# 1. Project Data

| Summary project data                           |                              |  |                                     |  |  |
|--|------------------------------|--|-------------------------------------|--|--|
| GEF project ID                                 |                              | 463                                      |                                     |  |  |
| GEF Agency project ID                          |                              | n/a                                      |                                     |  |  |
| GEF Replenishment Phase                        |                              | GEF-1                                    | GEF-1                               |  |  |
| Lead GEF Agency (inc                           | lude all for joint projects) | UNDP, UNEP                               |                                     |  |  |
| Project name                                   |                              | Programme for Phasing Out Oz             | one Depleting Substances            |  |  |
| <b>Country/Countries</b>                       |                              | Azerbaijan                               |                                     |  |  |
| Region   |                              | ECA                                      |                                     |  |  |
| Focal area                                     |                              | Ozone Depleting Substances               |                                     |  |  |
| Operational Program<br>Priorities/Objectives   | or Strategic                 | n/a                                      |                                     |  |  |
| Executing agencies in                          | volved                       | UNOPS/UNEP                               |                                     |  |  |
| NGOs/CBOs involven                             | nent                         | Not involved.                            |                                     |  |  |
| Private sector involve                         | ement                        | Sumgayit and Chinar: beneficia           | Sumgayit and Chinar: beneficiaries. |  |  |
| CEO Endorsement (FS                            | SP) /Approval date (MSP)     | 10/8/1998                                |                                     |  |  |
| Effectiveness date / project start             |                              | 5/10/1999                                | 5/10/1999                           |  |  |
| Expected date of project completion (at start) |                              | 7/1/2002                                 | 7/1/2002                            |  |  |
| Actual date of project completion              |                              | 3/29/2006                                | 3/29/2006                           |  |  |
|  |                              | Project Financing                        |                                     |  |  |
|  |                              | At Endorsement (US \$M)                  | At Completion (US \$M)              |  |  |
| Project Preparation                            | GEF funding                  | 0.12                                     | .13                                 |  |  |
| Grant  | Co-financing                 | 0  | 0                                   |  |  |
| GEF Project Grant                              |                              | 6.93                                     | 6.80                                |  |  |
|  | IA own                       | 0  | 0                                   |  |  |
|  | Government                   | 0.04                                     | 0.04                                |  |  |
| Co-financing                                   | Other multi- /bi-laterals    | 0  | 0                                   |  |  |
|  | Private sector               | 2.19                                     | 2.63                                |  |  |
|  | NGOs/CSOs                    | 0  | 0                                   |  |  |
| Total GEF funding                              |                              | 7.05                                     | 6.93                                |  |  |
| Total Co-financing                             |                              | 2.23                                     | 2.67                                |  |  |
| Total project funding                          |                              | 9.28                                     | 9.60                                |  |  |
| (GEF grant(s) + co-financing)                  |                              | 5.20                                     | 5.00                                |  |  |
| Terminal evaluation/review information         |                              |  |                                     |  |  |
| TE completion date                             |                              | March 2010                               |                                     |  |  |
| TE submission date                             |                              |  |                                     |  |  |
| Author of TE                                   |                              | Dr. Tom Batchelor and Mr. Valery Smirnov |                                     |  |  |
| TER completion date                            |                              | February 2015                            |                                     |  |  |
| TER prepared by                                |                              | Shanna Edberg                            |                                     |  |  |
| TER peer review by (if GEF EO review)          |                              | Dania Trespalacios                       |                                     |  |  |

### 2. Summary of Project Ratings

| Criteria                                  | Final PIR | IA Terminal<br>Evaluation | IA Evaluation<br>Office Review | GEF EO Review |
|---|-----------|---------------------------|--------------------------------|---------------|
| Project Outcomes                          | S         | n/a*                      | n/a                            | U             |
| Sustainability of Outcomes                | n/a       | n/a*                      | n/a                            | U             |
| M&E Design                                | n/a       | n/a*                      | n/a                            | U             |
| M&E Implementation                        | n/a       | n/a*                      | n/a                            | S             |
| Quality of Implementation                 | n/a       | n/a*                      | n/a                            | MU            |
| Quality of Execution                      | n/a       | n/a*                      | n/a                            | MS            |
| Quality of the Terminal Evaluation Report | n/a       | n/a                       | n/a                            | MS            |

\*The TE only gives ratings for individual sub-projects and not the project as a whole.

## 3. Project Objectives

3.1 Global Environmental Objectives of the project:

This project is part of the international effort to phase out ozone depleting substances, which damage the earth's ozone layer and increase the amount of ultraviolet radiation exposure from the sun. The Montreal Protocol, ratified by Azerbaijan in 1996, is the basis for phasing out ozone-depleting substances. While Azerbaijan does not produce ozone-depleting substances, it imports them from Russia. This project would allow Azerbaijan to transition to other materials and reduce demand for ozone-depleting substances before the production of such substances ends in Russia.

3.2 Development Objectives of the project:

The project was composed of the following six subprojects:

- 1. Institutional Strengthening and Capacity Building, Establishment of an Ozone Office
- 2. Training of trainers for use of ODS-free refrigerants
- 3. Recovery and recycling of ODS refrigerants in the air-conditioning and refrigeration sector
- 4. Conversion of compressor manufacturing facility in Sumgavit
- 5. Elimination of CFCs in the manufacture of domestic refrigerators at Chinar
- 6. Halon management and banking national recovery/recycling center

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

No changes were mentioned in the TE.

### 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 GEF Operational Strategy of 1995 defines the GEF's ozone depletion portfolio to "support activities to phase out ozone-depleting substances that are committed under the Montreal Protocol, with special emphasis on short-term commitments and enabling activities" (GEF/C.6/3, page 77). This project supports an economy in transition in meeting its Montreal Protocol obligations.

The project is also in line with Azerbaijan's stated priorities for meeting its treaty obligations. Azerbaijan's strategic goals for the phase-out of ozone depleting substances are: phase out consumption of ozone-depleting substances, phase out consumption of halons, comply with phase out schedules for HCFCs and methyl bromide, convert Azerbaijan's industry to ODS-free technology, establish a legal and regulatory framework for phase out, establish monitoring and licensing systems for import and export, and support scientific research on the ozone layer.

| 4.2 Effectiveness | Rating: Unsatisfactory |
|-------------------|------------------------|
|-------------------|------------------------|

This project was divided into six subprojects, detailed below. According to the Project Document, "the main objective of this project is to assist Azerbaijan in the rapid phase-out of ODS consistent with international efforts in this direction. Other CEIT countries were asked by the Implementation Committee to phase out CFC's by the year 2000, and it is likely that this will also apply for Azerbaijan. The GEF proposal presented herewith would allow Azerbaijan to comply with such a requirement" (PD, page 3). While the project fulfilled most of its intended outputs (i.e. the necessary equipment was delivered and the National Ozone Unit was created, albeit temporarily), the project's actual effectiveness at helping Azerbaijan fulfill its ozone commitments by the year 2000 was low. Azerbaijan was in non-compliance with the Montreal Protocol from 2001-2005.

As described below under M&E Design, the project design did not include comprehensive indicators, targets, or a log frame. Where indicators and targets are present, they are noted below. In the absence of indicators and targets, the project is rated on the delivery of outputs weighted by the amount of funding that each subproject received, as described below. Overall project effectiveness is rated unsatisfactory because 76% of the GEF funding went to beneficiary companies that went bankrupt or stopped production altogether, thus providing a low return on GEF funding.

1. Institutional Strengthening and Capacity Building, - Establishment of an Ozone Office

The TE rated this subproject as moderately satisfactory. It received 4% of the GEF project funding and completed most of its objectives, but failed to purchase ODS identifiers or form a national Refrigeration Association.

The project established a National Ozone Unit in the Azerbaijan government, but the Unit was closed after the subproject ended in 2002. The National Ozone Unit drafted legislation on ozone emissions and imports and exports of ozone-depleting substances. It caused a licensing system to be passed by presidential decree, but the licensing system was not enforced. It also submitted legislation on production, storage, collection, destruction, and recycling of ozone-depleting substances, but the proposed laws were not approved.

The National Ozone Unit put together a training program for 200 customs officers at 5 training sessions. The Unit produced the following books and brochures for training: "The Montreal Protocol and responsibilities of customs organizations"; "ODS imports/exports and licensing systems"; and "The implementation of the Montreal Protocol in Azerbaijan"' (TE, page 143). No equipment was purchased for identifying ozone-depleting substances, and training was not continued to fill the gaps caused by high staff turnover.

The National Ozone Unit played a role in coordinating the other subprojects, but "failed to establish the professional refrigeration association that would have been very useful in collection of the required information and implementation of government policies" (TE, page 144). In addition, "The NOU managed to reduce the CFC consumption from about 100 ODP tonnes in 1999 to 12 ODP tonnes in 2001. However, the CFC consumption maintained and even increased for the following four years in defiance of early Government commitments that demonstrated the lack of coordination and access to decision makers on part of the NOU and its successor" (TE, page 144).

The National Ozone Unit implemented a public awareness program. It organized 24 awareness workshops with 1300 participants and national media coverage, student meetings, meetings with the refrigeration and air conditioning sector, published media articles, radio and TV broadcasting, and publishing scientific papers and information brochures.

2. Training of trainers for use of ODS-free refrigerants

The TE rated this subproject as moderately satisfactory. It received 2% of the GEF funding and trained 92% of the targeted refrigeration technicians. However, TE states that training is of low utility because technicians lack the servicing equipment needed to service the new, more environmentally-friendly equipment.

The National Ozone Unit established and equipped a training center and prepared training modules. A "train the trainers" course trained 90 refrigeration technicians. The National Ozone Unit prepared a manual on best practices and organized 32 training workshops involving 1011 service technicians, out of a target of 1100 trained technicians. The TE states that training did not involve procuring the modern

servicing equipment necessary for good refrigeration practices. The training module was incorporated into the curricula of the State Technical University of Azerbaijan, but it is unknown whether the training is still available. Legislation on mandatory qualification of servicing personnel was not adopted as planned.

3. Recovery and recycling of ODS refrigerants in the air-conditioning and refrigeration sector

The TE rated this subproject as moderately satisfactory. It received 16% of GEF funding and delivered the intended outputs, but there is not enough information to determine the impact on CFCs.

300 sets of portable recovery machines, 50 sets of recycling and servicing equipment, and many other tools were procured. A training center was established at Baku Technical University with hands on recovery and recycling training; training was required for facilities to receive recovery and recycling equipment. Workshops were conducted and manuals distributed, but the number of participants is unknown. 32 recycling centers were established. The National Ozone Unit monitored the recovery and recycling program, but monitoring ended when the Unit closed. Data on market prices for CFCs and their substitutes were not available, nor was data on the quantity of recovered and recycled CFCs. Legislation to facilitate recovery and recycling activities was not adopted as planned.

4. Conversion of compressor manufacturing facility in Sumgavit

This subproject was rated unsatisfactory by the TE. It received 36% of the project funding but resulted in the beneficiary company going bankrupt, thus providing a low return on GEF funding.

Equipment and training was provided to switch production to non-ozone-depleting compressors, but the new product was not competitive. Low sales caused increased debt and cash flow problems, and the company went into bankruptcy. The TE reports that "there was no direct or indirect impact of the project in terms of ODP phase out in the country" (TE, page 189).

5. Elimination of CFCs in the manufacture of domestic refrigerators at Chinar

This project was rated as moderately satisfactory by the TE. It received 40% of the project funding but resulted in the beneficiary company experiencing financial difficulties and eventually a production stoppage, thus providing a low return on GEF funding.

The Chinar refrigeration facility changed its production line from reliance on CFCs to reliance on hydrocarbons. Since the change, production at the refrigeration facility never exceeded 7.5% of its capacity, and the number of employees was reduced by a factor of three. Difficulties were reported with the ability to pay for raw materials, routine maintenance, and spare parts; the company could not compete with imported refrigerators. A state inspection revealed violations in the production process and materials, and production was stopped in 2007. According to the TE, "the future of the enterprise is uncertain. However, without the project, the company most probably would not have survived" (TE, page 180).

6. Halon management and banking national recovery/recycling center

This subproject was rated unsatisfactory by the TE. It received 2% of project funding and there is no information on the impact or status of the subproject.

According to the TE, "it was not possible to obtain any meaningful information on the outcomes of this project" (TE, page 200). Equipment for recovery and recycling of halon was provided for a national halon recycling center, but its status is unknown. UNDP indicated that the project was completed, but no other information is available.

| 4.3 Efficiency | Rating: Moderately Unsatisfactory |
|----------------|-----------------------------------|
|                |                                   |

The TE considered the subproject on institutional strengthening to be relatively cost-effective, since the activities of the National Ozone Unit contributed to a decrease in the use of CFCs between 1999 and 2002. The training subproject was assessed to have a cost of \$111 per trainee, which the TE considered to be "a quite good value" (TE, page 159). The cost-effectiveness of the recovery and recycling subproject was not assessed due to a lack of data. However, the TE states that "the planned cost-effectiveness of \$11.9/kg ODP was not achieved" (TE, page 175). The recovery and recycling subproject was delayed by a year. The subproject on compressors was delayed for 11 months and resulted in the company going bankrupt after the end of the project, so efficiency was very poor. The subproject on refrigeration was also delayed by almost a year, and production of refrigerators stopped after the end of the project. The TE estimated the subproject's cost-effectiveness at \$75.1/kg ODP, five times the GEF's eligibility threshold for investment. The subproject on halons did not have enough information to determine its efficiency, but the subproject was delayed for almost a year.

| 4.4 Sustainability | Rating: Unlikely |
|--------------------|------------------|
|--------------------|------------------|

*Financial*: **Moderately unlikely**; when project funding ended, the National Ozone Unit was dissolved. The Unit was dependent on project funding, and the limited budget "was not sufficient to ensure the sustainability of the results achieved" (TE, page 152). Ozone-related activities were taken up by a different government agency, but with the scope and funding severely reduced. The reduced budget left no ability to hire consultants. The activities of the new agency were "limited to reporting of Article 7 data to the Ozone Secretariat and interacting with the Implementation Committee on non-compliance issues" (TE, page 148). The GEF approved funding for the extension of institutional strengthening activities in Azerbaijan and the restart of the National Ozone Unit, but the resources had not been disbursed at the time of writing of the TE. It remains to be seen whether the new funding will change the structure of ozone activities in Azerbaijan to make them more sustainable. For the training subproject, once the project ended there were no plans to continue financing the training activities for the refrigeration servicing industry. The two subprojects on refrigerator and compressor manufacture resulted in the companies going bankrupt or stopping production.

*Sociopolitical*: **Unlikely**; without a national Refrigeration Association, "the continuation of ODS phase out activities in the refrigeration servicing sector was not viable" (TE, page 148). The TE also reports that government commitment is "extremely modest," and the current ozone officer has no experience in ozone issues (TE, page 148). On recovery and recycling, "the Government averted itself from responsibilities to monitor R&R activities, control the distribution, and maintain and repair of the R&R equipment provided under the UNDP project" (TE, page 170). The TE reported major communication problems between the stakeholders of the halon subproject, and no data is available to determine the subproject's sustainability.

*Institutional*: **Unlikely**; there are many gaps in ozone-related legislation and enforcement. According to the TE, "the licensing and quota system approved in 2000 with the NOU support was not effective," and no legislation has been adopted on "qualification requirements in refrigeration servicing industry, taxation of ODS imports and ban on imports of ODS containing equipment, and introduction of mandatory ODS recovery and recycling practices" (TE, page 148). There was also a failure to impose legislation on recovery and recycling of halons. While a training curriculum was established in a university, it is unknown whether it is still functioning. Recovery and recycling monitoring was discontinued after the end of the project. For the training subproject, some smaller businesses and entrepreneurs were left out of the project and have no access to training facilities, which increases the risk of unqualified technicians entering the workforce. In a more positive signal, more training and equipment for customs officers has been provided since the end of the project.

*Environmental*: **Moderately unlikely**; the TE reports that the illegal trade in CFCs continues due to the demand for servicing old refrigeration equipment. Customs intercepted several shipments of CFCs, but there are no destruction facilities in Azerbaijan.

### 5. Processes and factors affecting attainment of project outcomes

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

The TE does not contain much information about cofinancing. The government provided \$36,000 of inkind cofinancing to the project. For the institutional strengthening subproject, the TE states that "this limited budget was not sufficient to ensure the sustainability of the results achieved in the implementation of the ODS phase out project and for further development and enforcement of legislation, continuation of public awareness and training programme, monitoring of recovery and recycling operations, and the halon bank management," although it is not clear if the TE is referring to the government-provided cofinancing or the subproject budget as a whole (TE, page 152-153). The cofinancing provided by the private sector for the compressor subproject did not lead to a sustainable outcome since the company went bankrupt after the project ended. 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 three subprojects on refrigeration, compressors, and halons were delayed by 11 months. The recovery and recycling subproject was delayed by a year. The TE does not list the causes for the delays. According to the TE, the delay in the refrigeration subproject "resulted in continuation of imports of CFCs for production at Chinar at the time when Azerbaijan was in non-compliance with Montreal Protocol targets" (TE, page 184). The delay in the compressors subproject "has not played a critical role because of availability of non-ODS compressors at the international market" (TE, page 194). The delay in the halons subproject "presumably resulted in halons emissions of unknown quantities within this period that could be avoided" (TE, page 204). It is unclear why the project as a whole was extended for four years.

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:

Country ownership is low for this project. While Azerbaijan ratified the Montreal Protocol and three of its amendments, the TE also reports that government commitment is "extremely modest" (TE, page 148). Lack of government funding after the end of the project caused the National Ozone Unit to close and its responsibilities to be severely reduced and shifted to a different agency. The current ozone officer in the new structure has no experience in ozone issues, and the office was not able to provide the evaluators with much of the requested information, such as the status of halon recycling. On recovery and recycling, "the Government averted itself from responsibilities to monitor R&R activities, control the distribution, and maintain and repair of the R&R equipment provided under the UNDP project" (TE, page 170). The government also failed to pass some of the legislation and regulations that were planned in the project.

### 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: Unsatisfactory |
|-------------------------|------------------------|
|-------------------------|------------------------|

The Project Document only contains three sentence regarding project M&E: "Project monitoring will be performed by UNEP/UNDP and the cost for it is included in the budgets that are indicated in Annex-1. Standard evaluation will be performed, except in the case that an in-depth evaluation is required by the

GEF whereby independent consultants would have to be hired and fielded to the country concerned. Consultancy fees and travel costs would need to be obtained in addition to the amounts requested in the project" (PD, page 8). There was a "lack of result-based management and accountability framework" according to the midterm review (TE, page 150). The individual subprojects did not contain baselines, performance indicators, or log frames, although the overall project contains a few very general indicators such as "Appropriate regulatory framework to confirm compliance" (PD, page 11). For the compressor subproject, the TE states that "the project did not establish the baseline and targeted specifications of SCMP product related to required quality of new non-ODS compressors" (TE, page 165). M&E is not specifically mentioned in the project budget. No monitoring was planned for the halon subproject.

| 6.2 M&E Implementation | Rating: Satisfactory |
|------------------------|----------------------|
| 0.2 Mai implementation | hating. Sutisfuctory |

According to the midterm review, "monitoring and reporting on the project activities has been carried out in a timely, comprehensive and efficient manner" for the training and institutional strengthening subprojects, but no M&E information was provided to the terminal evaluators (TE, page 161). The PIRs also stated that monitoring for the recovery and recycling, refrigeration, and compressor subprojects was adequate, but no documentation was provided to the terminal evaluators. There is no information on M&E for the halon subproject, and the TE states that "due to its basic limitations, the M&E plan could not ensure the tracking of anticipated results of the components of the project" (TE, page 202). Although there is little information available on M&E, it appears that overall M&E implementation was carried out adequately despite the limitations in design.

### 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 Rat | ating: Moderately Unsatisfactory |
|---|----------------------------------|
|---|----------------------------------|

Regarding project design, the TE points out that the project document did not contain any risk analyses. For the compressor subproject, the TE states that "the project did not establish the baseline and targeted specifications of SCMP product related to required quality of new non-ODS compressors. The project design contains no financial and economic analysis and investment appraisal that was crucial in many ways for determining the future of the project. The project document does not provide adequate justification of the necessity of some equipment for conversion to non-ODS technology" (TE, page 196). There was also no financial, economic, or investment analysis for the refrigeration subproject. Another flaw in the project design is the lack of provisions for long-term monitoring of halons, and its lack of provisions for customs equipment to detect ozone-depleting substances. The TE also notes that "there was very little coordination and partnership between the two agencies [UNEP and UNDP] at the stage of preparation of their project designs," which resulted in a duplication of effort of the project's training programs (TE, page 161). The project design did not provide for the training of customs officers, which was added during the implementation phase. The halon subproject did not do a feasibility study or assist with ensuring the sustainability of halon recycling.

Regarding project supervision, the TE states that the National Ozone Unit "had no complaints" about UNDP (TE, page 152). UNDP missions to the recovery and recycling subproject were reported to be very useful. For the refrigeration subproject, the TE reports that UNDP installed an isobutene refrigerant line that was never used, and "the management does not consider these expenditures fully justified" (TE, page 184). The compressors subproject and the halon subproject both lacked information on the conduct of project implementation and execution.

Project implementation is rated moderately unsatisfactory because, while supervision appears to have been adequate, there were serious flaws in project design that contributed to the lack of effectiveness of the subprojects on refrigeration, compressors, and halons.

| 7.2 Quality of Project Execution | Rating: Moderately Satisfactory |
|----------------------------------|---------------------------------|
|----------------------------------|---------------------------------|

According to the TE, "the mid-term evaluation report indicates that the NOU experienced no problems in its interactions with the UNEP Paris office" (TE, page 152). No supervisory missions were undertaken by UNEP to Azerbaijan for the institutional strengthening subproject. No problems were reported with financial management. The compressors subproject and the halon subproject both lacked information on the conduct of project implementation and execution, so no other information is available. The problems that the project experienced were largely out of the control of project execution, such as the company bankruptcies and failure of the government to adopt key legislation or to fund the National Ozone Unit.

### 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.

CFC consumption was reduced from 99.9 ODP tons in 1999 to 0 ODP tons in 2006 (TE, page 147).

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.

No socioeconomic changes were reported in the TE.

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 National Ozone Unit put together a training program for 200 customs officers at 5 training sessions. The Unit produced the following books and brochures for training: "The Montreal Protocol and responsibilities of customs organizations"; "ODS imports/exports and licensing systems"; and "The implementation of the Montreal Protocol in Azerbaijan"' (TE, page 143). More equipment and training has been provided to customs officers since the end of the project (TE, page 143).

A "train the trainers" course trained 90 refrigeration technicians. The National Ozone Unit prepared a manual on best practices and organized 32 training workshops involving 1011 service technicians. The training module was incorporated into the curricula of the State Technical University of Azerbaijan, but it is unknown whether the training is still available (TE, page 158).

300 sets of portable recovery machines, 50 sets of recycling and servicing equipment, and many other tools were procured (TE, page 168). A training center was established at Baku Technical University with hands on recovery and recycling training; training was required for facilities to receive recovery and recycling equipment. Workshops were conducted and manuals distributed, but the number of participants is unknown. 32 recycling centers were established.

#### b) Governance

The National Ozone Unit temporarily created by the project drafted legislation on ozone emissions and imports and exports of ozone-depleting substances, and enabled caused presidential drecree on a licensing system , although this licencing system was not enforced (TE, page 142).

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.

No unintended impacts were reported in the TE.

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 project's approach was replicated in several Eurasian countries as part of the GEF's ozone-depleting substances program. Other than applying similar project designs to each country, no scaling up or mainstreaming was mentioned in the TE. The project intended to cause market change, but it is unclear if this took place. The TE states that there was "increased penetration of new non-ODS refrigeration end-user equipment" but the evidence for this is not stated (TE, page 149). No further information is known.

### 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.

There are no lessons learned for the Azerbaijan project, but the TE states several lessons from the overall ozone-depleting substances program:

Funding bodies should be much clearer on their expectations of governments to continue funding and staffing of work on ODS after the project finished. Governments should use the funds to enhance institutional capacity and to put in place justification for continued funding while the project is underway and the environmental benefits are becoming evident.

The success of the National Ozone Units depended on the qualifications and ability of the staff to undertake the work, and in having sufficient funds available for the work. Out-sourcing activities by the government is a modern approach which has been shown to operate so far in these projects, and might

open up opportunities for other governments to consider the same as centralized budgets come under more pressure for reductions.

It is important that the National Ozone Units are staffed by some well qualified and senior people that can gain access to key government officials in order to ensure that programs and legislation on the phase out of ODS are progressed in a timely and effective manner.

Governments could consider establishing a centralized unit staffed by specialists that are knowledgeable in engaging with international funding organizations in environmental projects.

UNEP must improve delivery of finance to ensure that there are no gaps in time between projects.

Communications should be between UNEP and the National Ozone Units in the local language, which means that UNEP will need to employ staff with sufficient language skills to be able communicate effectively with project staff many countries, depending on the project.

Project and task managers must pay more attention to the M&E elements that are developed in the Project Document to ensure that appropriate baseline and performance indicators are carefully checked and are present from the beginning for the project.

Review the work that was undertaken in the past and design new projects that avoid the pitfalls of past projects.

Financial appraisals should be part of the risk assessment for deciding on which enterprises to fund within a sector.

Investment projects should be based on a realistic assessment of the baseline data as a basis for determining the extent of the funding that is required to promote the transition to ODS-free technology.

For refrigeration training, training programs need to be short (two days maximum, preferably one day); focused mainly on the practical aspects and alternatives and less on the theory; be delivered by or in collaboration with a Refrigeration Association so the training becomes self-funding; UNEP/UNDP need to ensure equipment is available before the training starts; and the government needs to have enabling legislation in place that ensures R&R activities are undertaken and enforced.

9.2 Briefly describe the recommendations given in the terminal evaluation.

There are no recommendations for the Azerbaijan project, but the TE states several recommendations from the overall ozone-depleting substances program:

Countries should improve the implementation of legislation, policies and standards on all aspects of ozone layer protection.

Countries' existing efforts to prevent illegal trade need to be further strengthened.

Countries need to take further action to manage and bank halon.

UNEP/UNDP should consider further investment and capacity development to assist countries with economies in transition to address the remaining threats to the ozone layer.

UNEP/UNDP should learn from the positive private sector engagement in the reduction of Ozone Layer Depletion focal area and incorporate similar approaches into its efforts to engage the private sector in other focal areas.

# **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<br>contain an assessment of relevant<br>outcomes and impacts of the<br>project and the achievement of the<br>objectives? | The TE is detailed in its assessment of outcomes and<br>impacts. It would have been helpful to have an overall<br>description of the project rather than just the assessments<br>of the individual subprojects.   | S      |
| To what extent is the report<br>internally consistent, the evidence<br>presented complete and convincing,<br>and ratings well substantiated?            | The ratings only cover sub-projects and not the project as a<br>whole. The report is repetitive, which made it difficult to<br>discern which outcomes and outputs were original and<br>which were a restatement from a previous section. It was<br>not always clear which changes were a part of the project<br>and which were independent or driven by different forces.<br>The TE's rating of the subproject on refrigeration was not<br>well supported; it received a moderately satisfactory rating<br>despite ending in a production stoppage. | MU     |
| To what extent does the report<br>properly assess project<br>sustainability and/or project exit<br>strategy?  | The sustainability of the entire project as a whole was not<br>discussed, but the assessment of the sustainability of each<br>individual subproject was adequate. Some sustainability<br>ratings were not well substantiated.   | MS     |
| To what extent are the lessons<br>learned supported by the evidence<br>presented and are they<br>comprehensive?   | The TE does not contain lessons and recommendations<br>related to the Azerbaijan project. However, it does have<br>lessons and recommendations pertaining to the entire<br>ozone-depleting substances program. These lessons are<br>detailed, comprehensive, and result from project<br>experiences.  | S      |
| Does the report include the actual project costs (total and per activity) and actual co-financing used?   | The TE includes project costs and cofinancing. It lists the funding for each subproject, but not per-activity.  | MS     |
| Assess the quality of the report's evaluation of project M&E systems:   | Adequate evaluation of project M&E, although it would<br>have been helpful to have an overall evaluation of project<br>M&E rather than an evaluation of the individual<br>subprojects' M&E.   | S      |
| Overall TE Rating   |   | MS     |

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