

Final Report for the Midterm Review of Output ID 00106383:

**“Reduction and elimination of POPs and other chemical releases through implementation of environmentally sound management of E-Waste, healthcare waste and priority U-POPs release sources associated with general waste management activities”**

**GEF ID: 9189; PIMS ID: 5667**

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Ministry of Environment, Kingdom of Jordan

Anna Ortiz S.

International Consultant

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San José, Costa Rica, November 2020.

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**ACRONYMS AND ABBREVIATIONS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| BAT |  |  |  | BEST AVAILABLE TECHNOLOGY |
| BEP |  |  |  | BEST ENVIRONMENTAL PRACTICE |
| BGR |  |  |  | FEDERAL INSTITUTE FOR GEOSCIENCES AND NATURAL RESOURCE |
| CO |  |  |  | COUNTRY OFFICE |
| EBRD |  |  |  | EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT |
| EEE |  |  |  | ELECTRIC OR ELECTRONIC EQUIPMENT |
| EPR |  |  |  | EXTENDED PRODUCER RESPONSIBILITY |
| ESM |  |  |  | ENVIRONMENTAL SOUND MANAGEMENT |
| GAM |  |  |  | GREATER AMMAN MUNICIPALITY |
| GEF |  |  |  | GLOBAL ENVIRONMENT FACILITY |
| GHG |  |  |  | GREEN HOUSE GAS |
| GOJ |  |  |  | GOVERNMENT OF JORDAN |
| HCF |  |  |  | HEALTH CARE FACILITIES |
| HCW |  |  |  | HEALTH CARE WASTE |
| HCWM |  |  |  | HEALTH CARE WASTE MANAGEMENT |
| HW |  |  |  | HAZARDOUS WASTE |
| ICT |  |  |  | INFORMATION AND COMMUNICATION TECHNOLOGIES |
| JOD |  |  |  | JORDANIAN DINAR |
| JOHUD |  |  |  | THE JORDANIAN HASHEMITE FUND FOR HUMAN DEVELOPMENT |
| JUST |  |  |  | JORDAN UNIVERSITY OF SCIENCE & TECHNOLOGY |
| KAP |  |  |  | KNOWLEDGE, ATTITUDES AND PRACTICE |
| KM |  |  |  | KNOWLEDGE MANAGEMENT |
| LCD |  |  |  | LIQUID CRYSTAL DISPLAY |
| M&E |  |  |  | MONITORING AND EVALUATION |
| MOENV |  |  |  | MINISTRY OF ENVIRONMENT |
| MOH |  |  |  | MINISTRY OF HEALTH |
| MOLA |  |  |  | MINISTRY OF LOCAL ADMINISTRATION |
| MSW |  |  |  | MUNICIPAL SOLID WASTE |
| MTR |  |  |  | MID TERM REVIEW |
| NGO |  |  |  | NON-GOVERNMENTAL ORGANIZATION |
| NIP |  |  |  | NATIONAL IMPLEMENTATION PLAN OF THE STOCKHOLM CONVENTION |
| PBDE |  |  |  | POLY BROMINATED DIPHENYL ETHER |
| PC |  |  |  | PERSONAL COMPUTER |
| PCDD/F |  |  |  | POLY CHLORINATED DIBENZO DIOXIN/FURAN |
| PIF |  |  |  | PROJECT IDENTIFICATION FORM |
| PIR |  |  |  | PROJECT IMPLEMENTATION REPORT |
| PMU |  |  |  | PROGRAMME MANAGEMENT UNIT |
| POPS |  |  |  | PERSISTENT ORGANIC CHEMICALS |
| PPE |  |  |  | PERSONAL PROTECTIVE EQUIPMENT |
| PPP |  |  |  | PUBLIC PRIVATE PARTNERSHIP |
| PRODOC |  |  |  | PROJECT DOCUMENT |
| PSC |  |  |  | PROJECT STEERING COMMITTEE |
| RDF |  |  |  | REFUSE DERIVED FUEL |
| RSCN |  |  |  | ROYAL SOCIETY FOR CONSERVATION OF NATURE |
| SMART |  |  |  | SPECIFIC, MEASURABLE, ATTAINABLE, RELEVANT AND TRACKABLE |
| SW |  |  |  | SOLID WASTE |
| SWM |  |  |  | SOLID WASTE MANAGEMENT |
| TC |  |  |  | TECHNICAL COMMITTEE |
| TE |  |  |  | TERMINAL EVALUATION |
| TEQ |  |  |  | TOXICITY EQUIVALENT (FOR DIOXIN AND FURANS) |
| TOC |  |  |  | THEORY OF CHANGE |
| TRAC |  |  |  | TARGET FOR RESOURCE ASSIGNMENT FROM THE CORE |
| TV |  |  |  | TELEVISION |
| UNDP |  |  |  | UNITED NATIONS DEVELOPMENT PROGRAM |
| UNEP |  |  |  | UNITED NATIONS ENVIRONMENTAL PROGRAM |
| UNIDO |  |  |  | UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION |
| U-POPS |  |  |  | UNINTENTIONALLY PRODUCED POPS |
| USD |  |  |  | UNITED STATES DOLLAR |
| WEEE |  |  |  | WASTED ELECTRIC OR ELECTRONIC EQUIPMENT |
| WHO |  |  |  | WORLD HEALTH ORGANIZATION |

# EXECUTIVE SUMMARY

## PROJECT INFORMATION TABLE

| **Project Name** | **“Reduction and elimination of POPs and other chemical releases through the implementation of environmentally sound management of E-Waste, healthcare waste, and priority U-POPs releases sources associated with general waste management activities.”** | | | | |
| --- | --- | --- | --- | --- | --- |
| **GEF Project ID** | **9189** | **Financial Summary** | **Project Document USD** | **Midterm Review Status USD** | **Midterm Review Status (%)** |
| PIMS ID | 5677 | UNDP TRAC resources | 150,000 | Not available |  |
| UNDP Project ID (Award/Output) | 00105137/00106383 | GEF | 5,090,000 | 1,957,433 | 38.46% |
| Country (Business Unit) | Kingdom of Jordan (JOR10) | Total in cash | 44,961,522 | 16,874,213 | 37.53% |
| Focal Area Objectives (GEF) | CW-2 Program 3 Reduction and elimination of POPs | Total in kind | 19,780,486 |
| Executing Agency | Ministry of Environment (MoEnv) | Total co-financing | 64,742,008 | 19,686,366.3 | 40.3% |
| Total project budget | 69,982,008 | 21,643,799.33 | 30.9% |
| Other partners involved | Ministry of Health (MoH), Ministry of Planning and International Cooperation, Ministry of Municipal Affairs | ProDoc signature (date when project implementation started) | 30 May 2018 |  |  |
| PIF Approval | 19 April 2016 | Scheduled MTR due date | 30 November 2020 |  | |
| CEO Endorsement | 19 October 2017 | Scheduled closing date | 30 May 2023 |

## BRIEF PROJECT DESCRIPTION

Among the Middle East developing countries, Jordan is one of the most advanced with respect to sound environmental management in areas such as solid waste, and wastewater treatment. Waste management is a national important priority with respect to E-waste, health care waste (HCW) and hazardous/chemicals waste management. The need for environmentally sound management is presently a priority resulting from the increase in refugee population migrating because of the political/economic problems in the neighboring countries.

The objective of this project is to protect human health, and the environment, through the reduction, and elimination of POPs, and other chemicals through the implementation of environmentally sound management (ESM) for e-waste, healthcare waste and priority U-POPs release sources associated with general waste management activities.

To achieve this goal, the project will implement a highly sustainable, and replicable approach for the integrated, and sound management of electronic (e-waste), hazardous, healthcare, and municipal solid waste categories that will contribute to the reduction/avoidance of U-POPs, PBDEs and CO2 releases.

The project consists of three (3) main components:

* Project Component 1: Development of environmentally sound management (ESM) system for E-waste, which has the objective to improve and enforce the E-waste regulation in the country, and to develop the capacity for the collection and disposal of POPs contaminated E-waste products, and end-of-life articles.
* Project Component 2: Achievement of environmentally sound healthcare waste management (HCW), which has the objective to build on the existing potential of the country to further improve and extend the current HCW practices, including training, certification, and procurement of HCW waste treatment technology.
* Project Component 3: Development of waste diversion/resource recovery capacity for a reduction in U-POPs emissions, accompanied by GHG related improvements, with the objective to demonstrate minimization in the amount of municipal waste (containing potentially hazardous fractions such as plastic, etc.) improperly dumped or disposed of through recycling techniques and application of reverse-derived fuel (RDF) principles in modern qualified cement kiln industry, including improved management of hazardous waste through the establishment of a public/private partnership.

As an added benefit the project will also generate social protection through the implementation of a gender dedicated mainstreaming plan in coordination with local communities to promote circular recycling economy activities.

## SUMMARY OF PROJECT PROGRESS

The Project Document was signed on May 30th, 2018 for a period of 5 years. The Project Coordinator was hired in July 2018 and the project management unit was conformed soon after. The inception meeting was held on September 26th, 2018.

Regarding the implementation and adaptive management of the project, the goals set, and the implementation of the monitoring activities and monitoring plan have been satisfactorily met.

## SUMMARY TABLE OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

### CONCLUSIONS

Analysis of documentation and interviews with partner representatives show that progress in achieving results is satisfactory, except for some challenges with E-waste management and the SWM and RDF production components.

On the other hand, the project has had a correct and successful evolution, although there are some topics such as the identifying of a new cement company and the finalizing of the location of potential landfills for the SW management and RDF production projects.

The project in coordination with the MoH trained a total of 176 healthcare staff (50% women) from public, private, and military hospitals. In COVID-19 times one of the most important results has been the installing of 11 autoclaves which have treated 93 tons of medical waste.

The project addresses the needs of Jordan within this sector, that existed before refugee’s influx to Jordan, and increased due to the crisis, and is presently in line with the country’s provision of appropriate sanitary and medical services. This is even more relevant in the present times with the COVID-19 Pandemic

* + 1. KEY RECOMMENDATIONS

|  |  |  |
| --- | --- | --- |
| **No.** | **Recommendation** | **Responsible** |
| 1 | Continue to work on the institutional strengthening of government partners, especially within the framework of their role within the project, but also strengthen the spaces of collective participation, so that the integrality of the actions and the objective of the project is achieved. | PMU, UNDP |
| 2 | The 11 autoclaves that have been installed in the hospitals will need to have preventive and corrective maintenance. This is not an activity that the hospitals have trained people to do, therefore it will be important to identify the best solution to this need. It can be through the outsourcing of the maintenance, which could be the most effective solution. This will need to be included within the sustainability strategy for the project closure so that when the funding has finished the MoH or the hospitals will have already budgeted this to guarantee the continuity of the service. | PMU, TC |
| 3 | Project Coordination should keep the UNDP/Program Officer informed of the progress and quality of the institutions’ participation. In this manner, the UNDP/Program Office can address these issues with the institutions that have less aggressive participation | PMU, UNDP, TC |
| 4 | Ensure that the monitoring and evaluation processes established by the UNDP Office are carried out in a timely manner so that Project development can be ensured | UNDP |
| 5 | To lead the project always with the perspective of the role that each institution has, that is, to have clarity of the responsibilities of each, and above all, define how the sustainability of this project will be obtained with the leadership of the counterparties. | UNDP, PMU, TC |
| 6 | This project has three components that are linked to the purpose of protecting the health and the environment, with environmentally sound waste management and the complementing of a green economy. It is important to establish in the best possible way the complementarity each component has with each other, and/or the importance that, as one component progresses, another component subsequently advance, or be directed. The components are not isolated but integrated parts of the project. | UNDP, PMU, TC |
| 7 | Seek to continue enhancing women empowerment and gender equity in different project activities. Responsible partites for their completion | PMU, UNDP, MoEnv |
| 8 | In working with social and economically sensitive sectors, for instance, the informal e-waste sector, the target population should be involved from the beginning of the process. This will allow for this group to believe that their opinion is heard and form part of the actions that need to be implemented and make for a smoother transition to a modern economically viable and structured E-waste management scheme | PMU, TC and project board |
| 9 | Establish a clear sustainability strategy to strengthen the institutional capacities of those who are part of the project to be integrated during the remaining time. It is important to prepare and start strengthening efforts towards the sustainability of the results once the project has ended. | PMU, UNDP, and Project Board |
| 10 | Financial stability must be improved with a better accounting of the co-financing contributions that have not been accounted for as of this evaluation. | UNDP, PMU,TC |
| 11 | Considering all the progress made so far and the way of work that has been developed, research and evaluations should be undertaken in this pandemic context to assess how the project could contribute to the country's socio-economic recovery and to strengthen it with improved conditions after this crisis. This would, of course, have to be done within the limits of the project's mandate and its objectives. | UNDP, PMU, TC |
| 12 | The Project Management Unit must implement, among the institutions that have committed the co-financing, a system of reporting cash and in-kind investments. It is important that the accounting be available at least at the end of each semester. | PMU, UNDP |
| 13 | The COVID-19 Pandemic’s isolation measures and economic impacts could slow the progress of certain activities planned in the 2020 AWP and possibly until the second quarter of 2021 and beyond. The recommendation of this evaluator is to follow the UNDP guidelines for project duration and delays to be presented in the first months of 2021. These actions or extensions will be necessary to recover the work processes that have been delayed and will be affected by the socio-economic impacts of COVID-19. | UNDP, PMU, TC and Project Board |
| 14 | The project is facing challenging issues with regard to the RDF output under component 3 of this project. It is not feasible to complete the output of the generation of minimum 500 T/yr. for 4yrs of RDF under the present conditions that are aggravated with the lockdowns that are imposed by the COVID-19 pandemic.  After consultation with the PMU, UNDP, MoEnv, and MoLA, this evaluator agrees on recommending the following actions to be undertaken within the first quarter of 2021.   * Explore the feasibility of RDF production under the current scenario. * Investigate other methods for RDF raw material collection, technologies, and RDF types to be produced under the project while serving the same objectives. * Consult with the private sector and identify opportunities for collaboration. * Consult with other development actors that have ongoing similar projects to explore opportunities for collaboration and overlapping activities. * Assessing the proposed scenarios and proceeding with the implementation as best serves the scope. | UNDP, PMU, MoEnv, MoLA |

## MTR RATINGS AND ACHIEVEMENTS SUMMARY TABLE

##### Table 1. MTR Ratings and Achievements Summary

|  |  |  |
| --- | --- | --- |
| **Parameter** | **MTR Rating** | **Result description** |
| **Project strategy** | **N/A** |  |
| **Progress towards results** | Objective  **Satisfactory (S)** | The project has made significant progress within the possibilities with the COVID-19 circumstances. The HCWM has been improved significantly but the E-waste and the SWM components are making efforts to move forward with their proposed results but are facing challenges that need to be resolved.  For these reasons, this evaluation rates the overall project objective as Satisfactory. |
| Outcome 1.1  **Satisfactory (S)** | The COVID-19 situation has caused that the E-waste issue is not a priority, but it is not due to Project inefficiency.  The Project has already completed the main two outputs including the e-waste regulation and the financial mechanism. These two outputs form the legal basis for any other activities. It is not yet issued officially but completed by the Project.  For these reasons, this result is rated in general as Satisfactory. |
| Outcome 2.1  **Highly satisfactory (HS)** | This component has achieved results that have come in a time when the national priority is the health crisis. The installation of the 11 autoclaves, the special collection vehicle, the ESM training given to hospital staff and the establishing of internal HCWM committees in the hospitals has been a commendable success.  For these reasons, the outcome result is rated as Highly satisfactory |
| Outcome 3.1  **Satisfactory (S)** | Important efforts have been made by the MoEnv, the GAM, and MoLA to identify potential landfill locations and have a cement company commit to the RDF production, but these efforts have not yet resulted in the completion of the expected results. The project is moving forward but it will need to enhance the work to resolve its challenges in this component.  For this reason, the outcome result is rated as Satisfactory. |
| **Project implementation and adaptive management** | **Satisfactory (S)** | The implementation of this project is somewhat complicated because of the economic and social constraints that the E-waste management and the SW management components are facing. The positive aspect is that PMU is working with the TC to resolve the challenges that are feasible under the present COVID-19 conditions.  For this reason, this aspect is rated as Satisfactory. |
| **Sustainability** | **Likely (L)** | The analysis of identified risks and those that could be presented because of the effects of the COVID-19 pandemic have been assessed by rating overall sustainability as Likely (L). |

# INTRODUCTION

## PURPOSE AND OBJECTIVES OF THE MIDTERM ASSESSMENT

The Country Office of the United Nations Development Program (UNDP) in Jordan requested the mid-term evaluation of the GEF-funded project: "Reduction and elimination of POPs and other chemical releases through the implementation of environmentally sound management of E-Waste, healthcare waste, and priority U-POPs releases sources associated with general waste management activities" (PIMS: 5667), where UNDP is the implementing agency of the GEF and the Ministry of Environment (MoEnv) is the project's national executing agency.

The objective of this mid-term review (MTR) is to evaluate the performance of all activities in the project, “Reduction and elimination of POPs and other chemical releases through the implementation of environmentally sound management of E-Waste, healthcare waste and priority U-POPs release sources associated with general waste management activities”, from the beginning of its implementation. This evaluation aims to identify the weaknesses and strengths of the design, progress in the implementation of the project, as well as to verify whether the results and products specified in the Project Document are implemented and in the process of being fulfilled. Likewise, we want to know if the project is moving towards achieving the expected impacts.

Thus, the subject matter of this evaluation work includes the following points:

* Assessing the progress in achieving results
* Monitoring implementation and adaptive management to improve outcomes
* Early identification of sustainability risks
* Assessment of gender equity applicability in project implementation
* Emphasis on constructive recommendations

The evaluation will look at the following aspects of the project:

* Project strategy and design
* Progress of the project towards expected results
* Project implementation and application of adaptive management
* Sustainability (financial, social, economic, governance, institutional and environmental risks)
* Contribution to the expected effects

The evaluation period covers a period from January 2018 to October 2020.

## SCOPE AND METHODOLOGY OF EVALUATION

This evaluation will implement the methodology for mid-term assessments specified in the UNDP/GEF Project Assessment Guide[[1]](#footnote-1).

To achieve the objective of this evaluation, the Evaluation Questions Matrix developed by the UNDP Jordan CO, and included in the terms of reference of this consultancy, will be analyzed and expanded without prejudice to the foregoing. The various stages of the project, as well as financial and adaptive management, shall be analyzed in accordance with the following table.

##### Table 2. Analysis plan to be carried out

|  |  |  |
| --- | --- | --- |
| Stage | Criteria | Item to be reviewed |
| Design | Relevance | It is a question of verifying whether the project is included within the priorities and programs of the GEF, UNDP, national and local government agencies, in addition to the priorities of the stakeholders who will benefit from the project. |
| Verify whether the project's expected products and results are in line with the magnitude of the problem, the level of funding, execution time, institutional capacities, and the economic, social, and political reality of the country and location of the project. |
| Project indicators | Check whether the indicators set out in PRODOC meet the SMART criteria. |
| Implementation approach | Review of agreements and consultations with relevant stakeholders before the project was approved by the GEF. |
| Assumptions and risks | Analysis of the main sources of information, and their accuracy, to verify that the main assumptions and risks of the project had a real basis. In this respect, baselines, stakeholder analysis, and development context are essential. |
| Institutional capacities | Verify if the project design analysis adequately weighs the execution capacities for each relevant stakeholder. It should also verify if the project contributes to the strengthening of the stakeholder’s (Ministry of Environment, Ministry of Health, Ministry of Planning and International Cooperation, Customs Department, Royal Medical Services, Private Hospital Association, among others) capacities. |
| Gender approach | Verify whether the project contemplates a gender approach to women’s participation, equal opportunities, and whether the benefits of the project are equal for men and women. If this approach does not exist, make recommendations to integrate this topic into this type of project. |
| Integration | Verify if the project leveraged the experience of similar projects executed in the country under the National Solid Waste Management Strategy. |

|  |  |  |
| --- | --- | --- |
| Stage | Criteria | Item to be reviewed |
| Execution | Use of M&E tools | Verify whether the project’s logical framework was used as a management tool, whether there was a systematic M&E mechanism to make the necessary adjustments to the project, and whether there are adequate and controllable annual operational plans. |
| Financing | Verify whether project budget and co-financing amounts are appropriate so that funding commitments are being fulfilled. In addition, verify the development of annual budgets and procurement standards that meet UNDP standards, and whether there was a monitoring of expenditures, audits, and determining whether additional financing could be leveraged. |
| Verify whether the M&E system had the resources to fulfill its functions. Analyze the efficiency and effectiveness of the expenses incurred. Indicate weaknesses and strengths and recommendations to improve the weaknesses found. |
| UNDP Quality support | Verify for the approach to results, type of support granted, opportunity (technical and management, facilitation), quality of risk management, and annual reporting and adaptation. |
| Project executing agency | Verify the contingency plans, M&E, adequate risk management, annual reporting quality, national appropriation, and sustainability strategy. |
| Stakeholder interaction | Verify the Steering Committee operation and frequency, minutes, and decisions made. |
| Verify the functioning of the Technical Committee, types of decisions taken, and stakeholder participation. |
| Adaptive management | Verify whether project management accommodates the actual implementation context. |
| Verify whether there is a review of the project, whether the proposed changes are being implemented, and whether they are affecting the project results. |
| Results achieved | Verify whether progress is being made towards achieving project objectives (global and development), or whether it is on track to be achieved. |
| Check if activities and products are being completed as planned. |
| Verify if the impacts will be achieved once the Project is completed and in the long term. |
| National appropriation | Verify whether project results, or their activities or objectives, are found in plans, programs, policies, governance regulations, and key stakeholders. |
| Degree of involvement of the stakeholders in the project execution project. |
| Transversality | Verify if the results are in line with UNDP, GEF, national government, authorities, and local stakeholders’ priorities. Income generation because of the project, poverty reduction, improved governance in the areas intervened. |
| Integration | Verify how the project was coordinated with other projects similar and /or complementary to the project, whether they are UNDP and that may be being implemented in the areas of intervention of the project. It will also verify for gender and minority groups (e.g., equal access to opportunities, benefits, and information). Similarly, it will verify whether there is an approach to HRDs (e.g., promotion of organizations, transparency, effective participation in decision-making, and freedom of opinion). |
| Sustainability | Verify whether the regulatory conditions and financing policies exist so that the results of the project can be maintained in the future. |
| Verify the social, political, environmental, governance, and financial risks that could be a challenge to the Project’s sustainability results. |
| Replicability | Likelihood of replicating the experience in other sectors or localities, dissemination of lessons learned. |
| Impacts | Verify whether progress is being made toward reaching the development goals and whether the social, environmental and biodiversity challenges of the project are being reduced. |

*"Guide to the Conduct of the Mid-Term Review in UNDP-Supported and FG-Funded Projects"; Directorate UNDP-GEF 2014, United Nations Development Program,* [*http://web.undp.org/evaluation/guidance.shtml#handbook*](http://web.undp.org/evaluation/guidance.shtml#handbook)

## EVALUATION STRUCTURE

For the analysis of the results, the matrix will be prepared with the indicators, mid-term, and final project targets, which will be assessed as indicated in the UNDP Mid-Term Assessment Guide.

##### Table 3. Matrix of progress in achieving results

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Project strategy | Indicators | Entrance level reference | Level in the 1st PIR (self-reported) | Mid-term goal | Goal at the end of the project | Mid-term level and evaluation | Rating of achievements achieved | Justification for valuation |
| Objective | Indicator (if applicable) |  |  |  |  |  |  |  |
| Result 1: | Indicator 1: |  |  |  |  |  |  |  |
| Indicator 2: |  |  |  |  |  |  |  |
| Result 2: | Indicator 1 |  |  |  |  |  |  |  |
| Indicator 2: |  |  |  |  |  |  |  |
| Etc. |  |  |  |  |  |  |  |  |

**Code for the Evaluation of Indicators**

|  |  |  |
| --- | --- | --- |
| **GREEN** = Achieved | **YELLOW** = In the process of achieving | **RED** = Has no progress to achievement |

*"Guide to the Conduct of the Mid-Term Review in UNDP-Supported and FG-Funded Projects"; Directorate UNDP-GEF 2014, United Nations Development Program,* [*http://web.undp.org/evaluation/guidance.shtml#handbook*](http://web.undp.org/evaluation/guidance.shtml#handbook)

Finally, a project rating will be made, according to the stage (design, implementation, results, sustainability) and the scheme shown in Table No. 3.

##### Table 4. MTR Ratings and Achievements Summary

|  |  |  |
| --- | --- | --- |
| Parameter | MTR rating | Achievement description |
| Project strategy | N/A |  |
| Progress towards results | Assessment of the degree of achievement of the objective  Achievement rating: (rating with 6 pt. scale) |  |
| Assessment of the degree of achievement of the result 1:  Achievement rating: (rating by 6 pt. scale) |  |
| Assessment of the degree of achievement of the result 2:  Achievement rating: (rating by 6 pt. scale) |  |
| Assessment of the degree of achievement of the result 3:  Achievement rating: (rating by 6 pt. scale) |  |
| Project execution and adaptive management | (Rating by 6 pt. scale) |  |
| Sustainability | (Rating by 4 pt scale) |  |

*"Guide to the Conduct of the Mid-Term Review in UNDP-Supported and FG-Funded Projects"; Directorate UNDP-GEF 2014, United Nations Development Program,* [*http://web.undp.org/evaluation/guidance.shtml#handbook*](http://web.undp.org/evaluation/guidance.shtml#handbook)

The MTR Evaluation Matrix, which is included in the "Guide to the Conduct of the Mid-Term Review on UNDP-supported and FG-funded Projects" will be used, see Annex 1.

**Methods and procedures for collecting information**

The collection of the information will be carried out in accordance with the following activities:

1. Project documentation (AWP, reports, studies conducted, interviews, PIR, PRODOC).
2. Context (government policies and plans, municipal plans, economic and social studies of the sectors).
3. Integrations with other activities and Policies (similar and complementary projects under Implementation, UNDP and government Policies, municipal plans, budgets of organizations, municipalities, and Ministries).
4. Baseline and situation information with the project (biodiversity status studies, monitoring and control reports, use of tracking tools, interviews).

The crossing of information will occur when the key situations of the project implementation context are found, with the information provided in interviews, progress reports, and other publications, so that the conclusions obtained are balanced, and as objective as possible, to avoid bias of the informants.

**Financial Analysis**

The financial analysis will be based on the expenditure and co-financing figures provided by the project and from UNDP's ATLAS system. This financial year will seek to visualize general aspects of budgetary implementation, such as the weight of project staff expenditure within the total budget, expenditure evolution by year, by category or product, expenditure in consultants, etc.

To visualize the adaptive management of the project, PRODOC will be contrasted against its assumptions, risks, indicators, results, etc., with the actual progress of the project, to verify that the necessary adjustments have been made to be able to meet the objectives and results of the project. The same exercise will be carried out to determine the relevance and participation of actors.

**Limitations of methodology**

The second has a limitation on having information of the interviewees that could be dissimilar and/or partial (informant bias), which may lead to trials that will have to be assessed equally by the evaluator. In this respect, participatory evaluation can help in minimizing any risk of lack of objectivity or unbalanced information.

# DESCRIPTION AND BACKGROUND

## DEVELOPMENT CONTEXT

The Government of Jordan through its Ministry of Environment (MoEnv) is working closely with the Government of Germany in a plan for the management of hazardous waste in general. Within the framework of this cooperation, the Swaga interim storage will be improved, as well as contributing to the enhancement of their Hazardous Waste Management System.

The project is consistent and will indeed complement the identified national priority activities:

1. NIP update
2. Establishment of the national inventory of hazardous chemical waste
3. Promote a solid waste programme to enhance the effectiveness of its reuse and recycling
4. Rehabilitation of the Swaga hazardous waste storage facilities
5. Establishment of a central facility for the treatment of hazardous waste that includes POPs

The Project is therefore consistent with the national strategies, priority plans, and its current development priorities related to environmental protection, as well as social and economic development. In terms of the country’s commitment as a party to the Basel, Stockholm, and Rotterdam Conventions, the Project directly addresses strengthening national compliance.

## PROBLEMS ADDRESSED BY THE PROJECT

Jordan is considered one of the most advanced developing country in the Middle East and is pursuing the implementation of sound environmental management. It is promoting investment in modern basic infrastructure for solid waste and wastewater treatment. There are solid waste management issues that need to be addressed and that substantially aggravated by the current increase in unofficial population that has migrated because of the region’s political/economic instability and conflicts.

Jordan has identified the following barriers related to its chemical and waste management that this project will address with the objective to mitigate or resolve as many as possible.

1. Policy integration and implementation

The country has developed an initial legislative and regulatory framework for its waste management priorities, but its enforcement capacity has deficiencies to be resolved. The recently formulated National Solid Waste Management Strategy (NSWMS) is an effort to minimize these deficiencies and enhance the incentives for waste minimization and resource recovery from recycling. An important aspect of resource recovery is the need to implement economic instruments and financial mechanisms to create market-driven incentives.

b. Regulatory implementation

There is a need to develop operational regulation and technical guidance for waste management activities with minimum standards that will make it necessary for the informal activities to scale up and evolve towards modern and updated, economically scaled, and environmentally sound activities.

An important regulatory barrier is the enforcement capacity for chemical waste to be monitored at the source, with its characterization and appropriate control, until final disposal.

c. Financial capacity, value chain and business models

Jordan requires the development of a comprehensive, economically viable waste diversion system meeting reasonable standards of ESM. To be able to do this, there is a need to develop a business model that guarantees the necessary financial sustainability for the collection and process of the waste, so that it has a beneficial return. To achieve this, the present informal system should be eliminated and replaced with an EPR system.

The MoEnv operates a HW management system at the SWAGA facility which needs to develop financial stability because it is presently unsustainable.

d. Technical capacity and infrastructure

There is a need for improvement in technical capacity and infrastructure for the waste management sectors. For E-waste, there is primarily only an informal sector that does not have environmentally sound management in the collection, processing, and disposal phases, resulting in potential risks to health from chemical and POPs release. The informal sector for E-waste management is increasing, making the need for the enhancement of their technical capacity an even more important issue.

e. Socio-economic

The evolution from an informal E-waste sector with environmentally inadequate management of this waste, to a modern environmentally sound system, results in the dislocation of individuals whose lively hood depends on this activity. The project will facilitate the mitigation of these impacts by supporting the integration of the informal sector towards associated employment and business opportunities.

The migration of refugees is a barrier that significantly increments the waste generation load on the waste management system and on the HCW system.

d. Information and awareness barriers

The low level of awareness regarding new environmentally-sound waste-management approaches is an important barrier when trying to implement change in the informal sector.

Although in the health care system there is awareness of the need to have proper waste management in this critical sector, there is a need to strengthen the implementing of source segregation and personnel certification for dedicated personnel.

The pharmaceutical production and distribution sector currently send their expired product to Swaga, where the fee that is charged and the sales tax rebate that is received result in an economically not sustainable operation, affecting the proper waste management in this landfill.

## PROJECT DESCRIPTION AND STRATEGY

These priorities are within the framework of the GEF-6 Programming Strategy applicable to the Chemical and Waste Focal Area.

The project objective is to protect human health and the environment, through reduction and elimination of POPs, and other chemicals, through the implementation of environmentally sound management (ESW) of e-waste, healthcare waste, and priority U-POPs release sources, associated with general waste management activities.

The project design includes four main components as follows:

**Component 1.** Development of ESM e-waste management system

* *Outcome 1.1.* Environmentally sound E-waste collection, processing, and residuals management capability developed.

**Component 2.** Achieving environmentally sound healthcare waste management

* *Outcome 2.1*. BAT/BEP healthcare waste management practice and technology implemented nationally.

**Component 3.** Developing waste diversion/resource recovery capacity for GHG and U- POPs reduction

* *Outcome 3.1.* Effective waste diversion/resource recovery capacity from HW, SW streams developed with associated GHG, and U-POPs release reduction achieved.

**Component 4.** Knowledge and Management and Monitoring and Evaluation (M&E).

The Theory of Change for this project summarizes the issues to be addressed, the activities to be implemented, and the possible risks involved.

The following diagram of the project Theory of Change illustrates the strategy proposed, as well as a detailed description of the three main component activities. The logical framework is to be presented later in this document.

Figure 1. Diagram of the project Theory of Change*.*



## PROJECT IMPLEMENTATION MECHANISM

The project is implemented under the UNDP National Implementation Modality (NIM) as per official agreement between UNDP, the Government of Jordan, and the Country Program. The implementing partner is the Ministry of Environment (MoEnv).

The following diagram illustrates the project organization structure.

##### Table 5. Organizational structure of the project

**Project Manager**

**Project Board**

**Senior Beneficiary**

MOPIC, MoH, MOENVNV

**Executive**

MoEnvnv

**Senior Supplier**

*Designated representative of UNDP Jordan*

**Project Assurance**

*UNDP Programme Officer*

*UNDP Regional Advisor*

**Project Organization Structure**

**Technical Team**

(National and international experts on Hazardous, E-Waste, Municipal, Healthcare Waste and POPs)

**Technical Officers**

(Training, Communication and Gender Mainstreaming Team)

**Project assistant**

Administration and accountancy

***Technical committee***

*(MoH, MoEnv, MoMA, GAM, JUST, RMS, Lafarge, Jocycle, NGOs)*

*Source: Project Document and Project Operational Manual*

To better understand the different parts of the project organization, the different responsibilities of the structure are described below.

**Project Board (PB).** Provides strategic, long-term guidance and will approve the Annual Work Plan, Annual Budget, and any other strategic changes that may need to be made. The PB meets two times a year.

**Project Technical Committee.** Is composed of technical experts and representatives of the project stakeholders. This committee is the main working group that provides technical recommendations on all stages of the project implementation and works closely with the project manager.

**Project Manager.** Isresponsible for the project management and coordinates directly with the Project Technical Committee and its Project Management Unit. This unit is composed of the Technical Team, Project Assistant, and Technical officers that are responsible for training, communication, and gender mainstreaming.

**Project Assurance** is responsible for the supervision, oversight, and quality assurance. This is undertaken by the UNDP Country Office and the UNDP Regional Technical Advisor.

## IMPORTANT SOCIO-ECONOMIC OR ENVIRONMENTAL CHANGES SINCE THE START OF THE PROJECT’S EXECUTION

The most important worldwide health, social and economic challenge, of which Jordan is not exempt, in the implementation of this project is the COVID-19 Pandemic.

Lockdown and safeguarding measures to protect the health of the inhabitants have led to a decrease in activities that cannot be carried out in the project. While it is true that digital work is being done for many of the tasks to be completed, there are some that cannot be completed without going to the field. There are also significant changes in national priorities at all levels, also influencing the attention and budgets to be designated by the institutions involved.

It is important to draw attention to the healthcare waste management component of this project because within the outstanding challenges that the COVID-19 has imposed on Jordan, the project has risen to the immediate national priority of environmentally sound disposal of this waste in a commendable manner.

## MAIN PARTNERS AND PARTIES INVOLVED IN THE EXECUTION

##### Table 6. Project stakeholders by sector

|  |
| --- |
| **Institutional** |
| Ministry of Environment (MoE) |
| Ministry of Health (MoH) |
| Ministry of Planning and International Cooperation |
| Customs Department |
| Royal Medical Services |
| Private Hospital Association |
| Jordanian Association of Engineers |
| Ministry of Local Administration |
| Greater Amman Municipality (GAM) |
| Aqaba Special Economic Zone Authority (ASEZA) |
| **Private Sector** |
| Producers, Distributors, Retailers, Consumers of EEE |
| Formal sector E-waste private sector service providers (GAM and JoCycle) |
| Informal E-waste sector service providers |
| Private sector HW and HCW service providers |
| Amman Chamber of Industry and other Chambers |
| Jordan Association of Cement Producers |
| **Academic institutions** |
| Jordan University of Science & Technology (JUST) |
| Jordan University |
| **International** **organizations** |
| WHO |
| UNEP |
| GiZ |
| Canadian Embassy |
| **Civil Society and NGOs** |
| Royal Scientific Society (RSS) |

# FINDINGS

## PROJECT STRATEGY

### PROJECT DESIGN

The strategy indicated in the Project Document, and illustrated in the Theory of Change diagram, is being implemented with a good degree of success for the fulfilment of the expected results. There are some concerns regarding the following issues that could directly affect the possibility of obtaining the results as originally identified. These concerns are the following:

1. The main concern are the effects of the COVID-19 Pandemic and the socio-economic consequences that will be a challenge for the E-waste management component, and the RDF production and MSW components. The country, like most countries of the world, is experimenting with important economic challenges that must be resolved as a priority before venturing into other activities.
2. The E-waste instructions have been approved by the MoEnv and pending publication due to the COVID-19 difficulties. E-waste is not a priority for the MoEnv since the waste law is above of the list of the highest needed legislation, waste law comes into force since September 2020. The MoEnv is updating and issuing all related regulations and instructions in accordance with the new law.
3. When the Extended Producer Responsibility (EPR) is totally enforced there will be additional expenses added to the generators, distributors, and retailers of EEE, causing some negative response from this sector.
4. The role of the municipalities in the E-waste collection is important, but at the present time, there is not a real capacity for these entities to establish collection points because of the absence of adequate infrastructure and waste management capacities.
5. The project proposes to establish a door-to-door pilot for the collection of municipal waste to produce RDF, but the Lafarge financial situation presents a challenge to MoLA to find a new cement company in the northern part of the country. MoLA has identified locations for implementing door-to-door pilot. There will be a need to work with the COVID-19 health and safety restrictions in implementing this pilot, but the project should make an additional effort to work towards the completion. COVID-19 will be a part of all projects in the world, not only Jordan, and they must adjust and move forward with the necessary precautions.

### RESULTS FRAMEWORK / LOGICAL FRAMEWORK

During this evaluation exercise, it was noted that the original logical framework presented in the project document was changed. These changes were done for Component 1 - Outcome 1.1 were the indicators 6 and 7 were added. For Component 2 - Outcome 2.1, the indicators 10 and 11 were added as well as for Component 3 - Outcome 3.1, where the indicators 15 and 16 were modified .

These changes were made because of the Inception Meeting and were approved by the Project Board. After comparing the original indicators in the logical framework included in the Project Document, this evaluator better understands the reasoning behind the change. The new indicators are quantifiable. The revised logical framework includes indicators that are in line with the SMART criteria.

## PROGRESS IN ACHIEVING RESULTS

### PROGRESS MATRIX

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Project Objective**  Protection of human health and the environment through reduction and elimination of POPs, and other chemicals through implementation of environmentally sound management (ESM) for e-waste, healthcare waste and priority U-POPs release sources associated with general waste management activities | | | | | |
| **Indicator** | **Baseline** | **Midterm Goal** | **Status as of Oct. 2020** | **Results rating** | **Rating justification** |
| **Indicator 1.** Number of new partnership mechanisms with funding for sustainable management solutions of natural resources, ecosystem services, chemicals, and waste, at national and/or subnational level. | Public-private partnership in the management of hazardous and municipal waste, initiative is needed, and the government is moving in this direction. Technical and financial support to achieve this objective is needed. | Public private partnership designed, including financial analysis and cash-flow.  Pilot schemes for collection, disposal, and recycling of different waste streams (E-waste, MSW, HW, HCW) designed in detail. | 7 companies licensed by MoEnv for E-waste collection and dismantling.  2 E-waste collection centers in Amman, 1 in Irbid, I in Zarga and 1 in Aqaba. | **S** | The project has made significant progress within the possibilities with the COVID-19 circumstances. |
| **Indicator 2.** Extent to which legal or policy or institutional frameworks are in place for conservation, sustainable use, and access and benefit-sharing of natural resources, biodiversity, and ecosystems. | Policies and regulations of E-Waste are missing. Policies and regulation on HW, MSW, and HCW need substantial improvement and enforcement. | Amendment of existing regulation, policies and strategies, or new regulation when needed, fulfilling the requirement of the Stockholm Convention will be drafted and submitted to the government and key stakeholders for approval. | Draft e-waste management instructions socialized with relevant stakeholders (24 men- 14 females)  E-waste management instructions officially sent to the MoEnv Secretary General for approval and publication.  Pending publication due to COVID-19. | **S** | The indicator has been completed and will hopefully continue to have positive progress in the future. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Indicator** | **Baseline** | **Midterm Goal** | **Status as of Oct. 2020** | **Results rating** | **Rating justification** |
| **Indicator 3.** Number of POPs, U-POPs and mercury uses, and release avoided at project implementation, and predicted at replication. | There are limited actions in place to reduce the release of U-POPs and mercury associated with the open burning or incineration of waste. Currently, U-POPs from HW incineration and uncontrolled burning of waste are by far the two largest sources of U-POPs. | Detailed design and completion of the procurement of the interventions envisaged in the sectors of Health Care Waste, E-Waste, Hazardous Waste, Municipal Solid Waste, with the certification of large disposal facilities (incinerators and cement kiln) the replacement of obsolete incinerators in the HC sector, the demonstration of door-to-door collection of MSW and of RDF production. | MoLA selected Mafrag Municipality in the north, because of Lafarge cement company ending production soon, for household waste segregation and production of RDF.  A total of 11 shredding and sterilization units have been installed.  Two vehicles for the transportation of medical waste were procured to be used by the Ministry of Health,  2 incinerators selected to receive project support.  Expected reduction U-POPs is pending development of E-waste and MSW activities. | **S** | This indicator is evaluated with S because although large advances have been made with the purchase of the 11 shredding and sterilization units there is still work progress needed to have the cement company in the northern part of the country to commit with the project for the MWM and RDF production results. |
| **Indicator 4.** Evidence that gender mainstreaming and equal opportunities have been ensured for job opportunities and access to knowledge and training. | Because of the strong gender division of labor in this sector, along with cultural carriers, far more men than women get jobs in waste management in Jordan, ensured for job opportunities and access to knowledge and training. | Women encouraged to take part in all project activities. Criteria and indicators for gender mainstreaming adopted in all project activities (awareness raising, staff recruitment, training). Participation to project activities disaggregated by gender. | PMU has 2 women on staff.  TOT modules on ESM of healthcare waste in hospitals with 86% women participation.  MoH nominated 50% women to be part of the hospital HCWM committees.  Awareness-raising training advocates gender involvement in environmental sector.  The technical committee that conducted the evaluation of the autoclaves tender visited the manufacturing facilities in Turkey in order to check that autoclaves are compatible with technical specifications in the tender documents and to verify that they also suit the needs of the final user (Ministry of Health and the Royal Medical Services) while seeing them in operation.  Jordan’s project and stakeholders’ representatives from (MoEnv, MoH and RMS) were able to exchange knowledge, experiences and lessons learned). | **S** | Gender mainstreaming has been managed adequately. |
| **Outcome 1.1** Environmentally sound E-waste collection, processing and residuals management capability developed. | | | | | |
| **Indicator** | **Baseline** | **Midterm Goal** | **Status as of Oct. 2020** | **Results rating** | **Rating justification** |
| **Indicator 5.** Level of awareness achieved through project implementation on E-waste, measured by means of KAP (Knowledge, Attitudes and Practices) surveys at baseline and project end. | Only limited awareness raising initiatives carried through limited demonstrative E-waste collection campaigns. | 10 high level meetings including roundtable and discussions on E-waste among policy makers and stakeholders within project midterm.  One regional meeting on E-waste within project midterm among policymakers and stakeholders.  Baseline KAP questionnaire survey completed.  4 awareness raising activities with NGOs support conducted. | 4 high level meetings on e-waste policy and financial mechanisms took place within project midterm;   1. meeting with chambers of industry and commerce representatives. 2. Meeting with hazardous substances and waste management national committee 3. Meeting with EEE importers, local agents and distributers. 4. Meeting with private sector/ investors to discuss collaboration opportunities on e-waste issues.   3 awareness workshops were conducted to raise awareness on e-waste issues.  KAP survey was done at the beginning of the project to measure public awareness. | **S** | The COVID-19 situation has caused that the E-waste issue was not a priority, but it is not due to the Project inefficiency. |
| **Indicator 6.** Number of e-waste collection centers and points established and are in operation. | E-waste is collected only in Swaqa hazardous waste center. | 12 collection centres will be established within MoEnv, MoLA and GAM directorates. | 5 collection centres were identified by GAM, MoLA and ASEZA in addition to the one already exist in Swaqa hazardous waste center under the management of the MoEnv. |
| **Indicator 7.** A number of new partnership mechanisms are initiated for the collection and processing of E-waste. | Only one -not licenced- private company is working on e-waste processing. | Number of proposals received to start new business on e-waste processing with project support. |  |
| **Indicator 8.** Availability of legislation, or official guidance, on POPs and E-waste, published and enacted. | A draft of the “Electronic and electrical waste management instructions (last update 2014)”, prepared by the Government is not yet approved and needs substantial improvement, including clear reference to POPs in E-waste. | The Jordan E-waste management policy, which includes requirements on POPs, upgraded with the involvement of key public and private stakeholders.  A set of financial mechanisms and incentives designed as part of the E-waste management policy. | The E-waste instructions have been approved by the MoEnv. Pending official publication. E-waste financial mechanism designed and approved by the MoEnv too. | **S** | The COVID-19 situation has caused that the E-waste issue was not a priority, but it is not due to the Project inefficiency. As of Oct. 2020 the E-waste instructions have been officially approved. |
| **Indicator 9.** Amount of POP (U-POPs, c- PBDE, deca-BDE, PFOS) release prevented through proper collection and disposal of E-waste. | Currently, there is no organized collection of E-waste whatsoever and hence no care about possible POP-containing E-waste. A theoretical amount of c-PBDE in the order of around 2.5 to 7.3 tons calculated at PPG stage. | A collection scheme, co-financed by the government, including one or more of the options listed under output 1.1.3, designed in detail including budget planning and cash flow. |  |
| **Outcome 2.1** BAT/BEP healthcare waste management practice and technology implemented nationally | | | | |  |
| **Indicator** | **Baseline** | **Midterm Goal** | **Status as of Oct. 2020** | **Results rating** | **Rating justification** |
| **Indicator 10.** ESM Manual is developed based on updated medical waste regulation. | ESM Manual is not available. | Medical waste regulation is updated and amended.  ESM manual is developed. | ESM manual completed and delivered to hospitals staff as part of training sessions  ESM translated into English and Arabic for possible use in the national health protection system. | **HS** | The midterm goal has been reached satisfactorily. |
| **Indicator 11.** number of relevant staff trained on best environmental practices. | ESM Manual and training material is not available. | Several training sessions on ESM in the 10 pilot hospitals are conducted. | TOT for 176 healthcare staff (50% women) from public, private, and military hospitals.  11 autoclaves have treated 93 tons of medical waste till the Midterm period. | **HS** | Although the TOT has been successful in the number of people trained, the project should continue to have training sessions for rotating hospital staff. |
| **Indicator 12.** number of HCF successfully implementing the ESM of health care waste. | Segregation of HCW is practiced in many hospitals but not effectively controlled or sustained. The presence of small incinerators at several HCFs is a disincentive for the segregation of HCW. | Memorandum of Understanding signed and HCW committees established in all the project HCF.  Baseline evaluation conducted by means of I-RAT conducted for all the selected HCFs.  HCW plan agreed for all the HCFs.  Technical assistance on ESM of HCW started in all the project HCFs.  First reassessment of the HCFs conducted by means of the I-RAT tool. | I-RAT assessment completed in 10 pilot hospital.  HCWM committees established in project hospitals in gender balance. | **HS** | The midterm goal has been reached partially. The results observed in this evaluation merit a satisfactory rating. |
| **Indicator 13.** Number of high-capacity incineration or co-incineration successfully certified for the disposal of hazardous waste and POPs containing waste. | At least 2 medium-size incinerators potentially compliant with SC BAT requirements, plus cement kilns facilities, needing testing and certification. | A detailed plan for Proof of Performance test for at least 2 incinerators or cement kiln agreed and approved.  Inspections of candidate plants and need assessment carried out.  Support for the upgrade of the candidate plant to fulfill SC BAT/BET ensured to 2 plants. | 2 preliminary assessments in incineration facilities at JUST and Clean City Based completed  consultancy firm will do an environmental audit to accelerate license approval for JUST with MoEnv | **HS** | There is still an environmental audit pending and the Proof of Performance test has not been included. The commitment of a cement kiln in the north is still pending negotiation |
| **Indicator 14.** Amount of U-POP release prevented through enhanced management of healthcare waste. | 3.18 to 10.54 g Teq / yr. of PCDD/F released by the candidate facilities estimated at PPG stage. Incineration of E-waste considered the 2nd biggest source of U-POPs in the NIP. | Modality of replacement of substandard incinerators in the selected HCF (replacement with non-combustion equipment or with centralized services) agreed for all the project HCFs.  Baseline release of U-POPs reassessed.  TORs for the new equipment drafted and advertised.  Procurement of non-combustion facilities or external waste disposal services started. | 11 shredding and sterilization units purchased and in the installation process.  Total healthcare waste treated to date: 93 tons.  Pending I-RAT assessment to evaluate emissions reductions as a result of new autoclaves use. | **HS** | This has been one of the most important project results since it is possible to manage the rapidly growing HCW resulting from the COVID-19 Pandemic. |
| **Outcome 3.1** Effective waste diversion/resource recovery capacity from HW and SW streams developed with associated GHG and U-POPs release reduction achieved. | | | | | |
| **Indicator** | **Baseline** | **Midterm Goal** | **Status as of Oct. 2020** | **Results rating** | **Rating justification** |
| **Indicator 15.** Level of awareness achieved through project implementation on Hazardous Waste and Municipal Solid Waste, measured by means of KAP (Knowledge, Attitudes, and Practices) surveys at baseline and project end. | Limited awareness-raising initiatives carried out in baseline projects, mostly focused on the management of organic waste. | Awareness raising and involvement of the community of \_\_\_ with at least 1000 generators involved in the demonstration of waste collection. | KAP (knowledge, Attitudes and Practices) analysis is conducted and produced in Irbid, Ramtha, Zarqa, Amman, and Maa’n plus 10 hospitals. | **S** |  |
| **Indicator 16.** 100 Generator of hazardous waste trained on the minimization and ESM of waste potentially contaminated by POPs. | Waste potentially contaminated by POPs including E-waste is not effectively managed at Swaqa. | At least 100 generators of hazardous waste trained in Stockholm and Basel convention on hazardous waste, as well as on the minimization of hazardous waste generation and their ESM. | Door to door collection and segregation of MW developed with UNDP ongoing SWM project in the northern region  Pending COVID-19 measures to continue efforts. | **S** |  |
| **Indicator 17**. 300 ton of E-waste stored at Swaqa and other POPs waste inventoried, labelled, and safeguarded for future disposal in coordination with bilateral initiatives. | Waste potentially contaminated by POPs including E-waste are not effectively managed at Swaqa. | n/a | COVID-19 has interrupted this activity | **S** | The COVID-19 situation has caused that the E-waste issue was not a priority, but it is not due to the Project's inefficiency. |
| **Indicator 18**. Amount of U-POP release prevented through the diversion of municipal waste, through recycling and RDF in certified facilities. | Uncontrolled burning of waste is the biggest source of U-POPs identified in the NIP (around 52 g/TEq /yr.). | Pilot door to door collection designed, and contract, with potential recyclers agreed.  Procurement of materials for waste minimization, collection, and recycling completed.  A surveillance system to prevent burning at selected landfills designed and implemented. | Lafarge/Holcim cement company will not participate in the RDF production from MW. Another cement company in the north has been contacted. | **S** | The project is still pending the confirmation of a cement plant in the north to participate in the RDF production and MWM. |
| **Outcome 4.** Knowledge Management and M&E | | | | | |
| **Indicator** | **Baseline** | **Midterm Goal** | **Status as of Oct. 2020** | **Results rating** | **Rating justification** |
| **Indicator 19**. Number and quality of project monitoring and planning reports drafted and submitted with reference to the M&E plan. | N/A | Inception activities carried out; project management structure implemented.  Project reporting and planning established and implemented | All M&E reports presented on regular basis. This project does not do Quarterly Reporting.  3 Technical Committee meetings held 2019-2020.  Project Board meeting held in July 2019. | **S** | All M&E reports have been completed on time. |
| **Indicator 20.** Number and quality of project audit and evaluation reports drafted and submitted with reference to the M&E plan. | N/A | Mid Term Evaluation and auditing activities carried out. | MTR will be completed Nov. 2020. | **S** | MTR evaluation in process. |
| **Indicator 21.** Presence of a knowledge management system established and sustained. | N/A | KM system including project website established (to be completed in the 1st year of project implementation  out. | Knowledge Management activities done with other agencies to enhance use of existing synergies  Seminar for knowledge building in medical facilities | **S** | The positive results should continue to be reached with more Knowledge Management activities |

**Code for the Evaluation of Indicators**

|  |  |  |
| --- | --- | --- |
| **GREEN** = Achieved | **YELLOW** = In the process of achieving | **RED** = Has no progress to achievement |

*"Guide to the Conduct of the Mid-Term Review in UNDP-Supported and FG-Funded Projects"; Directorate UNDP-GEF 2014, United Nations Development Program,* [*http://web.undp.org/evaluation/guidance.shtml#handbook*](http://web.undp.org/evaluation/guidance.shtml#handbook)

### REMAINING BARRIERS TO ACHIEVE PROJECT OBJECTIVES

The project is facing challenging issues with regards to the RDF output under Component 3 of the Reduction and elimination of POPs project.

The challenge is due to the following reasons.

* Due to COVID-19, there have been many impacts on relevant domains that affect important factors impacting the RDF production including the following: the construction sector has been highly affected reducing the demand on cement, the conventional fuel prices have seen a reduction making it challenging to produce economically and financially feasible alternatives, informal waste picking activities have significantly increased affecting the availability of materials of high calorific value.
* In the project document and based on the Solid Waste Management Strategy that was issued by the Ministry of Local Administration it was proposed to establish a transfer station in an area called Tafilah in the South of Jordan, this area is the closest to Lafarge Cement factory, however, this has been postponed due to the delays that occurred to the preparation of the Southern Region Master Plan, that has not been initiated yet, preventing the operationalization of the strategy in the Southern Region.
* Lafarge cement factory, which was the project partner in the RDF component, announced that it has financial insolvency due to the difficult financial conditions facing the company. This imposes a high risk with regards to the company for proceeding with the partnership in the project.
* With regards to the quantities required to produce RDF as per the project document, and in the absence of a functional sorting mechanism due to disruptions caused by the pandemic, it has been proved to be difficult to obtain such quantities in the given time frame.

## PROJECT EXECUTION AND ADAPTIVE MANAGEMENT

The implementation of this project has been effective, and the institutional and private sector stakeholder commitment is part of this success. The project progress has slowed down progress at this time because of the COVID-19 restrictions and socio-economic implications in the population.

The approach of managing the project with two officers physically present in the MoEnv and in the MoH was a successful approach to better each incorporated institution in the project activities. It has resulted in being effective and efficient.

### MANAGEMENT MECHANISMS

The organizational structure identified in the Project Document has been professionally designed and effective. Some adjustments have been made to the working ways of the Technical Committee and the Project Management Unit.

The project stakeholders have been a part of all project activities to a different degree, depending on the waste that concerns them. For the HCW component, the MoH has played an important role in facilitating all the training and infrastructure preparations for the 11 new autoclaves that are presently contributing to solving the vast amount of HCW that is generated by the COVID-19 Pandemic.

The MoEnv has been active with its involvement in the formulation and the final approval of the E-waste instructions and the E-waste manual. The new Waste Law has been approved recently by the Parliament and has entered into force since the beginning of September 2020. The MoEnv has begun to update all related regulations and instructions to be in line with the new law. The MoEnv will endorse one by one of the related regulations, in which the E-Waste instruction in one of particular interest, according to their priorities.

In 2019 there was an Environmental and Social risk addressed regarding the need to incorporate more municipalities that could be considered as service providers for collecting municipal waste.

The private hospitals and HCW service providers have been an important sector for the undertaking of project activities related to Component 2. These entities have taken part in knowledge sharing activities related to ESM of HCW.

Private companies and NGOs are participating in conducting environmental auditing for HCW incineration facilities to be able to upgrade these installations.

The authorities within the Project Board define the elements at the macro or managerial level; these guidelines are operated within the Technical Committee which analyses what might be the best strategies for the proper implementation. The Project Management Unit is the instance that has a permanent look towards the whole project by ensuring development in a timely manner.

The institutional capacities of each organization must continue to be strengthened so that they can carry out the activities, seeking above all the sustainability of the processes.

The UNDP, as a partner agency through its project officer, has been fundamental in supporting the MoEnv, the MoH, and the PMU when confronted with issues that need a higher-level intervention to expedite pending procedures. Such is the case with the importing of the autoclaves and most recently with the challenging issues about the RDF output and the actual possibilities that the project may not be able to obtain this result.

There has been one annual report for 2019 since the project started in 2018. In this report the challenges identified were congruent with the project development and the solutions suggested formed part of the adaptative management in 2020.

During this 2020 the project has confronted many unexpected challenges in economic, health and social sectors. UNDP as partner agency has been interested and proactive in its follow up and support of the PMU and the MoEnv, MoH and the MoLA with interventions and research on possible solutions to these obstacles.

Probably the most important issue that the project must confront is inherent to COVID-19 and its economic and social impact. There is a strong possibility that the project is not able to meet the expected results within the established project duration. The expected results for Component 3 and in a lesser manner Component 1 will largely depend on the country’s recuperation from the economic set back produced by COVID-19.

It has been recommended that the project be extended for this reason, but for how long and under what conditions is something that UNDP is working on to establish guidelines. Hopefully, these guidelines will be implemented during the first quarter of 2021

### WORK PLANNING

The analysis of the Annual Work Plans (AWP) indicates that although an important amount of the activities planned for Component 1 and 2 were completed, this is not the case for Component 3. This component has challenges in following through with its activities due to several reasons indicated in the Progress Toward Achieving Results analysis of this evaluation. The project did not start until July 2018. The PMU was efficient and implemented adaptative management during the management of the years 2018, 2019, and the first semester of 2020. Unfortunately, the COVID-19 Pandemic has caused a reduction in the project implementation progress with respect to the E-waste management and the SWM activities that were planned. The completion of the activities regarding the ones planned is covered in the 2018 Quarterly Reports, 2019 PIR, and an up to Oct. 2020 preliminary PIR report.

### PROJECT FINANCING AND CO-FINANCING

The Project Management Unit has an administrator who is in control of the payment and budget control processes.

The project started until July 2018 and the Inception Meeting was held in September 2018.

For the remaining years, the implementation rate started at a slow pace but increased during 2019 with the development of activities and active and efficient project management. The only component that has had some challenges in its implementation rate is component 3. This analysis includes the implementation carried out in the full years 2018 to 2019 and up to October 2020.

The project has a budget of USD$ 69 982 008 distributed as GEF funding for USD$ 5 090 000 and Co-financing of USD$ 64 742 008. The overall implementation of the project as of the date of this evaluation exercise is 38.46%. This means that budget implementation has been moderately satisfactory. This is mainly a result of the outstanding challenges for executing activities related to Component 3.

##### Table 7. Budget per year vs real execution

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Project Components** | **Budget as in project doc.** | **Expenditure 2018** | **Expenditure 2019** | **Expenditure 2020**  (Until Oct.) | **Total** | **Progress %** |
| Component 1 | **$1 000 000** | **46 689,78** | 97 603,00 | 65 460,31 | 209 753,09 | 20,98 |
| Component 2 | **$2 300 000** | **27 368,67** | 683 953,00 | 853 442,78 | 1 564 764,45 | 68,03 |
| Component 3 | **$1 400 000** | **11 111,02** | 62 367,00 | 53 241,99 | 126 720,01 | 9,05 |
| Component 4 | **$150 000** | **0,00** | 0,00 | 0,00 | 0,00 | 0,00 |
| Project management | **$240 000** | **4 115,44** | 37 408,00 | 14 672,04 | 56 195,48 | 23,41 |
|  | **$5 090 000** | **89 284,91** | 881 331,00 | 986 817,12 | 1 957 433,03 | 38,46 |

*Source: Project Management Unit accounting information*

At the time of this evaluation exercise, the accounting information was not available to determine the co-financing commitment vs actual in-kind and cash investment. Upon the start of this evaluation, the stakeholders were contacted requesting their report for their investment in 2018 and 2019. It is understandable that the COVID-19 working conditions in many of the public and private institutions are all done from a work at home environment and the official data takes a bit more time to obtain.

The PMU was able to produce the following co-financing information during this MTR process.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sources of Co-financing** | **Name of Co-financer** | **Type of Co-financing** | **Co-financing amount confirmed at CEO Endorsement (JOD)** | **Co-financing amount confirmed at CEO Endorsement (US$)** | **Actual Amount Contributed at stage of Midterm Review (US$)** | **Actual % of Expected Amount** |
| **Government** | **Ministry of Environment** | Cash | 3 500 000 | 4 943 503 | 4 595 108,6 | 87,1 |
| In Kind | 500 000 | 706 215 | 328 604 |
| **Ministry of health** | Cash | 3 000 000 | 4 231 365 | 6 885 593 | 46 |
| In Kind | 7 500 000 | 10 578 412,50 |
| **Ministry of Local Administration** | Cash | 15 000 000 | 21 156 825 | 2 812 153,62 | 13.3 |
| **Royal Medical services** | Cash | 3 398 400 | 4 800 000 | 3 441 765,91 | 67,49 |
| In Kind | 212 696 | 300 000 | NA |
| **Jordan University of Science and Technology** | Cash | 991 200 | 1 398 043 | 1 623 141 | 77,40 |
| In kind | 495 600 | 699 021 |
|  |  | **TOTAL** | **34 597 896,0** | **48 813 384,0** | **19686366.3** | **40.3** |

##### Table 8. Project Co financing at MTR

There is a notable difference between what was indicated in the project document as the co-financing amount, USD$ 64,742,008, and the amount that the above table has indicated for total co-financing confirmed at CEO Endorsement, USD$ 48,813,384. There is a difference of USD$ 15,928,624 with what was indicated in the ProDoc. The table above reflects only the co-financing from government partners because the co-financing from the private companies was not available during the MTR reporting period.

In conclusion, even with the co-financing amount confirmed at CEO Endorsement, the co-financing investment in cash and/or in-kind is exceptionally low regarding the revised commitment. This could be the result of not having an efficient accounting and reporting system for the stakeholders to report on a yearly basis their investments.

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### MONITORING AND EVALUATION

The executing partner is the MoEnv, the institution responsible for the chemicals and waste legislation, and the Stockholm, Basel, Rotterdam, and Minamata Conventions focal point.

The MoH is responsible for the management of the health-care system and constitutes another important stakeholder.

The PMU has placed a project officer in each one of these institutions to work closely with each one and enhance the coordination of activities. This is an efficient proactive approach to not only coordinate but also towards the sustainability of the results for the future. The two institutions are an integrated part of the day-to-day work.

The possible stakeholders were identified in the project document and during the inception meeting no changes were made to the original list and the roles they play.

This evaluation will address the level of participation from the most relevant stakeholders during the first years of the project implementation.

The Project Monitoring and Evaluation (M&E) was accurate in its budget allocation. The PIR for 2019, and an updated 2020, have been completed in an efficient manner. The annual reports have been completed with information that this evaluator considers being accurate with the existing conditions at the time.

The PIR 2019 and to some extent the PIR 2020 (up to the date of this MTR) were basically focused on the HCW and the possibility of purchasing the autoclaves. As the year 2020 unfolded and in the mist of an all-out Pandemic the need for the autoclaves became even more real.

Adaptive management is presently being implemented by the PMU and UNDP because of this MTR. During the interview with it was suggested that UNDP CO and the PMU study the process of finding a solution to the real issue, regarding the possibility of the project to complete an expected outcome in Component 3, the generation of 500 T/yr. for 4 yrs. of RDF. This concern is the result of the monitoring instruments that clearly define this issue to be a situation that needs to be resolved.

Regarding monitoring of the gender equality and women engagement the PIR makes a good evaluation and report on the project’s positive results demonstrated in an increase in the tendency of women to engage in income generating activities and is this way contribute to the household economy. The women have been involved in awareness and training programs.

#### Institutional partners

**Ministry of Environment (MoEnv)**

The MoEnv, as the national executing agency, has played committed within its present possibilities to the development of its E-waste corresponding activities. The institution played an important role in the approval of the E-waste instructions and is making efforts to have the EPR approach implemented for this type of waste and works towards an economically viable business scheme.

The MoEnv supported the implementation of surveys and assessment studies to quantities and types of hazardous waste generated in Jordan in addition to the establishment of a national monitoring information system, which includes the registration of e-waste generators and recyclers, as well as supporting the implementing of POPs related activities. These activities were funded by GIZ and the Austrian Environment Agency.

There have been efforts made to coordinate with GIZ to rehabilitate SWAGA. The MoEnv has played an important role in the support of the project adaptive management for the selection of new landfill sites as the identifying of another cement company to replace Lafarge/Holcim for the RDF activities.

**Ministry of Health (MoH)**

The MoH has been a fundamental partner in the obtaining of the most important results identified in this evaluation, the installation of 11 autoclaves for HCWM and the training of hospital staff in public, private and military hospitals.

This institution has come forward in these Pandemic times and utilized the project support to come to the call of their country’s need for HCWM in these trying times. This evaluator commends this institution for its work.

**Royal Medical Services**

The Royal Medical Services has been involved in the training and will support the project with the incinerator audits that are coming up shortly. The RMS will insure the coordination of relevant activities among military hospitals

**Private Hospital Association**

The Private Hospitals’ Association has ensured the coordination of relevant project activities among private Hospitals involved in Component 2. Private hospitals’ staff has received training and have developed their individual HCWM plans or committees.

**Ministry of Local Administration**

This ministry is the institutional authority responsible for the SWM in Jordan. They have played an important role in the identifying of new locations for the establishing of landfills for the waste segregation and collection pilot and finding a new cement company partner in the southern part of the country.

**Greater Amman Municipality (GAM)**

Involved in all implementation parts of the project and in training/awareness-raising activities. GAM is an important player in E-waste management.

Operational responsibility role in the provision of delivering of MSW services including the collection, waste diversion, and landfill disposal, applying restrictions on the acceptance of targeted waste and hazardous processing residuals at landfills, and supporting disposal of non-hazardous waste residuals.

**Aqaba Special Economic Zone Authority (ASEZA)**

From the interview of the representatives of this organization and the documents reviewed, they have been key players in the efforts to move forward with the E-waste management component and the MSW management component. They are key players in the technical committee.

*Source: Own elaboration based on Project Document (PRODOC)*

#### Private Sector Stakeholders

The project was successful in reaching out to the private sector and civil society organizations in project activities including awareness activities, e-waste instructions review and update, and training workshops.

GAM and JoCycle key partners that have been working with the project in training activities and the search for suitable locations for EWM.

Currently the principal e-waste management service providers and future human resource base for the formal sector

#### Academic Institutions

**Jordan University of Science & Technology (JUST)**

JUST has played an important part in the training activities and in the implementation of Component 2.

**Jordan University.**

The project also includes Jordan university in project activities, and it was agreed to consider the center of water, energy, and environment as one of the e-waste collection points to be supervised by the center staff.

#### International Organizations

**WHO**

The WHO documentation was the basis for the ESM documentation approved and delivered to the hospitals.

**UNEP**

UNEP developed several guidance documents on the management and inventory of POPs, with specific reference to new POPs in E-waste.

**GIZ**

Key partner for the implementation of component 3 (3.1.2 and 3.1.3).

Potential bi-lateral donor supporting SW practice upgrading.

**Canadian Embassy**

Bi-lateral donor supporting SW practice upgrading

#### Civil Society and NGOs

**Royal Scientific Society (RSS)**

Research and technological studies institute.

### SOCIAL AND ENVIRONMENTAL STANDARDS (SAFEGUARDS)

In the 2019 PIR, there was a positive answer to the need to prepare social and environmental assessments and/or management plans. The stakeholder’s engagement plan was revised and updated to introduce additional municipalities that could be considered as service providers for collecting municipal waste. This initiative is added to the private sector being committed to deal with the electrical waste dismantling and the recycling process.

In the 2020 PIR, there were no affirmative answers to the safeguards established originally.

### COMMUNICATIONS AND KNOWLEDGE MANAGEMENT

The working groups of the Technical Committee meet monthly, and if there is a need to make an adaptive change in management at any point, it is discussed and presented to the Project Board. This ensures a blending of the stakeholders involved in each component with the required changes.

The project team is also working on creating awareness material targeting people from all sectors with a focus on the new generation. A short documentary video is under process to be screened in various schools and universities with the aim of raising awareness on the hazardous materials and the haphazard disposal of e-waste and HCW, which poses a high risk to human health and to the environment, thus, creating a positive impact on people’s lives and improving the attitudes and practices in handling different types of waste.

Training of Trainers workshops on HCW management were given with a total with 141 participants of which 52% were females. The TOT workshops were designed so that hospital staff could be certified in Healthcare Waste Management (HCWM) techniques and approaches, and to take back and share the knowledge with their respective hospitals.

#### Reporting

The Project has had one Project Board meeting in the month of July 2019.

The first Project Board made specific recommendations such as:

* To explore the possibility of including Zarqa Hospital, in case of budget availability, in the program of replacement of small sub-standard incineration activities with non-combustion units.
* To formally address the Minister of Health to stress the importance of having locations ready to receive the autoclaves in terms of their infrastructure.
* Royal Medical Services recommended increasing the capacity of the autoclaves in Prince Rahid Hospital and Queen Alia Hospital to reach 300 L.
* To initiate the work on revising the E-waste instructions in cooperation with the Ministry of Environment.

The Project Board met once again in July 2020 under the safeguards issued under Covid-19.

This project board made the following recommendations:

* The concerned committee should review the regulations text and add annexes according to the internationally applicable waste standards and classification. It should be presented when the solid waste framework law comes into effect in September.
* A specialized company will be hired to operate the autoclaves, preferably the existing local agent; to carry out maintenance on regular basis and train the hospitals’ staff, which will enhance the monitoring of the machines function thus ensuring the continuity and effectiveness of operations.
* Targeted municipalities should specify the location of the collection points; for the international consultant to visit and prepare the designs to start receiving the materials.
* Khalid bin Al-Waleed municipality and/or nearby municipalities (close to existing sorting centers) were identified as a pilot area for the project especially because of the already existing transfer station in the Northern Shouneh area, to build on what has been achieved in terms of municipal waste knowledge and extend this experience to the local NGOs to develop the local community, where the Local Administration Ministry will be transporting the waste to the Cement Kiln in the Northern area.

The PMU has included all these recommendations in their work plan and the corresponding activities.

There have not been important adaptive management issues, only some challenges that were solved in actions to mitigate their impact.

Some of these challenges are as follows:

* The manufacturing process for the shredding and sterilization units needed to be completed before the end of the year 2019 to be able to ship, deliver, and install the units in the assigned hospitals. The solution that the project proposed was to have at least 3 units delivered before the end of the year 2019 and the remaining 8 units were to be delivered early in 2020.
* The process of updating and endorsement of e-waste instruction was too slow or complex to be completed within this reporting period. The PMU assisted and facilitated the discussions with the industrial sector, e-waste service providers, and environmental associations to agree on the instructions articles in a way that ensure benefits for all partners to achieve sustainability in e-waste management. This resulted in the E-waste being presented to the MoEnv for their approval and publication.
* The municipalities could not identify e-waste collection points due to a lack of infrastructure and capacities. The project committed that the next year (2021) they would identify the needs and requirements for each location to work on furnishing the locations with required tools to ensure proper collection within the municipalities.
* The project could not agree with the Ministry of Local Administration on the location of demonstrating a door-door collection of municipal waste. This is an integral part of the RDF component and the cement company that will use this RDF. The project has proposed identifying a location in the North, to benefit from the transfer station in the North Shuneh which was established with UNDP support and Canadian fund. These challenges were reported in the 2019 Annual Report.

## SUSTAINABILITY

The analysis of the risks identified in the Project Document was updated in the 2019 Annual Progress Report and the following risks were identified. These additional risks, which are fundamental, should be evaluated further down the line of the implementation by the project management due to the potential effects that the impacts of the Pandemic may have on the country’s socio-economic reality.

|  |  |
| --- | --- |
| **Social and environmental issues, risks and impacts addressed during implementation** | **Have social and environmental assessment and management measures been conducted to address risks?** |
| Generation of waste (both hazardous and non-hazardous). | The project will not generate new waste, but instead will ensure that existing waste streams will be processed in an environmentally sound manner. |
| Potential risk to human health from inhaling dioxin and furan that result from the incineration of different kinds of waste. | The project will implement the following activities to reduce the risk.   1. Replace small incineration facilities in hospitals with non-combustion technologies. 2. Upgrade incineration facilities that provide healthcare waste services up to international standards. 3. Build national capacities on best environmental practices in healthcare waste, e-waste, and municipal waste management. 4. Implement measures to prevent and/or control open burning of waste. 5. Build national capacities for better e-waste management including dismantling and recovery of material. |
| Potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials. | The project will address these issues by implementing the following:   1. Project provided PPEs and other tools for the safe management of healthcare waste. 2. The project will establish a GPS tracking system for healthcare transportation vehicles to be controlled by the Ministry of Health. 3. Project will support the Municipalities in establishing e-waste collection points and plan with e-waste service providers to deal with such waste stream. 4. Project will conduct training for hazardous waste generators on waste classification, proper labeling, and packaging, in addition to adopting green industries. |

In addition to these risks, this evaluator suggests these other sustainability risks.

1. **Financial Risk**. Concurrent co-financing for the execution of project actions may not be obtained in time. This could be not only because of the project delays from the COVID-19 measurements but also because of the serious economic situation that the informal and formal E-waste sector is experimenting. This is also applicable to the SWM component and the need to make investments to improve identified potential landfills.
2. **Political Risk.** At the present time, Jordan has a law migration population that comes from the political-social challenges that face the neighboring countries. This additional population possesses economic and social stress on the Jordan economy and health system. This risk has an added element in the COVID-19 Pandemic issues and the need to direct funds to the healthcare system in general.
3. **Social Risk.** There is an important informal E-waste management sector that is barely making a living with this activity and most of the time, not in environmentally sound management conditions. The evolution to an environmentally safer and economically beneficial business model will have an important impact on this informal sector. The project should increase the awareness-raising within this sector and enhance promote the integration of the new business model with project activities such as training.

# CONCLUSIONS AND RECOMMENDATIONS

## CONCLUSIONS

### PROJECT DESIGN AND STRATEGY

After analyzing the project documentation and strategy, it can be concluded that is consistent with the national strategies, priority plans, and its current development priorities related to environmental protection as well as social and economic development. The project is under development precisely when the National Solid Waste Management Strategy is being put into effect.

It makes links GHG reduction with the development of environmentally sound RDF contributing to climate change mitigation policies and strategies.

The project addresses the needs of Jordan within this sector, that existed before refugee’s influx to Jordan, and increased due to the crisis, and it is presently in line with the country’s provision of appropriate sanitary and medical services. This is even more relevant in the present times with the COVID-19 Pandemic.

### EXECUTION AND MANAGEMENT

The monitoring and evaluation of the project have fully complied with the formulation of the PIR and AWP in a timely manner which is concluded is the result of efficient coordination management. The project has not produced quarterly reports. It is not clear why this is as such.

The implementation of the budget and the concrete commitment is something that has not been fulfilled in accordance with what is defined in the Project Document. It is partly due to a delay in the operational part of the project under the present COVID-19 restrictions and economic implications for Jordan. Implementation has managed to move forward in the year 2020 after 2019 was on an efficient operational level. The world health crisis and isolation measures and economic impacts have slowed the progress of certain activities planned in the 2020 AWP. It is important to commend the project on the timely efforts made to complete priority activities in the HCW component, particularly in a time when health waste is generated in totally unexpected volumes and that needs to be eliminated in a manner that will not impact health or the environment.

## RECOMMENDATIONS

1. Continue to work on the institutional strengthening of government partners, especially within the framework of their role within the project, but also strengthen the spaces of collective participation, so that the integrality of the actions and the objective of the project is achieved. **Responsible parties for their completion: PMU,UNDP,**
2. The 11 autoclaves that have been installed in the hospitals will need to have preventive and corrective maintenance. This is not an activity that the hospitals have trained people to do it, therefore it will be important to identify the best solution to this need. It can be through the outsourcing of the maintenance, which could be the most effective solution. This will need to be included within the sustainability strategy for the project closure so that when the funding has finished the MoH or the hospitals will have already budgeted this to guarantee the continuity of the service. **Responsible parties for their completion: PMU, TC.**
3. Project Coordination should keep the UNDP/Program Officer informed of the progress and quality of the institutions’ participation. In this manner, the UNDP/Program Office can address these issues with the institutions that have less aggressive participation. **Responsible parties for their completion: PMU, UNDP, TC.**
4. Ensure that the monitoring and evaluation processes established by the UNDP Office are carried out in a timely manner so that Project development can be ensured. **Responsible parties for their completion: UNDP.**
5. To lead the project always with the perspective of the role that each institution has, that is, to have clarity of the responsibilities of each and above all define how the sustainability of this project will be obtained with the leadership of the counterparties. **Responsible parties for their completion: UNDP, PMU, TC.**
6. This project has three components that are linked to the purpose of protecting the health and the environment with environmentally sound waste management and the complementing of a green economy. It is important to establish in the best possible way the complementarity each component has with each other and/or the importance that, as one component progresses, another component subsequently advance or be directed. The components are not isolated but integrated parts of the project. **Responsible parties for their completion: UNDP, PMU, TC.**
7. Seek to continue enhancing women empowerment and gender equity in different project activities. **Responsible partites for their completion: PMU, UNDP, MoENV.**
8. In working with social and economically sensitive sectors, for instance, the informal e-waste sector, the target population should be involved from the beginning of the process. This will allow for this group to believe that their opinion is heard and form part of the actions that need to be implemented and make for a smoother transition to a modern economically viable and structured E-waste management scheme. **Responsible parties for their completion: PMU, TC AND PROJECT BOARD.**
9. Establish a clear sustainability strategy to strengthen the institutional capacities of those who are part of the project to be integrated during the remaining time. It is important to prepare and start strengthening efforts towards the sustainability of the results once the project has ended. **Responsible parties for their completion: UNDP, PMU, PROJECT BOARD.**
10. Financial stability must be improved with a better accounting of the co-financing contributions that have not been accounted for as of this evaluation. **Responsible parties for their completion: UNDP AND PMU, TC.**
11. Considering all the progress made so far and the way of work that has been developed, research and evaluations should be undertaken in this pandemic context to assess how the project could contribute to the country's socio-economic recovery and to strengthen it with improved conditions after this crisis. This would of course have to be done within the limits of the project's mandate and its objectives. **Responsible parties for their completion: UNDP, PMU, TC.**
12. The Project Management Unit must implement, among the institutions that have committed the co-financing, a system of reporting cash and in-kind investments. It is important that the accounting be available at least at the end of each semester. **Responsible parties for their completion: UNDP, PMU.**
13. The COVID-19 Pandemic’s isolation measures and economic impacts could slow the progress of certain activities planned in the 2020 AWP and possibly until the second quarter of 2021 and beyond. The recommendation of this evaluation is to request a project duration extension for a period of 18 months. This extension will be necessary to recover the work processes that have been delayed and will be affected by the socio-economic impacts of COVID-19. **Responsible parties for their completion: UNDP, PMU, TC AND PROJECT BOARD.**
14. The project is facing challenging issues about the RDF output under component 3 of this project. It is not feasible to complete the output of the generation of 500 T/yr. for 4yrs of RDF under the present conditions that are aggravated with the lockdowns that are imposed by the COVID-19 Pandemic. **Responsible parties for their completion: UNDP, PMU, TC, MoENV AND MoLA.**

After consultation with the PMU, UNDP, and the MoEnv this evaluator agrees on recommending the following actions to be undertaken within the first quarter of 2021.

* Explore the feasibility of RDF production under the current scenario.
* Investigate other methods for RDF raw material collection, technologies, and RDF types to be produced under the project while serving the same objectives.
* Consult with the private sector and identify opportunities for collaboration.
* Assessing the proposed scenarios and proceeding with the implementation as best serves the scope.
* Consult with other development actors that have ongoing similar projects to explore opportunities for collaboration and overlapping activities.

**Responsible parties for their completion: UNDP, PMU, TC, MoENV AND MoLA.**

# LESSONS LEARNED

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1. The importance that participation in the Ghana regional meeting to make linkages with other countries that are experiencing the same challenges in waste management projects. The same is regarding sharing information and communications with a similar project in Egypt.
2. Public institutions are institutions with some bureaucracy that sometimes slows the development of the project, resulting in the established times requiring more than anticipated.
3. Developing innovative instances requires a previous process of awareness-raising and paradigm-shifting. This could be the case in the informal E-waste sector or the SWM operations.

1. The Project Board is an extremely important instance in the future of the project, since, although it does not have an operational role as the Technical Committee, it is the political definition space of the various actions to be taken to meet the objective of the project. It is essential that this space defines the course, otherwise it will be difficult to energize the development of the project.
2. The regularity of the Technical Committee meetings has positive results and contribute to the effectiveness and efficiency of management.
3. The importance of integrating other similar projects in the country and the benefits that can be obtained from different synergies. Such is the case with the GIZ, Canadian Embassy, and UNEP projects.
4. The awareness-raising and training given to hospital staff has resulted in a massive reduction in HCW generated and proper segregation and management was obtained.

# ANNEXES

## ANNEX 1 – MIDTERM EVALUATION MATRIX

## ANNEX 2 – MIDTERM rEVIEW TERMS OF REFERENCE

## ANNEX 3 – LIST OF DOCUMENTS REVIEWED

## ANNEX 4 – MTR EVALUATION LIST OF PERSONS INTERVIEED

## ANNEX 5 – LOGICAL RESULTS FRAMEWORK

## ANNEX 6 – RATING SCALES

## ANNEX 7 – SIGNED CODE OF CONDUCT

## ANNEX 8 – MTR FINAL REPORT CLEARANCE FORM

## ANNEX 9- AUDIT TRAIL

1. "Guide to the Conduct of the Mid-Term Review in UNDP-Supported and FG-Funded Projects"; Directorate UNDP-GEF 2014, United Nations Development Program, <http://web.undp.org/evaluation/guidance.shtml#handbook> [↑](#footnote-ref-1)