1. Project Data

Summary project data			
GEF project ID		5038	
GEF Agency project ID		150063	
GEF Replenishment Phase		GEF-5	
Lead GEF Agency (include all for joint projects)		UNIDO	
Project name		Implementation of BAT and BEP for reduction of Unintentionally Produced Persistent Organic Pollutants (UP-POPs) releases from open burning sources	
Country/Countries		Armenia	
Region		Europe and Central Asia	
Focal area		Persistent Organic Pollutants (POPs)	
Operational Program or Strategic Priorities/Objectives		POPs CHEM-1	
Executing agencies involved		Hazardous Substances and Waste Policy Division, Ministry of Nature Protection of the Republic of Armenia	
NGOs/CBOs involvement		Ararat Communal Service	
Private sector involvement		None	
CEO Endorsement (FSP) /Approval date (MSP)		03/18/2015	
Effectiveness date / project start		06/04/2015	
Expected date of project completion (at start)		06/30/2017	
Actual date of project completion		05/31/2018	
Project Financing			
		At Endorsement (US $M)	**At Completion (US $M)**
Project Preparation Grant	GEF funding	-	-
	Co-financing	-	-
GEF Project Grant		0.85	0.85
Co-financing	IA own	1.00	1.00
	Government	0.94	1.08
	Other multi- /bi-laterals	1.08	1.83
	Private sector		
	NGOs/CSOs		
	Others[1]	0.51	0.3
Total GEF funding		0.85	0.85
Total Co-financing		3.39	3.31
Total project funding (GEF grant(s) + co-financing)		4.29	4.16
Terminal evaluation/review information			
TE completion date		July, 2019	
Author of TE		Nee Sun Choong Kwet Yive and Artak Ter-Torosyan	
TER completion date		February, 2019	
TER prepared by		Ritu Kanotra	
TER peer review by (if GEF IEO review)		Molly Watts Sohn	

[1] Research Centre for Toxic Compounds in the Environment; Bureau for Chemical Substances Poland

2. Summary of Project Ratings

Criteria	Final PIR	IA Terminal Evaluation	IA Evaluation Office Review	GEF IEO Review
Project Outcomes	S	S	-	S
Sustainability of Outcomes		L	-	L
M&E Design		S	-	S
M&E Implementation		S	-	S
Quality of Implementation		HS	-	S
Quality of Execution		HS	-	HS
Quality of the Terminal Evaluation Report		-	-	S

3. Project Objectives

3.1 Global Environmental Objectives of the project:

The Global Environmental Objective of the project can be described as to 'reduce the emission sources of the global pollutants such as Unintentionally Produced Persistent Organic Pollutants (UP-POPs) by discouraging open burning practices with a vision to boost small and medium scale industries engaging in waste management in Armenia' (PD, Pg 32).

3.2 Development Objectives of the project:

The Development Objective of the project was to 'reduce Unintentionally Produced Persistent Organic Pollutants (UP-POPs) releases in open burning sources in Armenia through the introduction of BAT and BEP and create capacity within the Government and private sector on Best Available Techniques (BAT) and Best Environmental Practice (BEP) implementation' (PD, Pg 2). The project had following 3 components:

Component 1: Regulatory framework and institutional strengthening

Component 2: Promotion of Best Available Technologies (BAT)/ Best Environmental Practices (BEP) at selected demonstration locations

Component 3: Awareness and dissemination

3.3 Were there any **changes** in the Global Environmental Objectives, Development Objectives, or other activities during implementation?

The TE did not report any changes in the Global Environmental and Developmental Objectives.

4. GEF IEO assessment of Outcomes and Sustainability

Please refer to the GEF Terminal Evaluation Review Guidelines for detail on the criteria for ratings.

Relevance can receive either a Satisfactory or Unsatisfactory rating. For Effectiveness and Cost efficiency, a six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess. Sustainability ratings are assessed on a four-point scale: Likely=no or negligible risk; Moderately Likely=low risk; Moderately Unlikely=substantial risks; Unlikely=high risk. In assessing a Sustainability rating please note if, and to what degree, sustainability of project outcomes is threatened by financial, sociopolitical, institutional/governance, or environmental factors.

Please justify ratings in the space below each box.

4.1 **Relevance**	Rating: **Satisfactory**

The TE assessed the relevance of the project to be 'highly satisfactory', which this TER has revised as 'satisfactory'. The project was relevant for Armenia reported to have 400 illegal dumpsites exposed to open burning and release of Produced Persistent Organic Pollutants (POPs) into the environment at these sites. The project was designed to assist Armenia to fulfil its obligations towards the Stockholm Convention and was consistent with the national priorities set out in the National Implementation Plan (NIP) of the Government of Armenia in particular with the minimization/elimination of Persistent Organic Pollutants (POPs) releases into the environment and with the application of Best Available Strategies (BAT)/ Best Environmental Practices (BEP) principles as background for the development of the strategy for future industrial progress. Moreover, the measures for reduction of the amounts of hazardous and other wastes are also part of the strategy documents of the country such as Millennium Development Goals (2008-2015); Government Governmental Action Plan (2008 -2012); National Environmental Action Plan (NEAP) (2008-2012), amongst others (PD, Pg 4).

As the project focused on the demonstration of BAT/BEP to reduce releases of unintentionally-produced Persistent Organic Pollutants (POPs) in pilot locations, it was consistent with Chemicals Focal Areas objective CHEM-1 "Phase out POPs and reduce POPs releases"; Outcome 1.3 "POPs releases to the environment reduced". The project also laid emphasis on the regulatory and institutional strengthening and awareness raising of relevant stakeholders to effectively manage waste management initiatives in the country and hence aligned well with the CHEM 1, Output 1.5 "Country capacity to effectively phase out and reduce releases of POPs" (PD, Pg 4).

4.2 **Effectiveness**	Rating: **Satisfactory**

This TER concurs with the effectiveness rating assigned in the TE of the project as 'satisfactory'. The project was successful in achieving all the stated project objectives. The project supported the strengthening of the national legislation as well as building the capacity on Best Available Technologies (BAT)/ Best Environmental Practices (BEP) for waste management. The project was successful in transferring best available technologies to the pilot landfill, where best environmental practices were adopted for the sound management of wastes. These interventions led to stopping the open burning of wastes at the demonstration site that further resulted in ceasing of the Unintentionally Produced Persistent Organic Pollutants (UP-POPs) emission into the environment. The project also brought benefits to the workers at the demonstration landfill site, who were no longer exposed to the toxic emissions and were fully equipped with personal protective equipment provided by the project. The project also helped in raising awareness at various levels, with the replication efforts already on-going.

Component 1: National regulatory framework and institutional strengthening

All the activities under this outcome were completed satisfactorily. The key achievement for this outcome included strengthening of the national regulation for the sound management of wastes in Armenia. The project contributed to the development of 16 legislative and policy documents related to waste management, which were subsequently approved by the Government. Another activity under this outcome was thedevelopment of proposals for the regulatory framework on landfills management, whcih was carried out by an international expert recruited by the project. Based on studies made by national consultants, the international expert proposed a number of key procedures that included best practices. The project also helped in building the management capacity of various stakeholders from government at the national, regional and local level in implementing Best Available Technologies (BAT)/ Best Environmental Practices (BEP) and waste management practices. The fourth output, strengthening the capacity in monitoring activities and in evaluating and reporting data of Unintentionally Produced Persistent Organic Pollutants, was also carried out successfully.

Component 2: Promotion of Best Available Technologies (BAT)/ Best Environmental Practices (BEP) at selected demonstration locations

All the outputs under this outcome were completed satisfactorily. The main output was the successful and effective rehabilitation of the selected dumpsite at the Ararat municipality to reduce dioxin emission from open burning, which was also completed satisfactorily. The project also supported the preliminary evaluation of dioxin releases and risk assessment study for the current practices for open burning at the Ararat dumpsite. Economic and technological study on the potential reduction of Unintentionally Produced Persistent Organic Pollutants after Best Available Technologies (BAT)/ Best Environmental Practices (BEP) implementation at the demonstration site was also completed by a national expert..

Component 3: Awareness and Dissemination

All the activities under this component were designed to address inadequate public awareness on the need of environmentally sound practices to dispose of waste or other types of residues. According to the TE these were undertaken satisfactorily. The project supported targeted awareness raising campaigns on environmental and health hazards of Unintentionally Produced Persistent Organic Pollutants (U-POPs) for relevant stakeholders. It also supported organization of training workshops to share information and experiences on good practices and promote Best Available Technologies (BAT)/ Best Environmental Practices (BEP) for waste management. The project developed a number of awareness raising tools and materials as well as press releases to create wide media coverage, which could also be accessed on the Ministry of Nature Promotion (MoNP) websites. As per the TE, almost 18 scientific papers were submitted for publication in proceedings of international Conferences and/or books, contributing to the body of knowledge on the subject. The project was also successful in mainstreaming Persistent Organic Pollutants (POPs) in educational curricula and contributed to the development of the educational materials. Moreover, leading universities in Armenia such as the Armenian National Agrarian University, Vanadzor State University, the State Polytechnic University of Armenia, and the Yerevan State Medical University included topics on Persistent Organic Pollutants (POPs) and related issues in their curricula.

4.3 **Efficiency**	Rating: **Satisfactory**

This TER agrees with the efficiency of the project as 'satisfactory'. The project was delayed and granted extension twice to be completed by December, 2018 instead of the original closing date of June, 2017. Delays were mainly due to a structural reform that occurred at the level of theMinistry of Nature Protection of the Republic of Armenia in November 2016; caused by strong and long winters that delayed the construction work on the landfill site and delays in sorting out change in the ownership of the water utility at the landfill site. But, as the TE notes, these delays did not affect the cost effectiveness of the project as all the outputs were delivered satisfactorily within the planned budget. Factors favoring efficiency included timely and adequate technical assistance provided by the UNIDO HQ and international experts; active involvement of key stakeholders and the flexibility of the contracts. A mixed mode of project execution, with ex-Water Research Center (later changed to Environmental Monitoring and Information Center) sub contracted to execute some of the project activities (mainly renovation of the selected landfill), while other tasks such as recruitment of national and international consultants and procurement of goods directly administered by UNIDO, helped the project immensely. The project was also successful in mobilizing significant co-financing from various contributors, which also contributed to the successful completion of the project activities.

4.4 **Sustainability**	Rating: **Likely**

This TER agrees with the rating assigned to the sustainability of the project as 'likely'. The evidence in the TE points towards 'no', or very 'low' risks, ensuring the long-term sustainability of the project. The project was successful in generating awareness and strengthening an enabling institutional and governance framework. It received a good support from the government at the national and local level as well as other stakeholders and with a strong possibility of the landfill renovated at the Ararat municipality during the project as being financially viable. The four dimensions of sustainability are assessed below:

a. Financial risk

As per the TE, the evidence in the available reports suggest long term financial sustainability of the Ararat landfill facility developed under the project. As a result of the interventions during the project, the Ararat municipality allocated 20% of its total budget for the management of solid waste, as compared to only 5% allocated before the project. The TE also notes that the landfill facility was also expected to have an increase in their income, with 100% of the population paying fees for the waste management as compared to only 85% of the population paying before the project. The successful intervention at the Ararat Municipality also generated interest in the neighboring municipalities, with whom the business arrangements were being worked out at the time of the TE, which would also generate additional income. Furthermore, the Ararat municipality would also be able to generate some income by selling recyclable wastes, such as plastic bottles, bringing additional income for sustainability of this intervention.

b. Socio-political

The project received good support from the government authorities, municipalities as well as the local communities due to which the outcomes under the project are likely to be sustainable with very 'low' socio-political risks. One of the key assumption of the project was the willingness of the local authorities to participate and invest to implement BAP/BEP for waste management. As per the TE, the Municipality of Ararat- the site for demonstration of landfill, increased its commitment to contribute by 20% as against its previous allocation of 8% of its total budget. As per the evidence in the available reports, 100% of the local population of the Ararat Municipality agreed to pay the waste management fees, showing its full support to the facility. The government also showed its commitment through keeping its co-financing commitment, which further indicates its willingness to support such interventions in future.

c. Institutional and governance:

The project contributed to the strengthening of the national regulatory and enforcement infrastructures for the sound management of wastes in Armenia. As per the TE, '16 legislative documents pertaining to BAT, ownership of wastes and licensing have been produced and adopted by the government' (TE, Pg 9). In addition, decision to merge four organizations within Ministry of Nature Protection (MoNP) into Environmental Monitoring Information Center (EMIC) in view to re-organize resources more efficiently, would also ensure sustainability of institutional framework. The trainings provided through the project strengthened the capacity of the existing institutions. For instance, the capacity of the laboratory of Environmental Monitoring Information Center (EMIC) strengthened for sampling and monitoring of Persistent Organic Pollutants (POPs) could be used for monitoring such pollutants in future as well. It is for these reasons that institutional framework and governance risks are considered low increasing the likelihood of the sustainability of the outcomes achieved through the project.

d. Environmental risks

As per the TE, 'no environmental risks can influence or jeopardize the project outcomes and future flow of project benefits' (TE, Pg 14).

5. Processes and factors affecting attainment of project outcomes

5.1 Co-financing. To what extent was the reported co-financing essential to the achievement of GEF objectives? If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

The project was able to mobilize almost 97.9% of the total expected co-financing, which contributed to the successful completion of project activities. The contribution from the Government was 142% of expected co-financing, as the National Project Coordinator and the Project Manager were from the Ministry of nature Protection (MoNP) and their salaries were counted as in-kind contribution. Moreover, the co-financing from the Ararat Municipality (met to the extent of 83.7%) contributed to the funding of various activities at the Ararat landfill site. Co-financing from European Union, Asian Development Bank and UNIDO also materialized fully. The co-financing from the Bureau for Chemical Substances, Poland, did not materialize as the corresponding program project which was to be funded by Poland was not undertaken (TE, Pg 19).

5.2 Project extensions and/or delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

The project was delayed and granted extension twice to be completed by December, 2018 instead of the original closing date of June, 2017. Delays were mainly due to a structural reform that occurred at the level of the Ministry of Nature Protection of the Republic of Armenia in November 2016. The restructuring led to the merger of the 4 legal entities including Waste Research Center (WRC) -the national executive agency for the project, was later changed to Environmental Monitoring and Information Center (EMIC). These delays severely impacted on the signature of contract between UNIDO and WRC/EMIC, which was finally sorted out with an amendment in May 2017. Other reasonsfor delay included strong and long winters that delayed the construction work on the landfill site and delays in sorting out change in the ownership of the water utility at the landfill site. As a result of these delays, the mid-term evaluation recommended a one-year extension, which did not impact the cost-effectiveness of the project and all the outcomes were delivered satisfactorily by the end of the project.

5.3 Country ownership. Assess the extent to which country ownership has affected project outcomes and sustainability? Describe the ways in which it affected outcomes and sustainability, highlighting the causal links:

The project had a strong support from the government due to high ownership and the commitment of Armenia to fulfill its obligations towards the Stockholm Convention. This was evident through high ownership among the national stakeholders, as the government fully supported the project through fully meeting with its co-financing commitment. As per the TE, the project contributed to the elaboration of 16 legal acts, regulations and policies – linked to chemicals, waste management issues and establishment of Best Available Technologies (BAT)/ Best Environmental Practices (BEP) criteria. Most of these have already been adopted by the government, demonstrating high commitment and ownership of the government to the project interventions. Moreover, the TE also mentioned high involvement of the Mayor of Ararat municipality as another major factor contributing to the progress of the project (TE, Pg 27).

6. Assessment of project's Monitoring and Evaluation system

Ratings are assessed on a six point scale: Highly Satisfactory=no shortcomings in this M&E component; Satisfactory=minor shortcomings in this M&E component; Moderately Satisfactory=moderate shortcomings in this M&E component; Moderately Unsatisfactory=significant shortcomings in this M&E component; Unsatisfactory=major shortcomings in this M&E component; Highly Unsatisfactory=there were no project M&E systems.

Please justify ratings in the space below each box.

6.1 **M&E Design at entry**	Rating: **Satisfactory**

This TER concurs with the rating assigned to the M&E design at entry by the TE as 'satisfactory'. The project document included a detailed costed M&E plan. The monitoring framework described the necessary activities for monitoring progress as well as the responsible parties for reporting for undertaking various tasks. These included the inception workshop, Project Steering Committee meetings, annual reviews for progress reporting, Project Implementation Reviews (PIR) for reporting to the GEF, a terminal report and an independent terminal evaluation. The logical framework included SMART impact indicators, their means as well as frequency of verification being proposed in the plan.

6.2 **M&E Implementation**	Rating: **Satisfactory**

This TER concurs with the rating assigned to M&E implementation as 'satisfactory'. All the monitoring and progress checking activities were conducted and corresponding reports (5 progress reports; 2 annual report and 3 Progress Implementation Reports and 1 mid-term report) were developed on time. The project established a Project Steering Committee, with representatives from the government and other stakeholders that met regularly to monitor the progress of the project. Discussions and recommendations in various reports and the Project Steering Committee meetings helped in taking corrective measures and adapting to changing conditions in a timely manner. The project also formed a Technical Working Group (TWG), with membership from national level experts and consultants, who met regularly to guide and monitor the project on technical issues. The progress of the project was also reported to the Inter-Ministerial Committee for implementation of the Stockholm Convention on Persistent Organic Pollutants (CISC), responsible for reviewing national activities for Persistent Organic

Pollutants (POPs). This shows that the project was reviewed and monitored regularly at various levels, which also contributed to achieving project outcomes in a satisfactory manner.

7. Assessment of project implementation and execution

Quality of Implementation includes the quality of project design, as well as the quality of supervision and assistance provided by implementing agency(s) to execution agencies throughout project implementation. Quality of Execution covers the effectiveness of the executing agency(s) in performing its roles and responsibilities. In both instances, the focus is upon factors that are largely within the control of the respective implementing and executing agency(s). A six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess.

Please justify ratings in the space below each box.

7.1 **Quality of Project Implementation**	Rating: **Satisfactory**

The TE rated the quality of project implementation 'highly satisfactory', which this TE has revised to 'satisfactory'. As per the TE, the disbursement of funds was fast and timely and UNIDO maintained regular communication with a fast turnaround. According to the midterm evaluation, a misunderstanding between UNIDO and the executing agency Environmental Monitoring and information Center (EMIC)/ Waste Research Center (WRC), on the exact date of the start of the project, could have been avoided with a clear means of communication, especially when the project duration was only 2 years. Nevertheless, all the national stakeholders interviewed greatly appreciated the support and guidance provided by the UNIDO Project Manager. However, the role of the UNIDO Country Representative (CR) was limited to participation in the project activities such as inception workshop, awareness and training workshops. As per the TE, 'the Country Office could be more involved such as promoting the project during the preparatory phase to attract potential donors in order to mobilize additional funding or promote the project results for follow up initiatives' (TE, Pg 23). Hence, while the role of UNIDO and its management was quite satisfactory to facilitate the smooth implementation of all the project activities, as the TE notes, and given UNIDO's expertise with the waste recycling industry (Pd, Pg 5), pro-active involvement of the Country Office could have been beneficial to explore future funding options and sustainability of the project outcomes.

7.2 **Quality of Project Execution**	Rating: **Highly Satisfactory**

This TER agrees with the rating assigned by the TE to the quality of execution as 'highly satisfactory'. The project hosted at the Ministry of Nature Protection was led by National Project Coordinator nominated from within the department. The Project Management Team comprised the National Project Coordinator and the National project manager from Environmental Monitoring and Information Center (EMIC), the executing agency, and supporting staff from the Ministry of Nature protection (MoNP). The project benefitted from the vast experience of the NPC and her familiarity and connection with different ministries. The Project Management Team was also very well coordinated, its efficiency evidenced by the short time (one year) required to complete the construction at the landfill site, which was very fast compared to other similar initiatives. (TE, Pg 23) This combined with the satisfactory completion of all the project outcomes warrents a highly satisfactory rating for quality of project execution.

8. Assessment of Project Impacts

Note - In instances where information on any impact related topic is not provided in the terminal evaluations, the reviewer should indicate in the relevant sections below that this is indeed the case and identify the information gaps. When providing information on topics related to impact, please cite the page number of the terminal evaluation from where the information is sourced.

8.1 Environmental Change. Describe the changes in environmental stress and environmental status that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

As per the TE, renovation of the Ararat landfill site through the project checked or completely stopped the accidental burning of wastes, and given that the Ararat landfill would be managing all the wastes generated in Ararat, dioxins and furans will no longer be emitted to the environment (TE, Pg 14).

8.2 Socioeconomic change. Describe any changes in human well-being (income, education, health, community relationships, etc.) that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

As per the TE, the project contributed to the safety and well-being of the workers. Before the renovation, the workers were not using any Personal Protective Equipment (PPE), and did not have any buildings to protect themselves from the weather (sun, rain or snow) or to take a shower. The project provided workers with the adequate equipment, such as gloves, boots and mask, and appropriate clothes so that the workers are no longer exposed to the fumes of the burning waste. The construction also included a building dedicated for the workers. According to the TE, this building was not included in the design (contract), but at the request of the project, the contractors agreed to include it without any additional costs (TE, Pg 14).

8.3 Capacity and governance changes. Describe notable changes in capacities and governance that can lead to large-scale action (both mass and legislative) bringing about positive environmental change. “Capacities” include awareness, knowledge, skills, infrastructure, and environmental monitoring systems, among others. “Governance” refers to decision-making processes, structures and systems, including access to and use of information, and thus would include laws, administrative bodies, trust-building and conflict resolution processes, information-sharing systems, etc. Indicate how project activities contributed to/ hindered these changes, as well as how contextual factors have influenced these changes.

a) Capacities

1. The project supported the training of fifty-one officers from ministries, territorial (regional) subdivisions of state environmental inspectorates, municipalities and regional administrations and built their management capacity on the implementation of Best Available Technologies (BAT)/ Best Environmental Practices (BEP) and waste practices through a two-day training workshop.

2. The personnel of the Ararat waste facility also received dedicated trainings in waste disposal management.

b) Governance

The national regulation for the sound management of wastes in Armenia was strengthened with the development of 16 legislative and policy documents related to waste management, which were subsequently adopted by the Government. Some of the legal acts and regulations (linked with chemicals and waste management issues) elaborated and adopted by the Government of the Republic of Armenia are as follows (TE, Pg, 54):

1. Establishing criteria set forth to the best available techniques"; (No. 666-N dated June 15, 2017)";
2. licensing for recycling – Licensing Procedures for Recycling, Treatment, Storage, Transportation and Placement of Hazardous Wastes in the Republic of Armenia" (1029-N dated September 27, 2018);
3. Strategy on Concept for Extended Producer (Importer) Responsibility Regarding Manufactured Products" (Annex 1, Protocol Decision of the Government of the Republic of Armenia - No. 14 dated April 12, 2018) and its Appropriate Action Plan for 2018-2020 (Annex 2, Protocol Decision of the Republic of Armenia Government - No. 14 dated April 12, 2018).
4. Decision of the Government of the Republic of Armenia "On establishing a procedure for conciliation procedure/endorsement with the Authority responsible in the area of the State Environmental Protection Administration regarding mining waste management and mining waste recycling changed plans, relating to environmental protection issues in mining sector"(No. 674-N dated 15.06.2017);
5. Decision of the Government of the Republic of Armenia "On setting forth mining waste management facilities and mining waste management and processing technical requirements and standards";
6. Decision of the Government of the Republic of Armenia "On establishing a procedure for mining waste recycling";
7. Decision of the Government of the Republic of Armenia "On establishing the procedure for mining waste and mining waste management facilities classification according to hazard" (No. 689 –N dated July 15, 2017);
8. Decision of the Government of the Republic of Armenia Content "On defining the content of mining waste management and mining waste recycling plans, as well as mining waste management and mining waste recycling activities" (No. 675-N dated 16.06.2017);
9. Decision of the Government of the Republic of Armenia "On establishing the exemplary forms of mining waste management plans and mining waste recycling plans" (No. 676 dated 15.06.2017);
10. Order of the Minister of Nature Protection of the Republic of Armenia "On establishing the procedure for determination of the maximum admissible concentrations / limits of hazardous chemicals required for processing of ore mineral resources" (No. 256-N dated 10.08.2017);
11. Decision of the Government of the Republic of Armenia "On establishing the procedure for mining wastes processing" (No. 906 dated July 27, 2017).

8.4 Unintended impacts. Describe any impacts not targeted by the project, whether positive or negative, affecting either ecological or social aspects. Indicate the factors that contributed to these unintended impacts occurring.

The TE did not find any evidence of unintended impacts.

8.5 Adoption of GEF initiatives at scale. Identify any initiatives (e.g. technologies, approaches, financing instruments, implementing bodies, legal frameworks, information systems) that have been mainstreamed, replicated and/or scaled up by government and other stakeholders by project end. Include the extent to which this broader adoption has taken place, e.g. if plans and resources have been established but no actual adoption has taken place, or if market change and large-scale environmental benefits have begun to occur. Indicate how project activities and other contextual factors contributed to these taking place. If broader adoption has not taken place as expected, indicate which factors (both project-related and contextual) have hindered this from happening.

This TER found the following evidence:

1. A sanitary landfill was under construction (2016 – 2020) to manage the municipal waste of the Geghargunik and Kotayk marzs with the financial assistance of the German bank, KFW, (5.5 M Euro as grant and 5.5 M Euro as loan)
2. Similarly, another sanitary landfill was being constructed in Yerevan (2018 – 2021), the Capital City of Armenia. For this construction, financial assistance was secured from the European Bank for Reconstruction and Development (16 M Euro as loan and 10 M Euro as grant).
3. Feasibility studies were being carried out to build sanitary landfills and transfer stations for the Syunik, Shirak, Lori and Tavush marzs (TE, Pg 15).

9. Lessons and recommendations

9.1 Briefly describe the key lessons, good practices, or approaches mentioned in the terminal evaluation report that could have application for other GEF projects.

The key lessons listed in the TE are as follows:

1. A strong stakeholder commitment and high ownership that would contribute to achieve success can be secured by involving key stakeholders in all the phases of the project from the preparatory phase through implementation to project execution.
2. Simple project management structure and committed and flexible project managers at the implementing agency and the executing agency leads to efficient and effective project implementation.

9.2 Briefly describe the recommendations given in the terminal evaluation.

The key recommendations listed in the TE are as follows:

For UNIDO

1. It is recommended that in future projects the subcontract between the implementing agency and the national executing agency includes clauses that payments are not only linked to progress reports, but reporting of materialized co-financing as well.
2. Replication efforts in three provinces are on-going in Armenia thanks to international and bilateral support. However, for replication nationwide to cover all the provinces in the context of Armenia's strategy on waste management, substantial additional resources would be required. It is recommended that UNIDO considers to facilitate the availability of international financial as well as technical support.

3. The implementing agencies should better communicate the starting date to the national counterparts and they should ensure that the duration of the contract be in line with the project implementation timeframe.

For the National Government

1. The project has contributed to the development and adoption of a number of legislations on wastes, Best Available Technologies (BAT)/ Best Environmental Practices (BEP) and licensing. For the sound management of wastes in the country in order to eliminate of Unintentionally Produced Persistent Organic Pollutants (UP-POPs) emission from open burning at dumpsites, the national authorities should ensure that these pieces of legislation are properly enforced. In particular, the appropriate enforcing and monitoring system should be put in place.
2. When the Material Recycling Facility at the Ararat Landfill site will be operational after obtaining the appropriate license, it is important that the procedures and good practices are strictly followed while managing the wastes, this could be done through regular inspection and monitoring.
3. The project has been very successful producing very good results and valuable lessons. These should be gathered and shared with other municipalities and regions.

10. Quality of the Terminal Evaluation Report

A six point rating scale is used for each sub-criteria and overall rating of the terminal evaluation report (Highly Satisfactory to Highly Unsatisfactory)

Criteria	GEF IEO comments	Rating
To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives?	The TE provided a comprehensive assessment of relevant outcomes and impacts of the project and the achievement of its objectives	**S**
To what extent is the report internally consistent, the evidence presented complete and convincing, and ratings well substantiated?	The report was internally consistent, with the evidence presented as complete and convincing and the ratings well substantiated.	**S**
To what extent does the report properly assess project sustainability and/or project exit strategy?	The report made a satisfactory assessment of project sustainability providing adequate details	**S**
To what extent are the lessons learned supported by the evidence presented and are they comprehensive?	The lessons learnt were drawn from the discussion and analysis in the main body of the report.	**S**
Does the report include the actual project costs (total and per activity) and actual co-financing used?	The report provided complete information on the actual project cost as well as co-financing used	**S**
Assess the quality of the report's evaluation of project M&E systems:	The report included various details and made a satisfactory assessment of the project M&E system	
Overall TE Rating		**S**

11. Note any additional sources of information used in the preparation of the terminal evaluation report (excluding PIRs, TEs, and PADs).

The TE did not refer to any additional source of information.