

2019

Project Implementation Review (PIR)

**POPs management in Egypt (HWM and e-waste)**

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# Basic Data

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| **Project Information** | |
| UNDP PIMS ID | 4567 |
| GEF ID | 4392 |
| Title | Protect human health and the environment from unintentional releases of POPs originating from incineration and open burning of health care- and electronic-waste. |
| Country(ies) | Egypt, Egypt |
| UNDP-GEF Technical Team | Chemicals |
| Project Implementing Partner | Government |
| Joint Agencies | *(not set or not applicable)* |
| Project Type | Full Size |

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| **Project Description** |
| The project objective is to prevent and reduce health and environmental risks related to POPs and harmful chemicals through their release reduction achieved by provision of an integrated institutional and regulatory framework covering environmentally sound Health Care Waste and E-waste management. The project will reduce emissions of UPOPs as well as other hazardous releases (e.g. mercury, lead, etc.) resulting from the unsound management, disposal and recycling of a) Health-Care Waste (HCW), in particular due to substandard incineration practice and open burning of HCW; and, b) Electronic Waste, in particular due to the practice of unsound collection and recycling activities and open burning of electronic waste. The project will achieve this by i) determining the baseline for releases of UPOPs and other hazardous substances (e.g. mercury, lead) resulting from unsound HCW and E-waste practices; ii) conducting facility assessments; iii) building capacity among key stakeholders; iv) implementing BEP at selected model hospitals, health-care facilities (HCFs) and a central treatment facility (CTF); v) introducing BAT and BEP to formal and informal E-waste processors; vi) preparing health care facilities for the use/maintenance of non-mercury devices followed by introduction of mercury-free devices; vii) evaluating facilities to ensure that they have successfully implemented BEP; viii) installing and evaluating BAT technology(ies) at one Central Treatment Facility based on a defined evaluation criteria; and, xi) enhancing national HCWM training opportunities to reach out to additional hospitals/HCFs. |

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| Project Implementing Partner | *(not set or not applicable)* |
| Other Partners | *(not set or not applicable)* |

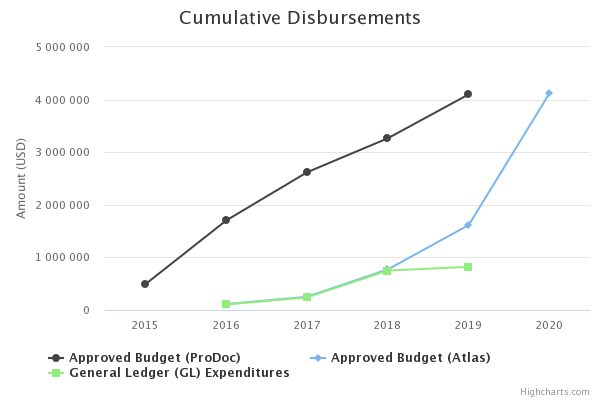
# Overall Ratings

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| Overall DO Rating | Moderately Satisfactory |
| Overall IP Rating | Moderately Satisfactory |
| Overall Risk Rating | Low |

# Development Progress

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| **Description** | | | | | | |
| **Objective**  **Protect human- and environmental health by reducing releases of POPs and other hazardous releases resulting from the unsound management of waste, in particular the incineration and open burning of hazardous health care waste and electronic waste by demonstrating and promoting Best Available Techniques (BAT) and Best Environmental Practices (BEP) to soundly manage and dispose of such wastes.** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Amount of U-POPs release in the environment from HCW and E-waste disposal avoided. | U-POPs from HCWM in demonstration facilities: 123 g/TEQ/yr | *(not set or not applicable)* | U-POPs from HCWM in demonstration facilities: Reduction of 63.2 g/TEQ/yr | The targets will start to be monitored after the establishment of the Central Treatment Facility (CTF) in Sharkia area of the country.    An international consultant was contracted to prepare RFP for for procurement of two non-incineration central treatment facilities as explained in details in Outcome 1.1.    An MTR report for which a consultant is being searched for by the project team will be capturing current status report on the overall GEB objective as of 2018, and this information will be provided in the next reporting period in 2019. | The targets will start to be monitored after the establishment of the Central Treatment Facility (CTF) in Gharbia.    An international tender was conducted for the procurement of a non-incineration central treatment facility as explained in details in Outcome 1.1.    Health care waste management policy, plan and guidelines and concept paper were developed. |
| Amount of PBDE release in the environment from E-waste disposal avoided. | c-PBDE from E-waste sector:  472 to 756 kg/yr from ICT E-waste; 6.5 t from CRT monitors. | *(not set or not applicable)* | Reduction of c-PBDE for an overall amount of 378 kg of c-PBDE from ICT EOL equipment, plus 1513 kg c-PBDE from CRT monitors would be prevented during the project life span. | As a result of the project at its mid-term target, about 1,402 tons of ICT waste was re-directed to formal recyclers active in the country.    This waste comes from governmental sources, and it was managed in an environmentally sustainable manner in line with internationally accepted standards in the area of e-waste, or ICT waste.    This corresponds to a reduction of about 132.5 kg of c-PBDE, or chlorinated substances which emit into the air during open burning when e-waste is mishandled.    This corresponds to 35% of the original target set during the project approval.    More reporting is to follow in the next PIR cycle. | As a result of the project's direct intervention for the ICT sector in the country and Governmental Authority for governmental services (GAGS) to adjust their auctions procedures and address their waste to formal recyclers, about 4,020 tons of ICT waste was re-directed to formal recyclers active in the country.    This waste comes from governmental (GAGS) and private entities (4 mobile operators and ICT equipment retailers) sources, and it was managed in an environmentally sustainable manner in line with internationally accepted standards in the area of e-waste, or ICT waste.    This corresponds to a reduction of about 379.96 kg of c-PBDE, or chlorinated substances which emit into the air during open burning when e-waste is mishandled.    This corresponds to 100.5% of the original target set during the project approval. |
| Amount of U-POPs release in the environment from HCW and E-waste disposal avoided. | U-POPs from E waste: 16gTeq/yr (2012) | *(not set or not applicable)* | U-POPs from E-waste sector: The proposed project will be able to reduce the amounts of UPOPs emitted from the improper treatment of E-waste by ~5 g-TEQ assuming the project would ensure the proper management of 4000 t of E-waste- | At the time of writing this PIR, the project was able to report on sound management of 1,402 tons of ICT waste which had reached formal recyclers.    In terms of g-TEQ (toxicity equivalent in line with international definitions) this results in 1.177 g-TEQ to-date, or 24% of the original target.    More reporting is to follow in the next PIR cycle. | At the time of writing this PIR, the project was able to report on sound management of 4,020 tons of ICT waste which had reached formal recyclers with appropriate safety and occupational hazards controls put in place.    In terms of g-TEQ (toxicity equivalent in line with international definitions) this results in 3.377 g-TEQ to-date, or 67.5% of the original target. |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 1**  **UPOPs emissions reduced through support to HCWM initiatives at health-care facility(ies) level, Central Treatment Facility (CTF) level and training institutions.** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| UPOPs releases reduced by 50% for Gharbia and by 40% for Sharkia. | UPOPs releases from Sharkia and Gharbia combined total 143 g-TEQ/yr | *(not set or not applicable)* | UPOPs releases reduced by 63.2 g-TEQ/yr. | Pilot Healthcare Facilities (HCFs), or target sites for the project's interventions, were selected by the project technical committee in close coordination with all concerned stakeholders (Ministry of Health and Population - MOHP and the Cairo University Hospitals - CUH).    The selected HCFs include two (2) public hospitals in Gharbia Governorate (Mahala General Hospital and Menshawy General Hospital in Tanta), two (2) hospitals in Sharkia Governorate (Zagazig General Hospital and Al-Ahrar Hospital) as well as the Obstetrics and Gynecology Hospital belonging to Cairo University Hospitals.    A Memorandum of Understanding (MOU) was signed in May 2017 between the Egyptian Environmental Affairs Agency (EEAA), the Ministry of Environment (MOE) and Cairo University Hospitals (CUH) on project cooperation matters. And, a separate MOHP-MOE MOU was signed by the Minister of Environment and the Minister of Health and Population in February 2017. The two sets of MoUs form a solid framework for cooperation of all key ministries in the area of the medical waste management. .    The project established a technical committee including representatives from the Environment Department of MOHP headquarters, CUH, MOHP Directorates in Gharbia and Sharkia Governorates and the Waste Management Regulatory Authority (WMRA) of the MoE and EEAA branches in the two governorates. The committee is to review and coordinate all technical activities related to the project’s HCWM component.    A National consultancy firm (NCF) was contracted to conduct a Baseline assessment at the end of 2017/beginning of 2018 for the 5 model HCFs in order to conduct Individualized Rapid Assessment Tool (I-RATs) evaluations, and determine U-POPs and Hg baseline releases (Methodology is based on the GEF/UNDP guidance document on “Conducting a Baseline Assessment of the Model Healthcare Facility” & “Estimating Baseline Dioxin Releases from HCFs”).    The baseline assessment report was delivered by the NCF by February 2018. The report and the outcomes of the baseline assessment were reviewed and approved by the MEWM project Technical committee.    The most important outcomes of the baseline assessment were:  • HCWM committees existed in most of HCFs  • In all the hospitals, improper segregation of waste occurs  • Not all hospitals have disposal policies and/or procedures in place for mercury spill clean-ups and disposal  • The total estimated emissions vary in all hospitals with the highest levels detected in Mahala general hospital (191,084 μg TEQ/year) and the lowest levels in obstetrics and gynecology department at Cairo university hospital, (19,641 μgTEQ/year) due to the small proportion of waste that is treated offsite by incineration.  • Based on the iRAT methodology, the Obstetrics and gynecology department at CUH (Cairo University) ranks highest at 76% performance rate and Zagazig general hospital being ranked the lowest at 44% with some major issues in HCW segregation, handling, storage and final disposal.    As recommended in the report, the project will focus efforts on strengthening the HCWM systems inside the hospitals; providing personal protection equipment (PPEs) and engineering and administrative control measures; preparing and executing continuous training programs; introducing mercury-free equipment and phasing out mercury containing devices; exploring options for supplying the health districts with adequate transportation services for waste transport; providing the HCFs with HCW treatment technologies/options; preparing and executing a robust maintenance program and strengthening the inspection, monitoring and evaluation mechanisms at all levels.    As mentioned, NCF was contracted to develop healthcare waste management (HCWM) policy, guidelines and plan for the project 5 model healthcare facilities (HCFs) and a specialized training program. This consultancy firm has already developed a policy and guidelines for the project model HCFs on HCWM and it is in the process of developing plans for the 5 model HCFs is expected to complete the training by the last quarter of 2018.    Twenty-five (25) training modules were developed by the UNDP/GEF Global Project on Healthcare Waste, in cooperation with the World Health Organization (WHO) and they are currently being translated into Arabic language and customized to to the Egyptian conditions. The NCF will conduct a training of trainers from Ministry of Health and Medical Schools on these specific modules, and the training will cover at least 45 participants including staff in the 5 target HCFs,    The trained trainers are expected to participate with the NCF in conducting the ongoing training activities during the project’s life span for all target groups.    The MEWM is discussing with the MOHP the establishment of certification body, so that the management of medical waste in any healthcare facility should be limited only to certified staff who pass those training courses.    An international expert was contracted in February 2018 to technically support procurement of a central treatment facility for healthcare waste using non-incineration technology (autoclaving being the choice).    The IC visited in February 2018 the locations proposed by the MOHP for the establishment of the CTF. The IC was later on contracted by the GIZ supported National Solid Waste Management Initiative at Waste Management Regulatory Authority (WRMA)/Ministry of Environment which should result in a good coordination between the two projects.    By April 2018, the IC prepared an Invitation for Pre-qualification of Suppliers to conduct a Turnkey Project for the Supply, Installation, Testing and Commissioning of Equipment for 2 Central Infectious Waste Treatment Facilities in Gharbia Governorate including Construction of Buildings and Training of Operators.    The reason for the pre-qualification process is that there was only one company with a local agent which is licensed by MOHP to supply CTF in Egypt. So the Pre-qualification announcement was advertised in April 2018 and aimed to increase number of licensed companies by MOHP.    The pre-qualification documents of four companies are currently evaluated by the MOHP to obtain its official approval on the used technology and brand. The pre-qualifications are also being evaluated by MEWM project, IC and the /Ministry of Environment while the results will be announced by July 2018 and the RFP will be announced accordingly.    The IC visited the three locations proposed by the MOHP for CFT in Gharbia Governorate. The project is in the process of contracting another consultancy firm in July 2018 to prepare Environmental Impact Assessment (EIA) for the proposed sites in order to decide on the most appropriate locations and recommendations for improving the territories, based on the criteria set by the IC.    The IC prepared the conceptual design of the CTF(s) including size, layout, technology, specifications for CTF(s) using a Hybrid Autoclaving Technology which involves blade cutters for the waste before it reaches the autoclaving rooms. | The project established a technical committee including representatives from the Department of Environment at Cairo University Hospitals (CUH), the Minister of Health and Population (MoHP) Headquarters, Health Directorates in Gharbia and Sharkia Governorates, the Waste Management Regulatory Authority (WMRA) and the Egyptian Environmental Affairs Agency (EEAA) branches in the two governorates. The committee mandate is to review and coordinate all technical activities related to the project HCWM component.    Since the start of the project, the Technical committee held five (5) meetings. Examples of the important outcomes and decisions of those meetings are:  • Approvals on recruiting of consultants to execute the project activities  • Endorsement of the baseline assessment conducted by the project.  • Approval on the establishment of two Central Treatment Facilities in Gharbia  • Approval on the technology to be used in the CTF to be a hybrid autoclaving type  • Approval of conducting a TOT training for health care waste sound management and the criteria of the selected candidates  • Endorsement of the Basic concept paper conducted by the project to be submitted to the Ministry of Health and Population to develop the concept of sound and sustainable management of hazardous healthcare waste  • Endorsement of the healthcare waste management (HCWM) policy, guidelines and plans for the project 5 model healthcare facilities (HCFs) conducted by the project.    Pilot Healthcare Facilities (HCFs), or target sites for the project's interventions, were selected by the project technical committee in close coordination with all concerned stakeholders (MOHP and the Cairo University Hospitals (CUH)).    The selected HCFs include two (2) public hospitals in Gharbia Governorate (Mahala General Hospital and Menshawy General Hospital in Tanta), two (2) hospitals in Sharkia Governorate (Zagazig General Hospital and Al-Ahrar Hospital) as well as the Obstetrics and Gynecology Hospital belonging to CUH.    A Memorandum of Understanding (MOU) was signed in May 2017 between the Egyptian Environmental Affairs Agency (EEAA), the Ministry of Environment (MOE) and Cairo University Hospitals (CUH) on project cooperation matters. Furthermore, another MOU was signed by MoE and MoHP in July 2017. The MoUs form a solid framework for cooperation of all key ministries and stakeholders in the area of the medical waste management.    A Baseline assessment was completed at the end of 2017/beginning of 2018 for the 5 model HCFs by conducting Individualized Rapid Assessment Tool (I-RATs) evaluations and determining U-POPs and Hg baseline releases (Methodology is based on the GEF/UNDP guidance document on “Conducting a Baseline Assessment of the Model Healthcare Facility” & “Estimating Baseline Dioxin Releases from HCFs”).    The most important outcomes of the baseline assessment were:  • HCWM committees existed in most of HCFs  • In all the hospitals, improper segregation of waste occurs  • Not all hospitals have disposal policies and/or procedures in place for mercury spill clean-ups and disposal  • The total estimated emissions vary in all hospitals with the highest levels detected in Mahala general hospital (191,084 μg TEQ/year) and the lowest levels in Obstetrics and Gynecology department at Cairo university hospital, (19,641 μgTEQ/year) due to the small proportion of waste that is treated offsite by incineration.  • Based on the iRAT methodology, the Obstetrics and Gynecology Hospital at CUH (Cairo University) was ranked the highest at 76% performance rate and Zagazig general hospital was ranked the lowest at 44% with some major issues in HCW segregation, handling, storage and final disposal.    As recommended in the report, the project focuses efforts on strengthening the HCWM systems inside the hospitals; providing personal protection equipment (PPEs) and engineering and administrative control measures; preparing and executing continuous training programs; introducing mercury-free equipment and phasing out mercury containing devices; exploring options for supplying the health districts with adequate transportation services for waste transport; providing the HCFs with HCW treatment technologies/options; preparing and executing a robust maintenance program and strengthening the inspection, monitoring and evaluation mechanisms at all levels.    Guidelines and plan for the project 5 model healthcare facilities (HCFs) and a specialized training program are developed. The plans are adapted to the structure of the different hospitals and implementation is scheduled to start in the last quarter of 2019.    A 10 days training of trainers (TOT) from MoHP, MOE (EEAA & WMRA), CUH and Faculty of Nursing (Cairo University) was conducted, using the translated UNDP/GEF/WHO training, in Sharm El Sheikh 3rd-11th of August 2018. The training was attended by 59 trainees (65% females; 35% males) from 10 governorates. The opening session of the training was inaugurated by the Minister of Environment and UNDP Resident Representative    The trained trainers have participated with the NCF in conducting the training for the 5 model HCFs and are expected to conduct the ongoing training activities by the MOHP and will continue after the project’s closure for all target groups.    Also, a total of 598 trainees (70% females; 30% males) from the five model facilities were trained in 2-days specialized 5 trainings to implement best environmental practices in the healthcare waste management.    The MEWM has been discussing with the MOHP and WHO the establishment of certification body, so that the management of medical waste in any healthcare facility should be limited only to certified staff that pass those training courses. WHO informed that it cannot be a certification body, while the MoHP is considering establishing this body.    An IC was recruited to support the procurement of the CTF, prepared the conceptual design of the CTF(s) including size, layout, technology, specifications for CTF(s) using a Hybrid Autoclaving Technology which involves blade cutters for the waste before it reaches the autoclaving rooms.    As per Egyptian regulations, any medical waste treatment facility/technology has to be endorsed by Ministry of Health before it is installed. Hence, prior to the international tender, the project has issued a request for pre-qualification to encourage new medical waste treatment specialized companies to apply for endorsement of its products in Egypt.    A Request for Proposal (RFP) for an international tender for "Turnkey Project for the Supply, Installation, Testing and Commissioning of Equipment for Two Central Infectious Waste Treatment Facilities in Gharbia Governorate, Egypt, including Construction of Buildings and Training of Operators", was published on the UNDP Website in the end of September 2018. The deadline for submitting the proposals was the end of October 2018, which was extended, as per the requests of interested companies, till mid of November 2018.    A technical committee comprising representatives of the MEWM Project, Ministry of Health, MOHP Engineering consultant (Faculty of Engineering – Ain Shams University), Ministry of Environment and WMRA as well as by the project International Consultant evaluated the technical proposals. Four (4) technical proposals were eligible out of seven (7) received, as three (3) applicants have not cleared their products from the Ministry of Health and Population for the use of their equipment as per the Egyptian related regulations. Moreover, two of these three companies submitted their proposals after the submission deadline.    Only two (2) proposals out of the remaining four proposals were accepted technically, namely ECODAS from France and AkarMak from Turkey.    After opening the two financial proposals, ECODAS obtained the highest combined technical and financial score. Thus, it was selected as the winner for providing the Turnkey Project for the Supply, Installation, Testing and Commissioning of Equipment. Since the project allocated budget for the procurement of the autoclave system was not sufficient to procure two (2) systems, it was decided to procure only one (2500 liter / cycle) which is sufficient to treat half of the waste generated from Gharbia Government (4 Tons/day) by working on two shifts.    A national consultancy firm in July 2018 was contracted to prepare the Environmental Impact Assessment (EIA) study for the proposed sites for the CTF in order to decide on the most appropriate location and recommendations for mitigation of negative impacts in compliance with Egyptian laws and based on the criteria set by the IC. The EIA study approval was issued by the MoE in June 2019.    A policy paper is prepared to be submitted to the Ministry of Health and Population to develop the concept of sound and sustainable management of hazardous healthcare waste through adopting the Sustainability Training Plan, encourage the involvement of the private sector and the evaluation of the organizational structure at the Ministry of Health and Population. |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 2**  **Nat. Policy and regulatory framework strengthened/dev eloped with respect to HCWM and UPOPs emissions** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Number of laws, regulations and guidelines pertaining to HCWM drafted/revised. | In 2010, a HCWM strategy was finalized and adopted (April 2010). The strategy that should also include regulatory analysis update has not implemented yet. | *(not set or not applicable)* | Law/regulations and degrees create an enabling regulatory and policy environment for HCFs and CTFs to reduce UPOPs emissions. | Assessment of Existing HCWM Legal and Regulatory frameworks and assessment of the only law of Environment that currently governs HCWM activities (4/1994) was conducted.    The governing documents for HCWM in Egypt is based on the National Egypt 2014-2019 Integrated Health Care Waste Management Plan which was issued in November 2014 by MOHP and the Guidelines on Health Care Waste Management in Egypt were issued in 2015 by MOE / National Solid Waste Management Program.    A National consultancy firm (NCF) was contracted to conduct a Baseline assessment (see Outcome 1.1 above), including review of healthcare waste management (HCWM) policy and guidelines currently used in the country.    On the other hand, throughout 2017 several coordination meetings were held with Waste Management Regulatory Authority (WMRA) on the Draft Law for the Regulation of Waste Management.    More reporting on these elements is to follow in the future. | The project compiled all laws and decisions governing the healthcare waste management where weaknesses and gaps have been identified.    A HCWM Policy on the health directorates level is issued. This document will be distributed to the governorates through the EEAA, as an official document, to be nationally implemented through the governorates. (see Outcome 1 above)    All documents have been used in the TOT training where trainees were trained on the updated draft of policy.    Currently a “Law on Waste Management” is under development by the newly established WMRA department of the MoE. The project is part of the Working Group, and is providing input. |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 3**  **Mercury emissions in HCWM sector are reduced.** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Kg of Mercury waste safely stored/disposed of | 16.2 kg Hg/yr | *(not set or not applicable)* | Hg releases reduced by 5 kg/yr | Baseline assessment was conducted by the NCF (See Outcome 1.1) to evaluate the situation regarding arrangements for mercury (Hg) spills and devices containing mercury.    Currently, the NCF is developing a mercury equipment phase-out plan, including the number of mercury-free devices to be procured, the technical specifications for the Hg-free devices, introduction of Hg-free devices in HCFs. As soon as the new mercury free devices are used, the amount of mercury which will be no longer used will be calculated and reported on.    The project will make use of the global GEF/UNDP/WHO/HCWH project developed Guidance document on Mercury Phase Out Management (Cleanup, Transportation, and Storage).    The shift to Hg free devices will help with the implementation of the plan developed by a NCF as part of the development of healthcare waste management (HCWM) policy, guidelines and plan for the project 5 model healthcare facilities (HCF) as described in Outcome 1.1.    The NCF will also provide the technical training program (see outcome 1.2).    More reporting is to follow. | A Baseline assessment was completed at the end of 2017/beginning of 2018 for the five (5) model HCFs to evaluate and determine U-POPs and Hg baseline releases (See Outcome 1).    The project focused efforts on strengthening the HCWM systems inside the hospitals; introducing mercury-free equipment and phasing out mercury containing devices (See outcome 1). More reporting on mercury phase-out targets is to follow in the next reporting period as the process is currently ongoing.    Guidelines and plans for the project 5 model healthcare facilities (HCFs) were developed and trainees from the five model facilities were trained in 2-days long, specialized 5 sets of trainings to implement best environmental practices in the healthcare waste management (See outcome 1).    A policy paper was prepared to be submitted to the Ministry of Health and Population to develop the concept of sound and sustainable management of hazardous healthcare waste including mercury (See Outcome 1). |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 4**  **Nat. Policy and regulatory framework strengthened / developed with respect to sequestration, phase-out, storage and disposal of Mercury waste in HCWM sector.** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Number of regulations/degrees and guidelines pertaining to Hg-containing medical products drafted/revised. | In 2010, a HCWM strategy was finalized and adopted (April 2010). The strategy that should also include regulatory analysis update has not implemented yet. | *(not set or not applicable)* | Law/regulations and degrees create an enabling regulatory and policy environment for HCFs and CTFs to reduce Hg releases. | Egypt is not a signatory of the Minamata convention but there are some planned and ongoing activities to phase use of Hg in medical devices in medical facilities in the country.    As described in Outcome 1.1, the NCF was contracted to develop healthcare waste management (HCWM) policy, guidelines and plan for the project 5 model healthcare facilities (HCF). This task includes the development of guidelines to phase out the use of Hg in medical products.    More reporting is to follow in 2019 period. | As described in Outcome 2, the project compiled laws and decisions governing the healthcare waste management, including mercury, where weaknesses and gaps have been identified.    A HCWM Policy on the health directorates level is issued and it was used in the TOT training (See Outcome 2). |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 5**  **Emissions of UPOPs (including new POPs) and POPs reduced through support to e- Waste Management at municipality and national level.** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Availability of baseline on POPs – U-POPs, Cd, Hg and Pb release. | Few data on POPs - U-POPs, Hg, Cd and Pb release from E-waste. | *(not set or not applicable)* | Baseline data on U-POPs – POPs, Cd, Pb and Hg released from E-waste management are available. E-waste informal processors mapped. | In order to develop a baseline on POPs and UPOPs as well as on heavy metals, a characterization study of e-waste (WEEE) processing in Egypt had to be developed at the national level to include and describe all key elements and actors operating in this system.    A national characterization report became available in January 2107. The report included a description of current practices and the collection chain for E-Waste for informal and formal sectors, key stakeholders and governing regulations. In addition, the report included an assessment of current and projected mass flows and recommended measures, and amendments to regulations and policies to regulate this business.    The electronic articles, covered in the report, include mobile phones, landline telephones, PCs (desktop computer, desktop computer monitors and laptops).    Based on the characterization report, an RFP (tender for services) on “developing a baseline assessment on (POPs), (UPOPs), and associated hazardous releases (mercury, lead, cadmium) from E-waste processing was announced in January 2018. The main deliverables of this consultancy service are expected to be as follows:    1. Assessment (cost/effectiveness analysis) of Best Available Technology (BAT)/ Best Environmental Practice (BEP) technology options and facilities available in Egypt for recycling and disposal (including segregation cost) of plastic containing POPs (like flame retardants sprayed over plastic cases) and other hazardous components containing toxic metals;  2. Identification of BAT/BEP for the environmentally sound management /landfilling of waste containing heavy metals (containment and immobilization technologies);  3. Identification of BAT/BEP technologies for the environmentally sound recovery of heavy metals during thermal destruction of waste: dust filtering (electro-filters, baghouses, wet scrubbing);  4. Identification of BAT/BEP technologies for the segregation of hazardous component containing POPs (for example, the rapid assay system for the determination of PBDE and Chlorine content in plastic).  5. Identifying and proposing end-processing at foreign qualified facilities for components fo WEEE waste containing POPs and heavy metals;  6. Guidelines for the segregation, sorting, pre-treatment and storage of hazardous components containing heavy metals based on the Basel Convention and EU classification;  7. Toolkit (Excel based) that allows the reliable calculation of POPs, UPOPS, and associated hazardous releases (mercury, lead, cadmium) from E-waste processing. The toolkit should be developed in both languages, Arabic and English;  8. E-waste calculator (applicable for cellphone use) of POPs, UPOPs (volatile POPs or emissions), and associated hazardous releases (mercury, lead, cadmium) from E-waste processing. The E-calculator should be developed in both languages, Arabic and English.    The above deliverables are expected to be available by the end of 2018. | 1. A national characterization report became available in January 2017 including an assessment of current and projected mass flows, identification of the key stakeholders and recommended measures, and amendments to regulations and policies to regulate this business.    2. Development of a baseline assessment on (POPs), (UPOPs), and associated hazardous releases (mercury, lead, cadmium) from E-waste processing was found to be extremely expensive to be included as part of the baseline study since the project could not identify any accredited laboratories in Egypt for the analysis of POPs and accordingly samples have to be analyzed outside Egypt.    Based on this the project has decided to rely on a baseline study of secondary data by indirect estimation of U-POPs, POPs, and heavy metals. The semi-final version of the following deliverable became available on May 2019, including:    a. A baseline assessment on POPs, UPOPs, and associated hazardous releases (mercury, lead, cadmium) from E-waste processing.    b. Identification and assessment of BAT/ BEP for recycling and disposal of hazardous fractions containing POPs and U-POPs in Egypt and worldwide. The assessment includes a cost/effectiveness analysis of BAT and BEP approaches.    c. Identification and assessment of BAT/ BEP for recycling and disposal of hazardous fractions containing heavy metals (mercury, lead, cadmium) in Egypt and worldwide. The assessment includes a cost/effectiveness analysis of BAT and BEP.    d. Guidelines for the Segregation, Sorting, Pre-treatment and Storage of E-waste Components Containing Heavy Metals mercury, lead, cadmium), POPs, and UPOPs.    e. Toolkit (Excel based) that allows a reliable calculation of POPs, U-POPs, and associated hazardous releases (mercury, lead, cadmium) from E-waste processing.    f. E-waste calculator (applicable for cellphone use) of POPs, U-POPs (volatile POPs or emissions), and associated hazardous releases (mercury, lead, cadmium) from E-waste processing.    All of the semi-final versions of the above deliverables are available in English and once they are finalized, they will be translated into Arabic. The final version of this deliverables will be available and published by the end of 2019. |
| Availability of capacity building/awareness campaigns and related feedback from men and women. | Limited awareness on E-waste issue. | *(not set or not applicable)* | Multi-media awareness campaign concluded. | Awareness raising activities included the following:  1. In April 2017, the project participated in the “Egypt Waste & Recycling Expo” in Cairo. During the exhibition, the project succeeded in raising public awareness on proper E-waste management.    2. A documentary video was produced in May 2017. The video raises public awareness on the issue of POPs, heavy metal contained in E-waste (mercury, lead, cadmium, and others), and other harmful substances generated by the improper management of E-waste as well as the project's efforts to reduce health risks in the country.    3. A report on the status of E-waste management practices in Egypt was prepared and published in December 2016 in one of the most well-known and popular ICT magazines in Egypt (El Ahram-IT magazine).    4. A workshop was organized for raising the ICT sector's awareness regarding sustainable management of their E-waste to comply with the national laws and international conventions. The workshop was organized back-to-back with the inception workshop. The number of participants reached 90 people from different public and private sectors.    5.The project website was developed and is available now online (www.mewm-egypt.net ) from February 2018. The website communicates the issue of POPs, heavy metals contained in e-waste (mercury, lead, cadmium, and others), other harmful substances generated by the improper management of e-waste. The website supports the dissemination of training and workshop materials developed or adopted by the project.    6. A RFP on” designing media campaign for E-waste awareness raising” was announced in February 2018. The deliverables are expected to be an animated infographics and promotional items, and publications (Slogans, posters, stickers, T-shirts, etc..). The products will be available by October 2018.    7. Participation of the project team in the workshop on “Knowledge sharing on POPs national projects’” and delivery of a presentation on the project objective, activities, and outcome to assure the reflection of the project in the National Implementation Plan (NIP) of the Stockholm Convention and to assure synergy between this project and other projects that are active in the same field (POPs/UPOPs). The workshop took place in March 2018, in Cairo.    8. Participation in the awareness-raising day on “Sustainable management of Electrical and Electronic waste” which was organized by the National Solid Waste management program and GIZ in March 2018 at the premises of Smoha sports’ club, Alexandria. The project team delivered a presentation on the project scope, objective, and activities and raised the awareness on E-waste issues that the country is facing and how they could affect the health and environment if it is not managed in a proper way.    9. Participation in the Environmental Annual Conference of Faculty of Medicine - Mansoura University and delivered a presentation on “Sustainable Management of E-Waste” in April 2018.    10. Participation in the 2nd workshop toward the youth capacity building: presentations included "An introduction to hazardous associated with POPs and their environmental sound management“ and “Sustainable Management of E-Waste” in May 2018 at Bibliotheca Alexanderia.    11. Some technical articles and reports were published in the national newspapers and ICT magazines on the status of E-waste management in Egypt and the role of the project in achieving the Environmentally Sound Management (ESM) for E-waste.  Capacity Building:    12. A Training Workshop on the “Sustainable E-waste Management” was organized in cooperation with a parallel Swiss funded project in Egypt. The training took place in April 2017 in Cairo.    13. A Training Workshop on “Best Environmental Practices (BEP) and Best Available Technologies (BAT) for E-waste recycling” was organized in cooperation with the Swiss funded project in May 2017.    14. Support to and management of logistics for the participation of two delegates from MOE in EWAM Conference 2017, in Dar es Salaam, Tanzania in November 2017. The E-waste Academy- Managers Edition (EWAM) is a global forum for stakeholders involved in the practical design and implementation of e-waste management solutions. Policymakers, government officials and representatives of small- and medium-sized enterprises, such as recyclers, refurbishers and collectors regularly participate in these meetings.    15. E-waste hands on dismantling workshop was organized during the period 4-5 December 2017 in one of E-waste recycling facility, which is located in Giza governorate (EERC recycling facility). The workshop was attended by Environmental auditors and inspectors and formal/informal E-waste recyclers with 25 participants. The workshop provided practical techniques of dismantling various end-of-life electronic products (laptop, Mobile, CRT, printer, Hard disk, CPU), with particular focus on identifying hazardous fractions and ensuring their proper de-contamination and disposal, assessing the optimal dismantling depth or extent, and economic assessment for viability of e-waste dismantling as a business initiative. The activities were organized in close collaboration with the SWISS SRI project and were led by international experts from an Italian recycler facility (Relight recycling facility: https://www.relightitalia.it/en/) and Sofies (international consultancy firm on environmental issues).    16. In cooperation with the Swiss funded SRI project, the project is planning to organize a field trip in Q4 of 2018 for MoE officials to some international recyclers located abroad in Belgium and Switzerland. The aim of the field trip is to showcase BAT/BEP technologies for the dismantling and recycling of WEEE with a special focus on hazardous fractions. | Awareness raising activities included the following:    1. A public awareness documentary video was produced in May 2017 to raise. awareness on the issue of POPs, heavy metal contained in E-waste (mercury, lead, cadmium, and others), and other harmful substances generated by the improper management of E-waste as well as the project's efforts to reduce health risks in the country.    2. The project website was developed and is available now online (www.mewm-egypt.net) since February 2018.    3. Four animated infographics and promotional items and publications (slogan, poster, stickers, T-shirt) were produced in October 2018. With the following themes:  a) Reduction of EEE consumption  b) Reuse of old EEE  c) Recycle of E-waste  d) The health and environmental impact of unsafe management of E-waste  4. About 24 Reports and articles on the status of E-waste management practices in Egypt have been prepared and published in national newspaper from December 2016 till now.    5. In November 2018, the project participated in UN-Biodiversity conference COP 14-Egypt by organizing a session on raising the awareness on E-waste management in Egypt and how the project activities could help in achieving the sustainability of this cluster in Egypt. National and international organizations, media, and academia participated in the session.    6. In March 2019, the project participated in “World Wildlife Day” organized by Giza ZOO. The project team delivered a presentation that covered the following: what is E-waste; E-waste composition and hazardous associates including the toxic metals, POPs; and how the e-mining from E-waste can save the wildlife. About 150 school students, academia, NGOs participated in the event.    7. On 31st March 2019, the project participated in “Environmental Safety and Biodiversity” event which was organized and hosted by Ain Shams University, Cairo. The project team delivered a presentation that covered the following: what is E-waste; E-waste composition and hazardous associates including the toxic metals, POPs, and UPOPs; E-waste and SDGs; and Sustainable management of the E-waste to save our environment and health. 132 students (105 females, and 27 male) participated in the event.    8. On June 2019, the project participated in the “1st E-waste summit for Youth” which was organized by Bibliotheca Alexandria. The project team delivered a presentation that covered the following: what is E-waste; E-waste composition and hazardous associates including the toxic metals, POPs, and UPOPs; E-waste and SDGs; and Sustainable management the E-waste to safe our environment and health. 102 youth (66 females, 36 male) from secondary schools, university, NGOs participated in the event    9. During the period from July 2018-December 2018, the project team seized the opportunity of organizing Public hearing session for formalizing the informal sector and deliver a presentation for raising the community awareness on sustainable E-waste management. The project team participated in 8 public hearing sessions which took place in (Greater Cairo, Monofeya, and Sohag) and were attended by NGOs, public officials, civil society. 505 participants attended the public hearing sessions (193 females, 312 males)    Capacity Building activities included the following that builds on the large efforts conducted over the last couple of years:  10. In May 2016, the UNDP Country Office, Project Manager and Ministry of Environment's official representative were exposed to the Chinese experience in managing E-Waste through the participation in a GEF/UNDP International Training organized by UNDP China, together the with Foreign Economic Cooperation Office (FECO) of the Ministry of Environment of China and a private sector partner Baidu    12. In December 2018, the project organized a field trip for 10 MoE officials to international recyclers located abroad in Austria and Switzerland. The field trip lasted for 5 days and included meetings and site visits for recycling facilities which adopted the BAT/BEP technologies for the dismantling, recycling, and safe disposal of WEEE with a special focus on hazardous fractions containing POPS, UPOPs, and toxic metals.  13. To assure the sustainability of Raising awareness activity, in May 2019, the project organized a TOT training for officials from central department of awareness and press on “Sustainable management of E-waste”. The aim of the training was to enhance their capacity to be able to raise awareness of community, school and university students’ on sustainable management of E-waste. The training lasted for 2 days and 22 (16 females, 6 males) officials participated in the training.    14. To assure the sustainability of capacity building activities, the project drafted a protocol between MoE and Ministry of Higher education and Research (MoHER). The protocol focuses on developing educational materials and their inclusion into the curriculum of vocational schools, universities and post graduate studies . |
| Amount of E-waste collected | Most of E-waste still being collected informally with harm to the environment. | *(not set or not applicable)* | At least 4,000 tons of E-waste collected / 50 tons of E-waste containing PTS and managed in an environmentally sound way | In March 2017 and in cooperation with Etisalat Misr (one of principal cellular companies), the project succeeded in managing 14,447 pieces of Lead Acid batteries (420 ton) in a sustainable way and directed it to a formal recycler in Egypt. Over the coming period, the project is planning to disseminate information to the businesses associations and Global Compact Association to further disseminate this best practice through national awareness campaign.    As a response to the awareness raising implemented by the project, MOE jointly with the ICT sector, and in response to commitments to respect the national environment law, the following amount of waste has been collected and addressed to the formal recyclers from June 2017 till June 2018:  - Around 597 tons of lead acid batteries;  - Around 385 tons of E-waste (desk-top PCs, laptops, mobile phones, cables, computer peripherals).    Adding up the above quantities with the quantities collected before June 2017, the project has collected about 1,402 tons of E-waste, addressed to formal recyclers and managed in an environmental sustainable manner to date.    In May 2018, the project contracted a national consultancy firm to support procurement processes and implementation for international services of "Repackaging, international shipment and licensed disposal of about 50,000 CRT monitors", which are collected in different sea ports of the country.    These CRTs reached Egyptian ports over the last few years illegally and have been stored at Customs facilities. During the period from May-June 2018, the project in cooperation with MOE and the above mentioned consultancy firm visited 7 ports to develop an inventory in order to assess, quantify, calculate preliminary weight and identify conditions of the CRT monitors in Alexandria, Dekhila, Swiss, Port Said, Damietta, Safaga, and Aswan ports.    The inventory will be part of the RFP for the international company to take care of this e-waste. | 1. In response to commitments to respect the national environment law, MOE cooperated with the ICT sector (four mobile operators: Egypt Telecom, Orange, Vodafone, Etisalat), in addressing. 4020.82 tons of e-waste to the formal recyclers from March 2017 to June 2019. This amount corresponds to  a) 3308.38 tons of lead Acid batteries which being used in ICT sector  b) 712.44 tons of E-waste (desk-top PCs, laptops, mobile phones, cables, PCBs, computer peripherals)    2. Digital inventory that assess, quantify, calculate preliminary weight and identify conditions of the CRT monitors in Alexandria, Dekhila, Swiss, Port Said, Damietta, Safaga, and Aswan ports was developed and issued in August 2018. The inventory revealed that there was about 35,795 CRTs (667 tons) in Egyptian ports. These CRTs reached Egyptian ports over the last few years illegally and have been stored at Customs facilities.    As a response, a RFP was posted on UNDP website in November 2018. The project received letters of interest from three proposers. According to the RFP, the project held a pre-proposal conference and site visits to ports during the period 2nd-5th December 2018.    On 10th of January 2019, the project received three proposals from the following firms:  a) POLYECO S.A.  b) Relight Srl  c) SGS    The proposals were evaluated technically and financially, and POLYECO S.A. obtained the highest combined technical and financial score. The financial offer proposed by winner company was 1,450,000 USD with the equivalent of USD 2200 /tonne cost effectiveness which exceeded the indicative budget for this assignment of USD 600 /tonne and accordingly the cost could not be accommodated by the project budget and the tender was cancelled.  The project is currently searching for an alternative solution for safe disposal of the CRT screens based on the available BAT/BEP.    3. In the framework of supporting the formal recyclers and assuring that they adopt the BAT/BEP, the project drafted protocols between MoE and Ministry of Industry and the Ministry of Scientific Research. The protocols focus on demonstrating and availing a machine for identifying, sorting plastic with BFR, and supporting the formal recyclers through increase their efficiency especially in the part of metal extraction. |
| Evidence of replication initiative | No replication scheme implemented | *(not set or not applicable)* | Pilot projects on collection scheme implemented in 2 municipalities (Cairo and Alexandria). | A pilot project proposal on “E-waste collection from Cairo and Alexandria"" was drafted by the project and sent to the three mobile operators in Egypt (Orange, Etisalat and Vodafone). The proposal is at the internal discussion stage.    UNDP Country Office, Project Manager and Ministry of Environment's official representative participated in a GEF/UNDP International Training organized by UNDP China, together the with Foreign Economic Cooperation Office (FECO) of the Ministry of Environment of China and a private sector partner Baidu (May 2016), with the aim to learn from China’s experiences and expertise from implementing the national GEF e-waste project and Baidu recycle App in Beijing, China. Government officials from Waste Management Regulatory Authority participated in this important training, and obtained valuable experience.    Participation in the launching and closing events of the pilot project on “collecting fluorescent lamps in Alexandria and dispose it in specialized facility”. The launching event took place in October 2017 and the closing one took place on December 2017. The project delivered a presentation on E-waste and shed light on the pilot project on collection scheme of E-waste which expected to be implemented in Alexandria and Cairo.    In order to support formalization of the informal recyclers,, the project contracted a national consultancy firm in April 2018 to develop Environmental Impact Assessment (EIA) studies and provide adequate technical and administrative support to issue the operational industrial licenses for informal recyclers. By the end of 2018, it is expected to have sufficient number of formal recyclers in different geographical areas to enable the collection programme on the national level. The to-be-formalized recyclers were selected based on a clear criteria, including n the amount of E-waste they collect per year.    Households are responsible for 23% of E-waste produced and most of households either keep the waste at home or sell it to informal recyclers. In order to encourage households to get rid of their waste with formal recyclers, a mobile application called (ETADWEER) was developed and register under No. 3135.    The application is an online market platform for exchange and sales of E-waste to the original producers (manufacturers) and get in return vouchers/or rights for purchase of new products.    Only formal recyclers have the right of purchasing the E-waste from producers and the exchange process will be implemented through this application. In June 2018, an online website for the application (for both iOS and Android systems) was launched.    The application will be used as one of the collection tools supported by the project. | 1. In order to develop a pilot project on collection scheme in 2 municipalities, the project team focused during the previous years on availing adequate number of formal recyclers to assure that the collected waste will be safely disposed.  The project planned to support formalization of the five informal companies and the number was later on increased to ten companies due to the overwhelming interest of the informal sector following the effective measures supported by the project to limit their access to e-waste tenders. The informal companies were selected according to announced pre-set criteria and were distributed in six different governorates.  The technical assistance for formalization of the informal included support in the preparation of the documentation for environmental and industrial permits. So far 6 Environmental Social Impact Assessment studies are submitted and two companies received the final license    2. In parallel to the above activities, the project has started coordination and collaboration with some collection scheme initiatives including the following:  a) E-Tadweer application which is an online market platform for exchange and sales of E-waste to the original producers/manufacturers/suppliers and get in return vouchers/or rights for purchase of new products. The project drafted a protocol between MoE and Ministry of Communications and Information Technology (MCIT). The protocol focuses on supporting the digital marketing of E-tadweer application and increasing the number of producers in the E-tadweer application  b) in cooperation with GIZ, the project team participated in the launching and closing events of the pilot project on “Collecting fluorescent lamps in Alexandria and dispose it in specialized facility”.  c) The project team cooperates with and supports “Mobiles for good”, initiative which is funded by Goethe institute in Egypt, German institute. The initiative aims to collect about 100 KG of mobile waste and transmit it to formal recyclers with the goal to use the profit to fund education of poor people. The initiative is to take place mainly in three governorates; Cairo, Giza and Alexandria, with future plan to expand to more governorates.  d) In cooperation with GEF-UNDP Small Grants Program (SGP), the project organized a workshop for NGOs located in Cairo and Alexandria to encourage preparing proposals on E-waste management. The proposals scope is expected to include and not limited to E-waste collection, awareness raising, and marketing for online collection applications. 15 NGOs (23 participants:10 Female and 13 male) |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 6**  **National policy and regulatory framework strengthened with respect to E-waste** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Availability of an improved E-waste regulatory framework | The E-waste regulatory framework including licensing system for E-waste manager is incomplete. | *(not set or not applicable)* | Reviewed / improved regulatory framework on E-waste fully compliant with Stockholm and Basel convention | The baseline report completed in 2017 (Outcome 3.1) included a review of the current regulatory framework. The report revealed that the E-waste manifest already exists (a hazardous substances register, and environmental register) as well the licensing system. However, there is lack of awareness and knowledge regarding this issue.    The capacity building program developed in cooperation with CEDARE and Swiss funded SRI project covers the following. The project, in cooperation with the SRI initiative, supports the implementation of a technical assistance program for existing recyclers in Egypt. This assistance program was designed based on the outcomes of an audit that was performed at five (5) existing recyclers by international auditors in February 2017. The audit was mainly a tool to identify the status and needs of each company to sustain its proper operations and make it competitive. Its results revealed the lack of the recyclers’ compliance with respect to legal and licensing issues as well as technical, and managerial issues.    As a response, the project in cooperation with the SRI project, has supported these recyclers through the following:  • Building their capacities with help of two (2) training workshops organized in April and May 2017.  • Development of an environmental register which was distributed to all recyclers in May 2017.  • Development of a hazardous substances register which was distributed to all recyclers in May 2017.  • Support recyclers that do not have licenses to meet the criteria to become licensed.    A consultation session on “Establishing National Take-Back system for Electrical and Electronic Equipment Using Extended Producer Responsibility Financing Mechanism” was organized in cooperation with SWISS SRI project in September 2017.    A guideline booklet on the “Sustainable Environmental management of E-waste” was developed and officially issued in November 2017.  The guidebook was sent to the Government Authority for General Services (GAGS) and the Ministry of Communications and Information Technology, to be applied as a pilot model in the ICT sector and some governmental entities through General Authority for Governmental Services (GAGS). The booklet is available on project website and WMRA-MOE website.    As a response to the general lack of awareness and capacities of Custom officers’ and other Civil Servants of concern regarding the handling, export and import of the hazardous waste and the national and international conventions that govern the transboundary movement of hazardous waste, the project contracted a national consultancy firm to address this issue. The following results have been achieved:  1. In January 2018, a manual was developed in both Arabic and English languages and distributed to all Customs offices and ports on “hazardous chemicals and waste with a special focus on Electronic waste (E-waste) under the Stockholm, Basel, and Rotterdam conventions and national laws”.  2. Based on the developed manual, the project succeeded in training 4of 36 Custom officers during the period from January –May 2018 through 7 workshops (the period of each workshop was 3 days). The workshops took places in the following ports/governorates: Cairo ports, Alexandria ports (Alexandria, Dekhela and Marsa Matrooh), Suez ports (Adabeya, Suez, Einsokhna and Others), Port Said Ports, Nouabaa Port, Safaga Port, and Damietta Port. The training focused on identification and classification of hazardous waste and the roles and procedures of Customs control to prevent transboundary movement  3. As part of accelerating the formal recyclers and help them to abide with the national laws, in June 2018 the project in cooperation with the Swiss SRI project developed the environmental register and the hazardous substances register. In addition, the project contracted one of the accredited laboratories in Egypt (SGS Ltd.) and did the needed environmental measurements and analyses for some of the existing formal recyclers (two recyclers).  4. The project is a member of the national committee responsible for the drafting of the national waste management law. This committee is chaired by the Ministry of Environment which is responsible for drafting the legal framework for waste management in Egypt including hazardous and non-hazardous waste (e-waste being a part of this). The project participated in 7 meetings for reviewing/ drafting the new national waste management law. The said law was sent to the Parliament for adoption. The project assures that the article and definitions needed for ESM of E-waste are reflected in the new law such as the extended producer responsibility.  5. The Minister of Environment issued an official letter for the ICT sector requesting all companies affiliated to ICT business to direct the E-waste only to formal accredited recyclers. As a response, 34 (4 mobile operators+ 30 ICT retailer companies’) ICT companies committed and address their waste to formal recyclers. And to assure sustainability of the approach, in cooperation with MoE, a national auction committee was formed to follow up on the commitment of both the producers and recyclers of E-waste. | 1. The baseline report completed in 2017 (Outcome 3.1) included a review of the current regulatory framework. The report revealed that the E-waste manifest already exists (a hazardous substances register, and environmental register) as well the licensing system. However, there is lack of awareness and knowledge regarding E-waste management.    As reported in previous PIRs, the project has organized and participated in the large number of workshops and public awareness sessions that discussed the E-Waste legal framework in particular the activities conducted with CEDARE/Swiss Government, SRI project.    The project continued its support to the national committee responsible for the drafting of the national waste management law.  As a direct output to the project activities and work with the ICT sector, the sector has demonstrated high level of compliance including 4 mobile operators, 30 ICT retailer companies, ICT companies that are committed and send their waste only to formal recyclers. As a result, about 4,020 tons of E-waste have been transmitted to formal recyclers.    The project has initiated the work and consultations on the development of a National policy framework and legal directive/executive regulations based on social and economic cost benefit analysis that assure the sustainable and environmental sound management of E-waste in Egypt from cradle to grave that comply with international conventions such as Basel, Stockholm conventions and Egyptian regulations. The following topics will be covered:  a) Environmental and health criteria for POPs/UPOPs and hazardous substance in new Electrical and Electronic Equipment (EEE) based on REACH regulation and ROHS directive and in compliance with Stockholm convention  b) Environmental Criteria on the import of the second-hand equipment that assure that Egypt will not become a dumping ground of other countries' waste  c) Custom Control roles on the import of the second-hand equipment to assure that the imported equipment comply with the environmental criteria mentioned above  d) Environmental/economic criteria on the export of printed circuit boards to foreign recycling for refining and extraction of metals to assure that this will not affect the E-waste recycling industry in Egypt  e) Custom Control criteria on the export of printed circuit boards  f) Take back system for E-waste based on the Extended producer responsibility to assure the safe disposal of E-waste  g) Safe disposal and handling of waste generated from governmental and private entities’  h) The auction of E-waste governing regulations  i) A digital E-waste manifest system to facilities the tracking of E-waste and assure the safe disposal of waste  j) Inclusion of E-waste recycling in industrial catalogue of Egyptian Ministry of Industry  k) Investment incentives for supporting the development of E-waste recycling industry  l) Building qualified skills on Sustainable management of E-waste  m) Raising awareness on the importance of the proper management of E-waste  n) Adoption of Best Available Technologies (BAT)/Best Environmental process (BEP) to support the E-waste recycling industry  o) Environmental and health Criteria for POPs/UPOPs and hazardous substance results from the recycling of E-waste  p) Identification of all relevant entities/authorities and their roles and responsibility    To ensure that the national Policy framework will be developed in accordance with market needs and in coordination with all parties, the MoE issued a ministerial decree to establish of a national committee that has members from all stakeholders in May 2019. The national committee will coordinate and cooperate with the consultants to draft related policies and will support the ratification, dissemination and enforcement of the policies. |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 7**  **Emissions of other associated hazardous substances (mercury, lead, cadmium) reduced through support to E-waste management at municipality and national level.** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Availability of baseline on release of Cd and Hg | Few data on Hg and Cd release from E-waste. | *(not set or not applicable)* | Baseline data on Cd and Hg released from E-waste management are available. | This outcome has been merged with outcome 3.1 due to common activities.    Please refer to the related section for the detailed reporting. | This outcome has been merged with outcome 3.1 due to common activities.    Please refer to the related section for the detailed reporting. |
| Availability of awareness campaigns and related feedback from women and men . | Limited awareness on E-waste issue. | *(not set or not applicable)* | Multi-media awareness campaign concluded. | This outcome has been merged with outcome 3.1 due to common activities.    Please refer to the related section for the detailed reporting. | This outcome has been merged with outcome 3.1 due to common activities.    Please refer to the related section for the detailed reporting. |
| Amount of E-waste collected | Most of E-waste still being collected informally with harm to the environment. | *(not set or not applicable)* | At least 50 tons of E-waste containing PTS collected and managed in an environmentally sound way. | This outcome has been merged with outcome 3.1 due to common activities.    Please refer to the related section for the detailed reporting. | This outcome has been merged with outcome 3.1 due to common activities.    Please refer to the related section for the detailed reporting. |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 8**  **National policy and regulatory framework on associated hazardous releases from E-waste processing strengthened.** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Availability of an improved E-waste regulatory framework | The E-waste regulatory framework including licensing system for E-waste manager is incomplete. | *(not set or not applicable)* | Reviewed / improved regulatory framework on E-waste including concentration limit of toxic metals in EEE and E-waste | This outcome has been merged with outcome 3.2 due to common activities.    Please refer to the related section for the detailed reporting. | This outcome has been merged with outcome 3.2 due to common activities.    Please refer to the related section for the detailed reporting. |
| **The progress of the objective can be described as:** | | **On track** | | | | |

# Implementation Progress



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| Cumulative GL delivery against total approved amount (in prodoc): | 20% |
| Cumulative GL delivery against expected delivery as of this year: | 20% |
| Cumulative disbursement as of 30 June (note: amount to be updated in late August): | 820,067 |

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| **Key Financing Amounts** | |
| PPG Amount | 140,000 |
| GEF Grant Amount | 4,100,000 |
| Co-financing | 17,568,000 |

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| **Key Project Dates** | |
| PIF Approval Date | Apr 12, 2013 |
| CEO Endorsement Date | Nov 19, 2014 |
| Project Document Signature Date (project start date): | Sep 15, 2015 |
| Date of Inception Workshop | Nov 26, 2017 |
| Expected Date of Mid-term Review | Nov 15, 2018 |
| Actual Date of Mid-term Review | Dec 3, 2018 |
| Expected Date of Terminal Evaluation | Mar 1, 2020 |
| Original Planned Closing Date | Sep 15, 2020 |
| Revised Planned Closing Date | *(not set or not applicable)* |

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| **Dates of Project Steering Committee/Board Meetings during reporting period (30 June 2018 to 1 July 2019)** |
| 2019-01-06 |

# Critical Risk Management

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| Current Types of Critical Risks | Critical risk management measures undertaken this reporting period |

# Adjustments

**Comments on delays in key project milestones**

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| **Project Manager: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure. If there are no delays please indicate not applicable.** |
| The project actual start date was delayed from September 2015 to May 2016, when the project manager was hired. The recruitment of project staff was completed in November 2016. The main reasons for the delay was that it was difficult to find a suitable candidate for the Project Manager position and to receive the clearance of the position by the government to contract the Project Manager. Further delays were based on the governmental approval to allow the project team to enter the 5 model HCFs and conduct the baseline assessment study and the delay in the procurement process of the Central Infectious Waste Treatment Facility in Gharbia Governorate. The project is trying its best to catch up with the implementation plan by hiring additional staff and outsourcing of activities (trainings, development of specifications and tender documents, legal review) to national / international consultants. So the activities of the components, especially the HCWM, have been initiated but final results are not available yet and disbursement of the grant is lower than planned. Thus, the likelihood that the sustainability of the project results will be weak at the end of the project can be considered as high, due to that time delay. The project needs to have sufficient time frame for substantive testing of pilot centers and for communication of the results and lessons. Therefore, based on time delay of the project, the remaining budget and questionable sustainability of the project results, the MTR evaluator recommended that the project is extended without additional budget until September 2022 to have sufficient time frame for substantive testing of pilot centers and for communication of the results and lessons. Given the long-term efforts needed towards awareness raising and also the need to augment the economic and social aspects of recyclers the project may need to have a second phase. |

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| **Country Office: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure. If there are no delays please indicate not applicable.** |
| The delays in implementation are attributed first to the long project manager recruitment process that was repeated several times until the appropriate candidate for this technically specialized project was identified and recruited. Furthermore it was realized during implementation that there is a need to prepare EIAs for both medical waste treatment facility and for the e-waste formalized recyclers which has posed some additional delays to the project implementation.    Additionally, the bidding process for the large contract offered to international companies for the safe disposal of 600 tonnes of CRT units accumulated in Egyptian ports, which has taken several months, has failed and has to be either repeated or another solution identified.    Hence the recommendation of the MTR to extend the project for two years is acceptable and important to ensure orderly completion of the project activities. |

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| **UNDP-GEF Technical Adviser: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure. If there are no delays please indicate not applicable.** |
| One tender for cathode tube screens has yielded a very high price and had to be cancelled in the current reporting period. This resulted in a delay which the project has to manage in 2019 and 2020.    Also, with respect to the estimated spending by the project, it will have achieved a 50% threshold later in 2019. This implies that with the current one operational year remaining, the project is slightly behind its schedule. |

# Ratings and Overall Assessments

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| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Project Manager/Coordinator** | Moderately Satisfactory | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | The project established two main parallel routes for the Medical waste management and the E-waste management since it managed to establish strong links with the stakeholders and partners and secured their support and engagement in the project activities.  For the Medical waste, the project aimed at establishing an entire chain of healthcare waste management (from production to disposal) and at the same time supporting non-combustion technologies.  In this regards, five hospitals were selected to implement the system proposed by the project for the sound management of healthcare waste to convert those hospitals into model healthcare facilities. Trainees from the five model facilities were trained to implement best environmental practices in the healthcare waste management. Preparations for the replication of the training in the rest of the healthcare facilities in Sharkia and Gharbia are under way. A tender request for quotes (RFQ) was prepared to purchase tools and consumables for the implementation of the plans in the five model facilities. However, the process was postponed till the second half of the year till the final corrections of the HCWM plans for the model health care facilities are finalized.  In order to develop a sustainable healthcare waste management system, the project developed the final draft of the policy for the healthcare waste management (at the level of health directorates). The project also updated the healthcare waste management guidelines according to the developments in the current situation in Egypt. The project also developed the final draft of the healthcare waste management plans in the above-mentioned model facilities with the development of a tool to determine the cost of implementing the management plans in any healthcare facility. The final version of all the above mentioned documents should be issued in the third quarter of 2019.  Within the objective of the capacity building of healthcare waste management personnel (managers, doctors, pharmacists, nurses and technicians, workers and employees), the project developed, translated and customized a specialized training for trainers (TOT) program (using international expertise) to be implemented in Egypt. Two more TOT programs will be conducted before the end of 2019 after the HCW guidelines and plans will be finalized.  In support of the application of best environmental practices, the project developed specifications of a central treatment facility (CTF) for hazardous healthcare waste using hybrid autoclaving technology. The most suitable site was selected for the establishment of the CTF and the environmental impact assessment (EIA) study was prepared by the project and approved by the Egyptian Environmental Affairs Agency (EEAA). Obtaining the EIA approval lasted more time than expected after the request of the Waste Management Regulatory Authority (WMRA) to form a field committee of the ministries of manpower, health, environment and the Governorate to waive the condition of not establishing the CTF within a distance of 3 km from any residential area. The contract for, the Supply, Installation, Testing and Commissioning of Equipment for one CTF in Bassion, Gharbia Governorate, Egypt, including Construction of Buildings and Training of Operators, is under signature by the Ministry of Environment.  Also a basic concept paper was prepared and presented to the Ministry of Health and Population to develop the concept of the sound and sustainable management of hazardous healthcare waste. Further meetings shall be arranged with the officials of the MoHP to implement the concept paper. The project also prepared technical guidelines to establish the standards and principles for regulating and encouraging the involvement of the private sector in the healthcare waste management system.    For E-Waste  • The project succeeded in reducing of about 379.96 kg of c-PBDE to date, which correspond to 100.5% of the original target  • The project succeeded in reducing of about 3.377 g-TEQ to-date, which correspond to 67.5% of the original target.  • For baseline of POPs and UPOPs, the project achieved about 80 % of it. As the project issued the national characterization study of e-waste (WEEE) processing in Egypt. And the project is about to issue the baseline study on POPs and UPOPs as well as on heavy metals, as well the project added new activities in this output to maximize the benefit of the output of such studies. The extra activities are the development of Toolkit (Excel based) and E-waste calculator (applicable for cellphone use) that allows the reliable calculation of POPs, UPOPS, and associated hazardous releases (mercury, lead, cadmium) from E-waste processing  • The project succeeded to create awareness and capacity on of about 1500 beneficiaries on the sustainable management of E-waste  • As a response to the project activities, the project had been able to reach out to and engage a number of stakeholders. This resulted in collecting and addressing about 4020.82 ton of E-waste to formal recyclers which is corresponding to 100 % of the original target.  • While it is still a long way before we see a perfect system of regulation for e-waste management in Egypt. However, many steps are taken by the project and the project keen to cover the E-waste management from cradle to grave. For assuring sustainability, the project will assure that the adequate policies will be reflected in the national regulations.  • As a result of the project cooperation with custom authority either in building their capacity and reviewing and updating their regulatory framework for import/export E-waste, the project succeeded in banning the illegal export of E-waste since March 2018 till now  • For assuring sustainability, the project engaged all relevant stakeholders through a ministerial decree and draft a number of protocol between MoE and those stakeholders to assure ownership and commitments. | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **UNDP Country Office Programme Officer** | Moderately Satisfactory | Moderately Satisfactory |
| Overall Assessment | The project has started to yield the first on the ground outputs during this reporting period. The project has also undergone an MTR which was carried out by a team of two independent evaluators of which one has covered the Medical Waste component while the other covered the E-Waste component. The independent evaluation team has confirmed that the project conceptualization should allow reaching the project objective and the project activities are implemented according to the project workplan. The evaluators also highlighted that the project is likely to achieve the end results. Nevertheless, the evaluators emphasized the importance of designing an exist strategy to ensure sustainability of the project results. The project was awarded an overall MS rating for achieving its objectives taking into consideration the delayed start up of the project leading to relatively low overall project delivery and recommended two years no cost extension to accommodate the delay in the start up of the project activities which is accepted by the CO.  In the area of E-Waste management, the first project outputs appeared this year as the first batch of informal companies working in the area of collection and dismantling of E-Waste have completed all legal documentation to formalize its operation with the support of the project. The project plans to reach a target of 10 informal companies supported by the project to formalize its business by the end of this activity. The project has also been supportive to a private sector initiative that will encourage collection of E-Waste from individuals and households against discount vouchers for new procured equipment. The initiative is in the final stages of design and the mobile app should be officially launched soon. Accordingly, the project is planning to initiate its outreach/communication campaign for private sector companies, government authorities and individuals through various means to ensure that the E-Waste will end only in the hands of formal recyclers. On the institutional setup, the project has also supported establishing national committee for management of E-Waste, chaired by the Ministry of Environment, including all the key relevant parties aiming to direct the national policies in this respect. Nevertheless, the project has also issued during this year a RFP for international specialized companies to export and safely dispose more than 600 tonnes of CRT units accumulated over the last 10 years in Egypt ports. Unfortunately, the tender has to be cancelled since the offered prices exceeded the available budget in the project for this activity and the project is searching for other alternatives for discard of these units including the establishment of a local factory.  In the area of medical waste management, the project efforts have been successful in finalizing the translation and adaptation of the WHO/UNDP-GEF training manuals on medical waste management. The first large training was organized during this reporting period including representatives from various entities concerned with medical waste treatment in Egypt. The training was repeated in the five health care facilities targeted by the project. A policy paper has been prepared based on a study conducted by the project to be submitted from the Ministry of Environment to the Ministry of Health on the replication and upscaling of this training on the national level coupled with the establishment of a national certification body. The policy paper will be expanded to cover the various modalities for private sector participation in the medical waste management system in Egypt.  The international tender for the procurement of the non-incineration central treatment facility has been successful which was awarded to a French renowned company. The project was able to overcome several administrative and bureaucratic obstacles pertaining to the materialization of the contract including finalization of the location selection, complete the Environmental Impact Assessment document preparation and approval process and finalize arrangements with the Ministry of Health and the supplier on completing the infrastructure for the selected location. The contract is about to be singed and the project team has to ensure that the implementation of the facility will be within the given six months in order to allow for time to establish and test the sustainable mechanism for collection and disposal of the medical waste at the level of Gharbia Governorate. The implementation of this contract is expected to boost the overall project delivery to over 50% of the total budget.    The project is given Marginally Satisfactory rating for DO although the MTR noted that the project is progressing towards meeting its objective given delay in achieving the results because of the delayed start up. The project is given an MS rating for IP although the project delivery has almost tripled this reporting period over the achieved delivery in previous year but still the project has not reached its peak annual delivery figures which is expected to occur during this year after the initiation of work on the central treatment facility. | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **GEF Operational Focal point** | *(not set or not applicable)* | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | *(not set or not applicable)* | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Project Implementing Partner** | *(not set or not applicable)* | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | *(not set or not applicable)* | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Other Partners** | *(not set or not applicable)* | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | *(not set or not applicable)* | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **UNDP-GEF Technical Adviser** | Moderately Satisfactory | Moderately Satisfactory |
| Overall Assessment | In terms of spending the project is delayed. With the current US$ 1.2 mln contract in place for purchase of autoclaves, the project will reach overall 50% disbursements in 2019. While there are many important achievements as summarized below, in this respect the rating for the project has not changed from the last year and is at MS level.    Medical waste management.    The project developed a baseline assessment for the healthcare waste management. As a result of the study, the current poor waste segregation practices required action in terms of capacity building on waste handling, treatment and disposal. In that respect, a set of WHO/UNDP training modules (developed in a previous global UNOPS/UNDP/WHO programme) on medical waste management was translated into Arabic. Based on the modules, the project organized a 10-days long Training of Trainers (ToT) program for hospital personnel from ten regions of the country.    Five hospitals were chosen for conversion into model healthcare facilities, and training sessions for 598 trainees working at these facilities were supported to ensure best environmental practices in the management of health care waste. Such trainings will be repeated in other regions, too. It is important to note that 65% of hospital's staff are women, and their capacity and knowledge on proper waste handling have been greatly improved which is one of the project's key objectives.    In coordination with the Ministry of Health and Population and Cairo University Hospitals, the project plans for establishment of a certification authority in order to ensure sustainability in the capacity building efforts, and the management of healthcare waste, in this respect, will be carried out by trained and certified staff.    In Gharbia region, the project will plan to commission non-combustion equipment for two central infectious waste treatment facilities which will be treating an average amount of 4 tons of healthcare waste on a daily basis. In respect to the actual installation of the equipment, an EIA study was supported.    As related to the private sector's engagement, the project has worked on a regulation on private sector operating in the full cycle of healthcare waste management.    The medical waste management part of the project focus is on track.    E-waste management.    For the last thirty years, an informal sector has been actively involved in handling e-waste which is featured by low quality health protection and poor practices. Such sub-standard approaches resulted in excessive releases of unintentional POPs (U-POPs) and toxic metals such as lead and mercury into the environment. Therefore, one of the main objectives of the programme was the "formalization" of this sector.    A special assistance was provided with respect to the organization of work with respect to EIAs and environmental permitting for e-waste management. The project also supported informal recyclers with development of suitable business models and BAT/BEP techniques. Overall, this kind of help allowed the companies (ten firms) to improve on occupational health norms, and assure better social security for the personnel (women and men).    The project has progressed with the analytics on the local context of e-waste generation, and established a baseline for e-waste volumes. A related action plan (road map) on e-waste management was then formulated. As a result, 4,020 tons of e-waste was re-directed (from 34 generators of e-waste products, including cellular companies) to formal e-waste processors, and this is a significant achievement. At the same time, the project has extended support for sustainable modalities for door-to-door collection of e-waste. Online tools were used to reach out to the household level - the most dispersed and hard to reach sector.    One tender for the disposal of accumulated 600 tons of CRT monitors was cancelled due to high costs proposed by vendors - around US$ 1.4 mln in total. The project will plan to repeat the tender in the next reporting period in order to find a solution to this e-waste stream. This partially explains low disbursements in the current year.    An important achievement of the current reporting period is the establishment of a national committee on e-waste management. It is comprised of several line ministries working on better regulation of the e-waste sector, setting national policies in this respect and on accreditation of e-waste processors.    The project also worked with the production of guidebooks, posters and promotional materials on reduce, re-use and recycle principles for the e-waste management. These materials were used during awareness raising workshops organized in the capital city. Among project's stakeholders, there were NGOs, too.    The project also organized a study tour to Austria and Switzerland (modern recycling facilities) to increase national capacities for the Ministry of Environment. | |

# Gender

**Progress in Advancing Gender Equality and Women's Empowerment**

This information is used in the UNDP-GEF Annual Performance Report, UNDP-GEF Annual Gender Report, reporting to the UNDP Gender Steering and Implementation Committee and for other internal and external communications and learning.  The Project Manager and/or Project Gender Officer should complete this section with support from the UNDP Country Office.

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| **Gender Analysis and Action Plan:** *not available* |
| **Please review the project's Gender Analysis and Action Plan. If the document is not attached or an updated Gender Analysis and/or Gender Action Plan is available please upload the document below or send to the Regional Programme Associate to upload in PIMS+. Please note that all projects approved since 1 July 2014 are required to carry out a gender analysis and all projects approved since 1 July 2018 are required to have a gender analysis and action plan.** |
| *(not set or not applicable)* |

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| **Please indicate in which results areas the project is contributing to gender equality (you may select more than one results area, or select not applicable):** |
| Contributing to closing gender gaps in access to and control over resources: No |
| Improving the participation and decision-making of women in natural resource governance: Yes |
| Targeting socio-economic benefits and services for women: Yes |
| Not applicable: No |

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| **Atlas Gender Marker Rating** |
| **GEN1:** some contribution to gender equality |

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| **Please describe any experiences or linkages (direct or indirect) between project activities and gender-based violence (GBV). This information is for UNDP use only and will not be shared with GEF Secretariat.** |
| GBV has not been captured as a current risk in this programme. |

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| **Please specify results achieved this reporting period that focus on increasing gender equality and the empowerment of women.**    **Please explain how the results reported addressed the different needs of men or women, changed norms, values, and power structures, and/or contributed to transforming or challenging gender inequalities and discrimination.** |
| This GEF project emphasizes building awareness of the links between waste management and public health (including occupational exposures), with a special focus on the health implications of exposure to dioxins and Mercury for vulnerable populations, such as female workers, pregnant women, and children. Accordingly training and awareness raising of hospital management including care givers doctors and nurses are addressed separately.  Women represent a large portion of workers employed in healthcare services Therefore, the “nature” of the target beneficiaries instinctively lends itself to target women as key stakeholders. Additionally, the project encourages, in the model HCFs, the emergence of ‘champions’ of better HCWM practices. Experience from the Global Medical Waste projects demonstrates that this values-based effort can reinforce women empowerment within the HCF staff and administration. Nurses, in particular, have usually a key role in ensuring that the proper management of healthcare waste is adopted in the day-to-day practices, and are therefore among the key resources for the day-to-day project implementation.    Therefore, gender issues have been considered in the ProDoc in all training activities and are followed up by the PMU. One of the main objectives of the project is to create a national training system on sound management of healthcare waste. Nursing staff is mostly responsible for handling waste in healthcare organization. These are mostly women. Component 1 and 2 of the project are aimed at improving professional work standards for all employees of hospitals, in this case, the majority of them are women. The project is also aimed at building capacity and awareness on managing persistent organic pollutants and mercury. Due to the fact that women have the potential to deliver chemicals accumulated in their body to children, these issues were given special attention during training sessions and seminars. Thus, the gender ratio of the HCWM activities attendees is about 65% females and 35% males, from Departments of the Ministry of Health and Population from 11 governorates, faculty members of university hospitals, nursing schools, inspectors and environmental researchers from the Ministry of Environment (Egyptian Environmental Affairs Agency and Waste Management Organization Agency). While in the E-waste activities, the gender ratio of attendees was 30% females and 70% males who were from the different Egyptian ministries namely the Ministry of Communication and Information Technology, the Ministry of Environment, Egyptian custom authority, ministry of finance, ministry of industry and foreign trade, Academia, BCRC, and formal E-waste recyclers. |

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| **Please describe how work to advance gender equality and women's empowerment enhanced the project's environmental and/or resilience outcomes.** |
| The level of exposure to POPs and the resulting impacts on human health are determined by social/occupational as well as biological factors, meaning that gender considerations are critical to the effectiveness of policy making and to the sustainability of programming efforts in promotion of sound management practices. The Project therefore mainstreamed gender in the updating of existing baselines to ensure to the extent feasible that the data collected is gender dis-aggregated. This provided an input in the design of specific interventions as well as in monitoring the impact of these interventions on both women and men. The capacity development activities were tailored and organized taking into account the different circumstances/occupation/level of knowledge/ and spheres of influence of women and men. Similarly, the language, imagery and dissemination of awareness raising messages were formulated to address and reach both women and men.    As part of this project capacity building, training, curricula, etc. are developed and tailored to different training recipients within the healthcare sector, such as i) Trainers; ii) Medical staff, such as doctors, nurses and paramedical staff, iii) Hospital maintenance and sanitary staff iv) Administrators, etc. Training was also tailored and provided to support services linked to healthcare facilities, such as laundries, waste handling and transportation services, treatment facilities as well as workers in waste disposal facilities.    On the side of E-waste, women and children are often among the most exposed to the chemicals contained in E-waste, either during their collection – which very often is undertaken by them – or during their unsafe processing. Open burning of E-waste often occurs in the vicinity of villages or even in the suburbs of main cities like Cairo, therefore entire families are exposed to the noxious emissions generated by the burning of waste. By reducing improper collection and processing of E-waste, the project will therefore bring benefits to the local communities and women. |

# Social and Environmental Standards

**Social and Environmental Standards (Safeguards)**

The Project Manager and/or the project’s Safeguards Officer should complete this section of the PIR with support from the UNDP Country Office. The UNDP-GEF RTA should review to ensure it is complete and accurate.

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| **1) Have any new social and/or environmental risks been identified during project implementation?** |
| No |

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| **If any new social and/or environmental risks have been identified during project implementation please describe the new risk(s) and the response to it.** |
| No new social and/or environmental risks have been identified in the current implementation phase of the project. |

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| **2) Have any existing social and/or environmental risks been escalated during the reporting period? For example, when a low risk increased to moderate, or a moderate risk increased to high.** |
| No |

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| **If any existing social and/or environmental risks have been escalated during implementation please describe the change(s) and the response to it.** |
| No social and/or environmental risks have been escalated in the current implementation phase of the project. |

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| **SESP:** [4567 Egypt ESSP document signed for submission.pdf](https://undpgefpims.org/attachments/4567/213378/1663918/1664199/4567%20Egypt%20ESSP%20document%20signed%20for%20submission.pdf)  **Environmental and Social Management Plan/Framework:** *not available* |
| **For reference, please find below the project's safeguards screening (Social and Environmental Screening Procedure (SESP) or the old ESSP tool); management plans (if any); and its SESP categorization above. Please note that the SESP categorization might have been corrected during a centralized review.** |
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| **3) Have any required social and environmental assessments and/or management plans been prepared in the reporting period? For example, an updated Stakeholder Engagement Plan, Environmental and Social Impact Assessment (ESIA) or Indigenous Peoples Plan.** |
| Yes |

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| **If yes, please upload the document(s) above. If no, please explain when the required documents will be prepared.** |
| The installation of autoclave systems required an EIA process, as per Egyptian laws, that has been completed and approved by the Environmental Agency    The project is supporting preparation of 10 EIAs for informal sector working on e-waste as part of the needed documentation to convert into formal e-waste recyclers. |

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| **4) Has the project received complaints related to social and/or environmental impacts (actual or potential )?** |
| No |

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| **If yes, please describe the complaint(s) or grievance(s) in detail including the status, significance, who was involved and what action was taken.** |
| No complaints have been received or recorded |

# Communicating Impact

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| **Tell us the story of the project focusing on how the project has helped to improve people’s lives.**  **(This text will be used for UNDP corporate communications, the UNDP-GEF website, and/or other internal and external knowledge and learning efforts.)** |
| Health-care waste management (HCWM) component:    The objective of the project pertaining to HCWM is to protect human and environmental health by reducing releases of UPOPs and Mercury from the unsound management of health-care waste (HCW), in particular the sub-standard incineration and open burning of healthcare waste. The project working on building capacity at national, governorate and health-care facility (HCF) level for the introduction of Best Available Technologies (BAT) and Best Environmental Practices (BEP) to improve the management and treatment of HCW wastes. These efforts are enhanced by strengthening the legislative and policy framework governing HCWM and Mercury at national and governorate level as well as improving HCWM awareness and education.    The project has developed baseline assessment for healthcare waste management in Egypt which revealed the need to strengthen the implementation of national and international standards for hazardous HCW management in terms of waste segregation, waste transportation, safe disposal areas and use of efficient incinerators and sterilization units for its treatment. In cooperation with the government, five (5) hospitals in three (3) governorates were selected to be converted into model healthcare facilities in terms of achieving sounds and robust waste management systems. This experience can be replicated on the rest of the hospitals in all Egyptian governorates.    Based on the findings of the baseline assessment, one of the areas targeted were the training programs for hospital staff as it was evident that poor segregation practices maximize generation rates of healthcare waste and dedicated capacity building was a key to the minimization and effective management of such waste. Moreover, appropriate handling, treatment, and disposal of waste with accurate categorization allows to assign and reduce relevant costs, and contributes to protecting the public health. In that respect, the project translated WHO/UNDP training modules of HCWM into Arabic and customized them to match the country's needs; and conducted 10-days long Training of Trainers (ToT) program for HCW staff from 10 governorates. The project is aiming to build a longer-term capacity of the staff working at health-care facilities nation-wide by providing further support to these trainers.    Furthermore, the project is coordinating with the Ministry of Health and Population and Cairo University Hospitals to establish a certification body which will endorse the trainings modules and the trainees’ certificates, so that management of medical waste in any healthcare facility would be limited only to certified staff. At the same time, the project is developing a national level policy and action plan with its related guidelines for the healthcare waste management to ensure proper waste segregation and to ensure that healthcare waste is managed properly from its point of origin to its final disposal, and to eliminate as much as possible dioxins/furans emissions during open burning practices, mercury, and other toxic by-products releases during improper waste disposal through the application of the best environmental practices. Ultimately, the project is designed to protect people and the environment from hazardous exposure.    The project is working on a turnkey project in Gharbia Governorate for the supply and installation of equipment for two central infectious waste treatment facilities (CTF). The CTF will be capable of treating an average amount of HCW of 4,000 kg/day effectively which will play an effective role in reducing POPs emission to the environment.    The project proceeds with conducting its activities which will enhance the strong points and strengthen the weak points found in current HCW management processes in Egypt.    The most significant change that has resulted from the project:    • Ten-days TOT program for (59) trainers from (10) governorates on “Sustainable Management for Healthcare Waste” in Sharm El Sheikh.  • Training sessions for 598 trainees working at the five model healthcare facilities to be qualified to implement best environmental practices in the management of health care waste. The project is working on replicating the training in all HCFs throughout Gharbia and Sharkia governorates.  • Development of an EIA study for the CTF and recommendations for improvement of landfill sites.  • Development of a basic concept paper for the Ministry of Health and Population for the engagement of private sector in the healthcare waste management and the endorsement of the sustainability plan for the training on sustainable management of healthcare waste.  • Formulation of technical terms of references for regulating the engagement of private sector in the healthcare waste management system to work in collection, transportation, storage, treatment and safe disposal of healthcare waste.    E-Waste management component:    The project’s strategy pertaining to E-waste focuses on end-of-life (EOL) ICT equipment as such equipment is characterized by high demand and relatively short life-span besides its growing volumes. This situation is becoming a matter of concern, in particular, with respect to its aspects dealing with the sustainable use and disposal methods. It is considered a waste problem that causes environmental and health adverse impacts, if not dealt with appropriately.    When the project had started, its first focus was on analyzing the local context, establishing a baseline for the type and amount of e-waste being generated as well as making estimates for the future. The results of the assessment were then used by the project to develop a Road Map for Waste Electrical and Electronic Equipment (WEEE) management in Egypt.  The baseline analysis conducted by the project revealed that two of the most significant “hot sources” in terms of POPs and U-POPs generation are the EOL ICT equipment and the CRT monitors which may also generate a significant amount of heavy metal (mainly, lead).    Given that the largest fraction of these waste streams is improperly managed by the informal sector as they started this business since 1990s, and have a very extensive equipment/waste collection, and communications channels and a huge number of workers. This improper handling of e-waste results in the release of POPs, toxic metals (lead, mercury), and the generation of U-POPs and other toxic chemicals for this reason when extraction of valuable metals is accompanied by open burning of such waste. One the central objectives of the project was, therefore, to prevent the e-waste to be improperly managed by the informal sector, and help this sector to be “formal” and use more environmental sound systems for waste management.    One of the project’s achievements this year is the conversion a number of informal recyclers into formal, and contracted a consultancy firm to support them through developing their Environmental Impact Assessment (EIA) studies to acquire environmental permits for their waste management activities. It also provided adequate technical and administrative support to issue their operational industrial licenses as well as developing feasible and efficient business models and helping such recyclers in adopting BAT/BEP techniques and technologies for the environmental sound management of hazardous material.    Another benefit other than the reduction the emissions of POPs resulting from improper handling of waste is related to social, environmental and economic aspects as the formalization of the informal sector ensures quality of work, skillful labor, and their social security/insurance as well as proper functioning of the taxation systems which will allow to include this sector into the governmental control and support. Overall, this will help with achieving sustainable development of the country in a longer term.    Furthermore, the guidebook on “Sustainable management and safe disposal of E-waste” developed by project was disseminated to a number of governmental bodies to ensure that their e-waste public auctions only allow the participation of formal recyclers which resulted in re-directing 4,020 tons of e-waste to the formal recyclers.    On the other hand, the project supports existing and new enterprises in the adoption of sustainable modalities for the door-to-door collection of e-waste using online solutions. These solutions will promote sustainable management of e-waste, help e-waste recycling companies to reach household-level e-waste which will be to the benefit of the community and the nation as well.    The project succeeded in founding a National Committee for E-Waste Sustainable Management that includes members from several ministries and governmental entities working towards drafting works, accredition and enforcement of the national policy framework of e-waste sustainable management.    The most significant change that has resulted from the project:    • The e-waste component of the project aims to reduce 5 g of POPs unintentional emissions, and 67.5% of the target has been achieved.  • The project aims to reduce 378 kg of flame retardants in the ICT waste, and 100% of the target has been achieved.  • The project succeeds in encouraging 34 companies from ICT sector to address their e-waste to formal recyclers instead of informal recyclers, and 4,020 tons of e-waste redirected to the formal recyclers.  • Building capacity of key parties and NGOs on the proper handling and safe disposal of e-waste to be able to raise the awareness of the Egyptian society.  • Organization of five (5) awareness workshops in Cairo, the Bibliotheca Alexandrina and the University of Mansoura on &quot;Sustainable Management of E-waste&quot;. The focus was on environmental and health impacts resulting from unsafe handling of electronic waste. The seminars targeted government employees, the private sector and university undergraduates.  • Production of four info-graphs, posters and promotional materials to raise awareness on the proper handling of e-waste that disseminate awareness messages on RRR (reduce, reuse, recycling) principles and negative impact of electronic waste.  • Support provided to the formalization of ten (10) e-waste recyclers in Egypt.  • Number of private and public auctions started to focus on formal recyclers.  • Agreements reached with Governmental Service Authority and Mobile Phones Operator Companies on selling the e-waste and used batteries to official recyclers.  • Support provided to formal recycling plants to find solutions for the safe disposal of plastic from e-waste in cooperation with the Plastic Technology Center, affiliated to the Ministry of Industry, as well as the industrial process improvement in cooperation with the Ministry of Scientific Research.  • Coordination of work with stakeholders and partners on the enforcement of a take-back system and extended producer responsibility in Egypt.  • Raising awareness and organization of training workshops on the Best Available Technologies (BAT) and Best Environmental Practices (BEP).  • Organization of a study tour in Switzerland and Austria for employees of the Ministry of Environment to build technical capacities in the field of sustainable management of e-Waste, and visits a number of recycling facilities. |

**Knowledge Management, Project Links and Social Media**

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| **Please describe knowledge activities / products as outlined in knowledge management approved at CEO Endorsement /Approval.**    **Please also include: project's website, project page on the UNDP website, blogs, photos stories (e.g. Exposure), Facebook, Twitter, Flickr, YouTube, as well as hyperlinks to any media coverage of the project, for example, stories written by an outside source. Please upload any supporting files, including photos, videos, stories, and other documents using the 'file lirbary' button in the top right of the PIR.** |
| Knowledge activities / products:    Animated info-graphics in Arabic language with English sub-titles: for E-waste awareness-raising on the proper handling of E-waste, that targets all the segments of the Egyptian society through a bright and simple message of e-waste problem to inspire people to take a green action.    The key messages are:    • Reduce: Motivating people to change their consumption behavior as most of the time people throw away old electronics not because they are broken, but because they want to keep up with the trend and buy the latest products.  • Re-use: Encouraging people to donate their old products to communities in need.  • Recycle: Promoting the proper disposal of old electronics.  • Know: Negative impacts of e-waste.    Promotional items and publications: Brochure, Posters, Stickers to be placed on electronic equipment, Themed T-shirts, and other means of indoor and outdoor visual communications.    Videos (including uploaded to youtube):  - Reduce consumption of electronic equipment  - Reuse of electronic waste  - Negative environmental and health impact of unsafe management of E-waste  - Recycling of electronic waste    Studies and publications:  http://mewm-egypt.net/en/e-waste-research-publication/  http://mewm-egypt.net/en/research-publication/    Website:  http://mewm-egypt.net/    Facebook Page:  https://www.facebook.com/mewm.egypt/    Media coverage:  http://www.wataninet.com/2017/12/    http://gate.ahram.org.eg/News/1647063.aspx    http://www.soutalomma.com/Article/    https://alwafd.news/    http://www.vetogate.com/2980842    http://www.alalamelyoum.com/news/79488    http://www.almasryalyoum.com/news/details/1116575    https://www.youm7.com/story/2018/1/23/    http://gate.ahram.org.eg/News/1805823.aspx    https://cms.shorouknews.com/news/view.aspx    http://www.wmra.gov.eg/ar-eg/MediaCenter/News/Pages/    http://www.wmra.gov.eg/ar-eg/MediaCenter/News/Pages/    http://www.wmra.gov.eg/ar-eg/MediaCenter/News/Pages/    http://www.vetogate.com/3052030    http://www.albawabhnews.com/2924746    http://alra2yal3am.com/    https://www.gomhuriaonline.com/Story/    http://web.cedare.org/sgp/events/2017/12/08/    http://web.cedare.org/sgp/events    https://akhbarelyom.com/news/    http://www.elmostaqbal.com/news/31028/    http://elbashayeronline.com/news-1034134.html    https://www.gomhuriaonline.com/    http://www.eg.undp.org/content/egypt/en/home/presscenter/pressreleases/2018/ |

# Partnerships

**Partnerships & Stakeholder Engagment**

Please select yes or no whether the project is working with any of the following partners. Please also provide an update on stakeholder engagement. This information is used by the GEF and UNDP for reporting and is therefore very important!  All sections must be completed by the Project Manager and reviewed by the CO and RTA.

|  |
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| **Does the project work with any Civil Society Organisations and/or NGOs?** |
| Yes |

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| --- |
| **Does the project work with any Indigenous Peoples?** |
| No |

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| **Does the project work with the Private Sector?** |
| Yes |

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| **Does the project work with the GEF Small Grants Programme?** |
| Yes |

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| **Does the project work with UN Volunteers?** |
| No |

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| --- |
| **Did the project support South-South Cooperation and/or Triangular Cooperation efforts in the reporting year?** |
| No |

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| **CEO Endorsement Request:** [4567 Egypt CEO Endorsement final draft 02OCT2014 for submission.docx](https://undpgefpims.org/attachments/4567/213378/1663915/1664196/4567%20Egypt%20CEO%20Endorsement%20final%20draft%2002OCT2014%20for%20submission.docx) |
| **Provide an update on progress, challenges and outcomes related to stakeholder engagement based on the description of the Stakeholder Engagement Plan as documented at CEO endorsement/approval (see document below). If any surveys have been conducted please upload all survey documents to the PIR file library.** |
| The project has facilited the signature of cooperation MOUs on joint activities between the Ministry of Environment and key government entities such as Ministry of Communication and Information Technology, Ministry of Health, Cairo University Hospital, Ministry of Higher Education    The project is working with informal sector to convert into formal private sector to work on collection and dismantle of E-Waste.    The project is supporting a private sector initiative to establish a platform that links official e-waste recyclers with the suppliers of electric and electronic appliances and owners of E-Waste to facilitate collection of e-waste. |

# Annex - Ratings Definitions

**Development Objective Progress Ratings Definitions**

(HS) Highly Satisfactory: Project is on track to exceed its end-of-project targets, and is likely to achieve transformational change by project closure. The project can be presented as 'outstanding practice'.

(S) Satisfactory: Project is on track to fully achieve its end-of-project targets by project closure. The project can be presented as 'good practice'.

(MS) Moderately Satisfactory: Project is on track to achieve its end-of-project targets by project closure with minor shortcomings only.

(MU) Moderately Unsatisfactory: Project is off track and is expected to partially achieve its end-of-project targets by project closure with significant shortcomings. Project results might be fully achieved by project closure if adaptive management is undertaken immediately.

(U) Unsatisfactory: Project is off track and is not expected to achieve its end-of-project targets by project closure. Project results might be partially achieved by project closure if major adaptive management is undertaken immediately.

(HU) Highly Unsatisfactory: Project is off track and is not expected to achieve its end-of-project targets without major restructuring.

**Implementation Progress Ratings Definitions**

(HS) Highly Satisfactory: Implementation is exceeding expectations. Cumulative financial delivery, timing of key implementation milestones, and risk management are fully on track. The project is managed extremely efficiently and effectively. The implementation of the project can be presented as 'outstanding practice'.

(S) Satisfactory: Implementation is proceeding as planned. Cumulative financial delivery, timing of key implementation milestones, and risk management are on track. The project is managed efficiently and effectively. The implementation of the project can be presented as 'good practice'.

(MS) Moderately Satisfactory: Implementation is proceeding as planned with minor deviations. Cumulative financial delivery and management of risks are mostly on track, with minor delays. The project is managed well.

(MU) Moderately Unsatisfactory: Implementation is not proceeding as planned and faces significant implementation issues. Implementation progress could be improved if adaptive management is undertaken immediately. Cumulative financial delivery, timing of key implementation milestones, and/or management of critical risks are significantly off track. The project is not fully or well supported.

(U) Unsatisfactory: Implementation is not proceeding as planned and faces major implementation issues and restructuring may be necessary. Cumulative financial delivery, timing of key implementation milestones, and/or management of critical risks are off track with major issues and/or concerns. The project is not fully or well supported.

(HU) Highly Unsatisfactory: Implementation is seriously under performing and major restructuring is required. Cumulative financial delivery, timing of key implementation milestones (e.g. start of activities), and management of critical risks are severely off track with severe issues and/or concerns. The project is not effectively or efficiently supported.