MIDTERM REVIEW

of the UNDP-Supported GEF-Financed Full-Size Project

Nationally Appropriate Mitigation Actions (NAMAs) for Low-Carbon End-Use Sectors in Azerbaijan

GEF Project ID: 5291, UNDP Project ID (PIMS): 5138

Final

This Midterm Review was prepared for the UNDP CO Azerbaijan by:

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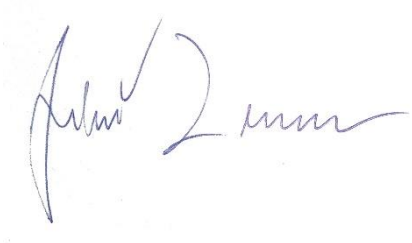

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Profile of the evaluator

The midterm review mission to Azerbaijan was performed in October 2017, and the MTR report was drafted between October and December 2017 by Mr. Jiří Zeman.

Mr. Zeman has 25+ years of international professional experience in energy efficiency, renewables, climate change and energy utilities. Since 2009, he has been working as a freelance consultant. Between 1990 and 2006, he worked with SEVEn, The Energy Efficiency Center in Prague, the Czech Republic, an energy efficiency consulting organization, where he served as a Deputy Director. During 2006-2008, he worked for the Utility Competence Center of Hewlett Packard for Central and Eastern Europe, Middle East and Africa as a Solution Architect. Mr. Zeman evaluated 17 UNDP-supported GEF-financed energy efficiency and renewable energy projects, prepared feasibility studies, developed energy efficiency and renewable energy projects for financing and implementation, and drafted renewable energy legislation and bylaws.

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Abbreviations and acronyms

APR	Annual Project Review
AREA	State Agency on Alternative and Renewable Energy Sources
AWP	Annual Work Plan
CDR	Combined Delivery Report
CIS	Commonwealth of Independent States
CO	UNDP Country Office
EBRD	European Bank for Reconstruction and Development
EE	Energy Efficiency
GCF	Green Climate Fund
GEF	Global Environment Facility
GHG	Greenhouse Gas
IR	Inception Report
LogFrame	Logical Framework matrix
MAC	GHG Marginal Abatement Curve
ME	Ministry of Energy of Azerbaijan Republic
MENR	Ministry of Ecology and Natural Resources of Azerbaijan Republic
M&E	Monitoring and Evaluation
MTR	Midterm Review (equivalent to Mid-Term Evaluation)
MRV	Monitoring, Reporting and Verification
NAMA	Nationally Appropriate GHG Mitigation Actions
NCCC	National Climate Change Center
NGO	Non-Government Organization
NIM	Nationally Implementation Modality
OGPD	Oil and Gas Production Department of SOCAR
PDF	Project Development Facility
PIF	Project Identification Form
PIMS	Project Information Management System (UNDP GEF)
PIR	Project Implementation Review
ProDoc	Project Document
RE	Renewable Energy
SOCAR	State Oil Company of Azerbaijan Republic
ToR	Terms of Reference
UNDP	United Nations Development Programme
UNDP/GEF	UNDP-supported GEF-financed (project)
UNFCCC	United Nations Framework Convention on Climate Change

1. Executive summary

Table 1: Overview of the project identification

Project Title:	**Nationally Appropriate Mitigation Actions (NAMAs) for Low-Carbon End-Use Sectors in Azerbaijan**		
Country(ies):	Azerbaijan	GEF Project ID:	5291
GEF Agency(ies):	UNDP	GEF Agency Project ID (PIMS):	5138
Other Executing Partner(s):	SOCAR – State Oil Company of Azerbaijan Republic, Ministry of Ecology and Natural Resources (MENR), National Climate Change Center (NCCC)	Submission Date:	August 7, 2014
GEF Focal Area (s):	Climate Change Mitigation Objective 1 – Implementing innovative low-carbon technologies, Objective 2 - Promoting market transformation for energy efficiency in the building sector, Objective 4 – Promoting low-carbon transportation technologies, Objective 6 – Support Enabling Activities under the Convention.	Project Duration (Months)	5 years (60 months)

Table 2: Key project milestones

	Originally expected date	**Actual date**
PIF Approval		June 20, 2013
CEO endorsement/approval	2014	September 10, 2014
Agency approval date	January 1, 2015	March 5, 2015
Inception Workshop		March 3, 2016
Midterm review completion	December 2017	November 2017
Terminal evaluation completion	December 30, 2019	NA
Project completion	March 5, 2020	NA

Table 3: Overview of budgeted and actual financial sources spent by October 2017

	Budgeted in Project Document	**Actual as of October 2017**
GEF financing:	**3,570,000 USD**	**1,323,610 USD**
Other:	**31,900,000 USD**	**12,296,288 USD**
- *SOCAR (investment)*	*30,000,000 USD*	*11,600,000 USD*
- *UNDP*	*200,000 USD*	*96,288 USD*
In-kind		
- *SOCAR*	*900,000 USD*	*400,000 USD*
- *MENR*	*800,000 USD*	*200,000 USD*[1]
Total	35,470,000 USD	13,619,898 USD

Actual co-financing spent is based on co-financing reported by the project team.

As of October 18, 2017, 1,323,610 USD or 37% have been spent out of the GEF budget of 3,570,000 USD, and in total 1,419,898 USD, or 38% of the combined GEF/UNDP budget of 3,770,000 USD.

1.1 Brief description of project

The five-year 3.57 mil USD GEF financed project (further referred to as "Project") was designed with an objective to support SOCAR[2] in the implementation of its Climate Change Mitigation Strategy by promoting and upscaling GHG mitigation measures through a programmatic NAMA approach, where pilot investments will be directed into low energy and low carbon technologies that are so far missing on a large scale on the Azeri market. Project Objective was defined "to support the development, implementation and monitoring of NAMAs in the low-carbon end-use sector, in order to build upon a strong national commitment for the reducing the energy demand of oil & gas end use sectors".

Specifically, the Project was designed to reduce greenhouse gas (GHG) emissions as well as energy consumption in SOCAR's buildings, vehicles and GHG emission from oil-fields.

[1] In-kind contribution by MENR is rather low, as it was designed mainly as a contribution for the MRV and "soft" activities, which will be delivered mainly during the second half of the project.

[2] SOCAR, the State Oil Company of the Azerbaijan Republic, is a state-owned oil and gas company involved in exploring oil and gas fields, producing, processing, and transporting oil, gas, and gas condensate, selling petroleum and petrochemical products on the domestic and international markets, and supplying natural gas to industry and the public in Azerbaijan. SOCAR has about 20% share on total oil and gas production in Azerbaijan. Among others, SOCAR operates some 6000 vehicles. SOCAR produces about 3 million tons of CO_{2eq} annually, which represents 10-15% of total country GHG emissions. SOCAR adopted in 2010 its Climate Change Strategy with an ambitious GHG emission reduction target of 40% by 2020. In 2015, SOCAR joined other leading oil companies and signed "Zero Routine Flaring by 2030" initiative pioneered by Ban Ki-Moon. See full description of SOCAR's Role in the Azeri Oil & Gas Market on page 24.

The Project Document sought to improve energy performance of main SOCAR's end-use sectors, namely buildings (new and existing residential, service and public buildings) and transportation (passenger cars, trucks, buses, special purpose vehicles). Mitigation actions in the oil & gas production sector – one of the main sources of GHG emissions in Azerbaijan – will aim to capture associated gas evaporating from existing on-shore Siyazzaneft oil-field and direct it to nearby residential areas which presently rely for their energy needs on LPG, kerosene and forest-wood which is causing deforestation in the area.

The Project was designed to achieve the following four outcomes:

1. Assessment of GHG emission mitigation potentials and target setting complete.

2. NAMA (program/action plan) in oil & gas end-use sectors developed

3. NAMA (pilot projects) in oil & gas end-use sectors (successfully) implemented

4. MRV system and national registry for mitigation actions in the energy generation and end-use sectors developed.

Note:

The "program/action plan" and "pilot projects" were added into short project outcome specification by MTR for better clarity. From the text of the ProDoc, it is clear that "NAMA" in outcome 2 refers to the GHG emission mitigation action plan (program), and in outcome 3 to pilot projects.

1.2 Project progress summary

By October 18, 2017, the Project has spent 1.4 mil USD, or 38% of its combined GEF/UNDP budget of 3.77 mil USD (GEF - 3.57 mil USD and UNDP - 0.2 mil USD), and it delivered the following key results:

- Pilot projects under component 3 have been identified, developed and mostly implemented. Four energy efficiency retrofits of existing buildings have been implemented, wind-power generation and photovoltaics have been installed (not completed, yet), in total four hybrid vehicles and two fuel effective vehicles have been purchased and eco-driving training implemented (39 drivers trained). Associated gas capturing pilot project is under development and the investment and implementation is scheduled to begin in the 2018 construction season.

- Pilot projects GHG reductions have been registered in the national GHG registry. MRV international consultant has been hired and started developing the MRV system (component 4).

- Less effort has been paid to the assessment of GHG reduction potential, development of GHG marginal abatement curves, and target setting (component 1) and development of the NAMA program/action plan (component 2) so far. The project team decided to gain practical

experience and learn real costs and savings data from pilot projects first[3]. There is also some confusion in the use of the NAMA term in the project document. The project document does not distinguish clearly enough when "NAMA" refers to pilot projects and when it refers to a GHG emission mitigation action program/plan.

Remaining key project activities that need and are planned to be accelerated during the next phase of project implementation, include activities in component 1, 2 and 4:

- Component 1: analysis of costs and potential of GHG reduction opportunities in SOCAR's portfolio (construction of GHG marginal abatement curves), prioritizing most feasible GHG reduction measures with highest GHG reduction potential and lowest costs, and adoption of SOCAR's feasible GHG reduction targets.

- Component 2: development of NAMA program/action plan in oil & gas and end-use sectors, based on GHG reduction measures analysis and their prioritizing to meet the set targets. GHG reduction potential and costs of GHG reduction measures, as well as feasibility of overcoming identified barriers, will need to be taken into account when developing feasible and affordable/realistic NAMA program and specification of targets. The NAMA program/action plan will specify how to reach GHG reduction targets (size and type of individual GHG reduction measures) in each sector addressed.

- Component 4: Development of the MRV system has started.

Associated gas capturing, i.e. collection and utilization of natural gas that is so far released uncontrolled to the atmosphere at plenty of oil drilling sites, is far the most-cost effective GHG mitigation measure, with far the highest GHG reduction potential (methane has a global warming potential 21 times higher than CO_2 over 100 year [4]), and thus it is clearly the priority number one for SOCAR. SOCAR's consultant has identified in a detailed study a potential for capturing of associated gas from oil drilling sites[5]. Associated gas capturing is no new business to SOCAR since 2010 at least. It is its core business. The added value of this pilot project, however, is a demonstration of a new technology. Usually, the captured raw natural gas is transported to the central refinery facility for processing, i.e. cleaning, and then the natural gas is transported again across the country to end-users. The pilot project is designed to process/clean the collected low-pressure associated gas from oil-drilling on-site, and distribute it directly to local end-users nearby oil fields and thus to save transportation costs twice.

Energy efficiency in buildings represent a large, and so far untapped potential in Azerbaijan. The pilot project demonstrated new and affordable technologies (building insulation etc.) with high impact. However, the potential within reconstructed SOCAR's own facilities is rather limited. There is a large construction boom of residential and commercial buildings in Baku as well in other cities and regions across the country. With an exception of few new commercial buildings, the bulk of newly constructed buildings has no building insulation at all. This provides a unique opportunity for affordable energy efficiency improvements. The project has demonstrated at four sites energy

[3] Project team stated: "The project team felt that showing results of pilot projects is a more effective way to bring about a policy change. For this reason, pilot projects were started and implemented early on and now act as a demonstration sample. Due to positive results of the pilots which are already visible, SOCAR is now in a position to launch them on a larger scale".

[4] UNFCCC, http://unfccc.int/ghg_data/items/3825.php

[5] Study on energy efficiency improvement and loss reduction program of SOCAR for the gas sector, EY/Ernst&Young, 2017, unpublished

efficiency reconstruction of existing buildings, including building envelope insulation and other energy efficiency measures. This was the first project of this type at SOCAR, and probably also in the country. However, due to decline of international oil prices and consequent budget constraints in Azerbaijan, construction of new buildings and refurbishment of existing ones has slowed down. SOCAR agrees in principle to follow energy efficient practices as standard operating procedure that will be applied on all new and existing buildings in the future. Currently, SOCAR reconstructs just few buildings a year. Thus, the short-term replication potential within SOCAR's existing buildings is rather limited. However, there is a large and most affordable replication potential primarily in newly constructed buildings, and to a lesser extent in reconstructed buildings, across all sectors in the country.

SOCAR has demonstrated wind power generation and photovoltaics in 2012 already, when its Eco Park at Gala was opened. AREA, the State Agency on Alternative and Renewable Energy Sources, has been expanding its demonstration activities and installing several photovoltaic parks with high visibility next to highways across the country. The Project's pilot projects in wind power and photovoltaics have thus limited effect in demonstrating new technologies. They rather replicate wind and photovoltaics installations to support SOCAR's and country's targets in GHG emission reduction and renewable energy. Despite recent decrease of international prices of photovoltaic and large wind technologies, these technologies are still more costly when compared to other GHG reduction options, namely cost-effective energy efficiency. NAMA action plan can maximize GHG emission reductions when focused primarily on cost-effective GHG emission reduction opportunities. Realistic affordable GHG reduction potential based on replication of more expensive wind and photovoltaic technologies on a large scale, is thus – due to high costs and despite high targets - rather limited.

The Project has implemented trainings of SOCAR's drivers in eco-driving, reported as the first training of this kind in Azerbaijan. This is an excellent example of low-cost GHG reduction measure, with high impact in a transportation sector. Achieved fuel savings, with practically no investment costs, reached 8-14%. This pilot project is perfectly suited for full-size replication, both within SOCAR and across the country as well.

Four hybrid vehicles purchased for SOCAR demonstrate new high-tech opportunities in mobility. However, due to rather high costs, large-scale replication and dissemination of electric and/or hybrid vehicles will probably not be feasible in a short term. The most valuable benefit of electric cars is elimination of emissions in urban areas with high population density.

Summary of project achievements and rating is provided in a

Table 4: MTR Rating and Achievement Summary Table below. A detailed evaluation table of the project outcomes and outputs progress towards results is shown in Annex 6.

Table 4: MTR Rating and Achievement Summary Table

Measure		Midterm Rating	Achievement Description
Project Strategy		MS	The Project strategy is logically structured, and from the context of the project document, it is clear enough. There is some confusion in using the term "NAMA", referring to both program/action plan and pilot projects, and in the scope of the NAMA action plan, referring to targeting sectors in the whole country, and/or just SOCAR's own facilities/sectors. The main barrier identified, policy/regulatory barrier, was not addressed by the designed Project. This was driven by identified lack of awareness and readiness at the national level to develop and adopt specific binding policies/regulations, despite ambitious targets. Results and experience gained from the Project is expected to raise the awareness and increase readiness of the government to adopt necessary policy/legislation regulations to support implementation of GHG mitigation projects, and to meet ambitious GHG targets of Azerbaijan.
Progress Towards Results	**Objective:** To support the development, implementation and monitoring of NAMAs in the low-carbon end-use sector, in order to build upon a strong national commitment for the reducing the energy demand of oil & gas end use sectors	MS	The Project has made a good progress and delivered results in implementing pilot projects in SOCAR's buildings and transportation. Development of NAMA program/action plan has been postponed until results from pilot projects will be demonstrated. Despite the delay, the Project is still on track to deliver all expected results by the expected end-of-project.
	Outcome 1: Assessment of GHG emission mitigation potentials and target setting completed	MU	Activities in Outcome 1 were postponed and Outcome 1 mid-term targets have not been reached. However, there is a good prospect that end-of-project targets can be reached by the end-of-project. Tendering for an international consultant on MAC curves and NAMA action plan under development.

Measure		Midterm Rating	Achievement Description
	Outcome 2: NAMAs (action plans) in oil & gas end-use sectors developed	MS	Development of the NAMA program in Outcome 2 was postponed and Outcome 2 mid-term targets have not been fully reached. However, several activities, including assessment of feasibility of GHG emission reduction options in three sectors has been developed and there is a good prospect that end-of-project targets can be reached in due time.
	Outcome 3: NAMAs (pilot projects) in the oil & gas end-use sector implemented	HS	Four pilot projects in the building sector demonstrated energy efficiency in reconstructed buildings, for the first time on such a large scale in Azerbaijan. Wind power and photovoltaics has been implemented as well. 60 experts were trained in energy efficiency in buildings. Four hybrid cars have been purchased for SOCAR, and eco-driving trainings implemented, in total 79 drivers were trained by mid-term. Associated gas capture pilot project is under development (in-line with mid-term targets), to demonstrate new technology – on-site cleaning of associated gas. Expected CO_2 savings from pilot projects: 110.3 tCO2/year
	Outcome 4: MRV system and national registry for mitigation actions in the energy generation and end-use sectors developed	MS - NA	Pilot projects are registered at the national GHG registry. MRV consultant was hired at mid-term to deliver Outcome 4 results.
Project Implementation and Adaptive Management		S	The Project has been implemented in general according to the plan outlined in the Project Document, with primary focus on delivery of pilot projects and with delays in Outcome 1 and 2. The inception Report introduced mid-term targets to the logframe. The new technology – on-site associated gas filtering – was proposed by the Project's international consultant, and it significantly improved the demonstration potential of the associate gas capture project.
Sustainability	**Financial Sustainability**	L	Assuming affordable, low-cost and cost-effective GHG emission reduction opportunities are prioritized first in the NAMA program.
	Socio-economic sustainability	L	No negative effects on project targets of socio-economic risks identified.
		L	SOCAR: No risks to implementation of NAMA program by SOCAR identified.

Measure		Midterm Rating	Achievement Description
	Institutional framework and governance sustainability	(ML)	(Azerbaijan as a whole: Large scale replication on a national level will require full support and commitment of the government to adopt necessary legislation/regulations to support achievement of its ambitious targets. With proper actions delivered by the Project, the risk of weak commitment can be minimized.)
	Environmental sustainability	L	Environmental impacts are highly positive, both on a global and local levels.
	Overall sustainability	L	

Ratings for progress towards results and for project implementation & adaptive management:
Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), or Highly Unsatisfactory (HU)

Sustainability Rating Scale: Likely (L), Moderately Likely (ML), Moderately Unlikely (MU), Unlikely (U)

1.3 Concise summary of conclusions and recommendations

By the midterm, the Project has achieved a good progress in implementation of pilot projects, especially in demonstrating affordable energy efficiency in buildings, including wall insulation, and low-cost GHG mitigation by implementing eco-driving trainings.

Energy efficiency in buildings, including building insulation, represent a unique and affordable GHG emission reduction opportunity with high replication potential especially in construction of new buildings. There is a large construction boom in Azerbaijan, and so far no building insulation is being implemented due to outdated energy performance in buildings regulations. Incremental costs of energy efficiency implemented during building design and construction can be negligible compared to the total investment cost. UNDP-supported GEF-financed project in the Czech Republic demonstrated 50% energy savings in newly designed and constructed buildings with no additional/incremental costs thanks to only good quality design focused on energy efficiency.

Eco-driving training is another excellent example of a low-cost GHG emission reduction opportunity with a demonstrated ca 10% fuel savings, and if replicated across the country, with a significant impact as well. One of the lessons learned from pilot activities in eco-driving is that eco-driving training should be accompanied by a strong human resources policy involving an incentive system that rewards drivers that follow eco-driving practices on the road.

Pilot project in associated gas capture, which has both the highest and in the same time commercially viable GHG mitigation potential within SOCAR, is under development, and the construction works are expected to start in the early 2018 construction season. This pilot project will supplement associated gas capture projects being implemented by SOCAR already since 2010, by demonstrating new technology – cleaning, i.e. filtering of the associate gas on-site, instead of its transportation for processing to the central gas refinery plant, and thus reducing gas transportation costs.

SOCAR has demonstrated high interest, commitment and effective cooperation during project implementation period, especially in timely delivery of pilot projects.

The Project faces delays in delivering Outcome 1 and 2 results. This was caused primarily by the decision of the project team to gain first practical experience from pilot projects that could be applied in assessment of GHG mitigation options (Outcome 1) and developing GHG mitigation action plan (Outcome 2). Despite these delays, there still is enough time to deliver expected results in both of these components during the next phase of project implementation period. This will require accelerated and coordinated action, and utilization of best international experience in developing GHG MAC curves and action plans.

The process of development of the NAMA program/action plan is expected to demonstrate both to SOCAR and to national authorities also the difference in NAMA action plan implementation costs, if low-cost GHG mitigation actions are prioritized first, versus inclusion of high-cost GHG mitigation measures[6].

Project management arrangement is an example of an effective project team organization - with only two full-time staff, and hiring local and international consultants when needed. Such an effective project team arrangement is possible only thanks to active involvement of own SOCAR's experts,

[6] See the STEP-GEF review of the PIF

whose time is provided as an in-kind contribution of SOCAR (in addition to financing provided for pilot projects).

The Project design and strategy development was a challenging task: this was the first UNDP-supported GEF-financed NAMA project developed with and targeted to a corporate sector. The Project objective was defined to support SOCAR in implementation of its Climate Change Strategy and reaching its ambitious targets. Perhaps due to lack of experience/interest at the national level when project document was developed, there were no specific replication activities designed for dissemination of achieved experience across the country. With experience gained from implementation of pilot projects, SOCAR is now best positioned as a leader to scale up its experience dissemination activities also to other sectors, and at a national level to assist the Government in achieving country's ambitious GHG emission reduction targets, and the project team plans to do so.

This is fully in line with the GEF mission: pilot projects serve to gain hands-on experience with new GHG mitigation solutions, and the experience gained is expected to be replicated across the country in order to maximize the impact of the GEF intervention.

SOCAR representatives highlighted the capacity development as the main benefit SOCAR gained from the project implementation, and specifically access to and sharing of the experience and knowledge of international experts with local experts. This indicates what the project should focus on during the next phase of project implementation. Local capacity development and strengthening has much higher long-term impact than just co-financing of another small pilot project or purchase of another hybrid vehicle.

Despite delays in delivery of some results especially in Outcomes 1 and 2, the project implementation as a whole is rated satisfactory, especially due to timely delivery of most pilot projects so far, and good prospects to deliver expected project results by the planned end-of-project.

Recommendations:

Recommendations for the Project team:

1. **Focus on delivering results in Outcome 1 and 2 without further delays**

The project team is supported in its intention to hire an international consultant with demonstrated experience in developing GHG marginal abatement cost curves and developing GHG emission reduction policies and action plans, to support delivery of Outcome 1 and 2 without further delays, including (as per ProDoc):

- Technical and cost analysis of potential GHG emission reduction opportunities in SOCAR and country-wide, construction of GHG marginal abatement cost curve, that illustrates technical potential and associated full costs (levelized investment and operational costs) of individual GHG emission reduction opportunities in a single diagram.

- Based on the technical, cost and barrier analysis, feasible time-bound targets will be specified and NAMA action plan/program for SOCAR and country-wide will be developed for approval and implementation. The NAMA action plan will combine both investment actions, as well as necessary policy/regulatory actions.

The developed GHG marginal abatement cost curve will be used for awareness rising among decision and policy makers and other local stakeholders, to illustrate impact of prioritizing cost-

effective actions first on total costs of achieving specific targets (versus prioritizing higher-costs solutions).

2. Pilot project replication strategy

An ultimate goal of UNDP-supported GEF-financed projects is not implementation of pilot projects per se, but a support of development of an effective framework for implementation of GHG emission reduction actions in the country in the long term, and thus to maximize GHG emission reductions.

The primary tool designed by this Project for replication of pilot projects' experience in a short- and medium-term is an implementation of developed and approved NAMA action plan of SOCAR (and country-wide).

The project team is encouraged to utilize and integrate in the NAMA action plan all experience and information gained so far and available locally, including both: other SOCAR's activities/experience gained from other projects/studies, as well as activities of and experience from other activities being implemented in the country with support from other international donors.

The project team is thus expected to strengthen its networking with other local stakeholders (line ministries, agencies, AREA, local teams involved in development of the Fourth National Communication (FNC) and Second Biennial Reporting (SBR) for the implementation of the obligations under the UNFCCC, the Project on Sustainable Land and Forest Management, as well as with other international projects and stakeholders active in Azerbaijan in this field (EU funded Clima East Policy Project, EU4Energy Initiative, and Caucasus Energy Efficiency Programme, ADB funded project Preparing a Power Sector Financial Recovery Plan, etc.).

An example of a replication strategy in a transportation sector is the planned dissemination of eco-driving trainings to include not only own SOCARs drivers, but to open the trainings also for drivers of other state/governmental agencies and private sector as well. The project team is encouraged to consider organizing an eco-driving training for media representatives for example, in order to facilitate information dissemination and awareness rising on real savings country wide, and/or to organize eco-driving contest, rally, etc. for public as well. Outreach and information program for the dissemination of information on the successes achieved through eco-driving practices in SOCAR is under development.

Implementation of a specific motivation scheme of drivers in eco-driving by SOCAR's management will ensure sustainable fuel and GHG emission savings.

3. Support policy/regulatory dialogue on a national level to adopt necessary regulations to support NAMA action plan implementation on a country level

Energy efficiency and renewable energy requires effective laws and regulations in order to be accelerated and mainstreamed. These regulations are either not in place yet in Azerbaijan, or they are not sufficiently specific/effective. This includes primarily update of energy performance in buildings regulations (including envelope insulation), as well as other energy efficiency regulations, such as energy appliance labeling, minimal energy performance standards for energy appliances etc. Renewable energy represent a typical GHG emission mitigation measure that is more costly than actual (still rather low) energy prices in Azerbaijan. Sufficient financial support scheme is essential for motivation of private investors in investment in new renewable energy production.

UNDP can utilize its experience from other CIS countries, where it implemented GEF-financed projects to develop and implement energy efficiency and renewable energy policies and regulations. For example, most of CIS countries have their national energy efficiency in buildings legislation and regulations updated already, which supported utilization of building envelope insulation.

Adaptive management should be carried out under this project as soon as possible in order to examine the legal/regulatory framework and prepare recommendations to strengthen the energy efficiency framework and what new laws/legislation is needed.

4. Organization of International Workshop on Lessons Learned

The Project should organize regional/international workshop in 2018 with participation of other projects and government officials to present experience and lessons learned of other CIS countries and to support adoption of effective energy efficiency and renewable energy regulations in Azerbaijan as well. The purpose of the workshop will be to help the Government of Azerbaijan to understand the importance and necessity of introducing new legislation and policies to facilitate greater investment in energy efficiency/renewable energy to meet ambitious GHG emission reduction target of the country.

5. Strengthen information and experience dissemination

SOCAR identified access to international know-how and experience as the most valuable benefit of the Project so far. This is fully in line with the GEF mission and experience: pilot/demonstration projects facilitate transfer and adoption of international experience into local specific conditions. However, the long-term impact of GEF interventions depends on effective capacity strengthening and development and enforcement of effective policies/regulations locally.

According to the ProDoc and LogFrame targets, the Project has implemented several specific trainings already, and plans to continue its training activities also in the next phase of Project implementation.

Capacity development is a continuous process and there are never enough trainings and capacity development activities. The Project is strongly encouraged to continue their activities in this field and to be innovative in organizing trainings, workshops and delivering specific capacity strengthening activities (including for example student contest on energy efficiency in buildings) even above the targets specified in the LogFrame.

Besides utilization of associated gas, the highest achievable potential has primarily implementation of affordable energy efficiency in construction of new buildings/reconstruction of existing buildings. The first UNDP-supported GEF-financed energy efficiency in buildings project demonstrated that new buildings can reach 50% energy savings with no incremental costs, if low-cost/no-cost/cost-effective energy efficiency is properly taken into account already in the building design.

The Project is encouraged to facilitate transfer of this hands-on experience to local expert community, including architects, building designers, construction engineers, developers, construction practitioners, university teachers, students, etc., and to benefit from experience of and

inputs from project international advisors and consultants on associated gas capture, energy efficiency in buildings and transport.

The Project has a full support of the MTR to develop pilot project fact-sheets, publish and disseminate it as hard copies and electronically on a web site, including results from GHG marginal abatement cost analysis with information on and comparison of cost-effective/affordable measures, and more expensive measures.

Recommendations for the UNDP:

6. **When developing new projects, identified barriers should be always properly addressed, including policy/regulatory barriers**

This Project was designed to assist SOCAR, a major corporation in Azerbaijan. However, the ProDoc did not address directly how the identified policy/regulatory barriers (specifically in energy efficiency and renewable energy) should be overcome. Although SOCAR is a major local state-owned company and its experience gained during project implementation will be very useful for the whole country, SOCAR cannot be expected to be directly involved in developing national policies and regulations.

Projects proposed for GEF support should always include components addressing policy/regulatory and any other barriers, if identified as preventing replication/implementation of GHG emission mitigation/adaptation measures in a long-term.

7. **Project extension**

The Project is scheduled to be completed by March 2020. Thus, the Project has two more years to finalize all its planned outcomes. At the mid-term, this is expected to be sufficient time for finalization of outcomes 1 and 2, as well as of associated gas capture pilot project in outcome 3 that is expected to require two construction seasons to be fully implemented.

In case the policy/legislation dialogue with the government will progress and the government will require additional support in developing new legislation, and/or the monitoring of GHG emission reductions from implemented projects (associated gas) will require monitoring of a full year/season, the Project is advised to consider no-cost extension of ca 6 months.

2. Introduction

2.1 Purpose of the midterm review and objectives

This midterm review was performed at the request of UNDP, the GEF implementing agency. The evaluation mission took place in Baku, Azerbaijan, in October, 2017. The draft midterm review report was submitted in October 2017, and the final MTR report in December 2017.

The objective of the midterm review is to assess progress towards achievement of project objectives and outcomes as specified in the Project Document, and assess early signs of project success or failure with the goal of identifying the necessary changes to be made in order to set the project on-track to achieve its intended results. The goal of the MTR is also to review the project's strategy and risks to sustainability.

2.2 Scope and methodology of the midterm review

The midterm review report includes assessment of project progress structured in the following four categories:

I. Project strategy
   - Project design
   - Results framework/Logframe

II. Progress towards results
   - Progress towards outcomes analysis

III. Project implementation and adaptive management
   - Management arrangements
   - Work planning
   - Finance and co-finance
   - Project-level monitoring and evaluation system
   - Stakeholder engagement
   - Reporting
   - Communications

IV. Sustainability
   - Financial risks to sustainability
   - Socio-economic risks to sustainability
   - Institutional framework and governance risks to sustainability
   - Environmental risks to sustainability

The methodology used for the project midterm review is based on the 2014 Guidance for Conducting Midterm Reviews of UNDP-Supported GEF-Financed Projects. Its main principle is collection and utilization of evidence based information that is credible, reliable and useful, and it includes following key parts:

I. Review of project materials and documents prior to the MTR mission
II. MTR mission and on-site visits, interviews with project management and project team, UNDP CO, representatives of the steering committee, and project stakeholders and partners

III. Drafting of the MTR report and additional clarification/verification of collected information
IV. Circulation of the draft MTR report for comments
V. Finalizing the report, incorporation of comments received

The methodology applied for the MTR includes situation analysis in the country, including recent development prior to the project and by its mid-term; actions, policies and projects developed locally and/or with support of other donors; analysis of underlying assumptions and challenges; SWOT analysis (strengths and weaknesses, opportunities and risks/threats) about the selected data collection methods.

Information and data collection methodology used for the MTR was based primarily on relevant document analysis, situation analysis based on information collected from open sources, own on-site findings and from interviews held with project stakeholders during the MTR mission. This methodology combines both, the hard-fact quantitative data, as well as soft-fact qualitative data and information provided by interviewed individuals. The major underlying assumption and challenge of data collection, is that the information collected is properly verified and interpreted by the MTR evaluator, and that in result the information used is unbiased. To minimize the risk of misinterpretation, internal verification of data collected has been implemented (information cross-checked across different sources), and a three-step process of both data and findings external validation has been implemented that includes feedback from diverse interviewed parties/project stakeholders, the project team, and UNDP CO.

SWOT analysis of data collection method used:

Strengths: All relevant available sources of information are utilized, including quantitative and qualitative data, and hard-fact and soft-fact data (including information provided by individuals representing diverse interests and different levels of unbiasedness)
Weaknesses: Reliability of information provided differ by source (accuracy, unbiasedness based on diverse experience and interest of individual information provider, …)
Opportunities: Reliability of information collected and interpreted in the MTR can be verified internally and validated externally.
Threats: Risk of data and information misinterpretation.

2.3 Evaluation criteria

In accordance with the 2014 Guidance for Conducting Midterm Reviews of UNDP-Supported GEF-Financed Projects, the main MTR evaluation criteria include:

- Project Strategy
- Progress Towards Results
- Project Implementation & Adaptive Management
- Sustainability

2.4 Structure of the MTR report

The structure of the MTR report follows recommendations of the 2014 Guidance for Conducting Midterm Reviews of UNDP-Supported GEF-Financed Projects. The MTR report is structured into the following main chapters:

- Executive Summary
- Introduction
- Project Description and Background Context
- Findings
- Conclusions and Recommendations
- Annexes

3. Project Description and Development Context

In April 2015, the United Nations Development Programme (UNDP) and the State Oil Company of Azerbaijan Republic (SOCAR) launched a new project "Nationally Appropriate Mitigation Actions (NAMAs) for low-carbon end-use sectors in Azerbaijan." This five-year project (the Project), funded by the Global Environment Facility (GEF) with 3.57 mil USD, seeks to reduce greenhouse gas (GHG) emissions from associated gas released in SOCAR's oil-fields, as well as energy consumption in SOCAR's buildings and vehicle fleet. The main project objective is to support SOCAR in the implementation of its Climate Change Mitigation Strategy by promoting and upscaling GHG mitigation measures through a programmatic NAMA approach, where pilot investments will be directed into low energy and low carbon technologies.

The Project planned to improve energy performance of main end-use sectors, namely buildings (new and existing residential, service and public buildings) and transportation (passenger cars, trucks, buses, special purpose vehicles). Mitigation actions in the oil & gas production sector – one of the main sources for GHG emissions in Azerbaijan – will aim to capture associated gas evaporating from existing oil fields. The pilot project will be implemented on-shore in the SOCAR's Siyazzaneft oil-field and it will direct collected gas to nearby residential areas which presently rely for their energy needs on LPG, kerosene and forest-wood which is causing deforestation in the area.

The Project aims to achieve the following four outcomes:

1. Assessment of GHG emission mitigation potentials and target setting complete.

2. NAMA (program/action plan) in oil & gas end-use sectors developed

3. NAMA (pilot projects) in oil & gas end-use sectors (successfully) implemented

4. MRV system and national registry for mitigation actions in the energy generation and end-use sectors developed.

3.1 Project Development Context[7]

As an oil- and gas-rich country, Azerbaijan has been extracting oil for industrial purposes for more than 160 years. Following its independence from the Soviet Union in 1991, oil production in Azerbaijan fell sharply between 1992 and 1997 – mainly due to a conflict with Armenia over Nagorno-Karabakh, outdated technology, poor planning and lack of investment in new drilling and rehabilitation of existing wells – bottoming out at 9.1 mln tons in 1997. By 2000, production had recovered to 14 mln tons, then to 22.4 mln tons in 2005 and 44.3 mln tons in 2008,[8] with latest estimations on crude oil reserves being at 7 billion barrels.

Azerbaijan's proven gas reserves are estimated at about 30 trillion cubic feet (TCF), and a further potential for exploration is expected to be between 100 and 200 TCF[9]. Virtually all natural gas is produced from offshore fields. After independence, production declined steadily to 4.5 billion cubic meters (BCM). In 2009, gas production increased to 23.3 BCM and was expected to reach 28.5 BCM

[7] Based on information provided in the Project Document

[8] State Statistics Committee of Azerbaijan, 2009

[9] Oil and Gas Journal, 2009

in 2010. About 66 % of total production is used to meet domestic demand and 34 % is exported mainly to Russia, Georgia and Turkey.

There is one gas and two oil refinery plants in the country. At present, most crude oil extracted in the country is exported to foreign countries. There are three pipelines intended for oil export: Baku-Novorosiysk, Baku-Supsa, and Baku-Tbilisi-Ceyhan. In 2007, the Baku-Tbilisi-Erzurum pipeline was launched for facilitating gas export.

Presently, there are 57 oil fields in Azerbaijan, of which 18 are located in the Azerbaijani shore of the Caspian Sea. The biggest potential sources of GHG emissions in the oil and gas sector are Azneft Production Unity, Heydar Aliyev Oil Refinery, and AzerNeftYag Oil and Gas Refinery.

SOCAR's Role in the Azeri Oil & Gas Market

SOCAR, the State Oil Company of the Azerbaijan Republic, is a state-owned oil and gas company and it is responsible for all aspects of offshore and onshore exploration of oil and gas fields in the country, the pipeline system, oil and gas imports and exports, processing, refining and sale of oil and gas products. Although SOCAR is involved in all segments of the oil sector, it produces only about 20 percent of Azerbaijan's total oil output, with the remainder being produced by international oil companies, such as BP.

SOCAR is involved in exploring oil and gas fields, producing, processing, and transporting oil, gas, and gas condensate, marketing petroleum and petrochemical products in domestic and international markets, and supplying natural gas to industry and the public/households in Azerbaijan. SOCAR is also operating large own vehicle fleet (more than 6,000 vehicles), it is operating as a developer and builder of public, commercial and residential buildings, and thus SOCAR is contributing to GHG emissions also in different energy end-use sectors. Due to its important position within the overall market chain of exploration-production-transport and final end-supply the company's activities have a very significant share in the country's overall GHG emissions regime, and on average account for 10-15% of country's GHG emissions.

According to the ProDoc, 750-800 million cubic meters of low-pressure associated gas from on- and offshore oil fields is released to the air every year without being burnt, leading to an equivalent of about 1.3 million tons of CO_{2eq} being emitted from oil & gas fields annually.

Every year, a total of about 3 million tons of $CO_{2\,eq}$ are emitted by SOCAR and its business operations in Azerbaijan. By taking appropriate actions, the estimated potential for GHG emission reductions is about 1.2 million tons of CO_{2eq}, or at least 30% of the companies' CO_2 emissions (Second National Communication to the UNFCCC, MENR, 2010).

Currently, there are about 80 mln m³ of gas aired yearly from off-shore and 29 mln m³ from SOCAR's on-shore oil fields. Out of this on-shore amount about 27 mln m³ of gas is aired from Siyazanneft Oil and Gas Production Unit, one of six SOCAR's on-shore facilities, located 100 km North of Baku.

Siyazanneft owns about 550 wells in the approx. 2,000 hectares territory. Until 2010, associated gas was not captured in Siyazanneft. As per ProDoc, about 73.2 thousand m³ of gas is aired daily or about 27 million m³ yearly (2014). The amount of methane in the associated gas is up to 80% and corresponding to 21 mln m³. The corresponding $CO_{2\ eq}$ emissions are about 313,000 tonnes annually.

In other words: 80% of the total identified SOCAR's GHG emission reduction potential (i.e. ca 0.95 mil tons out of total 1.2 mil tons CO_{2eq}), can be reduced by capturing of associated gas off-shore and on-shore.

3.2 Problems That the Project Sought to Address

Azerbaijan has adopted very ambitious targets in energy efficiency, renewable energy and GHG emission reductions. The State Program on the Use of Alternative and Renewable Energy Sources 2005-2015, specified 2030 targets: 30% share of renewable energy in gross domestic power consumption; energy savings in equivalent of 3,060 mln m^3 of natural gas; and 30% GHG emissions reductions by 2030 compared to the 2010 baseline.

SOCAR is a major company in Azerbaijan, and the main state owned company in terms of its economic output, as well as GHG emissions (10-15% of country's GHG emissions), and GHG reduction potential. In December 2010, SOCAR joined initiative of international oil and gas companies and adopted its corporate Climate Change Mitigation Strategy, including very ambitious voluntary GHG emissions reduction target of 40%, or an equivalent of aggregate 20 mln tCO_2, by the year 2020, and specified actions to achieve the target, and thus positioned itself as a leader in GHG emissions reductions in the country.

The project was designed to support SOCAR, a major local company with significant GHG emissions and emission reduction potential, in implementing its Climate Change Strategy and in achieving its ambitious GHG emissions reduction targets.

Project Document identified four fundamental barriers pertaining improvement of country's energy and climate change policies:

1. Policy/regulatory barrier
2. Lack of capacity on the institutional and professional level
3. Technological barriers
4. Economic and financial barriers

Ad 1: Policy/regulatory barrier

The ProDoc summarized, that public policies in the field of energy efficiency were still underdeveloped or missing in Azerbaijan. Although the government has adopted ambitious targets, there was no sufficient legal framework in place specific to energy efficiency activities. The Energy Charter Secretariat assessed in its 2012 In-Depth Review of the Energy Efficiency Policy of Azerbaijan that energy efficiency in Azerbaijan still needs further developments in terms of strategy, action plans and legislation.

Although the Project Document identified policy/regulatory barrier as a barrier number one, it decided not to address it: *"Although the impact of missing policy framework is considered significant the project will not be able to provide the means to work on this barrier removal since it foresees to*

address stakeholders at the level of mitigation investment and action rather than the policy-makers."[10,11]

The Project development team, including the UNDP team and the RTA, concluded, based on the situation analysis, that the Government of Azerbaijan was not yet in a position to provide full commitment for development and adoption of new energy efficiency/renewable legislation and regulations. Thus, the project strategy was focused on demonstration of NAMA projects implemented by SOCAR first, in order to raise awareness and confidence and to support the government readiness for adoption of necessary legislation and regulations.

Ad 2: Lack of capacity on the institutional and professional level

ProDoc analysis of this barrier highlights the housing sector which *"faces significant problems"* (relevant to energy efficiency), and it identified *"lack of coordinated policy action"* in this field. However, the Project Document states that *"the Project will not be able to close the legal gap per se, but will implement pilot activities"*.

In terms of lack of capacity, the project document identified lack of capacity in development of GHG inventories.

Ad 3: Technological barriers

Lack of appropriate policies, non-compliance with standards and no energy efficiency labeling in place, and low energy prices were identified as a main reason why energy efficiency and renewable technologies are not yet more widely implemented, which results also in low awareness.

In analysis of this barrier, lack of energy efficiency concern in construction and management of buildings was highlighted.

Ad 4: Economic and financial barriers

Low energy prices, and low feed-in tariffs for renewable power generation, and the need to *"improve the legislation in the field of renewable energy and energy efficiency"* were identified in the Project Document as main economic/financial barriers.

The project document proposed to address the financial barrier derived from low-energy prices, resulting in long paybacks, and thus in low motivation for commercial investment, by mobilizing private-sector investments as well as proper financial mechanisms, such as the option of a revolving fund on energy.

The project document identified lack of appropriate policy/regulation as a main underlying barrier in each of the four types of barriers analyzed in dissemination of GHG mitigation actions especially in energy efficiency in the country. However, the project document opted not to address the main barrier identified, and to focus instead on voluntary implementation of mitigation actions in SOCAR only, since this voluntary implementation is not dependent on existence of such policies/regulations. The rationale for such an approach was based on a strategy to strengthen governmental awareness

[10] Project Document, page 13

[11] „The project will make policy recommendations of an advisory nature by identifying the GHG reductions pathway at a macro level (through Marginal Abatement Cost Curves) and demonstrating the potential. Translating this into specific NAMAs with investment sources identified is beyond the project's scope."

and commitment to develop/adopt required regulations by demonstrating hands-on experience from implemented NAMA projects by SOCAR.

Private investment and revolving fund identified in the ProDoc do not seem to be measures that could overcome the financial barrier of low energy prices and long payback when replicated nation-wide.

3.3 Project Description and Strategy

The main goal of the project is to support SOCAR in the implementation of its Climate Change Mitigation Strategy by promoting and upscaling GHG mitigation measures through a programmatic NAMA approach in SOCAR's oil and gas production and energy end-use sectors, and demonstrating NAMA approach by implementation of pilot projects in gas production (associated gas capture), buildings and transportation.

The Project was designed to improve energy performance of main SOCAR's end-use sectors, namely buildings (new and existing residential, service and public buildings) and transportation (passenger cars, trucks, buses, special purpose vehicles). Mitigation actions in the oil & gas production sector – one of the main sources for GHG emissions in Azerbaijan – were designed to capture associated gas evaporating from existing on-shore Siyazzaneft oil-field and direct it to nearby residential areas, which presently rely for their energy needs on LPG, kerosene and forest-wood which is causing deforestation in the area.

The NAMA Project strategy was structured into four components:

1. Assessment of GHG emission mitigation potentials and costs, and target setting by sectors completed

2. Development of NAMA program/action plan in oil & gas production and end-use sectors

3. Implementation of NAMA pilot projects in oil & gas production and end-use sectors

4. Development of MRV system and national registry for mitigation actions in the energy generation and end-use sectors

Summary of project objective, outcomes and outputs

Concrete wording of Project objective and outcomes slightly differs in different parts of the project document. In the following summary, wording from the ProDoc logframe matrix is used, as well as revised wording used in the Inception Report (in parenthesis), if it differs from the ProDoc version.

Project Objective:

To support the development, implementation and monitoring of NAMAs in the low-carbon end-use sector, in order to build upon a strong national commitment for the reducing the energy demand of oil and gas end use sectors

Outcome 1: Assessment of GHG emission mitigation potentials and target setting completed

Outputs:

1.1 Relevant barriers that hinder the development and implementation of GHG mitigation measures assessed

1.2 Main oil & gas end-use sectors regarding status of energy performance and potential for decreasing energy intensity are analyzed (*Inception Report – IR wording: Main oil & gas end-use sectors having the potential for decreasing energy intensity are identified*)

1.3 Detailed marginal abatement cost curves for the oil & gas end-use sectors developed to demonstrate effective mitigation policies and economic scenarios

1.4 Awareness among governmental institutions increased and the development of a national replication strategy supported (*IR: Government institutions gain further awareness and support the development of a national replication strategy*)

1.5 Voluntary emission reduction targets in the oil & gas end-use sectors are established and validated

Outcome 2: NAMAs in oil & gas end-use sectors developed (*IR wording: Specific oil & gas end-use sectors are endorsed by all stakeholders to begin detailed design and implementation of NAMA projects*)

From the context and project description specified in the ProDoc, the title of the outcome 2 refers to development of NAMA program/action plan.

Outputs: (*IR: Outputs are ranked and numbered in another order: 2-1-3***)**

2.1 Three designed programs for the implementation of selected prioritized feasible NAMAs in main oil & gas end-use sub-sectors

2.2 Fully capable and qualified private and public sector entities in the design and implementation of NAMAs

2.3 Defined and established financial instruments mitigation actions in the oil & gas end-use sectors

Outcome 3: NAMAs in oil & gas end-use sectors (*IR:successfully*) implemented

Outputs:

3.1 Potential NAMA 1: SOCAR's Green Building Program implemented (*IR: … and knowledge about EE practices in buildings is disseminated*)

3.2 Potential NAMA 2: Sustainable Transport at SOCAR implemented (*IR: Sustainable Transport Initiative implemented resulting in fuel economy of SOCAR's transportation fleet*)

3.3 Potential NAMA 3: SOCAR's Associated Gas Capturing Program implemented (*IR: SOCAR's Associated Gas Capturing Program is geared to the collection and supply of natural gas to meet the heating needs of the area's inhabitants*)

Outcome 4: MRV system (*IR: framework*) and national registry for mitigation actions in the energy generation (*IR: production*) and end-use sectors developed

Output 4:

4.1 Defined and established sectoral and sub-sectoral reference baselines for oil & gas end-use sector sectors

4.2 Established sub-sectoral GHG inventories for key oil & gas end-use sub-sectors

4.3 Established and operational national registry mechanism for mitigation actions in the oil & gas end-use sectors

3.4 Project Implementation Arrangements

The project was designed to be nationally executed (NIM modality) by the SOCAR – the State Oil Company of Azerbaijan Republic.

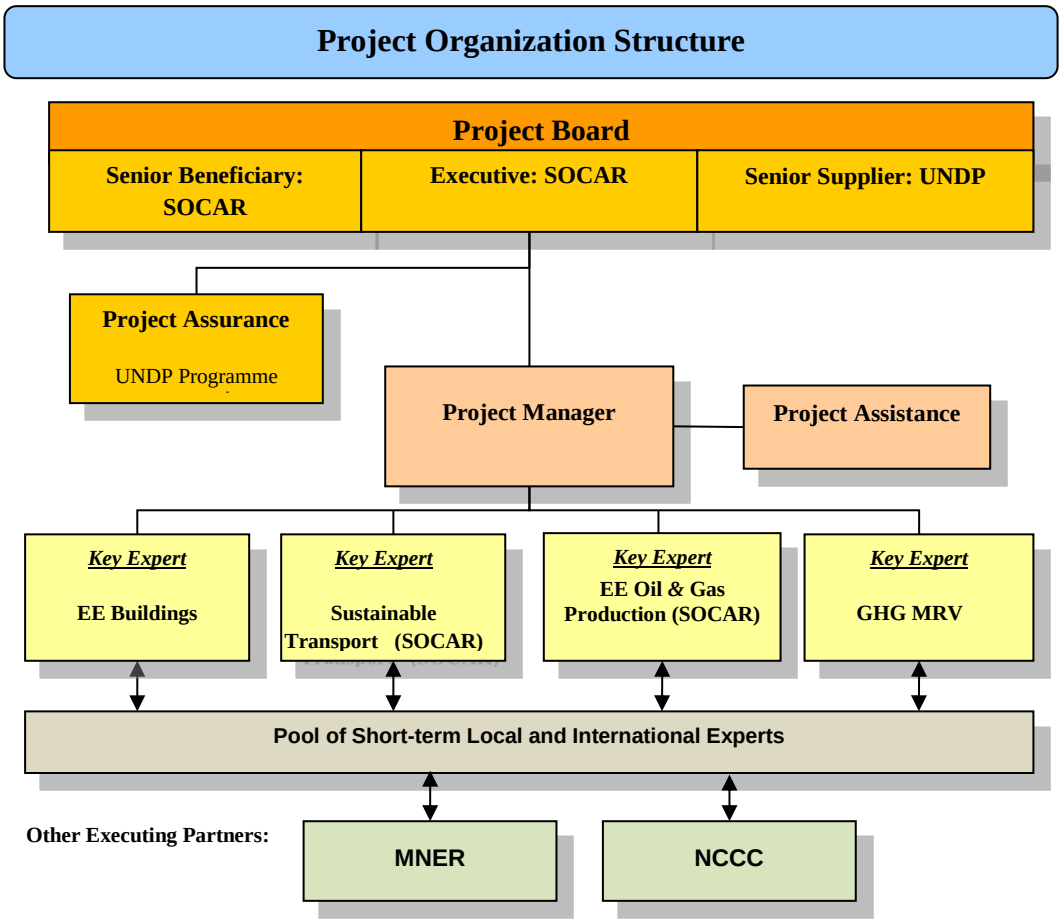
UNDP has been assigned to be responsible for quality assurance, monitoring project implementation and achievement of project outcomes, and ensuring a proper use of GEF funds.

Day-to-day management of the project will be responsibility of a Project Manager. The Project Manager will work under the overall guidance of the Project Director and the Project Board, and reports to UNDP.

The Project Board was designed to include representatives of SOCAR, Ministry of Ecology and Natural Resources (MENR), National Climate Change Center of the MENR, and UNDP.

The following chart illustrates the project management structure, as it was designed in the ProDoc.

Chart 1: Project Management Scheme



3.5 Project Timing and Milestones

The five-year project was formally launched with a project document signature on March 5, 2015 by UNDP (SOCAR signed the ProDoc on February 26, 2015), and it is scheduled to terminate in five years, i.e. in March 2020.

Actual project implementation started in July 2015, after hiring a Project Manager and a Project Assistant.

An Inception Workshop was planned for December 2015, but it had to be canceled and postponed due to a tragic accident in the oil and gas industry. Second time, the workshop had to be cancelled for personal reasons. The Inception Workshop was then held on March 3, 2016, within 8 months after actual start of the Project, and one year after the Project was formally launched. The ProDoc envisaged Inception Workshop to be held within 3 months after project start.

The Midterm Review was planned for a mid of project implementation period, i.e. October 2017, when the MTR mission to Azerbaijan took place. The terminal evaluation is scheduled to take place at least three months before project termination, i.e. in December 2019/January 2020.

3.6 Main Stakeholders

The main project stakeholder is SOCAR, the State Oil Company of the Azerbaijan Republic, which serves as a local implementing partner and a senior beneficiary.

Other project stakeholders identified in the ProDoc include:

- Ministry of Ecology and Natural Resources (MENR)
- National Climate Change Center (NCCCC) under the MENR, responsible for GHG inventories and National Communications under the UNFCCC.
- Ministry of Energy (ME) – responsible among others for energy policy and legislation relevant to energy, energy efficiency and renewable energy

4. Findings

4.1 Project Design

4.1.1 Project Strategy

In this UNDP-supported GEF-financed Project, it is *"for the first time that the corporate sector will be directly involved in the design and implementation of NAMAs"*[12].

SOCAR, as a single main project partner, a senior beneficiary, and a local implementing party, actively participated by defining its priorities in the project design since the very early stage of project formulation. As a result, lot of attention has been paid to the development and implementation of pilot projects - GHG mitigation actions. The Project did not outline a strategy to overcome the identified policy/regulatory and financial barriers for a wider replication and dissemination of experience gained from pilot projects in the whole country.

From the context of the Project Document, the project strategy, in general, is clear and logically structured, and it includes four project components:

1. Assessment of GHG emission mitigation potentials and costs, and target setting completed

2. Development of NAMA program/action plan in oil & gas production and end-use sectors

3. Implementation of NAMA pilot projects in oil & gas production and end-use sectors

4. Development of MRV system and national registry for mitigation actions in the energy generation and end-use sectors

I. There are several issues in the ProDoc that lead to a confusion, without understanding the full context of the whole ProDoc:

- ProDoc uses the general term "NAMA" for both, the NAMA program/action plan (component 2), as well as for individual pilot projects (component 3). Without specification, it is not clear when the "NAMA" term refers to the GHG mitigation program/action plan, and when to individual pilot projects.
    - Titles of outcome 2 and 3 use only the NAMA term, without specification that it refers to program/action plan (outcome 2), and pilot projects (outcome 3), although this is clear from other parts of the ProDoc text. The "program/action plan" and "pilot projects" was added in the MTR report to the outcome titles by the MTR evaluator to clarify the NAMA reference.
    - The wording of the project objective and outcomes slightly differs across the text of the ProDoc, although the meaning remains the same.
- The title of the Project itself is rather confusing. It reads: *"NAMAs for low-carbon end-use sectors in Azerbaijan"*.
    - The Project does not address low-carbon, but high-carbon sectors. The Project supports implementation of low-carbon actions/technologies.

[12] Project Document, page23

- The Project is targeting energy/gas production sector, as a main priority for SOCAR with highest GHG emissions and highest and affordable GHG emission reduction potential. In addition to the SOCAR's production sector, its energy end-use sectors (buildings and transport) are addressed as well.

- Except for the confusion resulting from using the "NAMA" term for both, the action plan and pilot projects, there is also some confusion in understanding the scope of the NAMA action plan/program. Originally, the NAMA action plan (outcome 2) in the ProDoc referred to both, prioritized sectors in Azerbaijan on a country level, as well as to own SOCAR's sectors. Since the inception workshop and report, the focus has been on NAMA action plan for SOCAR's prioritized sectors - SOCAR's own facilities in oil and gas production, and in its two end-use sectors (buildings and transportation).

II. Project barriers have been identified but not addressed properly

- The ProDoc clearly identified lack of policies, legislation and regulation as a major barrier undermining broader, country-wide implementation especially in energy efficiency, but it opted NOT to address this main policy/regulatory barrier at all, and to stay focused on support to SOCAR only.
- Financing barrier has been addressed and low-energy prices were identified as a main root cause preventing from investment to energy efficiency and renewable energy. As a mitigation option/strategy, the ProDoc suggested to involve private investment and new financing mechanisms, such as revolving fund. These options cannot solve the financing barrier. Low-energy prices mean that private investment in GHG mitigation options (energy efficiency, renewable energy) will remain limited, if not supported by financial subsidies or strong regulations, and any potential investment will rely mostly on funding from public budgets and/or state-owned companies.

III. Associated gas capture pilot project was designed to demonstrate to SOCAR new opportunities in utilization of this gas in remote areas instead of venting it to the atmosphere. The 2014 ProDoc states (page 38, Analysis of current situation) that *"SOCAR as owner of the wells* (in Siyazan) *does not consider further utilization of the associated gas so far (in the remote areas) since its outdated technology would not make it economically feasible and thus not realistic to invest into such major projects"*. Since 2010, SOCAR had already experience with associated gas capturing in other locations, although the ProDoc did not explicitly mention that.

- Between 2008 and 2012, SOCAR implemented following GHG emission reduction actions, including in the Siyazan location[13]:
  - In 2010 SOCAR adopted its Associated Gas Reduction Plan[14],

[13] http://www.socar.az/socar/en/environment-and-safety/menu/dealing-with-climate-change-problem

[14] "SOCAR activities on Climate Change Mitigation Actions", presentation at the Europe and Central Asia Countries Regional Conference: Uzbekistan's Experience in Associated Gas Flaring Utilization and Implementation CDM Projects in Oil and Gas Sector, Tashkent, June 2012, http://www.google.cz/url?sa=t&rct=j&q=&esrc=s&source=web&cd=9&ved=0ahUKEwiIpuiVt47XAhUDmbQKHePHC7gQFghUMAg&url=http%3A%2F%2Fsiteresources.worldbank.org%2FINTGGFR%2FResources%2F578035-1164215415623%2F3188029-1341346687635%2F3_Aliev_SOCAR-eng.ppt&usg=AOvVaw2ZPWRc2M3t8daOkCLTnnR5

- Environmental Department carried out an inventory of greenhouse gas emission sources at divisions of SOCAR, operating companies and joint ventures,
- Low-pressure associated gases has been captured for utilization at “28 May” Oil and Gas Production Department in a total amount of 310 million m^3 of gas,
- Innovative financing mechanism (Clean Development Mechanism under the Kyoto Protocol of UN FCCC) has been utilized for financing of the capture of 200 million m^3 of associated gas,
- Energy efficiency project has been prepared for CDM financing replacing SOCAR’s incandescent lamps with efficient lighting systems (LED), with designed savings of 34 thousand tCO_2/year,
- In 2011, SOCAR’s Environmental Department received equipment and measured associated gas emission to the atmosphere at the Siyazanneft oil and gas production unit – of 14.2 mln m^3/year. A feasibility study for collection and utilization of associated gas at Siyazanneft was developed.
- In 2011, SOCAR implemented its associated gas reduction projects, associated gas vented into the atmosphere was reduced from 436 mln m^3 to 120 mln m^3
- In 2012, SOCAR established its Ecological Park at Gala, and recultivated oil-polluted land into a green park with a training facility and a gardening farm producing trees, 200 thousand units of seedlings are cultivated annually. In this Eco Park, four wind generators with 10 kW each, and photovoltaic panels with a total capacity of 20 kW_p have been installed as a pilot project, covering 40% of own energy needs,
- “Effective utilization of associated gas” project was supported by EBRD
- Study on improvement of SOCAR’s GHG monitoring system, replacement of old compressors by new ones, on use of alternative fuels for SOCAR transport vehicles, and tree planting was developed with a GIZ support

IV. Building sector has been properly identified as a priority for implementation of pilot projects in the SOCAR’s end-use sectors. Since SOCAR’s own building facilities account only for a fraction of buildings in the country (according to ProDoc less than 0,5% of the total building stock in the country, and less than 2% in construction of new buildings), the replication potential within SOCAR itself, is very limited. Azerbaijan witnesses a large construction boom, however the unique opportunity to deploy energy efficiency during building design and construction remains untapped. SOCAR’s experience in energy efficiency in buildings pilot projects would be best utilized, if applied in the whole building industry, and especially in construction of new buildings, and if supported by energy efficiency legislation/regulations and trainings of construction practitioners.

The general project strategy structured in project outcomes is clear and logical, and it follows international experience in developing GHG emission reductions policies and action plans that could be summarized in following steps:

- Assessment of GHG emissions mitigation opportunities, prioritization of GHG emissions reduction opportunities based on their potentials and costs, and specification of time-bound targets
- Development (and approval) of a long-term NAMA/GHG emissions mitigation action plan with targets, specification of GHG emissions reduction measures, investment costs and financing sources to be used, and a MRV plan

- (Support to the implementation of NAMA/GHG emission reduction pilot projects)
- Implementation of GHG emissions mitigation measures/actions according to the NAMA/GHG emissions mitigation action plan
- Regular review and update of the long-term program/action plan

Résumé:

It is clear that the designed project strategy was influenced by SOCAR's fully legitimate interest to receive financial support for implementation of projects in line with its 2010 Climate Change Strategy and 2010 Associated Gas Capture Plan, and no attention has been paid in the project document to addressing the main policy/regulatory barrier and to designing replication strategy for the whole country. This was influenced also by the lack of readiness at the national level to develop specific binding regulations to support implementation of GHG emission reduction activities across different sectors. As the ProDoc states, the objective of the Project is to support SOCAR in implementing its Climate Change Strategy. Voluntary implementation of SOCAR's Climate Change Strategy and Associated Gas Plan within its own facilities does not depend on existence of nation-wide policies/regulations. The regulations are needed for motivation of third-parties - diverse entities across all sectors in the country in implementation of state policies.

SOCAR has had its Climate Change Mitigation Strategy and Associated Gas Reduction Plan in place since 2010 already, and it has been implementing GHG emissions reduction projects of different type since then, including capturing of associated gas on a large scale, and installation and demonstration of smaller scale photovoltaics and renewable power plants. The Project Document was not aware of the SOCAR's 2010 Associated Gas Reduction Plan nor of associated gas capture projects implemented by SOCAR before the GEF Project has been developed.

The Project Document highlighted the unique opportunities in energy efficiency in buildings in Azerbaijan with on-going large construction boom, but with no energy efficiency being implemented in buildings. Again, the ProDoc left this opportunity unaddressed, because it focused on SOCAR only (although its buildings account for just 0.5% of the overall building stock in Azerbaijan).

4.1.2 **Project Results Framework/LogFrame**

The project LogFrame suffers from using the NAMA term in two different meanings – NAMA program/action plan versus NAMA pilot projects, as discussed above, which leads to confusions. Thus, the short wording of project targets specification used in the LogFrame is not always self-explaining.

For example project objective target is "3 NAMAs implemented", which can suggest that 3 pilot projects (or pilot projects in 3 sectors are to be implemented). But from the context of the project it is clear that it should refer to NAMA program/action plan that should cover 3 sectors (associated gas capturing, building sector and transport). NAMA program/action plan covers a longer period than just 5 year of Project implementation period. Thus, the target "3 NAMAs implemented" might suggest that it refers to pilot projects. Instead, from the context it is clear again, that it refers to NAMA action plan being implemented, i.e. developed for implementation, approved, and implementation of identified actions started. Since the NAMA program/action plan is a long-term program/plan, it cannot be fully implemented within a project period. This long-term impact of NAMA program/action plan is to be measured, as per ProDoc, by the indicator of indirect GHG savings, which refers to full

implementation of the long-term NAMA program/action plan. According to the revised GEF methodology, these GHG savings should be referred to as direct post-project GHG emission reductions – in case the approved NAMA action plan will have allocated sources of financing.

The ProDoc LogFrame specifies two project objective GHG emission reduction targets:

Direct GHG emission reduction target – which refers to lifetime GHG emission savings from (NAMA) pilot projects implemented during the Project implementation period (till 2020).

Indirect (or in a new GEF terminology "Consequential"[15]) GHG emission reductions refer to lifetime GHG emission savings from implementation of the whole NAMA program/action plan within 10 years after project termination, i.e. by 2030. In the MTR reviewer's opinion, GHG emission reductions from projects implemented as a result of a binding NAMA program/action plan adopted during the project implementation period with assigned financing should be reported, according to the revised GEF methodology[16], as "Direct Post-Project" GHG emission reductions, not "Indirect/Consequential" GHG Emission Reductions.

No mid-term targets have been specified in the ProDoc, only end-of-project targets. Due to the long duration of project (5 years), mid-term targets were included during the Inception Workshop based on the advice of the UNDP Regional Technical Advisor.

The Source of Verification column in the LogFrame matrix includes in some cases correctly references to the source of verification. However, in other cases, the "Source of Verification" specifies again targets, although different from those used in the "End-of-Project Targets" column.

The Inception Report suggested revisions of the LogFrame, including changes in project objective and outcome indicators and targets. The changes proposed were approved by the Project Board. The revised LogFrame was not submitted to the GEF secretariat for approval, since the proposed revisions were typically just minor revisions of the wording, but did not change the content substantially, and thus GEF approval was not necessary. Both, the ProDoc and Inception Report wording of LogFrame indicators and targets are shown in Annex 8.

As discussed above, due to confusion in the use of NAMA term for both, pilot projects and an action plan/program, some "NAMA" related project indicators and targets have not been clear and self-explaining, and thus they were not fully in line with SMART requirements (Specific, Measurable, Achievable, Relevant, Time-bound), namely with the "Specific" requirement (NAMA targets). In few cases, the original wording as of Project Document is proposed to be used, since it is more clear than the revisions introduced by the Inception Report (Outcome 2). A specific and measurable target of "1200 trees planted" was added in the Output 3.3 – SOCAR's afforestation program. The revised wording of the LogFrame is shown in Annex 7.

Despite these critical comments, and the fact that the LogFrame is not self-explaining and leads to a confusion and misunderstanding of local stakeholders of "NAMA" term referring both to program/action plan and pilot projects, the logic of the LogFrame matrix is clear – based on the knowledge and understanding of the whole project strategy as described in the ProDoc.

[15] Guidelines for Greenhouse Gas Emissions Accounting and Reporting for GEF Projects - Findings and Recommendations of GEF Working Groups, 48th GEF Council Meeting, GEF, June 2015, http://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.C.48.Inf_.09_Guideline_on_GHG_Accounting_and_Reporting_for_GEF_Projects_4.pdf

[16] Calculating Greenhouse Gas Benefits of the Global Environmental Facility Energy Efficiency Projects, version 1.0, Scientific and Technical Advisory Panel of the Global Environmental Facility (GEF-STAP), March 2013 https://www.thegef.org/sites/default/files/publications/GEF_EE_Methodology_v1.0_2.pdf

To improve the clarity of the LogFrame, the MTR added more descriptive explanation of project indicators and targets without changing its meaning – see Annex 7.

Broader development effects (gender equality, income generation, improved livelihoods) were partially factored into the Project design, although they were not addressed directly.

The Project was not designed to address explicitly gender issues, nor income generation. The Project was designed to address improved livelihoods and specifically to support achievement of the UNDP Strategic Plan on Environment and Sustainable Development, Primary Outcome 1: "Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded".

The NAMA Project and its focus on SOCAR and energy efficiency in buildings, GHG/fuel savings in transportation, and associated gas capture, implicitly mean that the Project is expected to lower energy costs/increase net income, increase SOCAR's income from gas sales, increase employment in associated gas capturing services, and to improve livelihood in local communities to be supplied by the natural gas.

The pilot project focused on associated gas capturing in Siyazan is expected to improve gender equality and to provide benefits primarily to women. The Project Document explained that improved gas supply to nearby villages will reduce need for collection of brushwood, dung and other bio-resources used for heating and cooking in the rural region, which is currently mainly organized by women. Other project components have gender neutral impact.

4.2 Progress Towards Results

4.2.1 Progress Towards Outcomes Analysis

The Project was very successful with implementation of pilot projects already by its midterm, especially in the building and transport sectors that have been almost fully implemented already – within just two years after an effective Project start and before the planned deadline. The associated gas capture pilot project is under development and it is scheduled to be implemented in Siyazan during the construction season next year.

The Project has focused primarily on implementation of pilot projects so far (component 3), and much less effort has been paid to component 1 and 2 – analysis of GHG mitigation opportunities (GHG marginal abatement cost curves), and development of the NAMA program/action plan. Activities under component 4 (MRV) have just started at the MTR by hiring an international consultant.

Within component 1 and 2, assessment of energy savings potential, and feasibility studies have been developed to support subsequent activities, such as development of pilot projects in component 3.

Despite the delays in delivery of outcomes 1 and 2, there is still sufficient time to fully deliver good quality results by the end of project, assuming the Project will concentrate on delivery of these tasks.

Pilot projects

Buildings

Based on energy audits, the following four pilot projects have been implemented in SOCAR's facilities:

1. Oil Sludge Waste Treatment Center (WTC) at Garadag

Two retrofitted administrative buildings of 2,700 m^2

Energy efficiency measures: building envelope, roof and basement insulation, energy efficient windows and lighting

Renewable energy: four wind-power plants with a capacity of 4 x 3.2 kW (turbines destroyed by an extreme storm shortly after installation, to be reinstalled), 15 kW_p in photovoltaic panels installed (to be connected to batteries and lighting system)

2. Eco Park in Gala

Two retrofitted buildings of 1,300 m^2

Energy efficiency measures: building envelope, roof and basement insulation, hydro-insulation of basement, energy efficient windows and lighting

Renewable energy: 15 kW_p in photovoltaic panels installed (to be connected to batteries and energy efficient lighting system)

3. AzerKimya Production Unit in Sumgayit

Service building of 2,450m^2 completely reconstructed

Energy efficiency measures: building envelope, roof and basement insulation, floor heating, energy efficient windows and lighting, ventilation with heat recuperation

Renewable energy: 10 kW_p in photovoltaic panels installed including batteries supplying energy efficient lighting system

4. Chemists' Culture Palace in Sumgayit

Culture Palace of 3,500 m^2 reconstructed

Energy efficiency measures: indoor wall insulation, energy efficient lighting

Renewable energy: 22.5 kW_p in photovoltaic panels installed including batteries supplying energy efficient lighting system

Total investment to pilot projects by mid-term: 12,428,968 USD, of which SOCAR 11.6 mil USD (93%), and GEF project 828,968 USD (7%).

Expected GHG savings from pilot projects: 110.3 tCO_2/year (estimation is based on energy audits performed)

- In total 60 SOCAR's experts, including architects, designers, and construction engineers were trained during two trainings in energy efficiency in buildings.

Energy efficiency, including building insulation, implemented in reconstructed buildings in pilot projects represent a unique and probably the first demonstration of building envelope insulation of reconstructed buildings in Azerbaijan on such a large scale. The expertise generated by this pilot projects create a unique opportunity for SOCAR for replication on a large scale across the whole country.

Implemented wind and photovoltaic pilot projects replicated renewable technology that SOCAR demonstrated in its Eco Park in 2012 already. The technical value added is thus limited. However, this experience should be used to demonstrate real costs of this GHG mitigation actions – and an opportunity to prioritize less costly opportunities, including energy efficiency, in order to maximize GHG savings.

Transportation

1. In total 79 drivers were trained in Eco driving in six training sessions. 40 drivers were tested indoor, and 39 drivers were tested also in real traffic conditions. Fuel savings reached 8-14%.

2. Four hybrid vehicles were purchased by the Projects for use by SOCAR. Fuel consumption is monitored and evaluated, average fuel consumption (over a total of 14,119 km) is 5.6 l/100 km.

The eco-driving training is an excellent example of a low-cost, "near zero" costs GHG savings opportunity with high impact in transportation sector and large replication potential. The Project is planning to purchase a training simulator for training of further drivers, and is considering developing a motivation scheme for drivers.

In Azerbaijan, there is a de facto ban on LNG/LPG cars, after some sever accidents in the past. Thus the Project focused on hybrid vehicles. Full costs of hybrid vehicles costs were financed from the project budget. The GEF should finance only incremental costs. This is planned to be balanced by financing of purchase on next fleet of hybrid/alternative fuel vehicles from SOCAR's budget. High costs of hybrid vehicles limit replication potential, but it is an opportunity to asses real costs of GHG savings.

Associated gas capture

- Preparation of a feasibility study for a pilot project in Siyazan started. Volume of released associated gas has been measured, chemical analysis performed and based on the results of the chemical analysis a new technology for on-site cleaning - filtering of captured associated gas - was recommended by an international expert. SOCAR Research Institute is developing design of the gas cleaning station, piping, and compressors based on the analysis and recommendations of the Project expert.
- Associated gas capturing project will be accompanied with a construction of a natural gas distribution network in nearby settlements.

Associated gas capture have far the biggest GHG reduction potential, and it is a commercially viable strategy for GHG emission reductions. SOCAR has been implementing associated gas capture projects also in Siyazan since adoption of its Associated Gas Reduction Plan adopted in 2010.

This practical experience of SOCAR in capturing of associated gas was not reflected in the ProDoc. However, the pilot project developed by international consultant demonstrates a new technology in capturing of associated gas in remote areas - on site filtering of associated gas, which reduces transportation costs to gas refinery and back to local end-users.

MRV

All implemented pilot projects have been registered in the national GHG emissions reductions registry at the Ministry of Environment.

International MRV consultant has been hired shortly before the MTR.

Table describing in detail progress towards results as per logframe targets is shown in Annex 6.

4.2.2 Remaining Barriers and Opportunities

The policy/regulation barrier identified and highlighted in the Project Document was not addressed, because the ProDoc opted not to focus on it due to lack of awareness and readiness to adopt necessary legislation/regulation. This will not hamper development and implementation of the SOCAR's NAMA program/action plan. However, if unaddressed, it will minimize opportunities for replication especially of the innovative energy efficiency in buildings (building envelope insulation) experience gained through implemented pilot projects also in other sectors, outside of SOCAR, in other sectors of Azerbaijan. The Project thus plans to develop policy recommendations and advise the Government on cost-effective GHG reductions scenarios on a macro level, based on analysis of GHG Marginal Abatement Costs and demonstrating the GHG reduction potential.

No specific barriers have been identified for development and implementation of the NAMA program/action plan by SOCAR.

Replication of the energy efficiency in buildings within SOCAR itself has limited potential. SOCAR plans to reconstruct only few buildings annually.

Renewable energy (wind and photovoltaics), have been demonstrated by SOCAR in 2012 already. Due to high costs of these technologies, and low feed-in tariffs, neither wind power, nor photovoltaics represent a commercially attractive business case, yet. The replication potential will depend on available funds.

Trainings of SOCARs drivers in eco driving is planned to be scaled up, and extended also to other governmental agencies. SOCAR's management is considering implementing motivation scheme for drivers, so that the realized fuel savings will be sustainable in the long-term.

Hybrid vehicles are more expensive than standard vehicles, and fuel saved does not generate enough financial savings to pay back for the incremental investment costs. Thus, further dissemination of hybrid cars will depend on availability of funding.

Capture of associated gas has the highest and most cost-effective potential, and thus it is a top priority for SOCAR. Capturing of associated gas, its processing/cleaning, utilization and sale is a core business of SOCAR since 2010 already. The new technology of cleaning/filtering of collected associated gas on-site, to be applied at Siyazan by the Project, is a new technology that reduces gas transportation costs to and from the central gas refinery. Replication potential is primarily at remote oil and gas fields, or at locations with fully utilized gas transportation capacity of existing piping infrastructure. In other cases, associated gas processing/cleaning in a central facility is a primary option.

4.3 Project Implementation and Adaptive Management

4.3.1 Project implementation and adaptive management

In general, the project team followed very closely the activities specified in the ProDoc, and it was focusing mainly on implementation of pilot projects during the first period of Project implementation, by its mid-term.

The project team has implemented adaptive management in several cases:

- Based on the recommendation of its international consultant, the Project is preparing utilization of associated gas cleaning/filtering on-site. This is a new technical solution for SOCAR, instead of transporting the captured associated gas to the SOCAR's central gas treatment facility/refinery.
- The energy efficiency in buildings pilot projects have been extended to include replication of wind power and photovoltaic technology demonstrated by SOCAR in 2012 already. Photovoltaics has been combined with batteries, and it is supplying newly installed energy efficient lighting systems both indoor and outdoor. Despite high costs of these renewable energy technologies, this part of the pilot project was designed to support SOCAR's Climate Change Strategy targets, and Azerbaijan's targets in renewable energy.
- Analysis of GHG emission reduction opportunities – GHG marginal abatement cost curves (Outcome 1), and development of the NAMA program/action plan (Outcome 2), have been postponed after implementation of pilot projects in order to gain practical experience with those pilot projects first, and especially to gain real data on GHG emission reduction technology costs and savings.

- The Inception Report developed by the project team introduced mid-term targets to the ProDoc logframe.
- Lead International Technical Advisor has been hired for a part-time assignment of ca 50 day a year, to guide and support project implementation – in addition to what ProDoc outlined. The role of the Lead International Technical Advisor might be critical for successful project implementation, especially in case when s/he brings good expertise and knowledge in new GHG emission reduction approach/technologies to support the local team. For the next phase of the project, it will be critical for the team to have access to best practices in analyzing GHG emission reductions opportunities, technical GHG emission savings potential and full (levelized) costs analysis, appropriate prioritizing opportunities/actions based on potential and costs for a design of achievable and realistic NAMA program/action plan.
- The Inception Report proposed several changes to the LogFrame, including targeting only direct GHG emission reductions, and not indirect GHG emission reductions, and it opened a possibility to present results of GHG emission reduction potential analysis in other form than in GHG marginal abatement costs curves only[17].
- The Project plans to purchase a driving simulator in order to be able to train drivers in eco-driving more effectively, indoors and all year-round.

The project team made an exceptionally good progress in terms of timely implementation of pilot projects in buildings, and in transport. The project team will need to, and it plans to, strengthen its activities in developing the full NAMA program/action plan in the next phase.

4.3.2 **Management arrangements**

The Project has two full-time employees, a Project Manager and a Project Administrative Assistant. All other project team members are short-term international and local experts, or own SOCAR's staff and experts. This is the best example in terms of cost-effective project management arrangement. However, this arrangement may not be automatically replicated across other UNDP-supported GEF-financed projects. This specific project management arrangement is effective in this particular case thanks to the active support and intensive cooperation of SOCAR, which is providing its expert's staff time as an in-kind contribution. SOCAR's role has been critical especially in implementing NAMA pilot projects so far.

Key project experts are short-term international consultants hired for development of specific tasks within each project component.

In addition to the organization scheme designed in the ProDoc, the project implementation is supported by a long-term part-time international Lead Technical Advisor.

Otherwise, the project has been implemented fully according to the planned implementation and management arrangements specified in the Project Document (see Chapter 3.4 and Chart 1).

The revised/actual project management arrangement illustrates the Chart 2.

The UNDP Country Office monitors the implementation of Project, reviews project implementation progress, and at the same time it is ensuring the proper use of GEF funds. UNDP Country Office

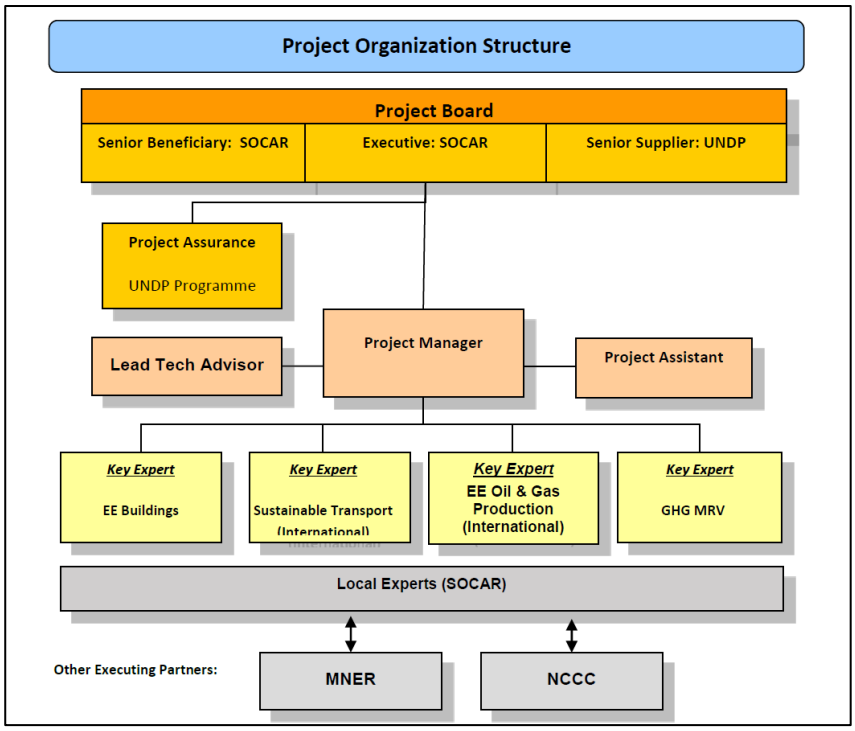
[17] The Project plans to carry out macro-level MAC analysis as well.

(CO) provides also support services - including procurement, hiring, contracting of service providers, etc.

Meetings of the Project Board (Steering Committee) are held twice a year. In total five meetings of the Project Board have been organized so far: on December 28, 2015, June 14, 2016, July 25, 2016, April 19, 2017, and on September 13, 2017.

Three organizations, SOCAR, MENR and UNDP, are represented at the Project Board.

Chart 2: Actual Project Management Arrangement



Project Board members include:

Mrs. Rafiga Huseynzade, SOCAR vice-president on Ecology

Mr. Rovshan Fatullayev, SOCAR, NAMA Project Director

Mr. Isa Aliyev, Ministry of Ecology and Natural Resources, Head of Division on Environmental Publicity, GEF Focal Point

Mr. Alessandro Fracassetti, UNDP Deputy Resident Representative

Mr. Chingiz Mammadov, UNDP Senior Programme Advisor

Mr. Nazim Mammadov, NAMA Project Manager and Ms. Konul Mammadova, NAMA Project Administrative Assistant regularly participate at the Project Board meetings. International and local consultants were invited to participate at some Project Board meetings as required.

Both the Project itself and the project team benefit from a very close and effective cooperation with SOCAR and UNDP CO.

UNDP CO represented primarily by Mr. Chingiz Mammadov, UNDP Senior Programme Advisor, oversees project implementation on a regular basis and is in an exceptionally frequent and close contact with the Project Manager and the whole project team, as well as with SOCAR, the project implementing partner, and other project and governmental partners.

UNDP CO provides intensive and effective support to the project implementation team, including appropriate focus on results, suitable risk management, candor reporting, and effective response to major implementation issues, both in technical and management terms (reconstruction/replacement of wind turbines destroyed by extreme wind storm, extension of the Project Board to include MENR representative). UNDP Deputy Resident Representative actively participates at Project Board meetings, as well as at other high-level meetings primarily with SOCAR top management.

4.3.3 **Work Planning**

Work planning has been performed according to the UNDP-GEF standards.
Detailed and updated Annual Work Plans for 2016 and 2017 have been prepared in an Inception Report, and have been approved by a Project Board, including annually updated project budget.

LogFrame has been used as a management tool and for regular quarterly and annual reporting in a required format to UNDP-GEF.

Chapter 3.5 Project Timing and Milestones describes key project milestones, both planned and actual ones.

Project implementation started effectively in July 2015, four months after signature of the Project Document. This four-month delay was caused by the need to re-advertise the call for the position of the Project Manager twice. SOCAR, the Project beneficiary also wanted to check the qualifications of the Project Team members.

An Inception Workshop was held 8 months after actual start of the Project, and one year after the Project was formally launched. The Inception Workshop was postponed twice. First time, it had to be canceled and postponed due to a tragic accident in the oil and gas industry during an extreme wind storm. Second time, the Inception Workshop had to be cancelled for unavailability of key persons.

At the eve of the first year of project implementation, the Project Director has been replaced by the beneficiary, and it took a while for the new Project Director to be installed in his position.

4.3.4 Finance and co-finance

The GEF budget as of the project document is shown in Table 5, and the UNDP budget is shown in Table 6.

Table 5: GEF Budget as of Project Document [USD]

Year	1	2	3	4	5	Total	
Outcome 1	88 500	121 600	37 600	27 600	26 650	**301 950**	8%
Outcome 2	52 400	157 900	122 900	41 400	37 200	**411 800**	12%
Outcome 3	88 720	360 220	600 320	719 320	519 370	**2 287 950**	64%
Outcome 4	11 100	40 100	58 600	107 100	182 150	**399 050**	11%
Management	35 850	34 350	33 850	33 850	31 850	**169 250**	5%
Total	**276 570**	**714 170**	**853 270**	**929 270**	**797 220**	**3 570 000**	100%
	8%	20%	24%	26%	22%	**100%**	

Table 6: UNDP Budget as of Project Document [USD]

Year	1	2	3	4	5	Total	
Outcome 1	3 000	3 000	3 000	3 000	3 000	**15 000**	8%
Outcome 2	4 500	4 500	4 500	4 500	4 500	**22 500**	11%
Outcome 3	7 500	7 500	7 500	7 500	7 500	**37 500**	19%
Outcome 4	0	0	7 500	7 500	7 500	**22 500**	11%
Management	20 400	20 400	20 400	20 400	20 900	**102 500**	51%
Total	**35 400**	**35 400**	**42 900**	**42 900**	**43 400**	**200 000**	100%
	18%	18%	21%	21%	22%	**100%**	

Table 7 shows project expenditures by project outcomes for each year of project implementation period as reported in Combined Delivery Reports.

Table 7: Annual expenditures by project outcomes and years per CDR [USD] as of October 18, 2017

	2015	2016	2017	Total	% of total	GEF/UNDP Budget as per ProDoc	% of ProDoc outcome budget
Outcome 1	30 043	34 193	98 415	**162 650**	11%	**316 950**	51%
Outcome 2	9 000	249 422	32 376	**290 797**	21%	**434 300**	67%
Outcome 3	3 000	555 193	198 245	**756 438**	53%	**2 325 450**	33%
Outcome 4	2 110	4 979	32 406	**39 495**	3%	**421 550**	9%
Management	74 624	80 181	15 712	**170 516**	12%	**271 750**	63%
Total	**118 776**	**923 967**	**377 154**	**1 419 898**	100%	**3 770 000**	38%
% of GEF/ UNDP budget	3%	25%	10%	38%			

Note: The Project formally started in April 2015, effective start was in July 2015.

As of October 18, the Project has spent 1,419,898 USD, i.e. 38% of the combined GEF/UNDP budget of 3,770,000 USD, which in total corresponds very well with the planned annual project budgets as per ProDoc.

Expenditures in Outcome 1 include costs of the international chief technical advisor, under Outcome 1 and 2 analysis of individual NAMA options, energy audits and pre-feasibility studies of potential projects were developed.

Outcome 3 includes costs of NAMA pilot projects in buildings and transport. The costly project on capturing associated gas is scheduled to start in 2018.

International consultant on M&E was hired in 2017 and delivered first draft results. By the mid-term, only a small fraction of M&E costs were expensed by the Project.

Project management costs include high one-time costs of a car, thus the project management expenditures at the beginning of the project implementation period are relatively high. These high costs will not be repeated during the remaining period, thus, the project management budget is expected to be sufficient.

The Project implemented and follows strong UNDP financial and procurement procedures. Procurement Plans are prepared in the beginning of the year, and then, they are updated on a monthly basis. All payments have been reported to be done in strict accordance with the Programme and Operations Policies and Procedures: tendering is used for all major purchases, and micro-purchasing for small purchases.

The Project Manager performs financial controls on a regular and ad hoc basis. With the support of the UNDP CO back office, the Project team has an access to ad hoc financial reports with up-to-date information on actual project spendings.

No major changes in project fund allocation nor major project budget revisions have been implemented. Several activities performed under Outcome 1 and 2 support also development of pilot projects (Outcome 3).

The Project has not been subject to the financial audit yet. The MTR cannot and does not replace the financial audit.

4.3.5 **Co-financing and in-kind contributions**

Co-financing is summarized in Table 8 on the following page.

Table 8: Financial Planning Co-financing

Co-financing (Type/Source)	UNDP own Financing (mill US$)		Government (mill US$)		Other Sources (mill US$)		Total Financing (mill US$)		Total Disbursement (mill US$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Grants	0.2	0.2	0	0	0	0	0.2	0.2	0.2	0.1
Credits	0	0	0	0	0	0	0	0	0	0
In-kind support (Government, SOCAR)	0	0	0.8	0.8	0.9	0.9	1.7	1.7	1.7	0.6
Other (SOCAR)	0	0	0	0	30	30	30	30	30	11.6
Total	**0.2**	**0.2**	**0.8**	**0.8**	**30.9**	**30.9**	**31.9**	**31.9**	**31.9**	**12.3**

Based on co-financing reported by the project team.

4.3.6 Project Monitoring and Evaluation Systems

The project utilized standard UNDP-GEF monitoring and evaluation systems, including inception workshop and inception report, standard project results reporting forms, such as quarterly project progress reports, and annual project implementation reviews with ratings from the project manager, UNDP country office program officer, project implementing partner, and UNDP regional technical advisor. Regular meetings of the Project Board are held twice a year. Midterm Review was organized timely in line with the planned timeframe.

In addition to these implemented M&E activities, the project document plans also terminal evaluation and Project audits according to the UNDP Financial Regulations and Rules and applicable Audit policies. The project document provided in sufficient detail description of required project monitoring and evaluation activities, and budgeted sufficient funding for it.

Specific system for measurement/monitoring, reporting and verification (MRV) of achieved GHG emission reductions from implemented projects (NAMA actions) was planned to be developed in the component 4. This MRV system is currently under development.

Because of the confusion of NAMA program/action plan and NAMA pilot projects, as discussed above, the results of pilot projects in PIRs are reported in Outcome 3 and repeated also in Outcome 2 progress (instead of progress in developing the NAMA program/action plan).

The Project Document has allocated sufficient resources for monitoring and evaluation. In total, 137,800 USD have been allocated for M&E, excluding project staff and travel.

Adaptive management implemented as a result of ongoing monitoring and evaluation activities and field trips to pilot project sites, is described in Chapter 4.3.1 Project implementation and adaptive management. It also includes for example reconstruction of wind turbines damaged by the extreme wind storm.

The project team discusses results from project monitoring activities and proposed follow-up activities/adaptive management with UNDP CO as well as with the beneficiary (SOCAR), and, if necessary, at the Project Board/Steering Committee meetings as well.

4.3.7 Stakeholder Engagements

The number of stakeholders actively involved in implementation of this Project, that focuses on support of SOCAR, is, by its nature, rather limited.

The main stakeholder is SOCAR. SOCAR is very active in project implementation, mainly in terms of design and implementation of pilot projects.

Ministry of Environment and Natural Resources has been invited to participate in the Project Board, and is currently represented at the Project Board.

There are lots of projects under way in Azerbaijan, supported by international donors and local state agencies (AREA), focusing more or less on GHG emission reduction opportunities, including associated gas capture, energy efficiency and renewables. The Project follows some of these activities and exchanges information with them. The Project is encouraged to intensify information and experience exchange with all relevant local and international stakeholders

active in this field in Azerbaijan in order to maximize impact of all activities implemented and to minimize overlap.

4.3.8 Reporting and Communications

The project has regularly developed quarterly progress reports and annual PIRs. Project results and issues are regularly and ad hoc discussed with the Project Director, and presented to the Project Board at their meetings held twice a year.

Information on results of implemented pilot projects, and opening ceremonies of retrofitted buildings attended by the SOCAR president and UNDP Resident Representative, received a wide media coverage in Azerbaijan, including TV, printed newspapers and internet based media.

4.4 Sustainability

Sustainability of this UNDP-supported GEF-financed NAMA Project as a whole, targeting SOCAR's facilities, is very likely.

SOCAR has its Climate Change Strategy and Associated Gas Reduction Plan in place since 2010 already, and it is implementing individual mitigation actions/projects within this Climate Change Strategy and Associated Gas Reduction Plan since then. This UNDP-supported GEF-financed NAMA Project was designed to support SOCAR to reach its ambitious targets of 40% GHG emission reductions by 2020. It is most probable that SOCAR will continue its activities in GHG emission reduction also after 2020, namely in capturing of associated gas. Capturing, processing and utilization of associated gas became since 2010 already a core business of SOCAR, as well as of other oil and gas producing companies in Azerbaijan, who gradually implement this type of projects.

Sustainability, or large-scale replication potential of experience gained within pilot projects in energy efficiency in buildings, transport, and renewable energy in other sectors of the economy in Azerbaijan, outside of SOCAR, is rather unlikely, unless there will be additional activities implemented to support development of effective national policies, legislation and regulations especially in energy efficiency in the building sector. The same applies for renewable energy.

For sustainability/replication potential of individual technologies implemented in pilot projects apply different rating of risks.

Sustainability of energy efficiency in buildings, including wall insulation, in other sectors across the country faces high institutional/governance risk. Costs of energy efficiency measures in buildings is relatively low and affordable, and the savings potential is substantial. However, large-scale implementation of energy efficiency in buildings requires adoption of strengthened binding regulations (including energy performance in buildings, energy labeling, minimal energy performance standards of energy appliances, etc.) that are not in place in Azerbaijan yet.

Renewable energy (wind and photovoltaics) is still rather expensive even when compared to international market price/export price of energy. Despite large technical potential in Azerbaijan, wider penetration of these technologies will require, due to high costs, significant subsidies. Without a financial support scheme in place (or strong regulations), financial sustainability is unlikely, as well as a large scale replication by private investors.

The same applies to hybrid vehicles/electric vehicles.

Training in eco driving, on the other hand, represents the best example of low cost and very effective/profitable mitigation action. Its sustainability is thus rated very likely.

The following analysis refers to the NAMA program/action plan as a whole, assuming that the NAMA action plan will prioritize cost-effective and least-cost GHG emission reduction options first.

4.4.1 Financial risks

Financial risk of the UNDP-supported GEF-financed NAMA Project is low. Development of the NAMA program/action plan and MRV system will be financed from the project budget, implementation of pilot projects has been financed by the SOCAR with a support from the Project budget, and implementation of prioritized (cost-effective, low-cost) actions according to the NAMA program/action plan to be developed will be financed by SOCAR, which has full financial capacity and experience to do so.

Financial sustainability is rated to be likely.

4.4.2 Socio-Economic Risks

Azerbaijan has a fast growing population, which has impact also on growth of associated GHG emissions related to new housing, increased mobility etc. However, this creates also an opportunity to implement and more widely replicate prioritized GHG emission reduction measures in these growing markets, such as energy efficiency in new buildings.

The project objective target is expressed in absolute GHG emission reductions from implementation of pilot projects and from implementing the whole NAMA program/action plan. These emission reductions will not be negatively affected by the main socio-economic factors.

The socio-economic risk is rated as a low, socio-economic sustainability is rated likely.

4.4.3 Institutional Framework and Governance Risks

Implementation of NAMA program/action plan by SOCAR in its facilities depends primarily on Azerbaijan commitment and voluntary commitment of SOCAR to reduce GHG emissions, and it is not dependent on country's policy/regulations. Full achievement of these ambitious targets will be challenging and might not be fully achieved within specified time period. However, it is unlikely that these commitments and targets will be lifted.

Institutional framework and governance risk for implementation of the Project by SOCAR is low, and the institutional framework and governance sustainability is rated likely.

Dissemination of experience gained in this Project, and replication of GHG emission reduction actions/investment projects also to other sectors outside of SOCAR will depend on development and enforcement of effective policies and regulations (in energy efficiency and renewable energy). Without further supportive activities to overcome these barriers, the institutional framework and governance risk for replication in energy efficiency and renewable energy across the country is high, and the institutional framework and governance sustainability is rated to be unlikely.

4.4.4 **Environmental Risks**

All GHG emission reduction actions/investment projects concerned have, by its nature, a positive impact on global warming as well as on local environment, in some cases local environmental risks are negligible at most.

Environmental risks associated with delivery of the project objective are negligible.

Environmental sustainability is rated likely.

5. Conclusions and Recommendations

5.1 Conclusions

By midterm, the Project has achieved a good progress in implementation of pilot projects, especially in demonstrating affordable energy efficiency in buildings, including wall insulation, and low-cost GHG mitigation by implementing eco-driving trainings.

Energy efficiency in buildings, including building insulation, represent a unique and affordable GHG emission reduction opportunity with high replication potential especially in construction of new buildings. There is a large construction boom in Azerbaijan, and so far no building insulation is being implemented due to outdated energy performance in buildings regulations. Incremental costs of energy efficiency implemented during building design and construction can be negligible compared to the total investment cost. UNDP-supported GEF-financed project in the Czech Republic demonstrated 50% energy savings in newly designed and constructed buildings with no additional/incremental costs thanks to good quality design focused on energy efficiency.

Eco-driving training is another excellent example of a low-cost GHG emission reduction opportunity with a demonstrated ca 10% fuel savings, and if replicated across the country, it can have significant impact as well.

Pilot project in associated gas capture, which has both the highest and in the same time commercially viable GHG mitigation potential within SOCAR, is under development, and the construction works are expected to start in the early 2018 construction season. This pilot project will supplement associated gas capture projects being implemented by SOCAR already since 2010, by demonstrating new technology – cleaning, i.e. filtering of the associate gas on-

site, instead of its transportation for processing to the central gas refinery plant, and thus reducing gas transportation costs.

SOCAR has demonstrated high interest, commitment and effective cooperation during project implementation period, especially in timely delivery of pilot projects.

The Project faces delays in delivering Outcome 1 and 2 results. This was caused primarily by the decision of the project team to gain first practical experience from pilot projects that could be applied in assessment of GHG mitigation options (Outcome 1) and developing GHG mitigation action plan (Outcome 2). Despite these delays, there still is enough time to deliver expected results in both of these components during the next phase of project implementation period. This will require accelerated and coordinated action, and utilization of best international experience in developing GHG MAC curves and action plans.

Since SOCAR has its ambitious Climate Change Strategy and Associated Gas Reduction Plan in place already since 2010, the main value added of the delivered outcome 1 and 2 will be[18] to:

- demonstrate a process of development of feasible targets and a detail and concrete GHG mitigation action plan, based on best international practices, i.e. including
- cost (USD/tCO_{2eq}) and potential (tCO_{2eq}) analysis of individual GHG emission reduction options by sectors - GHG marginal abatement cost (MAC) curve,
- prioritizing GHG reduction measures taking into account their costs and potential (MAC curve),
- specifying affordable/feasible targets and specific action plan based on concrete GHG emission reduction actions, their costs and potential, as well as specification of
- total costs of the whole action plan implementation, including financing needs - volume of commercial financing for cost-effective actions needed, and need for subsidies for implementation of non-cost-effective measures, and specification of
- policy/legislation/regulation needed to support implementation of GHG mitigation actions in individual sectors

The process of development of the NAMA program/action plan is expected to demonstrate both to SOCAR and to national authorities also the difference in NAMA action plan implementation costs, if low-cost GHG mitigation actions are prioritized first, versus inclusion of high-cost GHG mitigation measures[19].

Project management arrangement is an example of an effective project team organization - with only two full-time staff, and hiring local and international consultants when needed. Such an effective project team arrangement is possible only thanks to active involvement of own SOCAR's experts, whose time is provided as an in-kind contribution of SOCAR (in addition to financing provided for pilot projects).

The Project design and strategy development was a challenging task: this was the first UNDP-supported GEF-financed NAMA project developed with and targeted to a corporate sector. The Project objective was defined to support SOCAR in implementation of its Climate Change Strategy and reaching its ambitious targets. Perhaps due to lack of experience/interest at the

[18] See the STEP-GEF review of the PIF
[19] See the STEP-GEF review of the PIF

national level when project document was developed, there were no specific replication activities designed for dissemination of achieved experience across the country. With experience gained from implementation of pilot projects, SOCAR is now best positioned as a leader to scale up its experience dissemination activities also to other sectors, and at a national level to assist the Government in achieving country's ambitious GHG emission reduction targets.

This is fully in line with the GEF mission: pilot projects serve to gain hands-on experience with new GHG mitigation solutions, and the experience gained is expected to be replicated across the country in order to maximize the impact of the GEF intervention.

SOCAR representatives highlighted the capacity development as the main benefit SOCAR gained from the project implementation, and specifically access to and sharing of the experience and knowledge of international experts with local experts. This indicates what the project should focus on during the next phase of project implementation. Local capacity development and strengthening has much higher long-term impact than just co-financing of another small pilot project or purchase of another hybrid vehicle.

Despite delays in delivery of some results especially in Outcomes 1 and 2, the project implementation as a whole is rated satisfactory, especially due to timely delivery of most pilot projects so far, and good prospects to deliver expected project results by the planned end-of-project.

Table 9: MTR Rating and Achievement Summary

Measure		Midterm Rating	Achievement Description
Project Strategy		MS	The Project strategy is logically structured, and from the context of the project document, it is clear enough. There is some confusion in using the term "NAMA", referring to both program/action plan and pilot projects, and in the scope of the NAMA action plan, referring to targeting sectors in the whole country, and/or just SOCAR's own facilities/sectors. The main barrier identified, policy/regulatory barrier, was not addressed by the designed Project. This was driven by identified lack of awareness and readiness at the national level to develop and adopt specific binding policies/regulations, despite ambitious targets. Results and experience gained from the Project is expected to raise the awareness and increase readiness of the government to adopt necessary policy/legislation regulations to support implementation of GHG mitigation projects, and to meet ambitious GHG targets of Azerbaijan.
Progress Towards Results	**Objective:** To support the development, implementation and monitoring of NAMAs in the low-carbon end-use sector, in order to build upon a strong national commitment for the reducing the energy demand of oil & gas end use sectors	MS	The Project has made a good progress and delivered results in implementing pilot projects in SOCAR's buildings and transportation. Development of NAMA program/action plan has been postponed until results from pilot projects will be demonstrated. Despite the delay, the Project is still on track to deliver all expected results by the expected end-of-project.
	Outcome 1: Assessment of GHG emission mitigation	MU	Activities in Outcome 1 were postponed and Outcome 1 mid-term targets have not been reached. However, there is a good prospect that end-of-project targets can be

Measure		Midterm Rating	Achievement Description
	potentials and target setting completed		reached by the end-of-project. Tendering for an international consultant on MAC curves and NAMA action plan under development.
	Outcome 2: NAMAs (action plans) in oil & gas end-use sectors developed	MS	Development of the NAMA program in Outcome 2 was postponed and Outcome 2 mid-term targets have not been fully reached. However, several activities, including assessment of feasibility of GHG emission reduction options in three sectors has been developed and there is a good prospect that end-of-project targets can be reached in due time.
	Outcome 3: NAMAs (pilot projects) in the oil & gas end-use sector implemented	HS	Four pilot projects in the building sector demonstrated energy efficiency in reconstructed buildings, for the first time on such a large scale in Azerbaijan. Wind power and photovoltaics has been implemented as well. 60 experts were trained in energy efficiency in buildings. Four hybrid cars have been purchased for SOCAR, and eco-driving trainings implemented, in total 79 drivers were trained by mid-term. Associated gas capture pilot project is under development (in-line with mid-term targets), to demonstrate new technology – on-site cleaning of associated gas. Expected CO_2 savings from pilot projects: 110.3 tCO2/year
	Outcome 4: MRV system and national registry for mitigation actions in the energy generation and end-use sectors developed	MS - NA	Pilot project are registered at the national GHG registry. MRV consultant was hired at mid-term to deliver Outcome 4 results.
Project Implementation and Adaptive Management		S	The Project has been implemented in general according to the plan outlined in the Project document, with primary focus on delivery of pilot projects and with delays in Outcome 1 and 2. The inception Report introduced mid-term targets to the logframe. The new technology – on-site associated gas filtering – was proposed by the Project's international consultant, and it significantly improved the demonstration potential of the associate gas capture project.

Measure		Midterm Rating	Achievement Description
Sustainability	**Financial Sustainability**	L	Assuming affordable, low-cost and cost-effective GHG emission reduction opportunities are prioritized first in the NAMA program.
	Socio-economic sustainability	L	No negative effects on project targets of socio-economic risks identified.
	Institutional framework and governance sustainability	L	SOCAR: No risks to implementation of NAMA program by SOCAR identified.
		(ML)	(Azerbaijan as a whole: Large scale replication on a national level will require full support and commitment of the government to adopt necessary legislation/regulations to support achievement of its ambitious targets. With proper actions delivered by the Project, the risk of weak commitment can be minimized.)
	Environmental sustainability	L	Environmental impacts are highly positive, both on a global and local levels.
	Overall sustainability	L	

Ratings for progress towards results and for project implementation & adaptive management:
Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), or Highly Unsatisfactory (HU)

Sustainability Rating Scale: Likely (L), Moderately Likely (ML), Moderately Unlikely (MU), Unlikely (U)

5.2 Recommendations

Recommendations for the Project team:

1. Focus on delivering results in Outcome 1 and 2 without further delays

The project team is supported in its intention to hire an international consultant with demonstrated experience in developing GHG marginal abatement cost curves and developing GHG emission reduction policies and action plans, to support delivery of Outcome 1 and 2 without further delays, including (as per ProDoc):

- Technical and cost analysis of potential GHG emission reduction opportunities in SOCAR and country-wide, construction of GHG marginal abatement cost curve, that illustrates technical potential and associated full costs (levelized investment and operational costs) of individual GHG emission reduction opportunities in a single diagram.

- Based on the technical, cost and barrier analysis, feasible time-bound targets will be specified and NAMA action plan/program for SOCAR and country-wide will be developed for approval and implementation. The NAMA action plan will combine both investment actions, as well as necessary policy/regulatory actions.

The developed GHG marginal abatement cost curve will be used for awareness rising among decision and policy makers and other local stakeholders, to illustrate impact of prioritizing cost-effective actions first on total costs of achieving specific targets (versus prioritizing higher-costs solutions).

2. Pilot project replication strategy

An ultimate goal of UNDP-supported GEF-financed projects is not implementation of pilot projects per se, but a support of development of an effective framework for implementation of GHG emission reduction actions in the country in the long term, and thus to maximize GHG emission reductions.

The primary tool designed by this Project for replication of pilot projects' experience in a short- and medium-term is an implementation of developed and approved NAMA action plan of SOCAR (and country-wide).

The project team is encouraged to utilize and integrate in the NAMA action plan all experience and information gained so far and available locally, including both: other SOCAR's activities/experience gained from other projects/studies, as well as activities of and experience from other activities being implemented in the country with support from other international donors.

The project team is thus expected to strengthen its networking with other local stakeholders (line ministries, agencies, AREA, local teams involved in development of the Fourth National Communication (FNC) and Second Biennial Reporting (SBR) for the implementation of the obligations under the UNFCCC,…), as well as with other international projects and

stakeholders active in Azerbaijan in this field (EU funded Clima East Policy Project, EU4Energy Initiative, and Caucasus Energy Efficiency Programme, ADB funded project Preparing a Power Sector Financial Recovery Plan, …).

An example of a replication strategy in a transportation sector is the planned dissemination of eco-driving trainings to include not only own SOCARs drivers, but to open the trainings also for drivers of other state/governmental agencies and private sector as well. The project team is encouraged to consider organizing an eco-driving training for media representatives for example, in order to facilitate information dissemination and awareness rising on real savings country wide, and/or to organize eco-driving contest, rally, etc. for public as well. Outreach and information program for the dissemination of information on the successes achieved through eco-driving practices in SOCAR is under development.

Implementation of a specific motivation scheme of drivers in eco-driving by SOCAR's management will ensure sustainable fuel and GHG emission savings.

3. Support policy/regulatory dialogue on a national level to adopt necessary regulations to support NAMA action plan implementation on a country level

Energy efficiency and renewable energy requires effective laws and regulations in order to be accelerated and mainstreamed. These regulations are either not in place yet in Azerbaijan, or they are not sufficiently specific/effective. This includes primarily update of energy performance in buildings regulations (including envelope insulation), as well as other energy efficiency regulations, such as energy appliance labeling, minimal energy performance standards for energy appliances etc. Renewable energy represent a typical GHG emission mitigation measure that is more costly than actual (still rather low) energy prices in Azerbaijan. Sufficient financial support scheme is essential for motivation of private investors in investment in new renewable energy production.

UNDP can utilize its experience from other CIS countries, where it implemented GEF-financed projects to develop and implement energy efficiency and renewable energy policies and regulations. For example, most of CIS countries have their national energy efficiency in buildings legislation and regulations updated already, which supported utilization of building envelope insulation.

Adaptive management should be carried out under this project as soon as possible in order to examine the legal/regulatory framework and make recommendations to strengthen the framework and what new laws/legislation is needed.

4. Organization of International Workshop on Lessons Learned

The Project should organize regional/international workshop in 2018 with participation of other projects and government officials to present experience and lessons learned of other CIS countries and to support adoption of effective energy efficiency and renewable energy regulations in Azerbaijan as well. The purpose of the workshop will be to help the Government of Azerbaijan to understand the importance and necessity of introducing new legislation and

policies to facilitate greater investment in energy efficiency/renewable energy to meet ambitious GHG emission reduction target of the country.

5. **Strengthen information and experience dissemination**

SOCAR identified access to international know-how and experience as the most valuable benefit of the Project so far. This is fully in line with the GEF mission and experience: pilot/demonstration projects facilitate transfer and adoption of international experience into local specific conditions. However, the long-term impact of GEF interventions depends on effective capacity strengthening and development and enforcement of effective policies/regulations locally.

According to the ProDoc and LogFrame targets, the Project has implemented several specific trainings already, and plans to continue its training activities also in the next phase of Project implementation.

Capacity development is a continuous process and there are never enough trainings and capacity development activities. The Project is strongly encouraged to continue their activities in this field and to be innovative in organizing trainings, workshops and delivering specific capacity strengthening activities (including for example student contest on energy efficiency in buildings) even above the targets specified in the LogFrame.

Besides utilization of associated gas, the highest achievable potential has primarily implementation of affordable energy efficiency in construction of new buildings/reconstruction of existing buildings. The first UNDP-supported GEF-financed energy efficiency in buildings project demonstrated that new buildings can reach 50% energy savings with no incremental costs, if low-cost/no-cost/cost-effective energy efficiency is properly taken into account already in the building design.

The Project is encouraged to facilitate transfer of this hands-on experience to local expert community, including architects, building designers, construction engineers, developers, construction practitioners, university teachers, students, etc., and to benefit from experience of and inputs from project international advisors and consultants on associated gas capture, energy efficiency in buildings and transport.

The Project has a full support of the MTR to develop pilot project fact-sheets, publish and disseminate it as hard copies and electronically on a web site, including results from GHG marginal abatement cost analysis with information on and comparison of cost-effective/affordable measures, and more expensive measures.

Recommendations for the UNDP:

6. **When developing new projects, identified barriers should be always properly addressed, including policy/regulatory barriers**

This Project was designed to assist SOCAR, a major corporation in Azerbaijan. However, the ProDoc did not address directly how the identified policy/regulatory barriers (specifically in energy efficiency and renewable energy) should be overcome. Although SOCAR is a

major local state-owned company and its experience gained during project implementation will be very useful for the whole country, SOCAR cannot be expected to be directly involved in developing national policies and regulations.

Projects proposed for GEF support should always include components addressing policy/regulatory and any other barriers, if identified as preventing replication/implementation of GHG emission mitigation/adaptation measures in a long-term.

7. Project extension

The Project is scheduled to be completed by March 2020. Thus, the Project has two more years to finalize all its planned outcomes. At the mid-term, this is expected to be sufficient time for finalization of outcomes 1 and 2, as well as of associated gas capture pilot project in outcome 3 that is expected to require two construction seasons to be fully implemented.

In case the policy/legislation dialogue with the government will progress and the government will require additional support in developing new legislation, and/or the monitoring of GHG emission reductions from implemented projects (associated gas) will require monitoring of a full year/season, the Project is advised to consider no-cost extension of ca 6 months.

6. Annexes

Annex 1: MTR mission itinerary

MTR Mission Itinerary Midterm Review: UNDP/GEF NAMA Project Azerbaijan			
Date	**Time**	**Description**	**Location**
Monday, 16 October	09:00 -12:30	Meeting with Project team Chingiz Mammadov – UNDP Program Senior Coordinator Nazim Mammadov – NAMA Project Manager Konul Mammadova – NAMA Project Assistant	UNDP
	12:30 – 14:00	Lunch	
	14:00 – 15:00	Meeting with Alessandro Fracassetti, UNDP DRR Chingiz Mammadov – UNDP Program Senior CoordinatorNazim Mammadov – NAMA Project Manager Farukh, Lead Technical Advisor	UNDP
	14:30 - 16:00	Meeting Project Director, Rovshan Fatullayev	SOCAR
	16:30 – 17:30	Meeting and discussion with Project Manager and Lead Technical Advisor	UNDP
Tuesday, 17 October	09:00- 10:00	Pick up from Hotel and travel to Garadag Settlement	
	10:00-11:30	Field trip to the site in Garadag Settlement, observation of 2 retrofitted buildings and Solar Energy Systems in Waste Treatment Centre (WTC) and Meeting with WTC Administration – Head of WTC, Orkhan Gandilov	SOCAR/ Waste Treatment Centre
	11:30-12:15	Travel from Garadag to Gala Settlement	
	12:15-13:15	Field trip to the site in Gala Settlement, observation of 2 retrofitted buildings and Solar Energy Systems in Gala Ecopark and Meeting with Ecopark Director Mr. Tahir Shikhaliyev	SOCAR/ Ecopark
	13:15 – 14:30	Lunch	
	14:30 -15:30	Travel from Gala Settlement to Sumgayit	
	15:30-16:00	Field trip to the site for observation of admin/service building of Ethilen Poliethilen Plant. Meetings with Vugar Karimov, Elshan Huseynov	Sumgayit
	16:00 – 16:30	Field trip to the site for observation of Chemists' Palace	Sumgayit
	16:30– 17:00	Meetings with SOCAR AzerKimya authorities – Vice Head of AzerKimya, Vugar Karimov, Elshan Huseynov, Etibar Babayev, Chemists' Palace Director, Rovshan Askerov, Senior Electrical Engineer	Sumgayit
	18:30 – 19:00	Travel from Sumgayit to Hotel	
	09:00 – 10:30	Picked up from Hotel and travel to Siyazan	

Wednesday October 18	10:30 -11:30	Meetings with SOCAR/oil field authorities and technical staff – Head of OGPD Zulfigar Salimov, vice-head Ayaz Bagirov, Rashid Tahirov, Local Technical Consultant on Gas Capture, Emil Valiyev, Local Environmental Consultant on Gas Capture	SOCAR/Siyazan
	11:30 – 13:00	Travel to Field sites of Siyazan Oil fields	SOCAR/Siyazan
	13:00 – 14:00	Site visit to Siyazan Oil Fields	SOCAR/Siyazan
	14:00 – 15:00	Travel from the oil field site to Siyazan	SOCAR/Siyazan
	15:00 – 16:00	Lunch	
	16:00– 18:00	Travel from Siyazan to Baku / Hotel	
Thursday, 19 October	9:30 - 10:30	Review of information and documents, travel to SOCAR	
	11:00-11:30	Meeting with Vice-President of SOCAR on Ecology, Mrs. Rafiga Huseynzade and Project Director	SOCAR
	11:30– 13:00	Meeting with Transport Department management and drivers, Karim Shikhaliyev, Local Consultant on Sustainable Road Transport and GHG Measurements, Ayaz Salmanov, Local Technical Consultant on Measurement, Reporting and Verification (MRV)	SOCAR Transport Department
	13:00 – 14:00	Lunch	
	14:30 – 15:30	Meeting with Project Director, Rovshan Fatullayev	SOCAR
	15:30– 16:00	Pick up from SOCAR and travel to MENR	
	16:00 – 17:30	Meeting at MENR with Isa Aliyev, Head of Division on Environmental Publicity, Ministry of Ecology and Natural Resources	MENR
	17:30 – 18:00	Pick up from MENR and travel to Hotel	
Friday, 20 October	09:00 – 11:00	Review of documents and LogFrame with the Project Manager	UNDP
	11:00 – 13:00	Wrap up Meeting with Project team	UNDP
	13:00 – 14:00	Lunch	
	14:30 – 15:15	Wrap up Meeting with Alessandro Fracassetti Chingiz Mammadov – UNDP Program Senior Coordinator Nazim Mammadov – NAMA Project Manager	UNDP
	15:15 – 17:30	Collection of financial information from internal documents	UNDP
	17:30 – 18:00	Pick up from UNDP and travel to Dinner	

Annex 2: List of persons interviewed

- UNDP Azerbaijan

  Mr. Alessandro Fracassetti, Deputy Resident Representative

  Mr. Chingiz Mammadov, UNDP Senior Programme Coordinator

  Mr. Nazim Mammadov, Project Manager

  Ms. Konul Mammadova, Project Assistant

  Mr. Farrukh Mian, Lead Technical Advisor

- Ministry of Ecology and Natural Resources

  Mr. Isa Aliyev, Head of Division on Environmental Publicity

- SOCAR

  Ms. Rafiga Huseynzade, Vice President for Environment

  Mr. Rovshan Fatullayev, Project Director

  Mr. Orkhan Gandilov, Head of Waste Treatment Center

  Mr. Tahir Shikhaliyev, Ecopark Director

  Mr. Vugar Karimov, Vice Head of AzerKimya,

  Mr. Elshan Huseynov,

  Mr. Etibar Babayev, Chemists' Palace Director,

  Mr. Rovshan Askerov, Senior Electrical Engineer

  Mr. Zulfigar Salimov, Director of Siyazan OGPD

  Mr. Ayaz Bagirov, Vice Director of Siyazan OGPD

  Mr. Rashid Tahirov, Local Technical Consultant on Gas Capture,

  Mr. Emil Valiyev, Local Environmental Consultant on Gas Capture

  Transport Department management and drivers

  Mr. Karim Shikhaliyev, Local Consultant on Sustainable Road Transport and GHG Measurements

  Mr. Ayaz Salmanov, Local Technical Consultant on MRV

Annex 3: List of documents reviewed

General documentation

- UNDP Programme and Operations Policies and Procedures
- Project-Level Monitoring, Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects, UNDP, UNDP-GEF Directorate, 2014
- GEF Monitoring and Evaluation Policy
- GEF focal area strategic program objectives
- UNDP Development Assistance Framework
- UNDP Country Program Document
- UNDP Country Program Action Plan

Project documentation

- Project Identification Form (PIF)
- STAP Scientific and Technical Screening of PIF
- Project Document
- Request for CEO Endorsement
- Inception Report
- Annual and Quarterly Work Plans
- Annual and Quarterly Project Reviews/Progress Reports
- Project Implementation Reports
- Project risk log
- Financial reports – Combined Delivery Reports
- GEF Operational Quarterly Reports
- Project Board/Steering Committee Meeting minutes

Other relevant documents

- Energy audits
- Press releases, articles on pilot project opening ceremony

Web sites:

www.socar.az

Annex 4: Evaluation Consultant Code of Conduct and Agreement Form

Evaluators:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

Evaluation Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultant: Jiří Zeman

Name of Consultancy Organization (where relevant)**:** _____

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at *Prague* on October 11, 2017

Signature: _____

Annex 5: Midterm Review Evaluative Matrix

Evaluative Questions	Indicators	Sources	Methodology
Project Strategy: To what extent is the project strategy relevant to country priorities, country ownership, and the best route towards expected results?			
How well does the project align with evolving GEF focal area priorities through GEF 4 5 and 6?	Extent to which CBD and related GEF priorities and areas of work incorporated	Project documents National policies and strategies (MTNDS, blue economy road map, energy policy, etc.) Project partners Project beneficiaries	Document and information analysis/desk review prior to the mission, interviews with project staff and stakeholders during MTR mission, MTR workshop presenting draft findings, feedback from stakeholders, circulating draft MTR report for comments and review to project stakeholders, incorporation of comments if relevant, development of the final MTR report.
Is the project aligned with other donor and Government programmes and projects? Is the project country driven?	Degree of coherence between the project and nationals priorities, policies and strategies		
Does the project adequately take into account the national realities, both in terms of institutional and policy frameworks in its design and implementation?	Adequacy of project design and implementation to national realities and existing capacities		
Have implementation strategies been appropriate (is the logframe logical and complete)?	Degree to which the project supports objectives of Government.		
Did the project address the needs of target beneficiaries and other stakeholders? Is the approach inclusive? Are beneficiaries and other stakeholders effectively engaged in implementation?	Degree to which the project supports local aspirations Degree to which the project meets stakeholder expectations		
Progress Towards Results: To what extent have the expected outcomes and objectives of the project been achieved thus far?			
How well has the project performed against its expected objectives and outcomes, and its indicators and targets?	Extent to which milestones and targets are achieved at mid-term, as	Project reports	

Evaluative Questions	Indicators	Sources	Methodology
	laid out in the logframe and monitoring plan	Minutes of Project Steering Committee Meetings Local partners and beneficiaries Tracking tools	
Which have been the key factors leading to project achievements?	Achievement of milestones and targets as laid out in the logframe and monitoring plan		
To what extent can observed results be attributed to the project or not? In this respect have there been notable changes in the enabling environment for the project?	Extent of change to the enabling environment		
Has the project failed in any respect? What changes could have been made (if any) to the design or implementation of the project in order to improve the achievement of the expected results?	Evidence of adaptive management and/or early application of lessons learned		
How has the project contributed to raising capacity of local stakeholders to address aims of the project or of Government?	Extent of support from local stakeholders		
What are the views of stakeholders on the implementation and activities of the project? Are there activities missing from the implementation?	Extent to which stakeholders are actively participating in the implementation and monitoring of the project		
Project Implementation and Adaptive Management: Has the project been implemented efficiently, cost-effectively, and been able to adapt to any changing conditions thus far? To what extent are project-level monitoring and evaluation systems, reporting, and project communications supporting the project's implementation?			

Evaluative Questions	Indicators	Sources	Methodology
Implementation efficiency (including monitoring): • Was the project implemented as planned, including the proportion of activities in work plans implemented? • Have baselines been established and monitoring data been collected as planned, analyzed - and have these been used to inform project planning? • Has project implementation been responsive to issues arising (e.g. from monitoring or from interactions with stakeholders)? • What learning processes have been put in place and who has benefitted (e.g. training, exchanges with related projects, study visits) and how has this influenced project outcomes? • Were progress reports produced accurately and timely, and did they respond to reporting requirements including adaptive management changes? • Did the project experience any capacity gaps, e.g. staffing gaps within the project or implementing agency? • Has internal and external communication been effective and efficient? Have the project team members worked effectively together, and with the implementing agency? • How efficiently have resources and back-up been provided by donors, including quality assurance by UNDP?	Extent to which project activities were conducted on time Extent to which project delivery matched the expectation of the ProDoc and the expectations of partners Level of satisfaction expressed by partners in the responsiveness (adaptive management) of the project Level of satisfaction expressed by implementing agency in regard to UNDP back-stopping	Project work plans and reports Local partners Tracking tools	
Financial efficiency:	Extent to which funds have been converted into outcomes as per the expectations of the ProDoc	Project financial records Project audit reports	

Evaluative Questions	Indicators	Sources	Methodology
• Are the accounting and financial systems in place adequate for project management and producing accurate and timely financial information? • Have funds been available and transferred efficiently (from donor to project to contractors) to address the project purpose, outputs and planned activities? • Are funds being used correctly? • Are financial resources being utilized efficiently (converted into outcomes)? Could financial resources be used more efficiently? • Have any issues been raised in audit reports and if so how efficiently were they addressed? • Was project implementation as cost effective as originally proposed (planned vs. actual) • Has the leveraging of funds (co-financing) proceeded as planned?	Level of transparency in the use of funds Level of satisfaction of partners and beneficiaries in the use of funds Timely delivery of funds, mitigation of bottlenecks Coordination and synergies of project funds and co-financing	Project work plans and reports	
Efficiency of partnership arrangements for the project • To what extent were partnerships/linkages between institutions/organizations/private sector realized as planned? • Which partnerships/linkages were facilitated? Which ones can be considered sustainable? • What was the level of efficiency of cooperation and collaboration arrangements?	Extent to which project partners committed time and resources to the project Extent of commitment of partners to take over project activities	Project work plans and reports Reports of local partners:	
Is the project responsive to threats and opportunities emerging during the course of the project?	Level of adaptive management related to emerging trends	Project work plans and reports	
How well were risks, assumptions and impact drivers managed? What was the quality of risk mitigation strategies developed? Were these sufficient? Are there clear strategies	Extent to which project has responded to identified and emerging risks	Risks log	

Evaluative Questions	Indicators	Sources	Methodology
for risk mitigation related to long-term sustainability of the project?	Level of attention paid to up-dating risks log		
Is a communications strategy in place? How well is it implemented and how successful has it been in reaching intended audiences?	Extent to which project information has been disseminated Level of awareness of beneficiaries and the general public	Communications documents Press articles, social media posts Website	
Sustainability: To what extent are there financial, institutional, socio-economic, and/or environmental risks to sustaining long-term project results?			
Is the social, legal and political environment conducive to sustainability?	Extent of supportive policies	Policy documents (e.g. energy policy) Steering Committee minutes Local partners and beneficiaries	
Are there early signs of activities being taken up by project partners, and plans being developed to sustain them?	Extent to which partners are considering post-project actions Evidence of Government follow-up financing for project initiatives		
Have partners and stakeholders successfully enhanced their capacities and do they have the required resources to make use of these capacities?	Extent to which partners and stakeholders are applying new ideas outside of the immediate project context		

Annex 6: Progress towards results table

Indicator Assessment Key

Green= Achieved	Yellow= On target to be achieved	Red= Not on target to be achieved

	Indicator	Clarification	Baseline	Midterm Target *(clarification)*	End of Project Target *(clarification)*	Achievement	Justification for rating	MTR ratings
Project Objective To support the development, implementation and monitoring of NAMAs in the low-carbon end-use sector, in order to build upon a strong national commitment for the reducing the energy demand of oil & gas end use sectors	Number of NAMAs in energy end-use sectors	*Number of sectors cover by the NAMA program/action plan*	No strategic programme in place to bring energy efficiency (EE) and prioritise renewable energy (RE) use in the oil/gas end-use sectors	1 NAMA is fully implemented by **2018** *(1 sector covered by the NAMA program)*	3 NAMAs are fully implemented *(3 sectors covered by the NAMA program)*	No MTR target NAMA Programs under development.	Priority was given to pilot projects to collect experience and real life data	**MS**
	Direct GHG emission reductions and energy savings resulting due to the project.	*Direct emissions refer to pilot projects.* *Indirect emissions (should be direct post-project emissions) refer to NAMA program*	0	Total direct GHG emission reductions of 10,500 t CO2eq per year in 2018, increasing to 12,100 t CO2eq per year in 2019 *(refers to lifetime emission reductions)*	Total direct GHG emission reductions of 0.56 mln. t CO_{2eq} per year; Lifetime energy saved 200,000 toe	No MTR target. Estimated GHG savings from pilot projects as per energy audits: 102 (580 EA, 139.8) tCO_{2eq} per year (NAMA action plan not developed yet).	Pilot project emission reductions are based on energy audits' estimates, no metered data on GHG emission reductions available yet.	**MS**

	Indicator	Clarification	Baseline	Midterm Target *(clarification)*	End of Project Target *(clarification)*	Achievement	Justification for rating	MTR ratings
	Co-financing arrangements to design/implement prioritized NAMAs		0	A market-based financing structure for 20% of co-financing needs of one of the NAMAs is finalized by **2018**	A total co-financing amount of US$ 31.9 million is mobilized from SOCAR and market sources	No MTR target 11.6 mil USD co-financing provided by SOCAR for pilot project implementation	Co-financing reported by SOCAR, own financial sources provided for pilot projects	**MS**
Outcome 1: Assessment of GHG emission mitigation potentials and target setting completed		Outputs: 1.1 Relevant barriers that hinder the development and implementation of GHG mitigation measures assessed 1.2 Main oil & gas end-use sectors having the potential for decreasing energy intensity are identified 1.3 Detailed marginal abatement cost (MAC) curves for the oil & gas end-use sectors developed to demonstrate effective mitigation policies and economic scenarios 1.4 Government institutions gain further awareness and support in the development of a national replication strategy 1.5 Voluntary emission reduction targets in the oil & gas end-use sectors are established and validated						
	Sub-sector voluntary GHG emission reduction targets		Lack of a framework and target-setting for reducing GHGs in energy and carbon intensive sub-sectors	GHG emission reduction targets to be defined for 3 main sub-sectors by **2017**: (Buildings Transport, Oil/gas Production)	SOCAR adopts GHG reduction targets as part of its strategic plan to mitigate emissions	No sector specific targets established yet.	MAC analysis and target settings postponed after pilot project implementation	**MU**
	Marginal abatement costs (MAC) curves or other justification for targeting the oil & gas end-use sectors		No detailed economic reviews and scenarios that compare the effectiveness of GHG mitigation technologies	Detailed MAC curves (or other justification) for targets in oil & gas end-use sectors by **2017**	-	No MAC curves developed yet		**MU**

	Indicator	Clarification	Baseline	Midterm Target *(clarification)*	End of Project Target *(clarification)*	Achievement	Justification for rating	MTR ratings
Outcome 2 Specific oil & gas end-use sectors are endorsed by all stakeholders to begin detailed design and implementation of NAMA projects (ProDoc wording: NAMAs *(program/action plan)* in oil & gas end-use sectors developed) *IR wording is less clear than the original one in ProDoc*		Outputs: 2.1 Fully capable and qualified private and public sector entities in the design and implementation of NAMAs 2.2 Three designed programs *(programs in three sectors)* for the implementation of selected prioritized feasible NAMAs in main oil & gas end-use sub-sectors 2.3 Defined and established financial instruments *(for)* mitigation actions in the oil & gas end-use sectors						
	A "pilot" NAMA framework to demonstrate specific measures and actions that will lead to substantial GHG emission reductions in the long term.		The Government and SOCAR have a strong intention to implement NAMAs, however, a concrete strategy and framework to achieve GHG mitigation goals are missing.	3 agreed programs for implementation of selected, prioritized, feasible, NAMAs in main oil & gas end-use sub-sectors **(2016);** One NAMA is funded and implemented (**2018**) An innovative, market-based financing structure for one of the sub-sectors (most likely Buildings) is adopted by **2018** SOCAR sets up an Information Centre) for promoting Energy Efficiency (EE) in the Building and Transport sectors by **2018** Updating of NAMAs registry is started by SOCAR by **2016**	All 3 (three) NAMAs are successfully completed 20 percent of total cost of one of the NAMAs is funded through a market-based financing mechanism. 2 major energy management workshops are successfully held. GHG emission reductions due to pilot project are captured in SOCAR's GHG Inventory	NAMA programs under development. Feasibility of GHG emission reduction opportunities in three sectors assessed. (NAMA pilot projects in buildings and transportation almost fully implemented –see Outcome 3) NA NA Pilot projects registered in existing national GHG registry at MENR	Development of NAMA Action Plan/Program postponed after pilot project implementation Existing national GHG registry	**MS** **NA** **NA** **HS**
Outcome 3: NAMAs *(pilot projects)* in the oil & gas end-use sector		Outputs: 3.1 Potential NAMA 1: SOCAR's Green Building Program implemented (IR: and knowledge about EE practices in buildings is disseminated) 3.2 Potential NAMA 2: SOCAR's Sustainable Transport Initiative implemented (IR: resulting in fuel economy in SOCAR's transportation fleet) 3.3 Potential NAMA 3: SOCAR's associated gas capturing programme (implemented, IR: is geared to the collection and supply of natural gas to meet the heating needs of the area's inhabitants)						

	Indicator	Clarification	Baseline	Midterm Target *(clarification)*	End of Project Target *(clarification)*	Achievement	Justification for rating	MTR ratings
(IR: successfully) implemented	Energy-efficiency oriented refurbishments under SOCAR's "Green Building Programme"		Absence of energy efficiency (EE) building standards for new and existing buildings; Lack of availability of green building technologies	Energy audit of 2 (two) existing buildings is completed by 2016	Complete energy audits of 3-5 buildings of up to 8,000 m² space (2% of total SOCAR buildings area)	Energy audit of 5 buildings performed	Pilot projects delivered ahead of planned deadlines.	**HS**
				Achievement of (10,500 tCO2eq) emission reductions over the 25 year life-time as a result of the pilot investments in building refurbishments starting from 2018	Results of energy savings and GHG reductions (420 tCO2eq) for at least one full year are reported	Expected lifetime GHG savings of 10,500 tCO_{2eq} as per energy audits (420 tCO_{2eq} annually)	EE pilot projects in buildings delivered, RE pilot projects almost finalized.	**HS**
				50 persons trained in conducting energy audits by 2017	100 persons trained in design/construction of EE buildings, energy audits and building energy management (both SOCAR and others)	60 professionals trained in energy efficiency in buildings		**HS**
	New fuel technologies for SOCAR's vehicle fleet and a sustainable vehicle fleet management system		Low penetration rate of alternative fuel systems and state-of-the-art technologies in transportation; Low energy performance of vehicles due to absence of emission and fuel	Complete an "Options Study" comparing different technologies viz. electric vehicles combined with RE, methanol mixed with gasoline, etc. for modernization of SOCAR's vehicle fleet (2017)	Recommendations of the "Options Study" are adopted by SOCAR and its implementation is started	Analytical study completed	Major components of pilot projects in sustainable transport implemented ahead of deadline.	**HS**
				Achievement of (1,593 tCO_{2eq}) emission reductions over the 10 year life-time (starting in 2019) as a result of the	Results of energy savings and GHG reductions (160 tCO_{2eq}) for at least one full year are reported	1,600 tCO2eq to be saved over 10 year period, according to a feasibility study	Full-roll-out of eco-driving trainings will continue after purchase of	**HS**

	Indicator	Clarification	Baseline	Midterm Target *(clarification)*	End of Project Target *(clarification)*	Achievement	Justification for rating	MTR ratings
			economy standards.	pilot investments in vehicles using alternate fuel sources Monitoring devices are installed on 10 vehicles by 2018 100 light and 200 heavy vehicles drivers of SOCAR trained on eco-driving practices.	Results from monitoring of vehicles are used to measure fuel consumption/savings pattern 200 light and 500 heavy vehicles drivers of SOCAR trained on eco-driving practices.	Monitoring devices installed in 10 Vehicles 79 drivers trained in eco-driving	eco-driving simulator. Trainings in sustainable transport implemented and hybrid vehicles in use.	**HS** **S**
	Capture and productive use of associated gas through applying improved technologies		Annually, 0.3*mln t CO_{2eq} is dispersing in atmosphere from Siyazanneft oil-field due to outdated technology; Neighbourhood villages cut forest wood to use for heating	Adopt suitable technologies to capture associated gas and devise a plan for its effective utilization on a pilot basis by 2017 The equipment installation works in the oil-field begin in 2017/18 Laying of the pipes and distribution network completed by end of 2018 Direct 550,000 tCO_{2e} emission reductions result over the 25 year lifetime due to the pilot investment	State of art technologies for associated gas capture are fully adopted by SOCAR for use in other oil-fields The gas capture equipment including compressors are installed by end of 2018 At least, 600 households/local businesses supplied with clean and safe gas Results of GHG reductions (22,000 tCO_{2eq}) for at least one full year are reported	On-site filtering of associated gas under development Pilot project to be implemented in the 2018 construction season NA NA	Associated gas capturing project under development. Technology identified, technical project design under development, construction to start in 2018 construction season.	**S** **S** **NA** **NA**

	Indicator	Clarification	Baseline	Midterm Target *(clarification)*	End of Project Target *(clarification)*	Achievement	Justification for rating	MTR ratings
				An afforestation programme approved by SOCAR	The activity results in planting of xxxx trees	Afforestation program of SOCAR under implementation		S
Outcome 4 MRV system and national registry for mitigation actions in the energy generation and end-use sectors developed		Outputs: 4.4 Defined and established sectoral and subsectoral reference baselines for oil & gas end-use sector sectors 4.5 Established sub-sectoral GHG inventories for key oil & gas end-use sub-sectors 4.3 Established and operational national registry mechanism for mitigation actions in the oil & gas end-use sectors						
	Regular GHG Inventory conducted		Institutional capacity to develop proper GHG inventories is lacking	Updated GHG inventories start becoming available on annual basis by end of 2017	SOCAR has a fully up-to-date inventories register	Pilot projects registered in existing GHG inventory	Activities started in 2017, international consultant hired.	HS
	National registry mechanism for implemented NAMAs in place		Institutional arrangement to record/report/ monitor the outcomes of GHG mitigation activities is missing	International registry is regularly updated with information about NAMAs starting from 2016	NAMA reporting at national level through a domestic mitigation registry	Pilot projects registered in existing GHG inventory	NAMA projects registered in the national registry of MENR	HS
	Arrangements for setting and monitoring sector-wise GHG emission reduction targets		The concerned entities lack capacity to setup near-and long-term GHG targets	Guidelines are adopted to validate baseline GHG estimates, set future targets, and measure actual emissions (by 2017)	The MRV process is fully functional in SOCAR for monitoring the progress/outcome of NAMAs	Validation guidelines not developed, MRV report for buildings developed	Activities started in 2017, international consultant hired.	MS
	Qualified local technical professionals in		Lack of common platform for	Training arranged for: Improvement of Statistical database	A strong institutional capacity exists in SOCAR	Two trainings by IC on MRV have been conducted for the	Activities started in 2017,	MS

	Indicator	Clarification	Baseline	Midterm Target *(clarification)*	End of Project Target *(clarification)*	Achievement	Justification for rating	MTR ratings
	SOCAR to conduct MRVs		sharing of expertise among departments involved in data collection, statistical analysis and mitigation planning	(2016); Sectoral baselines (2017); GHG inventory estimates (2018)	in the MRV of implemented NAMAs	Ecology Department and Development of Environmental Projects departments of SOCAR	international consultant hired.	
	Dissemination of information about the mitigation measures in energy end-use sectors and MRV framework		Low awareness level and information about MRV and national registry systems in GoA	SOCAR trains one high-profile organization in MRV framework development by 2018	SOCAR trains two organizations in MRV	NA		**NA**

Annex 7: MTR Revised LogFrame

MTR proposed revisions are highlighted in yellow.

	Indicator		Baseline	Midterm Target	End of Project Target	Source of verification	Risks and assumptions
Project Objective To support the development, implementation and monitoring of NAMAs in the oil/gas *and* end-use sectors, to further build on national commitment to energy savings and reducing GHG emissions	NAMA GHG mitigation action plan		No strategic program in place that prioritizes energy efficiency and renewable energy in oil/gas sectors	NAMA GHG mitigation action plan covering 1 sector is developed	NAMA GHG mitigation action plan covering 3 sectors is developed, approved, funded and under implementation	NAMA action plans	See the Risks and Assumptions in the LogFrame revised by the Inception Report
	Direct project and post-project GHG emission reductions and energy savings facilitated by the Project		0	Total lifetime direct GHG emission reductions of 10,500 t CO_{2eq} from pilot projects implemented by 2018	Total lifetime direct GHG emission reductions of 0.56 mil tCO_{2eq} from implemented pilot projects Total lifetime direct post-project GHG emission reductions of 6.24 mil tCO_{2eq} from the NAMA action plan Total lifetime energy saved from the NAMA action plan approx. 200,000 toe	National NAMA registry Specific MRV methodology and GHG emission reduction analysis	
	Co-financing leveraged for implementation of prioritized NAMA projects		0	A market-based financing structure for 20% market-based co-financing for one of the NAMA project is structured by 2018	A total co-financing amount of US$ 30 million is mobilized from SOCAR and market sources	Annual Progress Reports NAMA implementation report	
Outcome 1: Assessment of GHG emission mitigation potentials and target setting completed	**Outputs:** 1.1 Relevant barriers that hinder the development and implementation of GHG mitigation measures assessed 1.2 Main oil & gas and end-use sectors having the potential for decreasing energy intensity are identified 1.3 Detailed marginal abatement cost (MAC) curves for oil & gas and end-use sectors developed to demonstrate cost-effective mitigation policies and scenarios 1.4 Government institutions gain further awareness and support in the development of a national replication strategy (national NAMA action plan)						

	Indicator		Baseline	Midterm Target	End of Project Target	Source of verification	Risks and assumptions
	1.5 Voluntary emission reduction targets of SOCAR's oil & gas and end-use sub-sectors are established and validated						
	Sub-sector voluntary GHG emission reduction targets established		Lack of a framework and target-setting for reducing GHGs in energy and carbon intensive sub-sectors	GHG emission reduction targets to be defined for 3 main SOCAR's sub-sectors by 2017: (Buildings, Transport, Oil/gas Production)	SOCAR adopts GHG reduction targets as part of its strategic plan to mitigate emissions	SOCAR documented commitments	
	Marginal abatement costs (MAC) curves or other justification for prioritizing GHG mitigation actions and target setting in the oil & gas and end-use sectors		No detailed economic reviews and scenarios that compare the effectiveness of GHG mitigation technologies	Detailed MAC curves (or other justification) for targets in oil & gas end-use sectors developed by 2017	-	MAC analytical report	
Outcome 2 NAMA action plan in oil & gas and end-use sectors developed	**Outputs:** 2.1 Fully capable and qualified private and public sector entities in the design and implementation of NAMAs 2.2 NAMA action plans designed for three main oil & gas and end-use sub-sectors for the implementation of selected prioritized feasible NAMA projects 2.3 Defined and established financial instruments for mitigation actions in the oil & gas end-use sectors						
	SOCAR's NAMA action plan to demonstrate specific measures and actions that will lead to substantial GHG emission reductions in the long term.		The Government and SOCAR have a strong intention to implement NAMAs, however, a concrete strategy and framework to achieve GHG mitigation goals are missing.	SOCAR's NAMA action plan/ program developed for implementation of selected, prioritized, and feasible NAMA projects in main oil & gas and end-use sub-sectors **(2016);**	SOCAR's NAMA action plan/ program developed for implementation of selected, prioritized, and feasible NAMA projects in main oil & gas and end-use subsectors Market-based financial instruments for financing	SOCAR's NAMA action plan	

	Indicator		Baseline	Midterm Target	End of Project Target	Source of verification	Risks and assumptions
				One NAMA pilot project is funded and implemented (**2018**) An innovative, market-based financing structure for one of the sub-sectors (most likely Buildings) is adopted by **2018** SOCAR sets up an Information Centre for promoting Energy Efficiency (EE) in the Building and Transport sectors by **2018** Updating of NAMAs registry is started by SOCAR by **2016**	implementation of NAMA action plan established. 2 major energy management workshops are successfully held. GHG emission reductions due to pilot project are captured in SOCAR's GHG Inventory	Review of available financial instruments Proceedings and minutes from workshops Review of SOCAR's Information Center activities and documents Review of the NAMA registry	
Outcome 3: NAMA pilot projects in SOCAR's oil & gas and end-use sectors	**Outputs:** 3.1 NAMA pilot 1: SOCAR's Green Building Program implemented and knowledge about EE practices in buildings is disseminated 3.2 NAMA pilot 2: SOCAR's Sustainable Transport Initiative implemented resulting in fuel economy in SOCAR's transportation fleet 3.3 NAMA pilot 3: SOCAR's associated gas capturing programme implemented (collection and supply of natural gas to meet the heating needs of the area's inhabitants)						
	Energy-efficiency oriented refurbishments under SOCAR's "Green Building Programme"		Absence of energy efficiency (EE) building standards for new and existing buildings; Lack of availability of green building technologies	Energy audits of 2 existing buildings is completed by 2016 Achievement of 10,500 tCO2eq emission	Complete energy audits of 3-5 buildings of up to 8,000 m² space (2% of total SOCAR buildings area)	Project documents (energy audits)	

	Indicator		Baseline	Midterm Target	End of Project Target	Source of verification	Risks and assumptions
				reductions over the 25 year life-time as a result of the pilot investments in building refurbishments starting from 2018	Results of energy savings and GHG reductions (420 tCO2eq) for at least one full year are reported	GHG emission reduction calculation	
				50 persons trained in conducting energy audits by 2017	100 persons trained in design/construction of EE buildings, energy audits and building energy management (both SOCAR and others)	Proceedings and minutes from trainings	
	New fuel technologies for SOCAR's vehicle fleet and a sustainable vehicle fleet management system		Low penetration rate of alternative fuel systems and state-of-the-art technologies in transportation; Low energy performance of vehicles due to absence of emission and fuel economy standards.	Analytical study developed comparing different fuel technologies, electric vehicles (powered with RE), methanol mixed with gasoline, etc. for modernization of SOCAR's vehicle fleet (2017)	Recommendations of the analytical study are adopted by SOCAR and its implementation is started	Analytical study	
				Achievement of (1,593 tCO_{2eq}) emission reductions over the 10 year life-time (starting in 2019) as a result of the pilot investments in vehicles using alternative fuel sources	Results of energy savings and GHG reductions (160 tCO_{2eq}) for at least one full year are reported	Review of the MRV system on GHG emission reductions, NAMA registry	
				Monitoring devices are installed on 10 vehicles by 2018	Results from monitoring of vehicles are used to measure fuel	Review of documented SOCARs practices	

	Indicator		Baseline	Midterm Target	End of Project Target	Source of verification	Risks and assumptions
				100 light and 200 heavy vehicles drivers of SOCAR trained on eco-driving practices.	consumption/savings pattern 200 light and 500 heavy vehicles drivers of SOCAR trained on eco-driving practices.	Proceedings and minutes from trainings	
	Capture and productive use of associated gas		Annually, 0.3*mln t CO_{2eq} is dispersing in atmosphere from Siyazanneft oil-field due to outdated technology; Neighbourhood villages cut forest wood to use for heating	Selection of suitable technologies to capture associated gas and development of a plan for its effective utilization on a pilot basis by 2017 Associated gas technology installation in the oil-field begins in 2017/18 Laying of the pipes and distribution network completed by end of 2018 Direct 550,000 tCO_{2e} emission reductions result over the 25 year lifetime due to the pilot investment An afforestation programme approved by SOCAR	State of art technologies for associated gas capture are fully adopted by SOCAR for use in other oil-fields The gas capture equipment including compressors are installed by end of 2018 At least, 600 households/local businesses supplied with clean and safe gas Results of GHG reductions (22,000 tCO_{2eq}) for at least one full year are reported The activity results in planting of 1200 trees	Review of project documents, SOCAR practices Review of the MRV system on GHG emission reductions, NAMA registry Project and SOCAR reports	

	Indicator		Baseline	Midterm Target	End of Project Target	Source of verification	Risks and assumptions
Outcome 4 MRV system and national registry for mitigation actions in the energy generation and end-use sectors developed	**Outputs:** 4.6 Defined and established sectoral and sub-sectoral reference baselines for oil & gas end-use sector sectors 4.7 Established sub-sectoral GHG inventories for key oil & gas end-use sub-sectors 4.3 Established and operational national registry mechanism for mitigation actions in the oil & gas end-use sectors						
	Regular GHG Inventory conducted		Institutional capacity to develop proper GHG inventories is lacking	Updated GHG inventories start becoming available on annual basis by end of 2017	SOCAR has a fully up-to-date inventories register	GHG inventory	
	National registry mechanism for implemented NAMA projects		Institutional arrangement to record/report/monitor the outcomes of GHG mitigation activities is missing	National registry is regularly updated with information about NAMAs starting from 2016	NAMA reporting at national level through a domestic mitigation registry	NAMA register	
	Arrangements for setting and monitoring sector-wide GHG emission reduction targets		The concerned entities lack capacity to setup near-and long-term GHG targets	Guidelines are adopted to validate baseline GHG estimates, set future targets, and measure actual emissions (by 2017)	The MRV process is fully functional in SOCAR for monitoring of the progress/outcome of NAMA implementations	MRV documents and review of SOCAR's procedures	
	Qualified local technical professionals in SOCAR to conduct MRVs		Lack of common platform for sharing of expertise among departments involved in data collection, statistical analysis and mitigation planning	Trainings delivered on: Improvement of Statistical database (2016); Sectoral baselines (2017); GHG inventory estimates (2018)	A strong institutional capacity exists in SOCAR in the MRV of implemented NAMAs 12 SOCAR's experts trained	Review of SOCAR's procedures Proceedings and minutes from trainings	
	Dissemination of information about the		Low awareness level and information about MRV and	SOCAR trains one high-profile	SOCAR trains two organizations in MRV	Proceedings and minutes from trainings	

	Indicator		Baseline	Midterm Target	End of Project Target	Source of verification	Risks and assumptions
	mitigation measures in energy end-use sectors and MRV framework		national registry systems in GoA	organization in MRV framework development by 2018	and publishes information on MRV results and experience		

Annex 8: LogFrame as of Project Document and an inception phase revision

Original Project Document LogFrame version with highlighted changes introduced by the Inception Report:

~~ProDoc wording deleted~~

New wording introduced by the Inception Report

Some of the LogFrame revisions are just minor wording revisions and have no impact on the content of the indicator and/or target.

	Indicator	Baseline	Target/s (End of Project)		Source of verification	Risks and Assumptions
			Mid-term	End of Project		
Project Objective To support the development, implementation and monitoring of NAMAs in the ~~low-carbon~~ oil and gas end-use sector, ~~in order~~ to further build ~~upon a strong~~ on the national commitment ~~for the reducing the energy demand of oil & gas end use sectors~~ to energy savings and reductions of GHG emissions	Number of NAMAs in energy end-use sectors implemented	No strategic programme in place that prioritises EE and RE requirements	1 NAMA is fully implemented by **2018**	3 NAMAs implemented by the end of the project	National NAMA registry	**Assumptions:** – Government ~~is focussing its~~ enacts legal and policy framework to align with international best-practice in energy efficiency and renewable energy – National efforts on institutional level to mitigate the effects of GHG emissions in oil & gas end-use and production sectors are being strengthened. – SOCAR is implementing its Climate Change strategy to get engaged in energy efficiency and renewable energy investments. **Risks:**
	Direct ~~and indirect~~ GHG emission reduction and energy savings ~~facilitated by~~ resulting due to the project	0	Total direct GHG emission reductions of 10,500 t CO_{2eq} per year in **2018**, increasing to 12,100 t CO_{2eq} per year in **2019**	Total ~~lifetime~~ direct GHG emission reductions of about 0.56 mln. t CO_{2eq} ~~Total lifetime indirect GHG emission reductions of 6.24 mln. t CO_{2eq}~~ ~~Total~~ Lifetime energy saved approx. 200,000 toe	GHG emissions ~~growth reduced as result of activities implemented under NAMAs~~ reductions resulting from projects will be monitored using specific MRV methods. Calculation of energy savings by comparing amount of energy use "before" and "after" the projects.	

	Indicator	Baseline	Target/s (End of Project)		Source of verification	Risks and Assumptions
			Mid-term	End of Project		
	Co-financing leveraged for implementation of prioritized NAMAs	0	A market-based financing structure for 20% of co-financing needs of one of the NAMAs is finalized by **2018**	~~30,000,000 US$~~ A total co-financing amount of US$ 31.9 million is mobilized from SOCAR and market sources	Annual progress reports NAMA implementation report	– The lack of proper energy efficiency and renewable energy legislation and policy measures (strategies, actions plans, monitoring activities) maintains within the country framework – The Government does not commit adequate resources and funding support to sustain project investments in energy efficiency and renewables. – SOCAR does not commit adequate resources and funding support to sustain the maintenance of project investments during, and beyond the term of, the project.
Outcome 1: Assessment of GHG emission mitigation potentials and target setting completed	**Outputs:** 1.1 Relevant barriers that hinder the development and implementation of GHG mitigation measures assessed 1.2 Main oil & gas end-use sectors ~~regarding status of energy performance and potential for decreasing energy intensity are analysed~~ having the potential for decreasing energy intensity are identified 1.3 Detailed marginal abatement cost curves for the oil & gas end-use sectors developed to demonstrate effective mitigation policies and economic scenarios 1.4 ~~Awareness among governmental institutions increased and the development of a national replication strategy supported~~ Government institutions gain further awareness and support the development of a national replication strategy 1.5 Voluntary emission reduction targets in the oil & gas end-use sectors are established and validated					
	Sub-sector voluntary GHG emission reduction targets ~~established~~	~~Lack of governmental planning and target setting for energy and carbon intensive sub-sectors prevailing~~ Lack of a framework and target-setting for reducing GHGs in	~~Voluntary~~ GHG emission reduction targets to be defined ~~at least~~ for 3 main sub-sectors by 2017: (Buildings, Transport, Oil/gas production)	SOCAR adopts GHG reduction targets as part of its strategic plan to mitigate emissions	• National Climate Strategy in place • Sub-sectoral targets for short-, medium- and long-term • Action Plans for GHG mitigation (min. 3-5 years ahead)	**Assumptions:** – Overall system of Azerbaijan's energy efficiency and renewable energy policy is still in its early stages of its rationalization and implementation – lacking appropriate national data and information basis

	Indicator	Baseline	Target/s (End of Project)		Source of verification	Risks and Assumptions
			Mid-term	End of Project		
		energy and carbon intensive sub-sectors	~~Residential/Housing, Transport, Energy Production~~			target setting mechanisms for EE and RE – GHG mitigation measures are to be effectively tackled (at mitigation costs < USD 25/t CO_{2eq}) **Risks:** – Lack of proper energy efficiency and renewable energy legislation and policy measures (strategies, actions plans, monitoring activities) within the country framework – underestimation of available potentials for GHG mitigation No national replication of measures as result of NAMA project implementation
	Marginal abatement costs (MAC) curves or other justification for targeting the oil & gas end-use sectors defined	No detailed economic reviews and scenarios that compare the effectiveness of GHG mitigation technologies	Detailed MAC curves (or other justification) for targets in oil & gas end-use sectors by **2017**	~~Develop detailed marginal abatement cost curves for the oil & gas end-use sectors to demonstrate effective mitigation policies and economic scenarios and under which conditions GHG mitigation could be effectively realised: margin < USD25/tCO2eq~~	• Technology reviews and documents • Economic assessments and scenarios • Comparison of MAC with international best-practice • Progress Report Outcome 1	
Outcome 2 ~~NAMAs in oil & gas end-use sectors developed~~ Specific oil & gas end-use sectors are endorsed by all stakeholders to begin detailed design and implementation of NAMA projects	**Outputs:** 2.1 Three designed programs for the implementation of selected prioritized feasible NAMAs in main oil & gas end-use sub-sectors 2.2 Fully capable and qualified private and public sector entities in the design and implementation of NAMAs 2.3 Defined and established financial instruments mitigation actions in the oil & gas end-use sectors					
	~~Sectors for prioritized and feasible NAMAs are identified and selected~~ A "pilot" NAMA framework to demonstrate specific measures and actions that will lead to substantial GHG emission reductions in the long term.	~~GHG mitigation activities are subject to increased governmental focus. Without proper strategies and framework in place there is no proper focus established~~	3 agreed programs for implementation of selected, prioritized, feasible, NAMAs in main oil & gas end-use sub-sectors **(2016);** One NAMA is funded and	~~By end year 2: Feasibility of at least 3 NAMAs in selected oil & gas end-use sectors is identified: • Targeting to significant deviation from baseline emissions~~	~~• 3 feasibility studies for NAMA sectors available~~ • Minutes/Records of stakeholders' workshops and meetings; ~~• Stakeholder workshops implemented~~ • Specific NAMA criteria for selection	**Assumptions:** – NAMAs are facilitating transformation to low carbon low energy pathways – NAMA Programmatic approach will support replicability on the national level ~~– SOCAR can contribute as a relevant actor on the Azeri market to substantial GHG emission reductions in key energy end-use sectors~~

	Indicator	Baseline	Target/s (End of Project)		Source of verification	Risks and Assumptions
			Mid-term	End of Project		
		The Government and SOCAR have a strong intention to implement NAMAs, however, a concrete strategy and framework to achieve GHG mitigation goals are missing.	implemented (**2018**) An innovative, market-based financing structure for one of the sub-sectors (most likely Buildings) is adopted by **2018** SOCAR sets up an Information Centre) for promoting Energy Efficiency (EE) in the Building and Transport sectors by **2018** Updating of NAMAs registry is started by SOCAR by **2016**	~~Comprehensive program to be implemented~~ All 3 (three) NAMAs are successfully completed 20 percent of total cost of one of the NAMAs is funded through a market-based financing mechanism. 2 major energy management workshops are successfully held. GHG emission reductions due to pilot project are captured in SOCAR's GHG Inventory	and design template in place NAMA final year's progress report. Media reports and annual and project completion reports. SOCAR's NAMAs registry	SOCAR is perceived by the GoA as main contributor to meet the goal of substantially reducing Azerbaijan's GHG emission level; SOCAR staff actively participates and contributes in NAMA design/implementation process. **Risks:** – SOCAR does not commit adequate resources and commitment during NAMA project design – NAMA implementation strategy for selected energy end-use sub-sectors is abandoned – Lack of coordination among stakeholders and their commitment hinders the development of sector-specific GHG mitigation programmes

	Indicator	Baseline	Target/s (End of Project)		Source of verification	Risks and Assumptions
			Mid-term	End of Project		
Outcome 3: NAMAs in the oil & gas end-use sectors are successfully implemented	**Outputs:** 3.1 Potential NAMA 1: SOCAR's Green Building Program implemented and knowledge about EE practices in buildings is disseminated 3.2 Potential NAMA 2: Sustainable Transport ~~at SOCAR implemented~~ Initiative implemented resulting in fuel economy in SOCAR's transportation fleet 3.3 Potential NAMA 3: SOCAR's Associated Gas Capturing Program ~~implemented~~ is geared to the collection and supply of natural gas to meet the heating needs of the area's inhabitants.					
	~~SOCAR's Green Building Programm is implemented and replicated~~ Energy-efficiency oriented refurbishments under SOCAR's "Green Building Programme"	~~No strategic programme in place that prioritises EE and RE requirements of buildings constructed within SOCAR~~ Absence of energy efficiency (EE) building standards for new and existing buildings; Lack of availability of green building technologies	Energy audit of 2 (two) existing buildings is	~~By end of project: Implementation of an investment program to cover 2-3 demonstration building new constructions and/or refurbishments using improved design and EE & RE technologies for commercial and/or residential buildings~~ ~~Green building certifications for 2-3 demo projects available~~ ~~Integrated building design approach applied to new/refurbished buildings and approx. 80-100 architects/designers trained~~ Complete energy audits of 3-5 buildings of up to	~~• Direct (10,500 t CO_{2eq}) & Indirect (1.29 mln t CO_{2eq}) lifetime emission reductions from project activities (pilot investments, about 8,000 m^2 useful area)~~ ~~• Target energy consumption of new/refurbished buildings at least 50% below baseline~~ ~~• Monitoring energy performance of demo buildings~~ ~~• Information campaign on EE buildings implemented by SOCAR targeted on designers/architects~~ Energy Audit Report, proposing retrofit measures and their cost estimate and resulting energy savings & GHG reduction.	**Assumptions:** ~~– NAMA Programme is based on identified project opportunities in 3 energy end-use sectors, having high impact for replication~~ ~~– List of project ideas is based on SOCAR's corporate development and CC Mitigation Strategy~~ ~~– International best-practice in building EE.~~ The chosen NAMAs will create high impact in terms of environmental and economic benefits and provide potential for replication on a wider level across the country. Projects are consistent with SOCAR's corporate goals and CC Mitigation Strategy Early adoption of international best-practices in Buildings EE. SOCAR's readiness to experiment with innovative fuel-mixes to attain optimal efficiency of its transport fleet.

	Indicator	Baseline	Target/s (End of Project)		Source of verification	Risks and Assumptions
			Mid-term	End of Project		
			completed by **2016** Achievement of (10,500 tCO_{2eq}) emission reductions over the 25 year life-time as a result of the pilot investments in building refurbishments starting from **2018** 50 persons trained in conducting energy audits by **2017**	8,000 m² space (2% of total SOCAR buildings area) Results of energy savings and GHG reductions (420 tCO_{2eq}) for at least one full year are reported 100 persons trained in design/construction of EE buildings, energy audits and building energy management (both SOCAR and others)	Energy data of one full year (including a winter and a summer season to reflect energy consumption during different periods of the year); "Green Building" certificates issued to 1-2 building(s). Certificates of training given to designers & architects and SOCAR personnel	**Risks:** ~~– NAMA Projects do not materialize as planned~~ No suitable NAMA Projects are identified as a result of feasibility studies undertaken – SOCAR does not commit adequate financial and personal resources during NAMA project implementation – NAMA Projects do not result in replicable activities due to lack of technical, economical or organisational feasibility Delays in completing pre-implementation activities viz. mini-feasibility reports of identified projects Lack of coordination among the project's stakeholders
	~~SOCAR's Sustainable Transport Initiative implemented and replicated~~ New fuel technologies for SOCAR's vehicle fleet and a sustainable vehicle fleet management system	~~There are no measures to address fuel economy or efficient/alternative technologies for vehicles in place~~ Low penetration rate of alternative fuel systems and state-of-the-art technologies in transportation; Low energy performance		~~Implementation of 25 pilot investments in new alternative fuel sources or vehicles with improved emission standards by end of project~~ ~~Development of a sustainable fleet management programme to optimize SOCAR's vehicle fleet and intra-company~~	~~• Direct (1,600 t CO_{2eq}) & Indirect (9,700 t CO_{2eq}) lifetime emission reductions from project activities (pilot investments)~~ ~~• Monitoring results of demo investments and fleet management practices~~ ~~• Minimum 10 of SOCAR's vehicle fleet switched to~~	

	Indicator	Baseline	Target/s (End of Project)		Source of verification	Risks and Assumptions
			Mid-term	End of Project		
		of vehicles due to absence of emission and fuel economy standards.		transportation logistics within 5 years after project end Training programme on eco-driving practices initiated and delivered by project end	• Minimum 200 of SOCAR's light vehicles and 500 of heavy vehicles drivers trained on eco-driving practices and leading to estimated 10-15% fuel saving 5 years after project end	
			Complete an "Options Study" comparing different technologies viz. electric vehicles combined with RE, methanol mixed with gasoline, etc. for modernization of SOCAR's vehicle fleet **(2017)**	Recommendations of the "Options Study" are adopted by SOCAR and its implementation is started	A mini-feasibility report of different alternative fuel systems, as applicable to SOCAR's vehicle fleet along with their financial/economic and GHG reduction benefits	
			Achievement of (1,593 tCO_{2eq}) emission reductions over the 10 year life-time (starting in **2019**) as a result of the pilot investments in vehicles using alternate fuel sources	Results of energy savings and GHG reductions (160 tCO_{2eq}) for at least one full year are reported	10 fuel efficient and innovative-design-based vehicles join the SOCAR fleet; NAMA monitoring report for **2019**	

	Indicator	Baseline	Target/s (End of Project)		Source of verification	Risks and Assumptions
			Mid-term	End of Project		
			Monitoring devices are installed on 10 vehicles by **2018** 100 light and 200 heavy vehicles drivers of SOCAR trained on eco-driving practices.	Results from monitoring of vehicles are used to measure fuel consumption/savings pattern 200 light and 500 heavy vehicles drivers of SOCAR trained on eco-driving practices.	SOCAR adopts an "Energy-Efficient fleet management system" and show-cases it to outsiders Design/implementation of training programs using international expertise for key vehicle fleet operation staff of SOCAR	
	~~SOCAR's associated gas capturing programme implemented and nearby villages supplied with natural gas, to avoid significantly methane emissions at SOCAR's oil & gas production units.~~ Capture and productive use of associated gas through applying improved technologies	~~About 21 mln m³ of methane/year are evaporating from Siyazanneft oil & gas field; nearby villages are having problems with low-quality heating~~ Annually, 0.3*mln t CO_{2eq} is dispersing in atmosphere from Siyazanneft oil-field due to outdated technology; Neighbourhood villages cut forest wood to use for heating		~~By end of project, SOCAR's gas capturing programme will be combined with a pilot programme to connect about 600 households from 12 nearby villages to a clean and safe gas network; Improved technologies introduced at SOCAR for gas capturing~~ ~~Monitoring of GHG emission reductions will be integrated into SOCAR's GHG Inventory by project end; Afforestation programme~~	~~• Direct (0.55 mln t CO_{2eq}) & Indirect (4.94 mln t CO_{2eq}) lifetime emission reductions from project activities (pilot investments)~~ ~~• Approx. 600 households/local businesses connected to gas network~~ ~~• Monitoring GHG benefits of demonstration activities~~ • ~~Progress Report Outcome 3~~	

	Indicator	Baseline	Target/s (End of Project)		Source of verification	Risks and Assumptions
			Mid-term	End of Project		
				~~initiated by SOCAR to mitigate loss of village forests by end of project~~		
			Adopt suitable technologies to capture associated gas and devise a plan for its effective utilization on a pilot basis by **2017** The equipment installation works in the oil-field begin in **2017/18** Laying of the pipes and distribution network completed by end of **2018** Direct 550,000 tCO_{2e} emission reductions result over the 25 year lifetime due to the pilot investment An afforestation programme	State of art technologies for associated gas capture are fully adopted by SOCAR for use in other oil-fields The gas capture equipment including compressors are installed by end of **2018** At least, 600 households/local businesses supplied with clean and safe gas Results of GHG reductions (22,000 tCO_{2eq}) for at least one full year are reported	A mini- feasibility report covering the design and cost-benefit analysis of a "gas capture, transport and utilization plan" NAMA monitoring report Gas bills issued to consumers by SOCAR; Reduced incidences of forest-cutting as evidenced from the NAMA monitoring report SOCAR's strategy document for replication of pilot project elsewhere; The lessons learned from the pilot investments are applied to other gas fields	

	Indicator	Baseline	Target/s (End of Project)		Source of verification	Risks and Assumptions
			Mid-term	End of Project		
			approved by SOCAR	The activity results in planting of xxxx trees	NAMA monitoring report	
Outcome 4 MRV ~~system~~ framework and national registry for mitigation actions in the energy ~~generation~~ production and end-use sectors developed	**Outputs:** 4.8 Defined and established sectoral and subsectoral reference baselines for oil & gas end-use sector sectors 4.9 Established sub-sectoral GHG inventories for key oil & gas end-use sub-sectors 4.3 Established and operational national registry mechanism for mitigation actions in the oil & gas end-use sectors					
	Regular GHG Inventory ~~conducted~~	~~Poor institutional capacity and support to develop proper GHG inventories based on lack of appropriate legal & policy framework to enhance low energy, low carbon strategies~~ Institutional capacity to develop proper GHG inventories is lacking	Updated GHG inventories start becoming available on annual basis by end of 2017	~~By end of project, GHG inventories will be annually available and to benefit from a stronger data quality~~ SOCAR has a fully up-to-date inventories register	• Annual GHG inventories developed • Peer reviews organised during Project • Progress Report Outcome 4	**Assumptions:** – MRV requirements are to be introduced based on international standards and experience (e.g UNFCCC) – All NAMAs ~~require~~ apply the MRV mechanism ~~to be applied accordingly~~ ~~– Lack of technical capacity to apply specific MRV methodologies or implement internal processes to ensure data quality;~~ – Data collection mechanism and institutionalisation will be in line with activities under component 1 **Risks:** – Lack of technical capacity to apply specific MRV methodologies or implement internal processes to ensure data quality; – Lack or resistance of institutional co-operation maintained
	National registry mechanism for implemented NAMAs ~~in place~~	~~Lack of institutional capacity to monitor GHG mitigation activities~~ Institutional arrangement to record/report/monitor the outcomes of GHG mitigation activities is missing	International registry is regularly updated with information about NAMAs starting from 2016	NAMA reporting at national level through a domestic mitigation registry ~~implemented by end year 3 will ensure compliance with international MRV requirements~~	• National registry institutionalised • Web-based registry of each NAMA at UNFCCC • Progress Report Outcome 4	

	Indicator	Baseline	Target/s (End of Project)		Source of verification	Risks and Assumptions
			Mid-term	End of Project		
						– Lack of availability of proper data for MRV or GHG Inventory development – NAMA implementation is not enough bound to deliver replication potentials on national level
	~~Mechanism to validate GHG emission reduction targets in place~~ Arrangements for setting and monitoring sector-wise GHG emission reduction targets	~~Without accurate databases the GHG targets setting mechanisms are weak and without strong backing~~ The concerned entities lack capacity to setup near-and long-term GHG targets	Guidelines are adopted to validate baseline GHG estimates, set future targets, and measure actual emissions (by 2017)	~~MRV Guideline for AZB developed by the end of the project to validate new baseline scenarios/GHG emission reduction targets against actual emission reduction achievements~~ The MRV process is fully functional in SOCAR for monitoring the progress/outcome of NAMAs	• MRV committee established for NAMAs • Continuous monitoring of NAMA implementation • ~~Specific benchmarks for GHG mitigation targets monitored and achieved~~ • MRV consultant's progress reports • Progress Report Outcome 4	
	~~Training & capacity building programme for national institutions implemented~~ Qualified local technical professionals in SOCAR to conduct MRVs	~~Governmental institutions involved in data collection, statistical analysis and planning do have own methods in place, without proper exchange and review mechanisms available~~ Lack of common platform for sharing of expertise among departments involved in data collection, statistical	Training arranged for: Improvement of Statistical database (2016); Sectoral baselines (2017); GHG inventory estimates (2018)	~~A series of specific training & capacity building programs will be implemented by end of project (minimum 5 trainings):~~ ~~• Improvement of Statistical database~~ ~~• Sectoral baselines~~ ~~GHG Inventory Methodologies~~ A strong institutional	• Training materials • Inventory manuals • Database of GHG emissions • ~~Compatibility with IPCC 2006 Revised Guidelines~~ • Progress Report Outcome 4	

	Indicator	Baseline	Target/s (End of Project)		Source of verification	Risks and Assumptions
			Mid-term	End of Project		
		analysis and mitigation planning		capacity exists in SOCAR in the MRV of implemented NAMAs		
	~~Replication strategy for different mitigation measures in energy end-use sectors developed~~ Dissemination of information about the mitigation measures in energy end-use sectors and MRV framework	~~Only basic awareness raising and information activities provided on energy end-use and carbon mitigation activities~~ Low awareness level and information about MRV and national registry systems in GoA	SOCAR trains one high-profile organization in MRV framework development by 2018	~~Lessons learned about implemented NAMAs are disseminated and published by the end of the project: SOCAR to replicate project results within implementation of company's Climate Mitigation Strategy and up to 10 years after project end~~ SOCAR trains two organizations in MRV	~~• Sector specific best practice cases~~ • Publications • Media coverage • Follow-up investments initiated by SOCAR to multiply lessons-learned in pilot NAMAs	

Annex 9: Example Questionnaire/Interview Guide

During the interviews with project stakeholders no unified formal questionnaire in a written form was used, but rather an informal discussion was held reflecting each stakeholder's role in project implementation in order to maximize effectiveness of stakeholders' responses.

After a brief summary of stakeholder's role and input in project implementation, results achieved and issues that arose during project implementation, additional fact-finding questions were answered in order to clarify project relevance, effectiveness, efficiency and sustainability.

Specific questions outlined in the Midterm Review Evaluative Matrix were used during interviews as needed, including the five major topics of:

Relevance: How does the project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels?

Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?

Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?

Sustainability: To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?

Impact: Are there indications that the project has contributed to, or enabled progress toward, reduced environmental stress and/or improved ecological status?

Annex 10: Rating Scales

Box 1: Progress Towards Results Rating Scale

HS - Highly Satisfactory	The objective/outcome is expected to achieve or exceed all its end-of-project targets, without major shortcomings. The progress towards the objective/outcome can be presented as "good practice".
S - Satisfactory	The objective/outcome is expected to achieve most of its end-of-project targets, with only minor shortcomings.
MS - Moderately Satisfactory	The objective/outcome is expected to achieve most of its end-of-project targets but with significant shortcomings.
MU - Moderately Unsatisfactory	The objective/outcome is expected to achieve its end-of-project targets with major shortcomings.
U - Unsatisfactory	The objective/outcome is expected not to achieve most of its end-of-project targets.
HU - Highly Unsatisfactory	The objective/outcome has failed to achieve its midterm targets, and is not expected to achieve any of its end-of-project targets.

Box 2: Project Implementation & Adaptive Management Rating Scale

HS - Highly Satisfactory	Implementation of all seven components – management arrangements, work planning, finance and co-finance, project-level monitoring and evaluation systems, stakeholder engagement, reporting, and communications – is leading to efficient and effective project implementation and adaptive management. The project can be presented as "good practice".
S Satisfactory	Implementation of most of the seven components is leading to efficient and effective project implementation and adaptive management except for only few that are subject to remedial action.
MS - Moderately Satisfactory	Implementation of some of the seven components is leading to efficient and effective project implementation and adaptive management, with some components requiring remedial action.
MU - Moderately Unsatisfactory	Implementation of some of the seven components is not leading to efficient and effective project implementation and adaptive, with most components requiring remedial action.
U – Unsatisfactory	Implementation of most of the seven components is not leading to efficient and effective project implementation and adaptive management.
HU - Highly Unsatisfactory	Implementation of none of the seven components is leading to efficient and effective project implementation and adaptive management.

Box 3: Sustainability Rating Scale

L - Likely	Negligible risks to sustainability, with key outcomes on track to be achieved by the project's closure and expected to continue into the foreseeable future
ML - Moderately Likely	Moderate risks, but expectations that at least some outcomes will be sustained due to the progress towards results on outcomes at the Midterm Review
MU - Moderately Unlikely	Significant risk that key outcomes will not carry on after project closure, although some outputs and activities should carry on
U - Unlikely	Severe risks that project outcomes as well as key outputs will not be sustained

Annex 11: Midterm Review TOR

UNDP-GEF Midterm Review

Terms of Reference

Date: 07 August 2017

Duty station: Baku, Azerbaijan

Project title: "Nationally Appropriate Mitigation Actions (NAMAs) for low-carbon end-use sectors in Azerbaijan"

Position: Midterm Reviewer

Duration: 10th September 2017 to 09th January 2018

Post Level: International Consultant

Contract type: IC contract

Location: Baku with travels to Sumgayit city and other sites in close proximity to Baku as necessary

Proposal should be submitted by email no later than 22nd August, 2017

procurement.aze@undp.org and copy to nazim.mammadov@undp.org

Any request for clarification must be sent in writing, or by standard electronic communication to the address or e-mail indicated above. UNDP in Azerbaijan will respond by standard electronic mail and will send written copies of the response, including an explanation of the query without identifying the source of inquiry, to all shortlisted consultants.

1. INTRODUCTION

This is the Terms of Reference (ToR) for the UNDP-GEF Midterm Review (MTR) of the full-sized project titled "Nationally Appropriate Mitigation Actions (NAMAs) for low-carbon end-use sectors in Azerbaijan" (PIMS # 5138) implemented through the State Oil Company of Azerbaijan Republic, which is to be undertaken in 2017. The project started on 05.03.2015 and is in its third year of implementation. In line with the UNDP-GEF Guidance on MTRs, this MTR process was initiated before the submission of the second Project Implementation Report (PIR). This ToR sets out the expectations for this MTR. The MTR process must follow the guidance outlined in the document *Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects* (*http://web.undp.org/evaluation/documents/guidance/GEF/mid-term/Guidance_Midterm%20Review%20_EN_2014.pdf*).

2. PROJECT BACKGROUND INFORMATION

This project is placed within the existing national framework of Azerbaijan and provides a particular focus on a *programmatic NAMA* approach that reflects specific greenhouse gas mitigation measures to be implemented by SOCAR, the national oil company of Azerbaijan. The specific objective of the project is to support SOCAR in the implementation of its Climate Change Mitigation Strategy by promoting and upscaling GHG mitigation measures through a programmatic NAMA approach in the low-carbon end-use sectors, where pilot investments will be directed into low energy and low carbon technologies. The project is set within the country's ambitions to reduce GHG emissions and energy intensity of major energy end-use sectors in Azerbaijan and simultaneously introduce innovative energy efficiency and renewable energy technologies in main energy end-use sectors such as buildings and transportation systems. The project is consistent with GEF *Climate Change Mitigation Objective 1 – Implementing innovative low-carbon technologies, Objective 2 - Promoting market transformation for energy efficiency in the building sector*, *Objective 4 – Promoting low-carbon transportation technologies, and Objective 6 – Support Enabling Activities under the Convention*.

3. OBJECTIVES OF THE MTR

The MTR will assess progress towards the achievement of the project objectives and outcomes as specified in the Project Document, and assess early signs of project success or failure with the goal of identifying the necessary changes to be made in order to set the project on-track to achieve its intended results. The MTR will also review the project's strategy, its risks to sustainability.

4. MTR APPROACH AND METHODOLOGY

The MTR must provide evidence based information that is credible, reliable and useful. The MTR will review all relevant sources of information including documents prepared during the preparation phase (i.e. PIF, UNDP Initiation Plan, UNDP Environmental & Social Safeguard Policy, the Project Document, project reports including Annual Project Review/PIRs, project budget revisions, lesson learned reports, national strategic and legal documents, and any other materials that the MTR reviewer considers useful for this evidence-based review). The MTR reviewer will review the baseline GEF focal area Tracking Tool submitted to the GEF at CEO endorsement, and the midterm GEF focal area Tracking Tool that must be completed before the MTR field mission begins.

The MTR reviewer is expected to follow a collaborative and participatory approach[20] ensuring close engagement with the Project Team, government counterparts (the GEF Operational Focal Point), the UNDP Country Office(s), UNDP-GEF Regional Technical Advisers, and other key stakeholders.

Engagement of stakeholders is vital to a successful MTR.[21] Stakeholder involvement should include interviews with stakeholders who have project responsibilities, including but not limited to MENR, Azerkimya, State Agency on Alternative and Renewable Energy Sources; executing agencies, senior officials and task team/ component leaders, key experts and consultants in the subject area, Project Board, project stakeholders, academia, local government and CSOs, etc. Additionally, the MTR team is expected to conduct field missions to the project sites located in Sumgayit city, Apsheron peninsula and in Siyazan rayon.

[20] For ideas on innovative and participatory Monitoring and Evaluation strategies and techniques, see UNDP Discussion Paper: Innovations in Monitoring & Evaluating Results, 05 Nov 2013.
[21] For more stakeholder engagement in the M&E process, see the UNDP Handbook on Planning, Monitoring and Evaluating for Development Results, Chapter 3, pg. 93.

The final MTR report should describe the full MTR approach taken and the rationale for the approach making explicit the underlying assumptions, challenges, strengths and weaknesses about the methods and approach of the review.

5. DETAILED SCOPE OF THE MTR

The IC shall assess the following four categories of project progress. See the *Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects* for extended descriptions.

i. Project Strategy

Project design:

- Review the problem addressed by the project and the underlying assumptions. Review the effect of any incorrect assumptions or changes to the context to achieving the project results as outlined in the Project Document.
- Review the relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results. Discuss if and how lessons from other relevant projects were incorporated in project design.
- Review how the project addresses country priorities and extent of country ownership. Comment on whether the project concept conforms to Azerbaijan's development priorities and plans.
- Review decision-making processes: including the extent to which perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process were considered during project's design.
- Review the extent to which relevant gender issues were raised in the project design. See *Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects* for further guidelines.
- If there are any other major areas of concern, recommend areas for improvement in them.

Results Framework/Log-frame:

- Undertake a critical analysis of the project's log-frame indicators and targets, assess how "SMART" (Specific, Measurable, Attainable, Relevant, Time-bound) the midterm and end-of-project targets are, and suggest specific amendments/revisions to the targets and indicators as necessary.
- Explain whether the project's objectives and outcomes and its sub-components are clear, practical, and feasible within its time frame.
- Examine if progress so far has led to, or could in the future catalyse beneficial development effects (i.e. income generation, gender equality and women's empowerment, improved governance etc.) that should be included in the project results framework and monitored on an annual basis.
- Ensure broader development and gender aspects of the project are being monitored effectively. Develop and recommend SMART 'development' indicators, including sex-disaggregated indicators and indicators that capture development benefits.

ii. Progress Towards Results

Progress towards Outcomes Analysis:

- Review the log-frame indicators against progress made towards the end-of-project targets using the Progress Towards Results Matrix and following the Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects; colour code progress in a "traffic light system" based on the level of progress achieved; assign a rating on progress for each outcome; make recommendations from the areas marked as "Not on target to be achieved" (red).

Table. Progress towards Results Matrix (Achievement of outcomes against End-of-project Targets)

Project Strategy	Indicator[22]	Baseline Level[23]	Level in 1st PIR (self-reported)	Midterm Target[24]	End-of-project Target	Midterm Level & Assessment[25]	Achievement Rating[26]	Justification for Rating
Objective:	Indicator (if applicable):							
Outcome 1:	Indicator 1:							
	Indicator 2:							
Outcome 2:	Indicator 3:							
	Indicator 4:							
	Etc.							
Etc.								

Indicator Assessment Key

Green= Achieved	Yellow= On target to be achieved	Red= Not on target to be achieved

In addition to the progress towards outcomes analysis:

- Compare and analyse the GEF Tracking Tool at the Baseline with the one completed right before the Midterm Review.
- Identify remaining barriers to achieving the project objective in the remainder of the project.
- By reviewing the aspects of the project that have already been successful, identify ways in which the project can further expand these benefits.

iii. Project Implementation and Adaptive Management

Management Arrangements:

- Review overall effectiveness of project management as outlined in the Project Document and discuss any changes that have been made and if they were effective. Discuss if the roles, responsibilities and reporting lines are clear and whether the decision-making is transparent and undertaken in a timely manner. Recommend areas for improvement.
- Review the quality of execution of the Executing Agency/Implementing Partner(s) and recommend areas for improvement.
- Review the quality of support provided by the GEF Partner Agency (UNDP) and recommend areas of improvement.

Work Planning:

- Review any delays in project start-up and implementation, identify the causes and examine if they have been resolved.
- Discuss whether work-planning processes are results-based and, if not, suggest ways to re-orientate them to focus on results.
- Examine the use of the project's results framework/ log-frame as a management tool and review any changes made to it since project start.

Finance and co-finance:

[22] Populate with data from the Log-frame and scorecards
[23] Populate with data from the Project Document
[24] Populate with data from the Project Document
[25] Color code this column only
[26] Use the 6 point Progress Towards Results Rating Scale: HS, S, MS, MU, U, HU

- Consider the financial management of the project, with specific reference to the cost-effectiveness of interventions.
- Review the changes to fund allocations as a result of budget revisions and assess the appropriateness and relevance of such revisions.
- Assess the appropriateness of financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget and allow for timely flow of funds.
- Using the co-financing monitoring table, provide commentary on whether co-financing is being used strategically to help the objectives of the project and how often the management meets with financing partners to align financing priorities and annual work plans.

Project-level Monitoring and Evaluation Systems:

- Review the monitoring tools currently being used: Do they provide the necessary information? Do they involve key partners? Are they aligned or mainstreamed with national systems? Do they use existing information? Are they efficient? Are they cost-effective? Are additional tools required? How could they be made more participatory and inclusive?
- Examine the financial management of the project monitoring and evaluation budget. Are sufficient resources being allocated to monitoring and evaluation? Are these resources being allocated effectively?

Stakeholder Engagement:

- Project management: Has the project developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders?
- Participation and country-driven processes: Do local and national government stakeholders support the objectives of the project? Do they continue to have an active role in project decision-making that supports efficient and effective project implementation?
- Participation and public awareness: To what extent has stakeholder involvement and public awareness contributed to the progress towards achievement of project objectives?

Reporting:

- Assess how adaptive management changes have been reported by the project management and shared with the Project Board.
- Assess how well the Project Team and partners undertake and fulfil GEF reporting requirements (i.e. how have they addressed poorly-rated PIRs, if applicable?)
- Assess how lessons derived from the adaptive management process have been documented, shared with key partners and internalized by partners.

Communications:

- Review internal project communication with stakeholders: Is communication regular and effective? Are there key stakeholders left out of communication? Are there feedback mechanisms when communication is received? Does this communication with stakeholders contribute to their awareness of project outcomes and activities and investment in the sustainability of project results?
- Review external project communication: Are proper means of communication established or being established to express the project progress and intended impact to the public (is there a web presence, for example? Or did the project implement appropriate outreach and public awareness campaigns?)
- For reporting purposes, write one half-page paragraph that summarizes the project's progress towards results in terms of contribution to sustainable development benefits, as well as global environmental benefits.

iv. Sustainability

- Validate whether the risks identified in the Project Document, Annual Project Review/PIRs and the ATLAS Risk Management Module are the most important and whether the risk ratings applied are appropriate and up to date. If not, explain why.
- In addition, assess the following risks to sustainability:

Financial risks to sustainability:

- What is the likelihood of financial and economic resources not being available once the GEF assistance ends (consider potential resources can be from multiple sources, such as the public and private sectors, income generating activities, and other funding that will be adequate financial resources for sustaining project's outcomes)?

Socio-economic risks to sustainability:

- Are there any social or political risks that may jeopardize sustainability of project outcomes?
- What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained?
- Do the various key stakeholders see that it is in their interest that the project benefits continue to flow? Is there sufficient public / stakeholder awareness in support of the long term objectives of the project?
- Are lessons learned being documented by the Project Team on a continual basis and shared/ transferred to appropriate parties who could learn from the project and potentially replicate and/or scale it in the future?

Institutional Framework and Governance risks to sustainability:

- Do the legal frameworks, policies, governance structures and processes pose risks that may jeopardize sustenance of project benefits? While assessing this parameter, also consider if the required systems/ mechanisms for accountability, transparency, and technical knowledge transfer are in place.

Environmental risks to sustainability:

- Are there any environmental risks that may jeopardize sustenance of project outcomes?

Conclusions & Recommendations

The MTR team will include a section of the report setting out the MTR's evidence-based conclusions, in light of the findings.

Recommendations should be succinct suggestions for critical intervention that are specific, measurable, achievable, and relevant. A recommendation table should be put in the report's executive summary. See the Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects for guidance on a recommendation table.

The MTR team should make no more than 15 recommendations total.

iv. Ratings

The IC shall include its ratings of the project's results and brief descriptions of the associated achievements in a *MTR Ratings & Achievement Summary Table* in the Executive Summary of the MTR report. See Annex for ratings scales. No rating on Project Strategy and no overall project rating is required.

Table. MTR Ratings & Achievement Summary Table

Measure	MTR Rating	Achievement Description
Project Strategy	N/A	
Progress Towards Results	Objective Achievement Rating: (rate 6 pt. scale)	
	Outcome 1 Achievement Rating: (rate 6 pt. scale)	
	Outcome 2 Achievement Rating: (rate 6 pt. scale)	
	Outcome 3 Achievement Rating: (rate 6 pt. scale)	
	Etc.	
Project Implementation & Adaptive Management	(rate 6 pt. scale)	
Sustainability	(rate 4 pt. scale)	

6. TIMEFRAME

The total duration of the MTR will be approximately 25 days over a time period of 15 weeks starting on or around 10.09.2017 and finishing on or around 09.01.2018, and shall not exceed five months from when the consultant is hired.

The tentative MTR timeframe is as follows:

TIMEFRAME	ACTIVITY
22.08.2017	Application closes
10.09.2017	Select MTR consultant
20.09.2017	Prep the MTR Team (handover of Project Documents)
27.09.2017	Document review and preparing MTR Inception Report
10.10.2017	Finalization and Validation of MTR Inception Report- latest start of MTR mission
15-20.10.2017	MTR mission: stakeholder meetings, interviews, field visits

20.10.2017	Mission wrap-up meeting & presentation of initial findings- earliest end of MTR mission
10.11.2017	Preparing draft report
20.11.2017	Incorporating audit trail from feedback on draft report/Finalization of MTR report
27.11.2017	Preparation & Issue of Management Response
01.12.2017	Expected date of MTR full completion
09.02.2018	Contract is closed

Travel:

In the course of the assignment the selected consultant shall undertake a 1-week mission to Azerbaijan. In her/his financial proposal the potential candidates should include international travel expenses, hotel, food, consultancy fee. In-country transportation will be provided by the Project, therefore, should not be included into the financial proposal. In their financial proposal the interested candidates should show breakdown of financial expenses including the consultancy fee.

7. MIDTERM REVIEW DELIVERABLES

#	Deliverable	Description	Timing	Responsibilities
1	**MTR Inception Report**	MTR team clarifies objectives and methods of Midterm Review	No later THAN 2 WEEKS before the MTR mission: 27.09.2017	MTR team submits to the Commissioning Unit and project management
2	**Presentation**	Initial Findings	End of MTR mission: 20.10.2017	MTR Team presents to project management and the Commissioning Unit
3	**Draft Final Report**	Full report (using guidelines on content outlined in Annex B) with annexes	Within 3 weeks of the MTR mission: 10.11.2017	Sent to the Commissioning Unit, reviewed by RTA, Project Coordinating Unit, GEF OFP
4	**Final Report***	Revised report with audit trail detailing how all received comments have (and have not) been addressed in the final MTR report	Within 1 week of receiving UNDP comments on draft: 01.12.2017	Sent to the Commissioning Unit

*The final MTR report must be in English. If applicable, the Commissioning Unit may choose to arrange for a translation of the report into a language more widely shared by national stakeholders.

8. MTR ARRANGEMENTS

The principal responsibility for managing this MTR resides with the Commissioning Unit. The Commissioning Unit for this project's MTR is UNDP-Azerbaijan Country Office.

The commissioning unit will contract the consultant and ensure the timely provision of per diems and travel arrangements for the MTR team. The IC shall undertake a 1-week mission to Azerbaijan. The Project Team will be responsible for liaising with the MTR team to provide all relevant documents, set up stakeholder interviews, and arrange field visits.

9. TEAM COMPOSITION

One Independent Consultant will conduct the MTR, with experience and exposure to projects and evaluations in other regions globally. The IC hired through the competitive process by the announcement at UNDP website will conduct the MTR evaluation. This consultant cannot have participated in the project preparation, formulation, and/or implementation (including the writing of the Project Document) and should not have a conflict of interest with project's related activities.

The consultant is expected to meet the following qualification requirements:

- A Master's degree in environmental management, energy economics or other closely related field
- Experience working with renewable energy, energy efficiency, and climate change related project evaluations; GEF or GEF-evaluations will be an asset
- Work experience in relevant technical areas for at least 10 years
- Fluency in English; knowledge of Russian an asset
- Experience working in Europe and CIS regions will be preferred

Required competencies:

- Recent experience with result-based management evaluation methodologies;
- Experience applying SMART indicators and reconstructing or validating baseline scenarios;
- Competence in adaptive management, as applied to climate change and energy efficiency;
- Experience working with the GEF or GEF-evaluations;
- Experience working in Eastern Europe or CIS;
- Work experience in relevant technical areas for at least 10 years;
- Demonstrated understanding of issues related to gender and climate change;
- Excellent communication skills;
- Demonstrable analytical skills;
- Project evaluation/review experiences within United Nations system;
- A Master's degree in climate change, energy efficiency, environmental management, energy economics, engineering, or other closely related field.

10.PAYMENT MODALITIES AND SPECIFICATIONS

10% of payment upon approval of the final MTR Inception Report
30% upon submission of the draft MTR report

60% upon finalization of the MTR report

11.APPLICATION PROCESS[27]

Recommended Presentation of Proposal:

a) **Letter of Confirmation of Interest and Availability** using the template[28] provided by UNDP;
b) **CV** and a **Personal History Form** (P11 form[29]);
c) **Brief description of approach to work/technical proposal** of why the individual considers him/herself as the most suitable for the assignment, and a proposed methodology on how they will approach and complete the assignment; (max 1 page)
d) **Financial Proposal** that indicates the all-inclusive fixed total contract price and all other travel related costs (such as flight ticket, per diem, etc), supported by a breakdown of costs, as per template attached to the Letter of Confirmation of Interest template. Internal transportation will be provided by the Project Team and should not be included into the Financial Proposal. If an applicant is employed by an organization/company/institution, and he/she expects his/her employer to charge a management fee in the process of releasing him/her to UNDP under Reimbursable Loan Agreement (RLA), the applicant must indicate at this point, and ensure that all such costs are duly incorporated in the financial proposal submitted to UNDP.

Criteria for Evaluation of Proposal: Only those applications which are responsive and compliant will be evaluated. Offers will be evaluated according to the Combined/Cumulative Scoring method – where the educational background and experience on similar assignments will be weighted at 70% and the price proposal will weigh as 30% of the total scoring. The applicant receiving the Highest Combined Score that has also accepted UNDP's General Terms and Conditions will be awarded the contract.

Individual consultants will be evaluated based on the following methodologies:

- *Cumulative evaluation that takes into account both financial offer and the technical expertise of the potential candidates*

A two-stage procedure will be utilized in evaluating the proposals, with evaluation of the technical component being completed prior to any price component being reviewed and compared. The Price Component will be reviewed only for those individuals whose Technical Component meets the requirements for the assignment. The total number of points which individual may obtain for both components is 100.

Out of this 100 points 70 points maximum could be obtained for the technical proposal, and 30 points maximum for the financial proposal.

The technical component, which has a total possible value of 70 points, will be evaluated using the following criteria:

- A Master's degree in environmental management, energy economics or other closely related field (**20 points**)

[27] Engagement of the consultants should be done in line with guidelines for hiring consultants in the POPP: https://info.undp.org/global/popp/Pages/default.aspx

[28] https://intranet.undp.org/unit/bom/pso/Support%20documents%20on%20IC%20Guidelines/Template%20for%20Confirmation%20of%20Interest%20and%20Submission%20of%20Financial%20Proposal.docx

[29] http://www.undp.org/content/dam/undp/library/corporate/Careers/P11_Personal_history_form.doc

- Experience working with renewable energy, energy efficiency, and climate change related project evaluations; GEF or GEF-evaluations will be an asset (**25 points**)
- Work experience in relevant technical areas for at least 10 years, especially in applying SMART indicators (**25 points**)
- Fluency in English; knowledge of Russian an asset (**15 points**)
- Experience working in Europe and CIS regions is preferred (**15 points**)

Then, this total amount of sub-points (total amounts of sub-points could be 100) will be multiplied by 0.7 to calculate total weighted amount for technical proposal.

If technical proposal achieves the minimum threshold of 49 points (70 points multiplied by 0.7), then, the respective proposal passes the threshold for technical fit, and the competitiveness of the offered fees/consultancy rates will be taken into account in the following manner:

> The total amount of points for the fees component is 30. The maximum number of points shall be allotted to the lowest fees proposed that is compared among those invited individuals which obtain the threshold points in the evaluation of the technical proposal. All other proposals shall receive points in inverse proportion to the lowest fees; e.g;
>
> [30 Points] x [US$ lowest]/[US$other] = points for other proposer's fees

Then, the proposal, which collects the maximum amount of points, will be selected as the best proposal.

ToR ANNEX A: List of Documents to be reviewed by the MTR Team

1. PIF
2. UNDP Initiation Plan
3. UNDP Project Document
4. UNDP Environmental and Social Screening results
5. Project Inception Report
6. All Project Implementation Reports (PIR's)
7. Quarterly progress reports and work plans of the various implementation task teams
8. Audit reports
9. Finalized GEF focal area Tracking Tools at CEO endorsement and midterm evaluation
10. Oversight mission reports
11. All monitoring reports prepared by the project
12. Financial and Administration guidelines used by Project Team

The following documents will also be available:

13. Project operational guidelines, manuals and systems
14. UNDP country/countries programme document(s)
15. Minutes of the NAMA Project's Board Meetings and other meetings (i.e. Project Appraisal Committee meetings)
16. Project site location maps

ToR ANNEX B: Guidelines on Contents for the Midterm Review Report[30]

i. Basic Report Information *(for opening page or title page)*
- Title of UNDP supported GEF financed project
- UNDP PIMS# and GEF project ID#
- MTR time frame and date of MTR report
- Region and countries included in the project
- GEF Operational Focal Area/Strategic Program
- Executing Agency/Implementing Partner and other project partners
- MTR team members
- Acknowledgements

ii. Table of Contents

iii. Acronyms and Abbreviations

1. Executive Summary *(3-5 pages)*
- Project Information Table
- Project Description (brief)
- Project Progress Summary (between 200-500 words)
- MTR Ratings & Achievement Summary Table
- Concise summary of conclusions
- Recommendation Summary Table

2. Introduction *(2-3 pages)*
- Purpose of the MTR and objectives
- Scope & Methodology: principles of design and execution of the MTR, MTR approach and data collection methods, limitations to the MTR
- Structure of the MTR report

3. Project Description and Background Context *(3-5 pages)*
- Development context: environmental, socio-economic, institutional, and policy factors relevant to the project objective and scope
- Problems that the project sought to address: threats and barriers targeted
- Project Description and Strategy: objective, outcomes and expected results, description of field sites (if any)

[30] The Report length should not exceed 40 pages in total (not including annexes).

- Project Implementation Arrangements: short description of the Project Board, key implementing partner arrangements, etc.
- Project timing and milestones
- Main stakeholders: summary list

4. Findings *(12-14 pages)*

4.1 Project Strategy
- Project Design
- Results Framework/Logframe

4.2 Progress Towards Results
- Progress towards outcomes analysis
- Remaining barriers to achieving the project objective

4.3 Project Implementation and Adaptive Management
- Management Arrangements
- Work planning
- Finance and co-finance
- Project-level monitoring and evaluation systems
- Stakeholder engagement
- Reporting
- Communications

4.4 Sustainability
- Financial risks to sustainability
- Socio-economic to sustainability
- Institutional framework and governance risks to sustainability
- Environmental risks to sustainability

5. Conclusions and Recommendations *(4-6 pages)*

5.1 Conclusions
- Comprehensive and balanced statements (that are evidence-based and connected to the MTR's findings) which highlight the strengths, weaknesses and results of the project

5.2 Recommendations
- Corrective actions for the design, implementation, monitoring and evaluation of the project
- Actions to follow up or reinforce initial benefits from the project
- Proposals for future directions underlining main objectives

6. Annexes
- MTR ToR (excluding ToR annexes)
- MTR evaluative matrix (evaluation criteria with key questions, indicators, sources of data, and methodology)
- Example Questionnaire or Interview Guide used for data collection
- Ratings Scales
- MTR mission itinerary
- List of persons interviewed
- List of documents reviewed
- Co-financing table (if not previously included in the body of the report)
- Signed UNEG Code of Conduct form
- Signed MTR final report clearance form
- *Annexed in a separate file:* Audit trail from received comments on draft MTR report
- *Annexed in a separate file:* Relevant midterm tracking tools (*METT, FSC, Capacity scorecard, etc.)*

ToR ANNEX C: Midterm Review Evaluative Matrix Template

Evaluative Questions	Indicators	Sources	Methodology

Project Strategy: To what extent is the project strategy relevant to country priorities, country ownership, and the best route towards expected results?			
(include evaluative question(s))	(i.e. relationships established, level of coherence between project design and implementation approach, specific activities conducted, quality of risk mitigation strategies, etc.)	(i.e. project documents, national policies or strategies, websites, project staff, project partners, data collected throughout the MTR mission, etc.)	(i.e. document analysis, data analysis, interviews with project staff, interviews with stakeholders, etc.)
Progress Towards Results: To what extent have the expected outcomes and objectives of the project been achieved thus far?			
Project Implementation and Adaptive Management: Has the project been implemented efficiently, cost-effectively, and been able to adapt to any changing conditions thus far? To what extent are project-level monitoring and evaluation systems, reporting, and project communications supporting the project's implementation?			
Sustainability: To what extent are there financial, institutional, socio-economic, and/or environmental risks to sustaining long-term project results?			

ToR ANNEX D: UNEG Code of Conduct for Evaluators/Midterm Review Consultants[31]

Evaluators/Consultants:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

MTR Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Consultant: _____

Name of Consultancy Organization (where relevant): _____

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at _____ *(Place)* on _____ *(Date)*

Signature: _____

[31] www.undp.org/unegcodeofconduct

ToR ANNEX E: MTR Ratings

Ratings for Progress Towards Results: (one rating for each outcome and for the objective)		
6	Highly Satisfactory (HS)	The objective/outcome is expected to achieve or exceed all its end-of-project targets, without major shortcomings. The progress towards the objective/outcome can be presented as "good practice".
5	Satisfactory (S)	The objective/outcome is expected to achieve most of its end-of-project targets, with only minor shortcomings.
4	Moderately Satisfactory (MS)	The objective/outcome is expected to achieve most of its end-of-project targets but with significant shortcomings.
3	Moderately Unsatisfactory (HU)	The objective/outcome is expected to achieve its end-of-project targets with major shortcomings.
2	Unsatisfactory (U)	The objective/outcome is expected not to achieve most of its end-of-project targets.
1	Highly Unsatisfactory (HU)	The objective/outcome has failed to achieve its midterm targets, and is not expected to achieve any of its end-of-project targets.

Ratings for Project Implementation & Adaptive Management: (one overall rating)		
6	Highly Satisfactory (HS)	Implementation of all seven components – management arrangements, work planning, finance and co-finance, project-level monitoring and evaluation systems, stakeholder engagement, reporting, and communications – is leading to efficient and effective project implementation and adaptive management. The project can be presented as "good practice".
5	Satisfactory (S)	Implementation of most of the seven components is leading to efficient and effective project implementation and adaptive management except for only few that are subject to remedial action.
4	Moderately Satisfactory (MS)	Implementation of some of the seven components is leading to efficient and effective project implementation and adaptive management, with some components requiring remedial action.
3	Moderately Unsatisfactory (MU)	Implementation of some of the seven components is not leading to efficient and effective project implementation and adaptive, with most components requiring remedial action.
2	Unsatisfactory (U)	Implementation of most of the seven components is not leading to efficient and effective project implementation and adaptive management.
1	Highly Unsatisfactory (HU)	Implementation of none of the seven components is leading to efficient and effective project implementation and adaptive management.

Ratings for Sustainability: (one overall rating)		
4	Likely (L)	Negligible risks to sustainability, with key outcomes on track to be achieved by the project's closure and expected to continue into the foreseeable future

3	Moderately Likely (ML)	Moderate risks, but expectations that at least some outcomes will be sustained due to the progress towards results on outcomes at the Midterm Review
2	Moderately Unlikely (MU)	Significant risk that key outcomes will not carry on after project closure, although some outputs and activities should carry on
1	Unlikely (U)	Severe risks that project outcomes as well as key outputs will not be sustained

ToR ANNEX F: MTR Report Clearance Form

(to be completed by the Commissioning Unit and UNDP-GEF RTA and included in the final document)

Midterm Review Report Reviewed and Cleared By:

Commissioning Unit

Name: _____

Signature: _____ Date: _____

UNDP-GEF Regional Technical Advisor

Name: _____

Signature: _____ Date: _____

Annex G

OFFEROR'S LETTER TO UNDP CONFIRMING INTEREST AND AVAILABILITY FOR THE INDIVIDUAL CONTRACTOR (IC) ASSIGNMENT

Date

(Name of Resident Representative/Bureau Director)
United Nations Development Programme
(Specify complete office address)

Dear Sir/Madam :

I hereby declare that:

a) I have read, understood and hereby accept the Terms of Reference describing the duties and responsibilities of International Consultant in _____ for "**Nationally Appropriate Mitigation Actions (NAMAs) for low-carbon end-use sectors in Azerbaijan" Project**;

b) I have also read, understood and hereby accept UNDP's General Conditions of Contract for the Services of the Individual Contractors;

c) I hereby propose my services and I confirm my interest in performing the assignment through the submission of my CV or Personal History Form (P11) which I have duly signed and attached hereto as Annex 1;

d) In compliance with the requirements of the Terms of Reference, I hereby confirm that I am available for the entire duration of the assignment, and I shall perform the services in the manner described in my proposed approach/methodology which I have attached hereto as Annex 3 [delete this item if the TOR does not require submission of this document];

e) I hereby propose to complete the services based on the following payment rate : *[pls. check the box corresponding to the preferred option]:*

☐ An all-inclusive daily fee of [*state amount in words and in numbers indicating currency]*

☐ A total lump sum of [*state amount in words and in numbers, indicating exact currency]*, payable in the manner described in the Terms of Reference.

f) For your evaluation, the breakdown of the abovementioned all-inclusive amount is attached hereto as Annex 2;

I recognize that the payment of the abovementioned amounts due to me shall be based on my delivery of outputs within the timeframe specified in the TOR, which shall be subject to UNDP's review, acceptance and payment certification procedures;

g) This offer shall remain valid for a total period of 90 days after the submission deadline;

h) I confirm that I have no first degree relative (mother, father, son, daughter, spouse/partner, brother or sister) currently employed with any UN agency or office *[disclose the name of the relative, the UN office employing the relative, and the relationship if, any such relationship exists];*

i) If I am selected for this assignment, I shall *[pls. check the appropriate box]:*

☐ Sign an Individual Contract with UNDP;

☐ Request my employer *[state name of company/organization/institution]* to sign with UNDP a Reimbursable Loan Agreement (RLA), for and on my behalf. The contact person and details of my employer for this purpose are as follows:

_____

_____

j) I hereby confirm that *[check all that applies]*:

☐ At the time of this submission, I have no active Individual Contract or any form of engagement with any Business Unit of UNDP;

☐ I am currently engaged with UNDP and/or other entities for the following work :

Assignment	Contract Type	UNDP Business Unit / Name of Institution/Company	Contract Duration	Contract Amount

☐ I am also anticipating conclusion of the following work from UNDP and/or other entities for which I have submitted a proposal :

Assignment	Contract Type	Name of Institution/ Company	Contract Duration	Contract Amount

k) I fully understand and recognize that UNDP is not bound to accept this proposal, and I also understand and accept that I shall bear all costs associated with its preparation and submission and that UNDP will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the selection process.

l) ***If you are a former staff member of the United Nations recently separated, pls. add this section to your letter:*** I hereby confirm that I have complied with the minimum break in service required before I can be eligible for an Individual Contract.

m) I also fully understand that, if I am engaged as an Individual Contractor, I have no expectations nor entitlements whatsoever to be re-instated or re-employed as a staff member.

Full Name and Signature: Date Signed:

_____

_____

Annexes *[pls. check all that applies]***:**

- ☐ CV or Duly signed P11 Form
- ☐ Breakdown of Costs Supporting the Final All-Inclusive Price as per Template
  Brief Description of Approach to Work

BREAKDOWN OF COSTS SUPPORTING THE ALL-INCLUSIVE FINANCIAL PROPOSAL

A. **Breakdown of Cost by Components:**

Cost Components	Unit Cost	Quantity	Total Rate for the Contract Duration
I. Personnel Costs			
Professional Fees			
Life Insurance			
Medical Insurance			
Communications			
Land Transportation			
Others (pls. specify)			
II. Travel Expenses to Join duty station			
Round Trip Airfares to and from duty station			
Living Allowance			
Travel Insurance			
Terminal Expenses			
Others (pls. specify)			
III. Duty Travel			
Round Trip Airfares			
Living Allowance			
Travel Insurance			
Terminal Expenses			
Others (pls. specify)			

B. **Breakdown of Cost by Deliverables***

Deliverables *[list them as referred to in the TOR]*	**Percentage of Total Price (Weight for payment)**	**Amount**
Deliverable 1	10%	
Deliverable 2	30%	
Deliverable 3	60%	
Total	100%	USD ……

**Basis for payment tranches*

Annex 12: MTR Final Report Clearance Form

Midterm Review Report Reviewed and Cleared By:

Commissioning Unit

Name: _____

Signature: _____ Date: _____

UNDP-GEF Regional Technical Advisor

Name: _____

Signature: _____ Date: _____