1. Project Data

| . Project Data | | mmary project data | |
|---|------------------------------|--|---|
| GEF project ID | | 2865 | |
| | <u> </u> | GF/RAB/08/XXX, 200000292 | |
| GEF Agency project II GEF Replenishment P | | GEF - 4 | |
| · | | | |
| Lead GEF Agency (Inc | lude all for joint projects) | UNIDO Promotion of Strategies to Reduce Unintentional Production of POPs | |
| Project name | | in the Red Sea and Gulf of Aden (| |
| Country/Countries | | Egypt, Jordan, Yemen, Sudan, | |
| Region | | Regional | |
| Focal area | | Persistent Organic Pollutants | |
| Operational Program Priorities/Objectives | or Strategic | and best practices for POPs reduc | implementation. POPS-3: of feasible, innovative technologies ction |
| Executing agencies in | volved | Regional Organization for the Cor Red Sea and Gulf of Aden (PERSG | nservation of the Environment of the A) |
| NGOs/CBOs involven | nent | In Yemen, a contract was signed very representing the industries. | with local union of NGOs |
| Private sector involve | ement | involved include Jordanian Phosp Complex Aqaba (industrial boilers | ort Sudan dated: (open burning), en burning), Dari Environmental |
| CEO Endorsement (FS | SP) /Approval date (MSP) | Oct 7 2008 | |
| Effectiveness date / p | project start | Dec 23 2008 | |
| Expected date of pro | ject completion (at start) | Dec 21 2011 | |
| Actual date of projec | t completion | Nov 30 2012 | |
| | | Project Financing | |
| | | At Endorsement (US \$M) | At Completion (US \$M) |
| Project Preparation | GEF funding | .05 | |
| Grant | Co-financing | | |
| GEF Project Grant | | .95 | 0.938616 |
| | IA own | .03 (UNIDO) | 0.000020 |
| | Government | .4 (PERSGA), .5 Egypt, .5 Jordan, .3 Sudan, .3 Yemen | .4 (PERSGA), .25 Egypt, .3 Jordan, .2 Sudan, .2 Yemen |
| Co-financing | Other multi- /bi-laterals | | |
| | Private sector | | 8.0 (Suez Corp.) 7.0 (JPMC Jordan |
| | NGOs/CSOs | | |
| Total GEF funding | | 1.0 | 0.94 |
| Total Co-financing | | 2.03 | 16.38 |
| Total project funding (GEF grant(s) + co-fin | | 3.03 | 17.32 |
| . 5, | | /aluation/review information | · |
| | | | |

| TE completion date | Oct 30, 2013 (UNIDO's Project Completion Report. There is also a Final Evaluation written by Szabolcs Fejes that was consulted.) |
|---------------------------------------|--|
| TE submission date | Oct 30 , 2013 (UNIDO's Project Completion Report) |
| Author of TE | UNIDO |
| TER completion date | January 7, 2015 |
| TER prepared by | Dania M Trespalacios |
| TER peer review by (if GEF EO review) | Joshua Schneck |

2. Summary of Project Ratings

| Criteria | Final PIR | IA Terminal Evaluation | IA Evaluation Office Review | GEF EO Review |
|---|-----------|---------------------------|-----------------------------|---------------|
| Project Outcomes | S | S | NA | S |
| Sustainability of Outcomes | Low Risk | Low Risk | NA | L |
| M&E Design | NR | NR | NA | S |
| M&E Implementation | NR | NR | NA | S |
| Quality of Implementation | S | S | NA | S |
| Quality of Execution | NR | S | NA | S |
| Quality of the Terminal Evaluation Report | - | - | - | S |

3. Project Objectives

3.1 Global Environmental Objectives of the project:

The Global Environmental Objective is to reduce and/or eliminate the unintentional production of POPs in key sectors of industry (cement, incineration, metallurgy and pulp and paper) recognized as important source categories in Annex C of Article 5 of the Stockholm Convention through the introduction of Best Available Technologies and Best Environmental Practices in the industrial sector of the coast in Egypt, Jordan, Sudan and Yemen. (PD pg. 2)

The Red Sea and the Gulf of Aden contain some of the world's most important coastal and marine environment and resources. The high rate of population and economic growth in the coastal areas in the region has resulted in an increasing pressure on the environment. There is a growing risk of marine pollution and environmental degradation due to industrial pollution. The accumulation of POPs on the oceans and on marine products are of particular importance, as they can build up in the fatty tissue of marine animals and humans, and have been linked to alterations in the functioning of hormone systems of fish, wildlife and humans. (PD pg. 5, 6)

The project will permit PERSGA member countries to attain compliance with their obligations under the Stockholm Convention on POPs, particularly those related to the industrial sector releases of UP-POPs. (PD pg. 2) The project will contribute to a healthier global environment by reducing the discharge of POPs.

3.2 Development Objectives of the project:

The Development Objective of this project is to contribute to the improvement of human health and environmental conditions in the coastal zone, as the project is linked to national sustainable development plans of the participating countries. (PD pg. 2) These coastal zones have a rich developmental potential to modern society and have a strategic role to play in meeting the needs and aspirations of current and future generations living here. (PD pg. 5)

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

There were **no changes** in the Global Environmental or Development Objectives of this project.

4. GEF EO assessment of Outcomes and Sustainability

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

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

Please justify ratings in the space below each box.

| 4.1 Relevance | Rating: Satisfactory |
|---------------|----------------------|
|---------------|----------------------|

The project outcomes are consistent with the GEF's Persistent Organic Pollutants focal area, including the Strategic Programs POPS 2- Partnering in investments for NIP implementation, and POPS-3: Partnering in the demonstration of feasible, innovative technologies and best practices for POPs reduction.

The project is consistent with the country priorities of Egypt, Jordan, Sudan and Yemen. All four countries became parties to the Stockholm Convention. During regular consultation meetings of PERSGA, the countries agreed that close cooperation is needed to collectively implement the Stockholm Convention's measures concerning introduction of best available techniques and best environmental practices for the coastal zone industries. The countries have further agreed that a larger impact on the environment and the coastal zone economy might be attained if cooperation is at regional level. Consequently, PERSGA approached UNIDO for the development and implementation of a Medium-Sized Project to enable the introduction of best available techniques and environmental practices to the industrial sector of the coastal zone. (PD pg. 1-2) The proposed project responds to country requests, addressed to UNIDO through PERSGA, for assistance in meeting their obligations under Article 5 of the Stockholm Convention concerning the reduction of UP-POPs releases in the RSGA coastal zones as listed in Annex C of the Stockholm Convention. (PD pg. 7)

| 4.2 Effectiveness | Rating: Satisfactory |
|-------------------|----------------------|
|-------------------|----------------------|

The TE rates the overall project performance as satisfactory. (TE pg. 6) The TER reviewer agrees with this rating. The main project outcome was to develop a regional strategy for the introduction of Best Alternative Technologies (BAT) and Best Environmental Practices (BEP) in the industrial facilities of the coastal zones of Egypt, Jordan, Sudan and Yemen as required by Annex C of Article 5 of the Stockholm Convention. This regional strategy would reduce and/or eliminate the UP-POPs in key sectors of industry such as cement, incineration, metallurgy and

pulp and paper recognized as important source of pollutants. (TE pg. 6) To achieve this main outcome, the Project Document prescribes 8 outputs, specific activities for each output, and the party responsible for implementing that activity- either UNIDO, PERSGA or the national agencies partnering with the project. (PD pg. 17-22) The TE rates the performance of each of the 8 project objectives. (TE pg. 3-5) (See Table 1)

Table 1: Project Objectives, Activities and Results

| Output | Activities per output | Progress reported in TE | TE Rating |
|--|--|--|-----------|
| Output 1: Project Management Structure established. | Activity 1.1 Establishment of Project Management Committee Activity 1.2 Establishment of the Project National Steering Committees and their functions Activity 1.3 Knowledge management and reporting Activity 1.4 Inception Workshop Activity 1.5 Funds mobilization, partnerships and sustainability plan | Project management structure was in place; PMC established, PERSGA has dedicated a POPs unit. National counterparts have also put in place national coordinating and management systems. | HS |
| Output 2: Institutional and human resources capacity established for various stakeholders | Activity 2.1 Improvement of survey tools, data collection and monitoring Activity 2.2 Undertake stakeholder analysis and identification of roles and responsibilities at the national level Activity 2.3 Assessment of the needs of the stakeholders on capacity development and improvement Activity 2.4 Capacity building for stakeholders implemented at all levels | Project offices have been created at the regional and national levels. Office infrastructure was provided for Yemen and Sudan as they are LDCs. Laboratory capacity was created in the region for UP-POPs analysis. Two experts from each participating country were trained on UP-POPs sampling and analysis in each lab as he main resource persons. | HS |
| Output 3: Comprehensive baseline survey conducted for the coastal zone. UP-POPs related information is available for decision making | Activity 3.1 Development of the detailed inventory of UP-POPs releases for the coastal zone industries Activity 3.2 Development of environment and health related POPs inventory Activity 3.3 Development of the socio-economic inventory Activity 3.4 Desk validation of the inventories Activity 3.5 Maintenance of technical data and information | Comprehensive dioxin and furan release inventory was conducted for the coastal zone, environmental quality monitoring reports are prepared annually for the whole PERSGA region (and reports are available at PERSGA secretariat). Environment and socioeconomic surveys have been undertaken for the specifically selected locations by the countries. Decision making is assisted with UP-POPs related information | S |
| Output 4: Approved UP- POPs sources. Industries that are likely to | Activity 4.1 Scientific evaluation of the inventory results Activity 4.2 Development of criteria for the prioritization of identified sources | Expert teams have visited industrial facilities that had potential for comparatively high releases of UP-POPs and were belonging to the source categories that have been | HS |

| release high | Activity 4.3 Approval of UP- | selected for BAT/BEP | |
|---------------------------|--|--|----|
| amount of UP- | POPs sources | implementation on the 4th PMC | |
| POPs are aware | 1 Of 3 Sources | meeting. These industries are | |
| of BAT/BEP | | aware of the objectives of the SC in | |
| OI BITT / BEI | | this regard. | |
| Output 5: UP- | Activity 5.1 Identification of | Sites selected specific assessments | |
| POPs source | project managers, sector experts | have been prepared for Egypt | |
| specific action | and/or task teams and | (municipal waste and oil refinery), | |
| plans to | establishment of national | Jordan (phosphates industry) and | |
| promote BAT | executing offices in the relevant | Sudan (municipal waste). Private | |
| and BEP | national executing | industries have joined project | |
| developed | ministries/agencies | activities on implementing BAT/BEP. | |
| developed | Activity 5.2 Report for BAT and | Awareness Activities have been | |
| | | established and are ongoing on | S |
| | BEP arrangements | regular basis. Reports are available at | |
| | Activity 5.3 Establishment of | PERSGA secretariat which include | |
| | environmental and health | answers to general questions such as | |
| | related research and monitoring | selected industries, target groups, | |
| | system | people trained, media used. | |
| | Activity 5.4 Establishment of | people trained, media ased. | |
| | socioeconomic and public | | |
| 0 | participation initiative | A | |
| Output 6: | Activity 6.1 Implementation of | Activities are foreseen to continue | |
| Implementation | the site-specific action plans | as fundamental components of | |
| of BAT and BEP | Activity 6.2 Site specific plans | continuous development and | |
| action plans. | and additional financial | maintenance at the Partner | |
| UP-POPs | resources mobilized | Industries selected by the countries. | |
| releases are | | Partner Industry in Jordan is | |
| reduced | | implementing BAT / BEP but facing | |
| | | problems sometimes in securing | |
| | | natural gas. The partner Industry in | S |
| | | Egypt is implementing its | |
| | | development and upgrade program | |
| | | on stages depending on fund | |
| | | availability. Sudan is continuously | |
| | | improving the conditions of | |
| | | collecting and recycling reusing | |
| | | municipal waste to cut releases and | |
| | | is working on a plan of master | |
| 0 | A - tiit 7 1 D | engineered dump site. | |
| Output 7: | Activity 7.1 Preparation of the | Regional strategy that identifies | |
| Regional BAT | regional strategy for BAT and BEP | priority areas and legislative needs | |
| and BEP | | has been prepared and verified at | |
| strategy | Activity 7.2 Development of a | the technical level. Identified | |
| developed | common legislative and | priorities in the strategy are | HS |
| | regulatory framework Activity 7.3 Endorsement of the | becoming integral parts of national interventions. | |
| | regional strategy | | |
| | regional strategy | The strategy has been endorsed by PERSGA Board of Ministers in April | |
| | | 2013. | |
| Output 9. | Activity Q 1 Monitoring and | | |
| Output 8: | Activity 8.1 Monitoring and Evaluation | Activities follow the work-plan, which has been amended two times. | |
| Adaptive | Evaluation | UNIDO has extended the project until | |
| Monitoring and Evaluation | | December 2012. Progress reports | HS |
| Evaluation | | have been received by UNIDO | |
| | | regularly as per the subcontract. | |
| | | regularly as per the subconfidet. | |

| Reporting is based on the achievement of outputs. Four progress and financial reports have been submitted to UNIDO in addition to | |
|---|--|
| one report on the contract amendment | |

All of the project's objectives have been completed at a satisfactory or highly satisfactory level. The TE reports that the project achieved its goal of developing BAT/BEP measures and strategies, and of developing infrastructure and training industry experts to implement those strategies. (TE pg. 6) The project has strengthened the laboratory capacity in the PERSGA region, thus the global POPs analysis and monitoring capacity has increased. The training and awareness raising and publication activities of the project has significantly improved the global knowledge on POPs and thus generated benefits for the protection of the global environment and human health.

PERSGA has achieved the project goal, and thus its member countries have attained better compliance with their obligations under the Stockholm Convention on POPs, and they have contributed to the improvement of human health and environmental conditions in the coastal zone. (TE pg. 6)

The TE reports that all project outputs set forward at the CEO Endorsement have been satisfactorily fulfilled. (TE pg. 8) Thus, project effectiveness is rated satisfactory.

| 4.3 Efficiency | Rating: Moderately Satisfactory |
|----------------|---------------------------------|
|----------------|---------------------------------|

The TE does not explicitly rate project efficiency. The TER rates project efficiency as moderately satisfactory. The project's original end date was December 2011, but the final date was extended to November 2012. In the end, the project was completed with a 16 month delay. (TE pg. 3) The project took a longer time than expected in coordinating activities between different countries. Some components in the implementation experienced delays as the selection of the national consultants and preparation of the coastal zone inventory for dioxin and furan took more time than was foreseen. (PIR 2011 pg. 7) Significant delays were caused due to political instability outside of the project's control. Despite these delays, all project components were successfully achieved. Due to moderate shortcomings, efficiency is rated moderately satisfactory.

| 4.4 Sustainability | Rating: Likely |
|--------------------|----------------|
|--------------------|----------------|

The TE reports that this project has good prospects for sustainability through legal, technical, institutional and financial pillars. (TE pg. 6)

Financial Risks - Sustainability Likely

The private sector has invested heavily in process optimization and cost efficiency so as to ensure that the priority targets of the project have been addressed by promoting investments in the field of BAT/BEP introduction at six pilot demonstration locations. The total investments of the private partner industries and stakeholders in BAT/BEP has reached US \$17,240,000, leading to 30,8 mg I-TEQ PCDD/PCDFs release reduction. These investments have had their positive effects on the release reduction of UP POPs. The financial sustainability of the project

could be smoothly secured by regular industrial plants maintenance and development of expenditures commitments at the different levels of the BAT/BEP implementation strategies.

Socio-political Risks - Sustainability Unable to Assess

In 2011 the economic slow-down and the increased political instability created significant challenges for this project. The uprisings in Egypt and in Yemen could be felt in the implementation performance. In Egypt, political instability did not seem to have significant negative impacts on project implementation. In Yemen, however, the situation was unclear at the time of the evaluation. The Yemeni consultancy team could not complete the site-specific assessments of the selected locations. The agenda of the BAT/BEP implementation mission, was revised due to security reasons, and would finally not visit Yemen. (Fejes, Final Evaluation, pg. 36)

Environmental Risks- Sustainability Unable to Assess

The TE does not discuss environmental risks. Fejes's Final Evaluation does state that the high rate of population and economic growth in the coastal areas in the region has resulted an increasing pressure on the environment. There is a growing risk of marine pollution and environmental degradation due to several human and economic activities such as industrial pollution. (Fejes, Final Evaluation, pg. 15)

Institutional Risks - Sustainability Likely

Project management structure is in place. PMC is established, PERSGA has dedicated a POPs unit, and National counterparts have also put in place the national coordinating and management systems. Project offices have been created at the regional and national levels. Two experts from each participating country were trained on UP-POPs sampling and analysis. (TE pg. 2)

Through endorsement of the Regional Strategy for BAT/BEP Implementation in the Coastal Zone of the Red Sea and Gulf of Aden (RS) the Project provided the modalities as to how governments of the PERSGA countries may govern the UP-POPs field. The necessary technical capacity for POPs monitoring has been built. Human resources capacity has been strengthened. Sampling equipment have been provided for UP POPs monitoring. Ben Hayyan Laboratory has received on-the-job training on PCDD/Fs analysis, whereby the UP POPs monitoring capacity is in place. (TE pg. 6-7)

5. Processes and factors affecting attainment of project outcomes

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

At the start of the project, co-financing represented almost 70% of total project funding. By the end of the project, co-financing had surged from US \$2.03 million to US \$16.38 million, representing almost 95% of total project costs. Most of this cofinancing was provided by two private companies, Suez Corp and JPMC Jordan. While it seems that co-financing was essential to the achievement of GEF objectives, TE does not assess the effect of co-financing on project outcomes or sustainability.

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

The project's original end date was December 2011, but the final date was extended to November 2012. In the end, the project was completed with a 16 month delay. (TE pg. 3) The project took a longer time than expected in coordinating activities between different countries. Some components in the implementation experienced delays as the selection of the national consultants and preparation of the coastal zone inventory for dioxin and furan took more time than was foreseen. (PIR 2011 pg. 7)

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

The project document was developed on the basis of the National Implementation Plans of the participating countries and discussions with national PERSGA focal points in Jeddah, Saudi Arabia, on 12-18 March 2006 and later in Manama Bahrain 11-12 June 2008. During these workshops participants agreed that due to unique sensitivity of the coastal zones and due the increasing pressure on it through human activities they collectively address this problem under the infrastructure of PERGSA. (Fejes, Final Evaluation, Pg. 36)

6. Assessment of project's Monitoring and Evaluation system

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

Please justify ratings in the space below each box.

| 6.1 M&E Design at Entry | Rating: Satisfactory |
|-------------------------|----------------------|
|-------------------------|----------------------|

The TE does not rate M&E Design. The TER rates M&E design as satisfactory. The Project Document describes a thorough M&E plan. (PD pg. 35-36) UNIDO would monitor and evaluate the implementation of the project: M&E would be based on measurable performance indicators through verifiable points, which are elaborated in the context of each Output. A detailed schedule of the project review mechanisms will be developed by project, and would include finalized timeframes for the PNSC meetings, and UNIDO's reporting requirements. UNIDO would field monitoring and evaluation missions. The Project Result Framework includes specific outputs and objectively verifiable indicators, which meet the GEF's best practices for SMART indicators. (PD pg. 40-44)The M&E plan includes a mid-term and final report completed by UNIDO, and Quarterly Project Review and Financial Reports completed by PERSGA. The M&E plan calls for at least two UNIDO field evaluations (mid-term and final) will be carried out to safeguard project adherence to the work plan and the use of funds.

The M&E plan is given a specific budget, and specific parties and due dates are identified. The indicators established for the activities under the project objectives seem adequate. In retrospect, the M&E plan at entry practicable and sufficient, and thus is rated satisfactory.

6.2 M&E Implementation Rating: Satisfactory

The TE does not rate M&E Implementation. The TER rates M&E Implementation as satisfactory. The Mid-Term evaluation was completed on April 30, 2011, and at least two PIRs were completed. UNIDO's Project Completion Report was completed on Oct. 30, 2013, and an additional Final Evaluation was completed (date unknown).

The TE reports that there was a day-to-day communication between the Implementing Agency and the Regional Project Coordinator. The Regional Project Coordinator sent technical and progress reports to UNIDO, and reacted timely on the circumstances when project approach needed adjustments. UNIDO undertook undertaken several missions to provide technical assistance and to assure timely implementation and the attainment of the results. (Fejes, Final Evaluation, Pg. 49)

7. Assessment of project implementation and execution

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

Please justify ratings in the space below each box.

| 7.1 Quality of Project Implementation Rating: Satisfactory |
|--|
|--|

The TE rates project implementation as satisfactory, and the TER concurs with this rating. The implementing agency for this project is UNIDO. UNIDO was responsible for overseeing and monitoring the project budgets and expenditures, recruitment and contracting of international consultants, procurement of equipment and project evaluation as well as organizing independent audits to ensure the proper use of GEF/UNIDO funds. (PD pg. 15)

The TE does not report any negative implementation issues. (TE pg. 8) It notes that the project had smooth and effective implementation. (TE pg. 6)

Fejes's final evaluation notes that the initial project time scale of two years was too ambitious, and thus UNIDO could have prevented project delays. (Fejes, Final Evaluation, Pg. 47) However, Fejes concludes that project implementation was efficient on the technical as well as on the managerial side. (Fejes, Final Evaluation, Pg. 49) Thus it is rated satisfactory.

The TE rates the quality of project execution as satisfactory, and the TER reviewer agrees with this rating. The executing agency is the Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA). National line ministries and agencies would cooperate with PERSGA at the country level. PERSGA was responsible for delivering specific inputs (services, expertise, and procurement of equipment to the project and for producing specific outputs, including the establishment of a project coordination unit (PCU), a Project National Steering Committee (PNSC), and project management committee (PMC) made of UNIDO, PERSGA and national focal points in the participating countries. (PD pg. 15)

The TE reports a few issues with project execution, mostly related to the political conditions in the region. (TE pg. 9) Unstable political conditions sometimes affected the smooth flow of action on the ground and resulted in some hesitation in taking decisions at the national level in some countries. The Project Coordination Unit responded with more involvement and stronger follow up. PERSGA staff, mainly the Project's Regional Coordinator, were mobilized to work on the ground with national specialists and help in overcoming administrative matters as they appeared. (TE pg. 9) Despite the political turmoil and delayed implementation, all project objectives were successfully achieved. Thus, project execution is rated satisfactory.

8. Assessment of Project Impacts

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

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

The TE reports a change in environmental stress. Project demonstration activities have calculated a total of PCDD/PCDFs release reduction of 30,806 mg I-TEQ at two industries. At these locations BAT/BEP measures have been developed. In the case of the other demonstration sites BAT/BEP measures were proposed and the theoretical PCDD/Fs release reduction calculated. The total theoretical PCDD/Fs release reduction of the project was 27 473 mg I-TEQ. (TE pg. 2-3)

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

The TE reports that the PERSGA countries have contributed to the improvement of human health and environmental conditions in the coastal zone. (TE pg. 6)

- **8.3 Capacity and governance changes**. Describe notable changes in capacities and governance that can lead to large-scale action (both mass and legislative) bringing about positive environmental change. "Capacities" include awareness, knowledge, skills, infrastructure, and environmental monitoring systems, among others. "Governance" refers to decision-making processes, structures and systems, including access to and use of information, and thus would include laws, administrative bodies, trust-building and conflict resolution processes, information-sharing systems, etc. Indicate how project activities contributed to/ hindered these changes, as well as how contextual factors have influenced these changes.
 - a) Capacities- The TE reports the following changes in capacity:
 - Project management structure is in place, including a project management committee, a dedicated POPs unit in PERSGA, and national coordinating and management systems. Project offices have been created at the regional and national levels. Two experts from each participating country were trained on UP-POPs sampling and analysis. (TE pg. 2)
 - The project has built capacity for regular environmental monitoring of UP POPs in the Red Sea and Gulf of Aden coastal zone. It identified sampling locations, built capacity for sampling including providing ambient air sampling devices in each participating country, procured two isokinetic sampling devices for stack emission monitoring and have strengthened one laboratory for UP-POPs analysis. The project has increased the global POPs analysis and monitoring capacity. The training and awareness raising and publication activities of the project have significantly improved the global knowledge on POPs and thus generated benefits for the protection of the global environment and human health. (TE pg. 6)
 - b) Governance The TE reports the following changes in governance:
 - The regional BAT/BEP strategy as been developed and endorsed at the final project workshop. (TE pg. 3)
- **8.4 Unintended impacts.** Describe any impacts not targeted by the project, whether positive or negative, affecting either ecological or social aspects. Indicate the factors that contributed to these unintended impacts occurring.

The TE does not discuss any unintended impacts.

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

The TE does not discuss any GEF initiatives that were adopted at scale.

9. Lessons and recommendations

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

The TE lists the following lessons learned:

- Successful implementation of the project is promising for its continuation as a program under the leadership of PERSGA. Broadening POPs related activities for all PERSGA member countries and can be an example for other regional intergovernmental organizations.
- BAT/BEP implementation in the power, and consumer goods industrial sectors not only improves the environmental performance but also generates profit.
- BAT/BEP implementation in medical waste incineration and open burning are the most cost efficient in UP-POPs release reduction. BAT/BEP in these sectors do not generate profits, thus the socio-economic implications need to be investigated in each case individually.
- The demonstration activities of the project have concluded that the cost-efficiency of UP-POPs release reduction is industrial sectors specific. Future forecasts should look at all sectors with comparatively high UP-POPs releases in order to propose sector-specific regulatory measures, either command and control or market-focused incentives for BAT/BEP introduction.
- Regional intergovernmental organizations can and should play significant role in implementing multilateral environmental agreements. Already established management structures can cost efficiently be enlarged with new fields such as POPs.
- Expensive environmental sampling devices can be shared within a region and can save resources at the national levels.
- Country willing and expertise in implementing projects is very important to attain high quality results. In the case of regional project one poorly committed partner can significantly pull back the progress of the implementation of the entire project.
- The global economic meltdown has significantly slowed down the banking sector
 willingness in investing in environmental projects. National governments should financially
 promote in their legislations the investments in BAT/BEP and cleaner production. This
 could be through tax alleviation on technology import, reduction of income taxes for those
 who invested in cleaner technologies, etc.
- Rapid changes in global political and economic environment have very strong effects on project implementation and many times cannot be predicted at project preparation. Transparent project management, efficient coordination and commitment at the implementing partners can, to a certain degree, balance out these effects.
 (TE pg. 9)

9.2 Briefly describe the recommendations given in the terminal evaluation.

UNIDO's Project Completion Report (the TE referred to in this TER) does not provide any recommendations. However, the Final Evaluation completed by Mr. Szabolcs Fejes lists the following recommendations on page 10-11:

To UNDIO and PERSGA

- For regional projects the workplan should be developed on a way that would allow for larger flexibility.
- The revision of the work plan therefore is needed since the expected project completion is February 2012. Project extension from the GEF is required.

- Supporting the intentions of the PMC in undertaking a series of public awareness activities during the BAT/BEP evaluation implementation. This would assure the replication of the project.
- Since this regional project started with four participating countries plus the Kingdom of Saudi Arabia as a self financing country, utilizing PERSGA regional and interregional recognition in the could be a good starting point for expanding the project objectives to the other PERSGA member states and even to other countries in the Gulf region. In this regard it is recommended that the Gulf Cooperation Council member countries are also invited to the endorsement of the RS.

To UNIDO:

• The project preparation should in the future be more precise on grouping project activities into components.

To PERSGA:

• The Regional Strategy for BAT/BEP Implementation in the Coastal Zone of the Red Sea and Gulf of Aden is suggested to contain recommendations for harmonizing the PERSGA countries' legislation on UP-POPs management. This would enable countries benefit from such recommendations for the coastal area to form basis for legislation for the whole country.

To PERSGA and National Implementation Partners

- The pace of the implementation process should be increased as much as possible without loosing the quality of the interventions.
- The sampling programme should start very soon, as it is the core indicator of the objective of the project.

To National Implementation Partners

- The capacity the project created within PERSGA and national implementing partners should be maintained and possibly utilized in the future.
- Central Laboratories of Residual Analysis of Pesticides and Heavy Metals in Food and Agricultural Products of the Ministry of Agriculture in Egypt and Ben Hayyan Laboratory in Jordan should maintain international standards of dioxin and furan analysis and providing information for decision making, which should extend beyond the life of the project.

10. Quality of the Terminal Evaluation Report

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

| Criteria | GEF EO comments | Rating |
|---|---|--------|
| To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives? | The TE adequately discusses the outcomes and impacts of the project, and reports on each of the project objectives individually. | нѕ |
| To what extent is the report internally consistent, the evidence presented complete and convincing, and ratings well substantiated? | The ratings are well substantiated and the report is internally consistent. However, the report does not provide information on the M&E plan, or the project's exit strategy. Not enough information is provided on the effect of cofinancing, or on the extent of country ownership. | MS |
| To what extent does the report properly assess project | The TE addresses financial and institutional sustainability, although it does not address project exit strategy. | S |

| sustainability and/or project exit strategy? | | |
|---|---|----|
| To what extent are the lessons learned supported by the evidence presented and are they comprehensive? | The lessons learned are comprehensive and supported by the evidence. | HS |
| Does the report include the actual project costs (total and per activity) and actual co-financing used? | The report includes the actual costs and financing, but does not include a break up of costs by activity. | MS |
| Assess the quality of the report's evaluation of project M&E systems: | The TE does not discuss the project's M&E system. | HU |
| Overall TE Rating | | S |

 $0.3 \times (a + b) + 0.1 \times (c + d + e + f) = 0.3 (10) + 0.1 (15) = 3.0 + 1.5 = 4.5 \sim 5$

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

No additional sources of information were used, other than the PD, TE and PIRs.