m3)
275	45

Status:

Procurement of Bins: 100% completed in Oct 2021

4. **Tanning units categorization and Billing mechanism**

PTA (SZ)-ES coordinated SSWMB on Charging and Billing mechanism through which all tanneries shall be charged as per their identified category. It is decided that SSWMB shall charge monthly Service fee to the factories under following two categories in lieu of facilities offered and request made formally by PTA (S.Z) ES in this regard during meeting held on **1st March 2022** with the Management of SSWMB for reasonable compensation on account of monthly service fee to be charged from Tannery Owners:

A. Large Tanneries	Rs 5,000/ per unit (In case of two or more units of same factory multiple of agreed fee will be charged per month)
B. Small Tanneries	Rs. 3,000 / per unit (In case of two or more units of same factory multiple of agreed fee will be charged per month)

Procurement of Solid waste Management operational Machinery-

More than 45% of committed operational Machinery have made procured and substantial progress to enable procurement as per actual and allocation of financial resources made as per approved work plan. All items have already been assessed through field visits, meetings with vendors and later exploring opportunities to procure rights item for right purpose.

Status: 01 Garbage compactor, procured and handed over to PTA (SZ)-ES

02 Sludge suction Machines, procured and handed over to PTA (SZ)-ES

02 Tractors Trollies with front End Loader, vendor selected, contract singed in April 2022, Delivery due in Aug 2022

01 Chain Arm Roller, vendor selected, contract singed in April 2022, Delivery due in Aug 2022

01 Jetting/Rodding Machine, vendor selected, contract singed in April 2022, Delivery due in Aug 2022

01 Mechanical Sweeper, vendor selected, contract singed in April 2022, Delivery due in Aug 2022

Study conducted on Energy Efficiency & Waste reutilization:

UNIDO-GEF facilitated project partners in a study conducted by UNIDO-GEF project on Energy Efficiency and Waste-to-Energy Solutions for the Pakistani Tannery Industry, under the outcome 2 of project document for Transforming the Leather Processing Industries towards Low Emissions and Climate Resilience Development Paths project. In order to obtained the results from object highlighted above is done through hiring of services of International consultant (M/S SIGRA Group). This consulting firm with clear scope of work and objectives like

- Tools and guidelines for Leather Environmental Footprint and Carbon Footprint Calculation methodology for the local leather industry reviewed/developed

- Disseminate and inform responsible regulatory authorities on core elements and benefits of the CCF approach and sound waste management.

- Guidelines elaborated on the enhanced utilization of agri-food by-products and waste streams for industrial applications

- Carbon Footprint -Accounting, evaluating and monitoring inputs, production and processing efficiencies for leather processing transparency and reduced carbon footprint emissions

- Low-carbon waste technologies and practices selected and demonstrated within the leather processing industries of Sindh Province

Status: Study completed in **Dec 2021**, Outcome shared with Korangi Leather Area on **16th Feb 2022**

Deliverable: Final draft of Study concluded

Workshop & Feedback Report

Agreement with Sindh Solid Waste Management Board

Following the Memorandum of Agreement Signing Ceremony (MOA) between Sindh Solid Waste Management Board-SSWMB, Government of Sindh and the Pakistan Tanners Association-South Zone, Environmental Society, PTA (SZ)-ES made two more concrete agreements with SSWMB, first on Machinery Handover to SSWMB's third party for daily routine operations, second, Charging and Recovery formula for which SSWMB shall charge its fee of services from Tanning units

Status: Agreement signed and operationalized in **April 2022**

Deliverable: Signed MoA attached as Annex

Agreement of Machinery Handover to SSWMB via Third Party for Solid Waste operations

For operationalization of solid waste component, the PTA (SZ)-ES made a contract with SSWMB for using UNIDO-GEF funded waste Bins and operational machinery. THIS MEMORANDUM is made this **13th April 2022** by and between the Pakistan Tanners Association (south Zone) Environmental Society, (hereinafter referred to as "PTA (SZ)-ES") and [Sindh Solid Waste Management Board's Contractor M/S GANSU CONSTRUCTION referred as SSWMB's Contractor M/S GANSU Construction) accepts the full custody of the assets (Specialized Vehicle) as specified in the agreement

Status: Agreement signed and operationalized in **April 2022**

Deliverable: Signed Agreement of Machinery Handover to SSWMB attached as Annex

New business proposal initiated for Tallow Recovery Plant and Solar system

As new business proposal to make the project more sustainable and following organization in business as usual scenario, Project partners proposed 02 new ideas of:

The installation of Tallow (fat extraction plant) and solar power initiatives for CETP Korangi. During visit of UNIDO Country Representative on **19th May 2022,** it was agreed to have assessment visit to Kasur for initial valuation of such plant and requested UNIDO to facilitate in getting response from BURSA-TRUKEY for their Tallow plant feasibility report. It is believed at PTA (SZ)-ES that, assessment and feasibility plays an important role in materialize new ideas.

-PTA (SZ)-ES requested UNIDO to tap new funding avenues in the areas on solar power installation and waste water re-utilization. UNIDO replied that PTA (SZ)-ES should launch feasibility of each task, like valuation of power required for CETP, either full capacity is going to be converted to solar or partial operations are required. PTA (SZ)-ES agreed to submit proper proposals in this regards.

Deliverable: Minutes of Meeting, attached as Annex

Initiating new assessment studies for tanneries at large and GHG calculations

Following the outcome of Project Steering committee meeting and feedback received from workshop on Energy Efficincy on 16th Feb 2022, PTA (SZ)-ES launched 02 assessment for Korangi Leather. These studies are:

- Provision of services to undertake a baseline study of GHG emissions on account for solid wastes and post intervention assessment to calculate GHG emission reduction (ER) as result of the SWM interventions under the project. And

- Provision of services to undertake an Energy Audits and Waste Assessments of 25 Tanning units of Korangi Leather Area sector 7-A under the project.

These two assessment are in compliance of Component 1 and Component 2 of project document.

Status: TORs approved and Bids invited through Advertisement on **27th April 2022**

Technical Evaluation concluded on **18th May 2022,** Contract shall be awarded in last week of June 2022

OVERVIEW OF COMPONENTS WISE IMPLEMENTATION

The year 2021-22 marked the second full year of KLA Project implementation. Capitalizing on the work done in 2020 and putting in place the building blocks for future achievement, KLA project has made significant progress on its intended outcome of streng thening integration of GHG emission reduction phenomenon, Cleaner Production and environment climate objectives into the policies, plans, regulations for project partners to accelerate delivery of the approved work plan by project board. The outcome is tracked th rough three interrelated components:

The following were the activities performed under each component during reported period:

COMPONENT 1 - STRENGTHENING THE GUIDING FRAMEWORK TO FACILITATE THE TRANSFORMATIONS TOWARDS LOW EMISSION AND CLIMATE RESILIENT INDUSTRIAL PROCESSING

The following were the activities performed under this component during reported period committed to discuss ongoing and planned activities and share experiences with partners, particularly to enhance coordination of activities for low emission concepts. The UNIDO PMU continues to engage and coordinate with all its partners to model for climate resilient within its existing scenario and emerging GHG reduction initiatives.

UNIDO along PTA (SZ) EMS attended the SEPA Advisory Committee Meeting for re vising Environmental standards and participated in June 2020, where outcomes of the meetings with regards to the leather sector were considered in discussions. The presence and participation on behalf of the UNIDO-GEF was appreciated, especially as continued collaboration and coordination between line ministries and PTA (SZ) EMS.

Consultation on policy dialogues on CCF with relevant authorities is ongoing

For the development of Environmental Footprint toolkit, the project assessed the UNIDO's PEF material a nd arranged 01 kick off meeting with LRC (Leather Research Centre in Aug 2021. The LRC agreed to make a forum for PEF concept awareness among leather community.

-01 Meeting have been concluded on 29th Jul 2021 with consultant working with SEPA (Sindh Environmental Protection Agency, Sindh) for the development of "Policy, Planning and Strategies on CP practices for SEPA)

06 consultation meetings were organized at the SEPA (Sindh Environmental Protection Agency) from Sep-Oct 2021. SEPA agreed to extend support for Environmental footprint for leather. Second Meeting with Director General Ministry of Climate Change on 11th Nov 2021 ended up with the consent that KLA project is addressing introduction of Corporate Carbon footprints (CCF) and innovative technologies associated with this leather business.

11 Meeting arranged with Sindh Solid Waste Management Board in reported year 2021-22, on potential Solid Waste Management plan for Korangi Leather Industry for collection, transport and disposal of Solid Waste from sector 7-A . Consultation Existing tools, guidelines, programmes and recommendations with regard to solid and effluent waste management in KLA will be assessed as part of this project component and proposals put forward as to how these guidelines m ay be improved and expanded. The relevant authorities will be informed and prepared of the core elements of the leather industrial cluster transformation. To date, no national programme includes these planned activities. The authorities, however, require i nformation about how to improve the environmental situation. Guideline for utilization of solid wastes is under discussion

One consultative session on Resource Efficiency and Smart Environmental Management Practices - For the upgradation of existing CETP administrated by PTA SZ, UNIDO continuously providing technical support in design. Process methodology and consultant requirements.

-Continuous support provided to PTA (SZ) on the issues with the conveyance system, the baseline project will also improve t he design and properly reconstruct the conveyance system and drains to ensure that effluent during peak loads are suitably carried thus reducing pollution.

-Consultative Session arranged with the overarching goal of upgradation of Korangi CETP and Solid Waste system for Korangi Leather Area

COMPONENT 2 - CAPACITY BUILDING ON THE CCF APPROACH FOLLOWING THE DETERMINED GUIDELINES AND INFORMATION DISSEMINATION ON PROPER WASTE MANAGEMENT INITIATIVES

The Capacity Building activities focus on providing technical support and knowledge sharing related to all areas of the susta inable Leather production that includes carbon foot prints concept, cleaner production and waste Management operations. The provided support also extended to areas relating to the building blocks of UNIDO coordination with other agencies as well like WWF, an d LRC.

The section provides an update on activities undertaken by the project to support the Capacity-building of relevant partner. It covers activities between July to Dec 2021. Around 04 capacity building intervention were delivered, including local and International Level events:

PTA (SZ)-ES remained active in working arrangements with different Universities to cooperate in are as of expertise in industrial development, Leather Development. Areas of collaboration will also include on-ground training on Combine Effluent Treatment Plant, Solid Waste Management, Chemical Anlysis, Sludge & Waste categorization, industry-specific methods, and more important field visits to different tanneries for professional development on leather processing.

Trainings:

The UNIDO E-Learning Platform https://learning.unido.org/login/index.php & http://leatherpanel.org: The UNIDO e-learning platform pools all the activities and documents related to training and provides access to training resources on Leather production. PTA (SZ) EMS and its members were trained on online courses and how to use it. Initially 02 sessions have been organized at PTA (SZ) EMS office and members were given access to e-learning courses on various topics (Safety at Work place, Safety from H2S gas and environment, etc.).

11 officials from PTA (SZ) have been trained through UNIDO E-learning tool

02 Workshop conducted on Cleaner production, Preservation of Skin/Hides and Carbon Footprints for Leather sector, 31 tanneries from Korangi Leather sector participated.

Upon advice receive from Ministry of Climate Change, Islamabad, Project has arranged a consultative meeting with IUCN P akistan office and WWF to address introduction of Carbon footprints and innovative technologies associated with this leather business.

-16 technician were trained on the awareness session involved water and chemical usage as dozing to control pollution and respondents on the knowledge, attitudes and behaviours related to local scenario.

01 session arranged on 18 Sep 2021, UNIDO facilitated PTA (SZ) EMS to build awareness on cleaner production and solid waste Management in tanneries through on-site awareness sessions for good housekeeping practices and solid waste treatment.

-PTA (SZ) initiated consultation on discussing industrial waste water treatment and re-use techniques.

-Project is arranging awareness material on solar heating panel and water re-use technology.

On-site training was provided to managers, supervisors and workers on tannery wastes utilization in order to minimize the impact over the environment.

-03 trainings on Cleaner Production, Waste Management, Preservation of Skins/hides and Carbon footprints.

-01 training on Safety from H2S and safety at workplaces were delivered with the participation of representatives from public and private sector leather institutions.

COMPONENT 3 - PILOT OF CCFS AND SOUND WASTE MANAGEMENT AND PRACTICES WITHIN KLA PROCESSING SECTORS OF SINDH PROVINCE DEMONSTRATED

Knowledge transfer session arranged on CCF and Cleaner production concept. on 19th Nov 2019, at PTA (SZ) office Invited all representatives from both the Government agencies and Leather related community were included on the session's panel. The session focused on how Cleaner productions serves as the fundamental building block to achieve the sustainable leather production.

01 Awareness session have been arranged on Nov 2021, at PTA (SZ) office with Executive committee on Solid Waste Management for KLA project in which information given on Existing learning material and courses, pertaining to waste minimization and product design, on Leather Panel portal were introduced.

For CCF and life cycle assessment for Leather, PTA (SZ) is coordinating with SEPA (Sindh Environmental Protection Agency). It is envisaged that in Aug 2021, consultation on policy guidelines will be initiated.

-Launch of Awareness Session for 11 trainees on Cleaner Production and Solid Waste Management in Tanneries on 29th Aug 2021.

02 in-house consultations on Solid Waste Management (SWM) for KLA and agreed on initial assessment of Solid waste generated and collection system

-In Dec 2021, On-site training Program initiated for Korangi Leather Community on "Solid Waste Management & Cleaner Productions" on "Transforming the Leather Processing Industries towards Low Emissions and Climate Resilient Development Paths"

-Launch of Awareness Session for 11 trainees on Cleaner Production and Solid Waste Management in Tanneries on 16th Feb 2022

02 in-house consultations on Solid Waste Management (SWM) for KLA and agreed on initial assessment of Solid waste generated and collection system

Discussion is underway on different feasible investment options for waste utilization

- In Aug 2021, committee technically evaluated proposals for Tractors, Sweeping Machines and Chain Arm Rollers Machines and on Feb 2022, advertisement issued for bids, Technical Evaluation completed on 28th March 20222 and contract were signed in Apr 2022.

Output of Component 3: Procurement of Solid Waste Management Equipment

Integrated Solid Waste Management System project Area, Korangi Karachi will help in improving the environment and living conditions of the area as well as improvement in leather processing. The estimated number of existing beneficiaries are 20,000 by year 2023. The project commits to achieving GHG emission reduction by project life. The component also includes procurement of 11 sophisticated machinery, 320 waste Bins, leather sectoral measures led by 3 Government ministries, 5 capacity development measures, and 84 tannery owner participation measures.

Challenges

The challenges posed by the COVID-19 pandemic also decrease the level of inclusive participation in the awareness and capacity development activities, particularly with regards to engaging with local communities where online consultations were not possible.

In addition, vendors for specific machine fabricators increasingly reported the business closure with affect the delivery of machines as

well as waste Bins.

In terms of implementation approaches and delivery processes, few activities highlighted challenges in partner coordination, citing specifically the extra effort required given that existing coordination mechanisms have not been utilized or strengthened within the government institutions, while some parallel processes have been introduced.

Risks, Counter Measures, and Ways Forward

As per project document a proactive approach exhausting all possibilities for creating a favorable environment for the project's assumptions to materialize and for the risks to be eliminated or minimized to the extent possible. There are however, following major risks identified.

2. Please briefly elaborate on any **minor amendments**[5] 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.

☒	Results Framework	**Results framework was revised based on recommendation from MTR.**
☐	Components and Cost	**NA**
☐	Institutional and Implementation Arrangements	**NA**
☐	Financial Management	**NA**
☐	Implementation Schedule	**One extension granted.**
☐	Executing Entity	**NA**
☐	Executing Entity Category	**NA**
☐	Minor Project Objective Change	**NA**
☐	Safeguards	**NA**
☐	Risk Analysis	**NA**
☐	Increase of GEF Project Financing Up to 5%	**NA**
☐	Co-Financing	**NA**
☐	Location of Project Activities	**NA**
☐	Others	**NA**

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

Please provide a description of the main expenditures during the reporting period. Describe the current status of funds mobilization activities and the related implications for project implementation. Provide information on status of obtained / mobilized co-financing, etc. as per CEO Endorsement/Approval document.

Please see below and attached.

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	Year 3		Year 4				GEF Grant Budget Available (US$)
	Q3	Q4	Q1	Q2	Q3	Q4	

[5] 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%.

Component 1 – Component 1 - Strengthening the guiding framework to facilitate the transformations towards low emission and climate resilient industrial processing							
Outcome 1: Outcome 1 - Guidelines and recommendations fine-tuned to enable the scale-up of the Leather Environmental Footprint and/or Corporate Carbon Footprint (CCF) approach and increased access to clean-and-low carbon technology financing							
Output 1.1:Tools and guidelines for the Leather Environmental Footprint and Carbon Footprint Calculation methodology for the local leather industry reviewed/developed							USD 2,000
Output 1.2: Guidelines and documentation on improvements and extensions of existing regulations encompassing the application of innovative clean-and-low- carbon waste technologies and practices, environmental management and regulatory responsibilities prepared.							USD 2,500
Output 1.3 Disseminated and informed responsible regulatory authorities on core elements and benefits of the CCF approach and sound waste management							USD 500
Output 1.4 Guideline elaborated on the enhanced utilization of waste streams for industrial applications							USD 4,000
Component 2 – Capacity building on the CCF approach following the determined guidelines and information dissemination on proper waste management initiatives							
Outcome 2: Capacities of key players on the Leather Environmental Footprint, CF and CCF approach for reduced GHG emissions strengthened and information made available to market enablers and major stakeholders on BAT/BEP for waste management within the leather processing sectors							
Output 2.1: Capacity building for decision-makers, BMOs' representatives, and other stakeholders, on best practices in leather production to minimize industrial, environmental and carbon footprints built up (KPI: at least 50 participants trained)							0
Output 2.2: Information disseminated on environmentally sound management of solid waste and by-products for the leather sector as an alternative to unregulated disposal. Technical trainings for industries on using and applying the guidelines and tools developed (KPI at least 350 technicians, managers trained). New tools developed and disseminated yearly to more than 30-40,000 users).							0
Output 2.3 - Capacity of BMOs enhanced: Training and capacity building for associations' representatives on the use of CCF/PCEFR tool and on NEQS (National Environment Quality Standards) compliance to disseminate among associations' members. (at least 150 users)							0
Component 3 –Pilot of CCFs and sound waste management and practices within KLA processing sectors of Sindh Province demonstrated							
Outcome 3:Low emissions and climate resilient development path is demonstrated and scaled up through the CCF approach and sound waste management procedures for the leather processing industries							
Output 3.1:Carbon Footprint - Accounting, evaluating and monitoring inputs, production and processing efficiencies for leather processing transparency and reduced carbon footprint emissions							0
Output 3.2: Low-carbon waste technologies and practices selected and demonstrated within the leather processing industries of Sindh Province							USD 300,000
Output 3.3 Feasibility plans for clean and low-carbon waste technology for possible access to financing prepared							0
Component 4 – Project Monitoring and Evaluation (M&E)							
Outcome 4 - Progress towards project objectives are continuously monitored and evaluated							
Output 4.1 - Quality control and effective monitoring of project activities, impacts and results achieved							0
Output 4.2 - Mid-term and terminal evaluations conducted							0

X. Synergies

1. **Synergies** achieved:

UNIDO-GEF funded project for Korangi Leather Area in Karachi-Sindh took advantage of lesson learns and experience sharing from relevant projects and interventions. The project made a forum of leather community of both Karachi and Sialkot and PTA (SZ)-ES discussed the different deliberations from Sialkot Tannery zone on Chrome Recovery Plant, upgradation of CETP and Solid Waste Management. The project also approached Quid-A-Azam Industrial Estate for having experience of handling Solid Waste Management, hiring of third party for waste collections, Waste Bins design, and placement planning and recovery strategy. These all support from similar projects paved a way that tends PTA (SZ)-ES in devising comprehensive Solid Waste Management Planning. On ground waste Bins planning and reaching out more than 60% to tanning units in Korangi Karachi attest the synergies with all supports from different industrial as well as leather zones.. The project has increased its out reached to different research institutes like building Academia-Industry relationship. Other options like linkage with NED university, Leather Research Centre and NPO (National Productivity Organization) is in pipeline for coming year based on the working ease in COVID-19 restrictions. The project has reinforce coherence of overall program via its all three components in KLA project and improved policy dialogues with government regulatory Authorities like SEPA (Sindh Environmental Protection Agency) and SSWMB (Sindh Solid Waste Management Board). Due to this regular interventions of the project, SSWMB is now officially in contract with PTA (SZ)-ES and waste lifting project from Sector 7-A is launched. The project has overarching integrated communication strategy, including mass media and institutional arrangements for intersectoral coordination with KATI) Korangi association of Trade & Industries for full industry participation in intended outcome of the project. To benefit th buttress the impact of interventions across leather and other associated sectors. For the greatest impact, priority is given to smaller units to their involvement in Solid Waste Component.

3. Stories to be shared (Optional)

The project's practical approach in providing field based, on-site trainings to existing workers and trainees from academia brought a positive and fruitful change when one trainee of first Internship program got short term contract for leather bags design from Mehmood tannery. The initiative, no doubt, opened doors to female researchers from Environmental degree but Eye opener for Academia to allow more students to such internship programs from leather industry.

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	
Highly Satisfactory (HS)	Project is expected to achieve or exceed all its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. The project can be presented as "good practice".
Satisfactory (S)	Project is expected to achieve most of its major global environmental objectives, and yields satisfactory global environmental benefits, with only minor shortcomings.
Moderately Satisfactory (MS)	Project is expected to achieve most of its major relevant 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.
Moderately Unsatisfactory (MU)	Project is expected to achieve some of its major global environmental objectives with major shortcomings or is expected to achieve only some of its major global environmental objectives.
Unsatisfactory (U)	Project is expected not to achieve most of its major global environmental objectives or to yield any satisfactory global environmental benefits.
Highly Unsatisfactory (HU)	The project has failed to achieve, and is not expected to achieve, any of its major global environmental objectives with no worthwhile benefits.

Implementation Progress (IP)	
Highly Satisfactory (HS)	Implementation of all components is in substantial compliance with the original/formally revised implementation plan for the project. The project can be presented as "good practice".
Satisfactory (S)	Implementation of most components is in substantial compliance with the original/formally revised plan except for only few that are subject to remedial action.
Moderately Satisfactory (MS)	Implementation of some components is in substantial compliance with the original/formally revised plan with some components requiring remedial action.
Moderately Unsatisfactory (MU)	Implementation of some components is not in substantial compliance with the original/formally revised plan with most components requiring remedial action.
Unsatisfactory (U)	Implementation of most components in not in substantial compliance with the original/formally revised plan.
Highly Unsatisfactory (HU)	Implementation of none of the components is in substantial compliance with the original/formally revised plan.

Risk ratings	
Risk ratings will access 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:	
High Risk (H)	There is a probability of greater than **75%** that assumptions may fail to hold or materialize, and/or the project may face high risks.
Substantial Risk (S)	There is a probability of between **51%** and **75%** that assumptions may fail to hold or materialize, and/or the project may face substantial risks.
Moderate Risk (M)	There is a probability of between **26%** and **50%** that assumptions may fail to hold or materialize, and/or the project may face only moderate risk.
Low Risk (L)	There is a probability of up to **25%** that assumptions may fail to hold or materialize, and/or the project may face only low risks.