Independent terminal evaluation

Global deployment of the industrial energy efficiency accelerator

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I hope that some of the proposed recommendations will contribute to the continuous improvement of future projects.

Abbreviations and acronyms

Abbreviation and acronyms	Meaning
CEM	Clean Energy Ministerial
CGEM	General Confederation of Moroccan Enterprises
EJ	Exajoules (10^{18} joules)
EnMS	Energy Management Systems
ET	Evaluation Team
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Green House Gases
GWh	Gigawatt hour
IEA	International Energy Agency
IEEA	Global deployment of the industrial energy efficiency accelerator
IPCC	Intergovernmental Panel on Climate Change
IPEEC	International Partnership for Energy Efficiency Cooperation
ITE	Independent Terminal Evaluation
km	Kilometer
M&E	Monitoring and Evaluation
Mtoe	Million tons of oil equivalent
MVA	Manufacturing Value Added
SDG	Sustainable Development Goal
SEforALL	Sustainable Energy for All
SME	Small and Medium Enterprises
sq	Square
UK	United Kingdom
UNEG	United Nations Evaluation Group
UNIDO	United Nations Industrial Development Organization
WG	Working Group

Glossary of evaluation-related terms

Term	Definition
Activity	Actions taken or work performed through which inputs, such as funds, technical assistance and other types of resources are mobilized to produce specific outputs.
Assumption	Hypotheses about factors or risks which could affect the progress or success of a development intervention.
Conclusions	Conclusions point out the factors of success and failure of the evaluated intervention, with special attention paid to the intended and unintended results and impacts, and more generally to any other strength or weakness. A conclusion draws on data collection and analyses undertaken, through a transparent chain of arguments.
Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved, taking into account their relative importance.
Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results.
Evaluation	The systematic and objective assessment of an on-going or completed project, programme or policy, its design, implementation and results. The aim is to determine the relevance and fulfillment of objectives, development efficiency, effectiveness, impact and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision–making process of both recipients and donors.
Impact	Positive and negative, primary and secondary long-term effects produced by a development intervention, directly or indirectly, intended or unintended.
Independent Evaluation	An evaluation carried out by entities and persons free of the control of those responsible for the design and implementation of the development intervention.
Input	The financial, human, and material resources used for the development intervention.
Logical Framework	Management tool used to improve the design of interventions, most often at the project level. It involves identifying strategic elements (inputs, outputs, outcomes, impact) and their causal relationships, indicators, and the assumptions or risks that may influence success and failure. It thus facilitates planning, execution and evaluation of a development intervention.
Outcome	The likely or achieved short-term and medium-term effects of an intervention's outputs.

Output	The products, capital goods and services which result from a development intervention; may also include changes resulting from the intervention which are relevant to the achievement of outcomes.
Performance	The degree to which a development intervention or a development partner operates according to specific criteria/standards/guidelines or achieves results in accordance with stated goals or plans.
Relevance	The extent to which the objectives of a development intervention are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donors' policies.
Results	The output, outcome or impact (intended or unintended, positive and/or negative) of a development intervention.
Results-Based Management (RBM)	A management strategy focusing on performance and achievement of outputs, outcomes and impacts.
Sustainability	The continuation of benefits from a development intervention after major development assistance has been completed. The probability of continued long-term benefits. The resilience to risk of the net benefit flows over time.
Triangulation	The use of three or more theories, sources or types of information, or types of analysis to verify and substantiate an assessment.
Validity	The extent to which the data collection strategies and instruments measure what they purport to measure.

Executive Summary

Evaluation objectives, methodology and process

The Independent Terminal Evaluation (ITE) was conducted to assess if the Global deployment of the Industrial Energy Efficiency Accelerator (IEEA) project achieved its objective and to what extent had also considered sustainability and scaling-up factors for increasing contribution to sustainable results and further impact. The ITE covered the duration of this Global Environment Facility (GEF) funded project from its starting date (September 2014) up to its closure (August 2020), and it was carried out over six months between May and October 2020 by Mr. Leonardo Beltran, Senior International Evaluation Consultant.

The IEEA objective was to secure public commitment from governments, industrial corporations and associations, and utilities to drive the adoption of Energy Management Systems (EnMS), best practices and innovation in industry, in order to impact in the long term by unlocking significant public and private sector investment in energy efficiency; driving tangible near and long-term emissions reductions; improving competitiveness benefits; and aligning with the Sustainable Development Goals.

The initial five countries to work with the accelerator were selected using the SEforALL Heat Maps that focuses on countries with high primary energy intensity as well as countries with high final energy intensity improvement growth rates in the recent past; and then by their energy impact (prevalence of energy intensive industries in the country, if industry represents a significant percentage of national CO_2 emissions and global industrial emissions); their political readiness (if countries are ready for change –ministerial support, access to local experts–, and if there is regional interest to support programmes across countries); and finally by the importance of their national industrial sector (as a percentage of national GDP and of global industrial GDP). The countries selected were: Brazil, China, Indonesia, Mexico, and Morocco.

The information contained in the project documentation displayed the requirements set by the tools and templates to provide uniform information across the selected countries and are consistent with the needs identified locally. The information came from review of documents and interviews to secretariat staff; UNIDO Management and field officers; Steering group members; Executors; Implementers; and Contractors. The ITE was conducted in accordance with the UNIDO Evaluation Policy, UNEG Norms and Standards for evaluation, and the UNIDO Guidelines for the Technical Cooperation Project and Project Cycle.

Main findings, conclusions, recommendations and lessons learned

The IEEA at the conceptual stage was relevant and continues to be relevant today, especially because now in the decade of action, industrial energy efficiency is one of the key areas of

opportunity to scale up action and drive productive activities towards a deep decarbonization pathway needed to comply with the premises of a 1.5 °C future.

The IEEA had a positive effect in terms of economic performance and social inclusiveness in the countries implemented and although it is moderately likely that the proposed long-term effects will be materialized, the conditions for a transformational process are not fully in place.

The main challenge is related to the legal framework, because one of the assumptions was the "authorities 'commitment and participation" however there is a varying degree of that engagement, which is fundamental to drive the intended impact. Essentially, even though countries formally confirmed their interest that did not translate directly in a change in the regulation nor in full commitment or an active participation from the authorities to mandate or create the conditions for industry to work on their EE improvements. The only exception is Morocco, where they already changed their regulation to mandate energy intensive industries to undergo mandatory energy audits.

However, there are two elements that can contribute to the realization of its intended impact. First, three of the IEEA´s outputs have been adopted which increases the chances of replicating them in other places. Second, one of the outputs is being published by Mexico which has the potential to become a reference across Latin America and the Caribbean given that this country is leading on energy efficiency efforts in the region, and other of the outputs has potential to be adopted beyond China therefore contributing to mainstream and scale up the IEEA.

Therefore, although the intended impact does describe a desired long-term benefit globally, the outcomes do portray change in global engagement in industrial energy efficiency, and the outputs define deliverables that the IEEA did produce, the expected results were not fully realistic; because of budgetary constraints and the assumptions did not take into account the institutional capacity which translated in more or less active participation. Moreover, even if all the outputs would have been delivered, the assumptions did not lead directly to outcomes and impact.

However, the performance of the IEEA is satisfactory for four reasons:

i. Locally and globally industrial energy efficiency is a relevant action to reduce carbon intensity and to follow a deep decarbonization pathway.
ii. It was effective given that completed or partially completed most of the outputs planned.
iii. It made a very productive use of the inputs and activities, in spite of the very tight budget.
iv. The results and benefits are likely to be sustained after the end of GEF´s funding.

Recommendations

- **Private sector involvement**. At the design stage UNIDO can set up a national steering committee with involvement at strategic and technical levels from both national authorities (including education, energy, environment and finance) and local industry (energy users, technology providers and service companies) to ensure participation, ownership, and potential funding.

- **Pre-baseline survey and ex-post survey.** UNIDO can conduct a preliminary diagnostic to assess the conditions to ensure that the relevant stakeholders are included in the design stage. It would be useful to use more detailed data, including local (state/municipal) and industry group (Cement, Food, Steel, etc.) data to better identify and focus the interventions, and to rate progress against the indicators selected.

- **Quantitative and qualitative indicators**. The pre-baseline survey would be helpful to UNIDO in assessing the assumptions and inputs to design the intervention to make sure that deliver the outputs and outcomes required to increase the likelihood of impact.

Lessons learned

- In the proposal stage one of the assumptions was not fully assessed, i.e. commitment and participation by the authorities, because even though there was a formal commitment in each of the countries, the institutional capacity in country predetermined the level of support that the institution could lend to the Accelerator, and therefore the ability of the project to deliver on outputs and outcomes to drive the intended impact. Therefore, it would be useful to state the specific inputs required from the national governments for the success of the intervention, v.gr. the adoption of energy management systems into the Nationally Determined Contribution.

- In the proposal stage the Accelerator selected a couple of indicators that were not directly related to the activities of the platform, v.gr. CO_2 reduction was not directly related to capacity building activities which made it difficult to the programme manager to track progress. Therefore, limiting its ability to assess progress and/or of the need to adjust the project. Thus, selecting an instrument directly related to the intervention would ease tracking, allowing for the possibility to adjust as needed, v.gr. a capacity building intervention can use an indicator based upon certifications, that ensure knowledge attained and the expertise required to perform the function.

- In the implementation stage the Accelerator did not include private sector participants to design the interventions. This resulted in limited engagement from industry, because of the lack of ownership and little awareness of the benefits, in spite of being direct recipients of the results of the project and reducing the probability of achieving the intended impact. Consequently, an intervention could be potentially more effective if from the design stage all the relevant stakeholders are involved.

1. Evaluation objectives, methodology and process

1.1. Information on the Terminal Evaluation

The Independent Terminal Evaluation (ITE) was conducted to assess if the Global deployment of the Industrial Energy Efficiency Accelerator (IEEA) project achieved its objective and to what extent had also considered sustainability and scaling-up factors for increasing contribution to sustainable results and further impact.

The ITE covered the duration of this Global Environment Facility (GEF) funded project from its starting date (September 2014) up to its closure (August 2020), and it was carried out over six months between May and October 2020 by the Evaluation Team (ET) composed by Mr. Leonardo Beltran, senior international evaluation consultant.

The terms of reference of the ITE are detailed in Annex 1.

1.2. Scope and objectives of the Terminal Evaluation

The ITE covered the entire scope and duration of the IEEA and had three specific objectives:

I. Assess the project performance in terms of relevance, effectiveness, efficiency, sustainability and progress to impact;
II. Identify key learning to feed into the design and implementation of the forthcoming projects; and
III. Develop a series of findings, lessons and recommendations for enhancing the design of new and implementation of ongoing projects by UNIDO.

The key evaluation questions were the following:

I. What are the key drivers and barriers to achieve the long-term objectives? To what extent has the accelerator helped put in place the conditions likely to address the drivers, overcome barriers and contribute to the long-term objectives?
II. How well has the accelerator performed? Has the accelerator done the right things? Has the accelerator done things right, with good value for money?
III. What have been the accelerator´s key results (outputs, outcome and impact)? To what extent have the expected results been achieved or are likely to be achieved? To what extent the achieved results will sustain after the completion of the accelerator?
IV. What lessons can be drawn from the successful and unsuccessful practices in designing, implementing and managing the accelerator?

1.3. Information sources and availability of information

The information contained in the project documentation displayed the requirements set by the tools and templates to provide uniform information across the selected countries and are consistent with the needs identified locally. The information came from reviews and interviews with the following sources that are listed in Annex 2:

- Documents
- Secretariat staff
- UNIDO Management and field officers
- Steering group members
- Executors
- Implementers
- Contractors

1.4. Methodological remarks, limitations encountered and validity of findings

The ITE was conducted in accordance with the UNIDO Evaluation Policy, UNEG Norms and Standards for evaluation, and the UNIDO Guidelines for the Technical Cooperation Project and Project Cycle. The full list of documents considered are listed in Annex 3.

The evaluation was carried out as an independent in-depth evaluation using a participatory approach whereby all key parties associated with the project were informed and consulted throughout the evaluation.

The documentation reflects local availability of data, and in spite of the harmonization of the various resources, and the use of a standardized analytical tool across jurisdictions, there is still variability of the information recorded. It would be useful to complement with more detailed data, including local (state/municipal) and industry group (Cement, Food, Steel, etc.) data to better identify and focus the interventions, and to rate progress against the indicators selected. For instance, it would be difficult to measure CO_2 reductions from the IEEA´s interventions given that were focused on capacity building, financial and policy advice, activities that do not translate directly into the type of information required to measure progress of this indicator.

In light of the measures implemented globally to face the COVID-19 Pandemic, the ET was not able to conduct field missions, direct observation, nor field-based surveys.

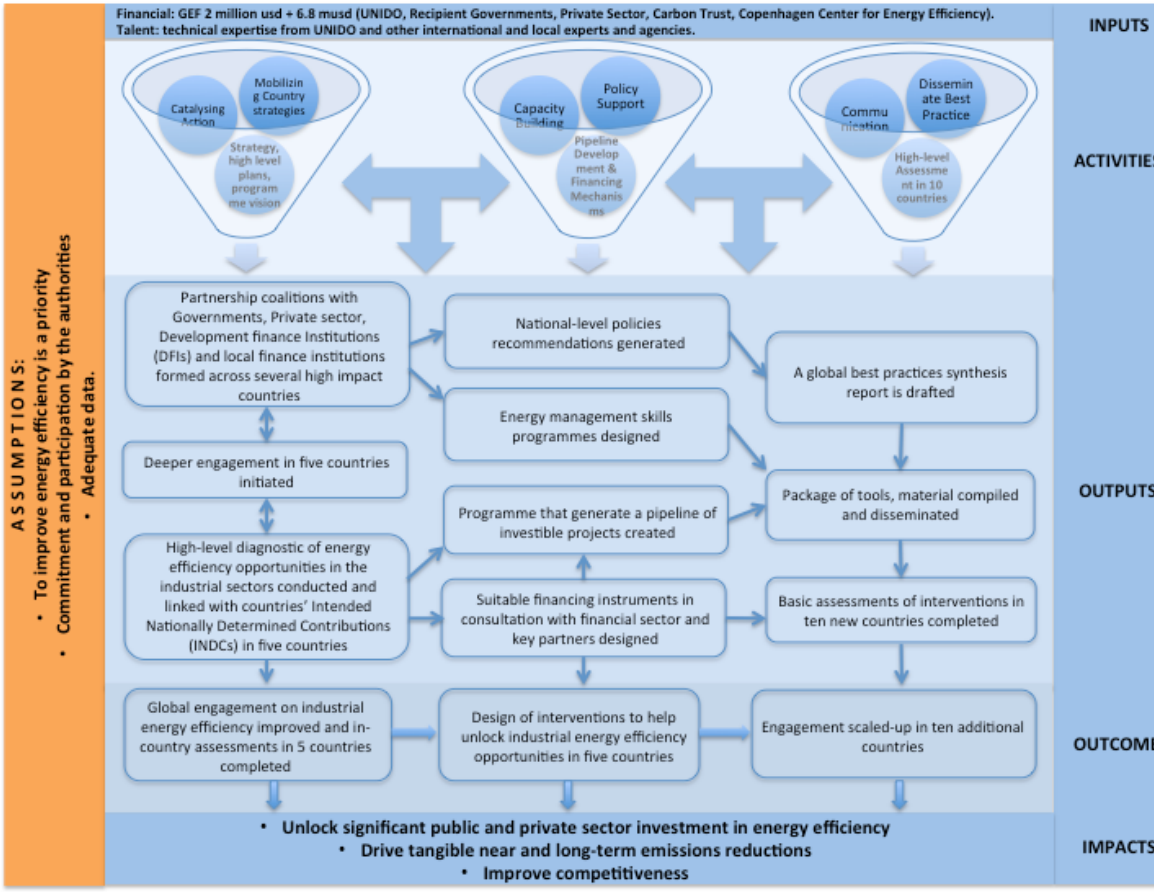
In line with its objectives, the ITE has two main components. The first component focuses on an overall assessment of performance of the project, whereas the second

one focuses on the learning from the successful and unsuccessful practices in project design and implementation.

The ITE used a theory of change approach and mixed methods to collect data and information from a range of sources and informants. It paid attention to triangulating the data and information collected before forming its assessment, to ensure an evidence-based and credible evaluation, with robust analytical underpinning.

The theory of change identified causal and transformational pathways from the project outputs to outcomes and longer-term impacts, and drivers as well as barriers to achieve them (see Figure 1). The learning from this analysis can be useful to feed into the design of future projects so that the management team can more effectively manage them based on results.

Figure 1: Theory of Change of the Industrial Energy Efficiency Accelerator



1.4.1. Data collection methods

The ET used different methods to ensure that data gathering, and analysis

delivered evidence-based qualitative and quantitative information, based on diverse sources: desk studies and literature review, statistical analysis, individual interviews, and focus group virtual meetings/discussions. This approach not only enabled the evaluation to assess causality through quantitative means but also to provide reasons for why certain results were achieved or not and to triangulate information for higher reliability of findings.

Following are the main instruments used for data collection:

i. **Desk and literature review** of documents related to the project, including but not limited to:

- The original project document, monitoring reports (such as progress and financial reports), mid-term review report, output reports, end-of-contract report(s) and relevant correspondence.

- Notes from meetings of committees involved in the project.

ii. **Stakeholder consultations** were conducted through structured and semi-structured interviews. Key stakeholders interviewed included:

- UNIDO Management and staff involved in the project.

- Representatives of donors and counterparts.

- Other donors and partners of the initiative or working in the broader energy efficiency area (including SEforALL and the World Bank).

iii. **Virtual interviews replacing on-site visits**

- Virtual interviews with the 5 pilot countries to assess project results.

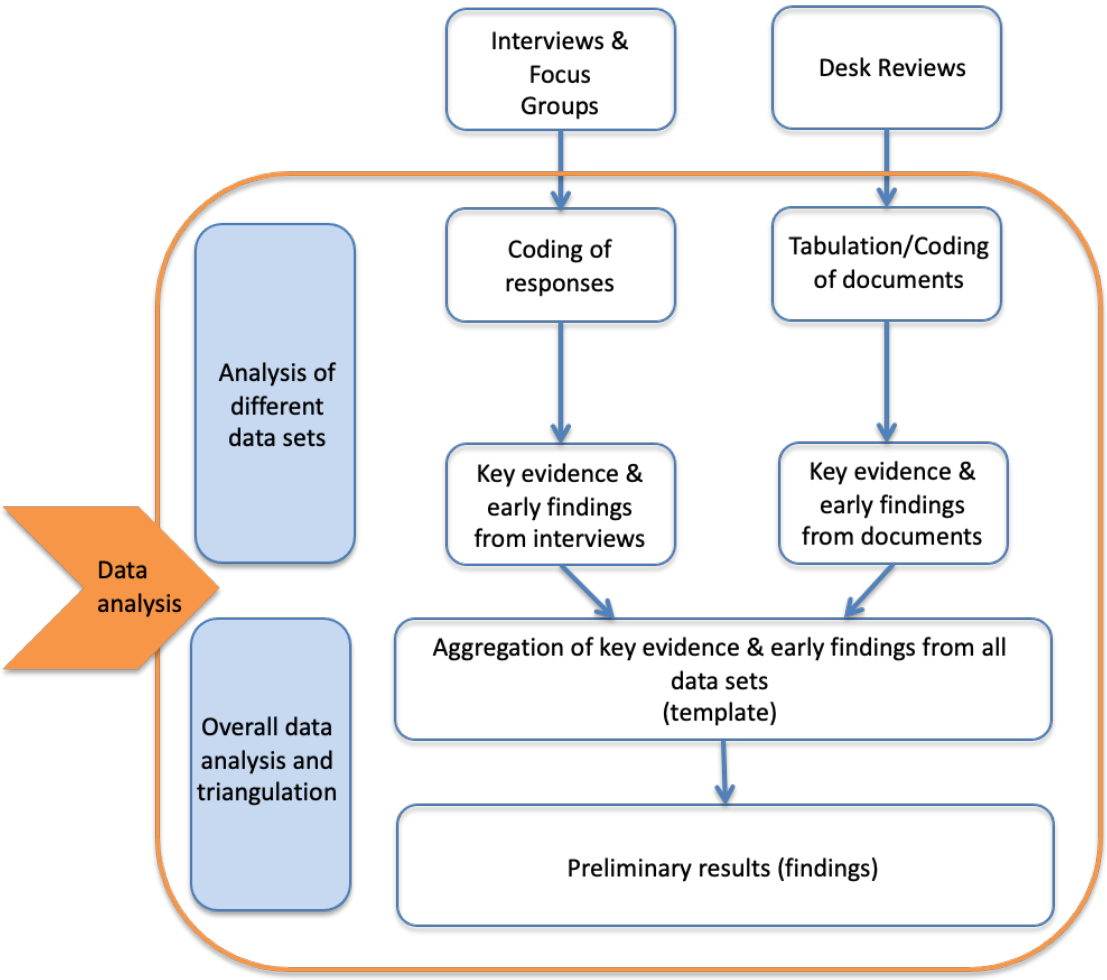
- Interviews with UNIDO Country Offices representatives involved in the project, the project's management members and the various national authorities dealing with project activities as necessary.

iv. Other **interviews**, surveys or document reviews as deemed necessary for triangulation purposes.

1.4.2. Data analysis methods

The methods of analysis used to conduct the evaluation can be seen in Figure 2.

Figure 2: Methods of Analysis



1.4.3. Description of sampling approach

The ITE used **purposive sampling,** a type of non-random sampling method. The ET selected representatives from government and private sector stakeholders across the five pilot countries, UNIDO personnel, and international experts and partners to collect strategic and operational information about the impact and performance of the IEEA, and to triangulate information.

2. Context and project background

2.1. Overview and sector specific context[1]

[1] GEF Project Document.

Between 1990 and 2012, global industrial energy consumption increased by 41%. In 2012, the industrial sectors final energy demand reached 140 EJ. According to the Intergovernmental Panel on Climate Change's (IPCC) Fifth Report, it is estimated that industry produced 29% of global GHG emissions in 2014, making it a target sector for global mitigation efforts. In the future, demand for energy use in the industrial sector is anticipated to rise at a higher and faster rate than other sectors like transport and buildings.

Currently, the top 20 industrial energy-consuming countries represent over 80% of total energy consumption in industry. In 2013, 12 of the top 20 countries were non-OECD countries such as China, India, Brazil, Saudi Arabia, Indonesia, Mexico, Thailand, United Arab Emirates, South Africa and Turkey. In 1990, these 12 countries consumed only 38% of global industry energy consumption; by 2013, their share increased to 59%.

The initial five countries to work with the accelerator were selected using the SEforALL Heat Maps that focuses on countries with high primary energy intensity as well as countries with high final energy intensity improvement growth rates in the recent past; and then by their energy impact (prevalence of energy intensive industries in the country, if industry represents a significant percentage of national CO_2 emissions and global industrial emissions); their political readiness (if countries are ready for change –ministerial support, access to local experts–, and if there is regional interest to support programmes across countries); and finally by the importance of their national industrial sector (as a percentage of national GDP and of global industrial GDP). The countries selected were: Brazil, China, Indonesia, Mexico, and Morocco.

2.1.1. Brazil[2]

Brazil is an emerging industrial economy located in South America with a population of 211 million. The manufacturing value added to the economy represents 9% of its GDP and three sectors contribute with almost half of it (45%), ranking 40 out of 152 in terms of its Competitive Industrial Performance (see table 1). Brazilian industry is projected to increase energy consumption at 2.2% per year, from 84 Mtoe to 101 Mtoe between 2016 and 2026.

Around 65% of the country's electric power is sourced from hydro and a further 15-18% is derived from wind, solar, and biomass. In a country where industry consumes one third of total energy consumption, Brazil's industrial sector offers vast potential to reduce emissions and associated economic costs.

[2] (2020). Retrieved from https://www.industrialenergyaccelerator.org/wp-content/uploads/Brazil-EE-Policy-Model-Report-11062020.pdf

Brazil has a number of plans and policies related to energy efficiency. This includes a commitment under its Nationally Determined Contributions to reduce its greenhouse gas emissions by 37% below 2005 levels by 2025, and the National Energy Efficiency Plan that aims to reduce electricity demand by 10% by 2030.

Table 1: Brazil Overview

Area	**8,514,877 sq km**
Population	211.0 million
Geographical group	South America
Stage of Industrialization	Emerging Industrial Economies
GDP (2019)*	1,792.1 billion
MVA (2019)*	165.0 billion
MVA per capita (2019)*	782
Share of MVA in GDP (2019)	9%
Major manufacturing activities (VA in % to total MVA)	1. Food and beverages (23%) 2. Chemicals and chemical products (14%) 3. Coke, refined petroleum products, nuclear fuel (9%)
Competitive Industrial Performance (CIP rank)	40 (of 152 ranked)

*(at constant 2015 prices in US$)
Source: UNIDO Statistics, Basic Information, 2020.

2.1.2. China[3]

China is an emerging industrial economy located in Asia & Pacific with a population of 1,433.8 million. The manufacturing value added to the economy represents 29% of its GDP and three sectors contribute with a third of it (34%), ranking 2 out of 152 in terms of its Competitive Industrial Performance (see table 2). China's industrial sector is the biggest consumer of energy accounting for 73% of nation's total end-user consumption.

While heavily dependent on coal, the past five years have seen a decrease in coal consumption, from 70% to 64%, and a notable increase in the consumption of electricity generated from renewable sources (15% vs. 11%).

During the 2015 Paris Climate Change Conference, China made a commitment to drastically reduce carbon dioxide emissions and its dependence on coal. Alongside a host of new energy efficiency laws, regulations and standards,

[3] (2020). Retrieved from https://www.industrialenergyaccelerator.org/wp-content/uploads/China_diagnostic_Web.pdf

China set an ambitious five-year target to reduce energy consumption per unit of GDP to decrease 15% by 2020.

Table 2: China Overview

Area	**9,596,961 sq km**
Population	1,433.8 million
Geographical group	Asia & Pacific
Stage of Industrialization	Emerging Industrial Economies
GDP (2019)*	14,271.9 billion
MVA (2019)*	4,105.9 billion
MVA per capita (2019)*	2,864
Share of MVA in GDP (2019)	29%
Major manufacturing activities (VA in % to total MVA)	1. Basic metals (14%) 2. Chemicals and chemical products (11%) 3. Food and beverages (9%)
Competitive Industrial Performance (CIP rank)	2 (of 152 ranked)

*(at constant 2015 prices in US$)
Source: UNIDO Statistics, Basic Information, 2020.

2.1.3. Indonesia[4]

Indonesia is an emerging industrial economy located in Asia & Pacific with a population of 270.6 million. The manufacturing value added to the economy represents 21% of its GDP and three sectors contribute with over two fifths of it (42%), ranking 39 out of 152 in terms of its Competitive Industrial Performance (see table 3). The Indonesia National Energy Master Plan predicts that final energy demand in 2025 will increase by 67.5% from 2016 levels, and by 2025, industry will be Indonesia's largest energy user, consuming approximately 47.7% of the national energy supply.

This resource-rich nation is the world's fourth-largest producer of coal and Southeast Asia's biggest gas supplier. The country is the largest producer of biofuels worldwide and it is scaling up efforts to exploit its renewable energy potential.[5]

There are a number of laws and regulations relating to energy efficiency and conservation in Indonesia: including efficiency responsibilities for large energy consumers; details on implementing energy efficiency measures including requirements around energy management systems, standardization and

[4] (2020). Retrieved from https://www.industrialenergyaccelerator.org/wp-content/uploads/FINAL-Indonesia-Diagnostic_WEB.pdf
[5] Indonesia - Countries & Regions - IEA. (2020). Retrieved from https://www.iea.org/countries/indonesia

labeling, energy saving campaigns, and incentives; and the requirement of competency standards to be attained by energy managers in industrial sectors and buildings.

Table 3: Indonesia Overview

Area	**1,910,931 sq km**
Population	270.6 million
Geographical group	Asia & Pacific
Stage of Industrialization	Emerging Industrial Economies
GDP (2019)*	1,049.5 billion
MVA (2019)*	218.6 billion
MVA per capita (2019)*	808
Share of MVA in GDP (2019)	21%
Major manufacturing activities (VA in % to total MVA)	1. Food and Beverages (20%) 2. Chemicals and chemical products (12%) 3. Motor vehicles, trailers, semi-trailers (10%)
Competitive Industrial Performance (CIP rank)	39 (of 152 ranked)

*(at constant 2015 prices in US$)
Source: UNIDO Statistics, Basic Information, 2020.

2.1.4. Mexico[6]

Mexico is an emerging industrial economy located in Central America with a population of 127.6 million. The manufacturing value added to the economy represents 17% of its GDP and three sectors contribute with over half of it (55%), ranking 20 out of 152 in terms of its Competitive Industrial Performance (see table 4). The energy mix is dominated by oil and gas, with oil accounting for around half of the total – a share higher even than in the Middle East. Mexico has a fast-growing electricity sector, with demand increasing on average by 2.9% per year since 2000. Industry consumes 31% of the country's energy supply and Industrial energy consumption is expected to grow around 4% per annum from 2016-2030.

Natural gas is the main source for electricity, benefiting from low gas prices in North America. Power generation from renewable sources is set to increase significantly, thanks to targets and support for clean energy and exceptionally good wind and solar resources. In contrast, oil use for electricity has declined dramatically over the past 15 years but remains higher than in many other IEA countries.[7]

[6] (2020). Retrieved from https://www.industrialenergyaccelerator.org/wp-content/uploads/FINAL-Mexico-Diagnostic_WEB.pdf
[7] Mexico - Countries & Regions - IEA. (2020). Retrieved from https://www.iea.org/countries/mexico

In 2012, Mexico became the second country in the world to enact a national General Law of Climate Change. This Law mandates sector specific reductions in emissions, which are a strong driver for energy efficiency. It has since pledged to reduce its greenhouse gas emissions by 22% below baseline before 2030. A number of national initiatives such as the Strategy of Transition to Promote the Use of Cleaner Technologies and Fuels also demand annual reduction targets in energy intensity. In 2014, Mexico passed its Energy Transition Act as part of its drive to reform energy usage.

Table 4: Mexico Overview

Area	**1,964,375 sq km**
Population	127.6 million
Geographical group	Central America
Stage of Industrialization	Emerging Industrial Economies
GDP (2019)*	1,259.2 billion
MVA (2019)*	210.5 billion
MVA per capita (2019)*	1,650
Share of MVA in GDP (2019)	17%
Major manufacturing activities (VA in % to total MVA)	1. Motor vehicles, trailers, semi-trailers (24%) 2. Food and beverages (21%) 3. Coke, refined petroleum products, nuclear fuel (10%)
Competitive Industrial Performance (CIP rank)	20 (of 152 ranked)

*(at constant 2015 prices in US$)
Source: UNIDO Statistics, Basic Information, 2020.

2.1.5. Morocco[8]

Morocco is a developing economy located in North Africa with a population of 36.5 million. The manufacturing value added to the economy represents 15% of its GDP and three sectors contribute with over half of it (57%), ranking 61 out of 152 in terms of its Competitive Industrial Performance (see table 5). Industrial energy consumption has grown consistently over the last few years, showing an increase of more than 40% between 2004 and 2014 and has sustained a growth rate on average of 4.38% per year. Morocco's energy demand is expected to rise by approximately 5-6% annually, reaching more than 30 Mtoe in 2025.

[8] (2020). Retrieved from https://www.industrialenergyaccelerator.org/wp-content/uploads/20190605-morocco-diagnostic-report-web.pdf

The country imports more than 95% of its primary energy needs (fossil fuels), the vast majority comes from Saudi Arabia and Algeria. Additionally, Morocco imports electricity from Spain by means of submarine power cables, and domestic power generation is dominated by fossil energy sources, mostly oil (~70%), coal and natural gas.

Through its National Energy Strategy, the Government of Morocco aims to achieve 15% in energy savings by 2030, half of which is expected to come from industrial sector. Alongside its Nationally Determined Contributions, which include specific commitments to improve industrial energy efficiency, the Government has also drafted a decree requiring energy intensive industries that do not have an energy management system in place to undergo mandatory energy audits.

Table 5: Morocco Overview

Area	**446,550 sq km**
Population	36.5 million
Geographical group	North Africa
Stage of Industrialization	Other Developing Economies
GDP (2019)*	116.6 billion
MVA (2019)*	18.1 billion
MVA per capita (2019)*	495
Share of MVA in GDP (2019)	15%
Major manufacturing activities (VA in % to total MVA)	1. Food and beverages (20%) 2. Chemicals and chemical products (20%) 3. Non-metallic mineral products (17%)
Competitive Industrial Performance (CIP rank)	61 (of 152 ranked)

*(at constant 2015 prices in US$)
Source: UNIDO Statistics, Basic Information, 2020.

2.2. Barriers to energy efficiency in industry[9]

Several barriers are preventing governments from creating an effective backdrop to drive investments in energy efficiency. The root causes of such gaps vary from country to country but include:

- Inadequate information, skills, and methods to assess the costs and benefits of industrial energy efficiency policies and measures.
- Limited institutional capacity for policy design, development and implementation.
- Inappropriate tariff structures.

[9] GEF Project Document.

- Distorted market incentives.
- Inadequate regulatory or legal frameworks to support energy service companies.

For industrial companies, there is a disconnection between industry shareholders' drive for profit and the ability of energy efficiency to contribute to it. Unfortunately, industry tends to favor short-term (1-3 year) risk-adverse tactics in the name of productivity, including extending energy technology operational life beyond economic replacement cycles or persisting with sub-optimal processes and practices. This behavior produces a range of negative externalities including global and local pollution, waste generation, poor safety and quality and productivity losses. So, despite significant economic opportunity to save energy costs and emissions, industry hits a number of barriers, including:

- **Awareness**. In both developed and developing countries, companies are still not fully aware of the all the energy efficiency best practice options available to them, many with zero or low cost.
- **Technical Understanding**. Companies struggle to know exactly how to deploy solutions.
- **Risk**. The belief that a change in the process or deployment of new equipment may impact production prevents action.
- **Finance**. Many companies continue to struggle to access capital to finance energy efficiency measures, and financial institutions often lack understanding of energy efficiency to provide loans.

2.3. Project summary[10]

2.3.1. Project factsheet

The following table displays the general information about the IEEA.

Table 6: IEEA Factsheet

Project title	Global deployment of the industrial energy efficiency accelerator
UNIDO project No. and/or ID	Project ID: 170041
GEF project ID	9807
Region	GLO
Country(ies)	GLO
Planned implementation start date (for GEF projects, as indicated in CEO	1 April 2017

[10] Idem

endorsement/Approval document)	
Planned implementation end date (for GEF projects, as indicated in CEO endorsement/Approval document)	**12 June 2019**
Actual implementation start date	**12 June 2017**
Actual implementation end date	**31 August 2020**
GEF Focal Areas and Operational Project (in addition, also indicate whether the project is linked to a GEF programme)	**CC (CCM)**
Implementing agency(ies)	**UNIDO**
Executing partner(s)/entity(ies)	**Carbon Trust, UK**
Donor(s):	**GEF**
Total project allotment (for GEF: project grant)	**2,000,000**
Total co-financing at design (in cash and in-kind)	**Cash: 160,000** **In-kind: 6,650,000**
Materialized co-financing at project completion (in cash and in -kind)	**Cash:** **In-kind:**
Mid-term review date	**N/A**

Source: GEF Project Document

- **Objective**: The IEEA aims to secure public commitment from governments, industrial corporations and associations, and utilities to drive the adoption of Energy Management Systems (EnMS), best practices and innovation in industry. The IEEA delivers across a number of SDGs by creating a multi-stakeholder partnership that promotes larger and more significant impacts in a range of different countries and industrial sectors. It also delivers multiple benefits from increased productivity as well as reductions in energy demand and related GHG and local pollutants.

- **Short term impacts**

    - Set up the IEEA Secretariat to fulfill the central programme management functions, including global coordination,

development of tools for industry, knowledge sharing, tracking against key metrics and recruitment of private sector partners.
    - Identify and sign-up 5 countries, design relevant policies and programmes and commence in-country project delivery.
    - Develop blueprints for future work.
    - Identify and sign-up a further 10 countries for engagement until 2025.
    - Secure follow-on funding for years 3 to 8 to complete in-country work in all 15 countries.

- **Long-term impacts**

    - Unlock significant public and private sector investment in energy efficiency.
    - Drive tangible near and long-term emissions reductions.
    - Improve competitiveness benefits.
    - Align with the Sustainable Development Goals.

2.3.2. Background of the IEEA

The Global energy efficiency accelerator platform was launched at the Climate Summit in September 2014, as a flagship programme to drive action towards SEforALL's goal of doubling the rate of improvement in global energy efficiency by 2030. Through the platform, partners pledged to contribute to expand action to accelerate energy efficiency in five areas: fuel economy, lighting, appliances, buildings and district energy systems.

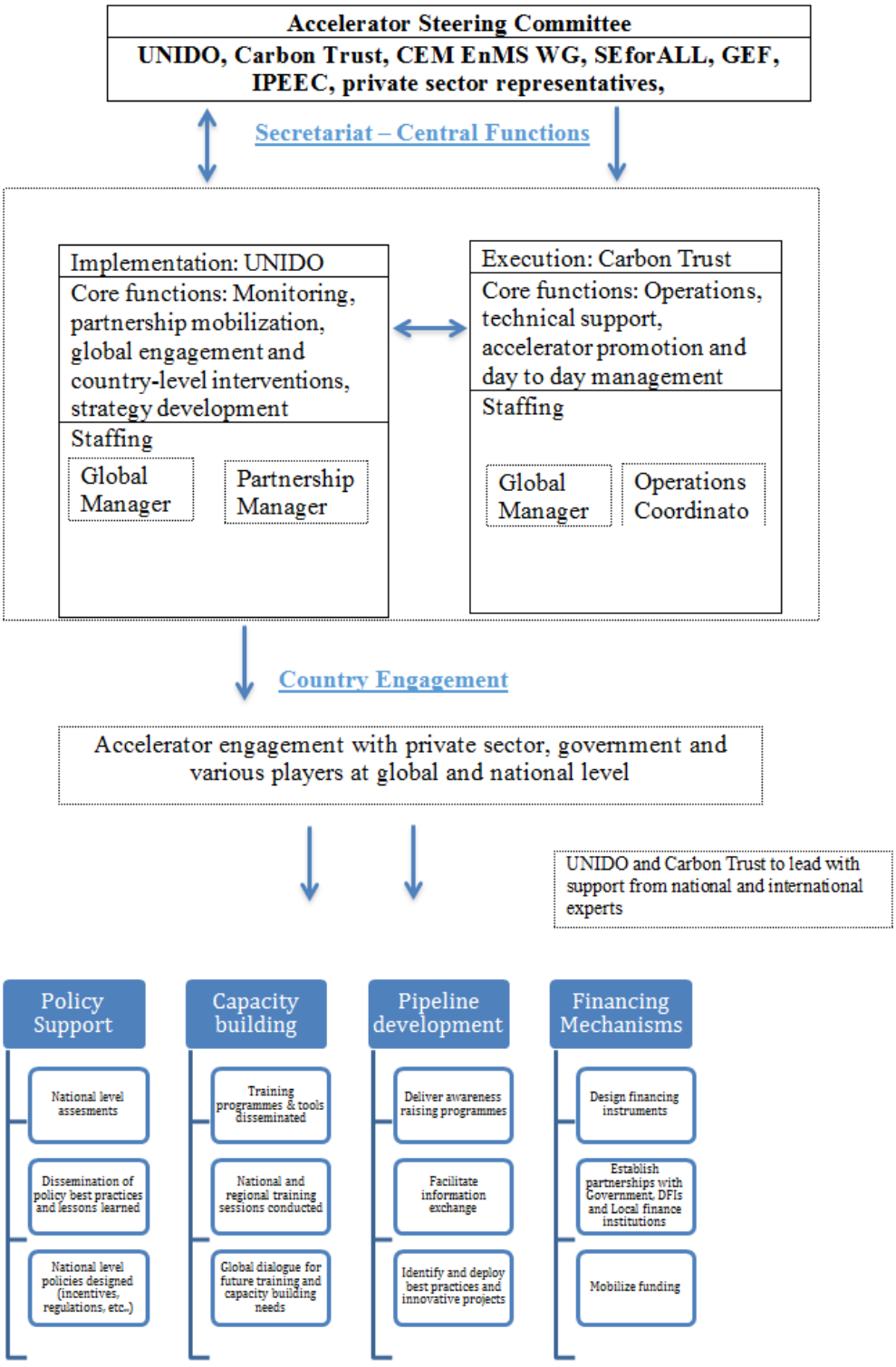
Industry accounts for 37% of global total final energy consumption and around one third of global GHG emissions, with 60% of the energy efficiency potential identified by the IEA still to be realized. Therefore, an accelerator targeting energy efficiency in Industry was launched in April 2015 co-led by UNIDO and the Carbon Trust.

The Carbon Trust was set up by the UK Government in 2001 as an independent organization with the objective to help catalyze action on climate change in the public and private sector. Its activities range from advising governments, public sector and companies on policies, programmatic design and foot printing.

2.3.3. IEEA implementation arrangements

The implementation arrangements can be seen in the following figure.

Figure 3: Institutional Arrangements



2.3.4. Positioning of the IEEA

Industry experience around the world has shown that companies can save around 10-20% of their annual energy consumption and reduce costs through better energy management. On broader terms, energy efficiency in industry generates a number of economic benefits including increased productivity, lower costs, and job creation. It further improves the well-being of employees and helps companies achieve their climate and sustainability goals. The economic benefits have been well documented and proven within various initiatives implemented by UNIDO and a number of partners in various parts of the world. While these programmes have been successful, there are shortcoming and gaps, which require a global and long-lasting approach.

The proposed programme builds up on the work undertaken by various organizations to accelerate the adoption of new and efficient technologies and practices in the industrial sector. The accelerator was conceptualized to work closely with the local governments, industry associations, private sector companies, energy efficiency experts, technology providers and financial institutions at the national, regional and global level to develop blueprints of industrial energy efficiency programmes. The interventions planned by the accelerator, took into account the country-specific context and were tailored to address the key issues identified during the country level assessments. The blueprints were developed in a way that could serve as a guide for other countries interested in pursuing and improving industrial energy efficiency.

There are numerous projects and programmes targeting industrial energy efficiency across the globe. Below is a list of the most relevant programmes designed and implemented by key players and partners of the Accelerator in various regions, which were built upon:

a. South Africa Private Sector Energy Efficiency Programme (Carbon Trust)
b. India Industrial Energy Efficiency Fund (Carbon Trust)
c. Global Superior Energy Performance Initiative (CEM)
d. Energy Management Action Network (IPEEC)
e. Marrakech Declaration (CGEM)
f. Energy Efficiency Program (Climateworks Foundation)
g. Carbon Disclosure Project

2.3.5. Main counterparts

2.3.5.1. Brazil[11]

[11] O Ministério - Ministério de Minas e Energia. (2020). Retrieved from http://www.mme.gov.br/web/guest/acesso-a-informacao/institucional/o-ministerio

Ministry of Mines and Energy (MME) was created in 1960. Main responsibilities are the National Energy Policy Council (CNPE) and the Electric Sector Monitoring Committee (CMSE), both chaired by the Minister of Mines and Energy.

CNPE is linked to the Presidency of the Republic, with the task of proposing national policies and measures for the sector to the President. The CMSE has the function of permanently monitoring and evaluating the continuity and security of the electric energy supply throughout the national territory.

In addition, MME has four secretariats that propose guidelines and implement national policies in their areas of activity: 1) Secretariat for Petroleum, Natural Gas and Biofuels; 2) Secretariat for Geology, Mining and Mineral Transformation; 3) Electric Energy Secretariat; and 4) Energy Planning and Development Secretariat (SPE). SPE is the office in charge of implementing national policies aimed at the development of energy efficiency among other topics.

2.3.5.2. China[12]

The National Development and Reform Commission is a super ministry in charge of several sectors being one of them energy. One of its main functions is "to promote the strategy of sustainable development; to undertake comprehensive coordination of energy saving and emission reduction; to organize the formulation and coordinate the implementation of plans and policy measures for recycling economy, national energy and resource conservation and comprehensive utilization; to participate in the formulation of plans for ecological improvement and environmental protection; to coordinate the solution of major issues concerning ecological building, energy and resource conservation and comprehensive utilization; to coordinate relevant work concerning environment-friendly industries and clean production promotion."

The office within NDRC in charge of implementing policies and measures of energy conservation is the Department of Resource Conservation and Environmental Protection.

2.3.5.3. Indonesia[13]

[12] [Main Functions of the NDRC]-NDRC_NEW. (2020). Retrieved from https://en.ndrc.gov.cn/mfndrc_8237/200812/t20081217_1193980.html

[13] Kementerian ESDM RI - Profil - Duties & Functions. (2020). Retrieved from https://www.esdm.go.id/en/profile/duties-functions/directorate-general-of-new-renewable-energy-and-energy-conservation

In 1959 the Ministry of Industrial Affairs was divided into Department of Basic Industry/Mining and Department of Public Industry, of which oil and gas mining field was under the Department of Basic Industry and Mining. In 1978 the Department of Mining was amended to be Department of Mining and Energy. In 2000 the Department of Mining and Energy was amended to be Department of Energy and Mineral Resources. In 2009 the Department was amended to become Ministry of Energy and Mineral Resources.

There is a Directorate General of New, Renewable Energy, and Energy Conservation under the authority of and responsible to the Minister. This office has a Directorate of Energy Conservation and is responsible for formulating and conducting policy in the field of energy conservation.

2.3.5.4. Mexico

Secretariat of Energy (SENER) is in charge of establishing, leading, and coordinating the country's energy policy, as well as energy saving and environmental protection. SENER has three deputy secretaries: 1) Electricity; 2) Hydrocarbons; and 3) Planning and Energy Transition (SPTE). SPTE coordinate the activities of the National Commission for the Efficient Use of Energy (CONUEE).[14]

CONUEE is a decentralized administrative body of SENER, which was created through the Law for the Sustainable Use of Energy on 28 November 2008, and its main objective is to promote energy efficiency and act as a technical body for the sustainable use of energy. CONUEE is also in charge of updating the Transition Strategy to Promote the Use of Cleaner Technologies and Fuels, main policy document with a fifteen-year horizon to promote the sustainable use of energy. [15]

2.3.5.5. Morocco[16]

The Department of Energy and Mining of the Ministry of Energy, Mining, and environment is responsible for setting and implementing government policy in the fields of energy, mining and geology. The Ministry of Energy, Mining, and Environment oversees the development and implementation of the National Energy Strategy for Enhancing Energy Efficiency. It participates, in

[14] SENER (2020). Retrieved from https://www.gob.mx/cms/uploads/attachment/file/236865/Renewable_Energies_Outlook_2016-2030_P.compressed.pdf

[15] Comisión Nacional para el Uso Eficiente de la Energía | Gobierno | gob.mx. (2020). Retrieved 6 November 2020, from https://www.gob.mx/conuee/que-hacemos

[16] Vision & Missions. (2020). Retrieved from https://www.mem.gov.ma/en/Pages/art.aspx?v=7

collaboration with the organizations concerned, in the preparation and application of legislation and regulations in this area.

The Moroccan Agency for Efficiency (AMEE) implements government policy, aimed at reducing energy dependency, through the promotion of energy efficiency. AMEE is the result of the transformation, in 2016 of the National Agency for the Development of Renewable Energies and Energy Efficiency ADEREE that was transformed in 2010, of the Energy Development Center Renewable CDER, created in 1982. The main reason for such an evolution is that in addition to the development of renewable energies, it is important today to control energy consumption and achieve better energy efficiency.[17]

[17] AMEE | Historique. (2020). Retrieved from https://www.amee.ma/en/node/807

3. Project assessment

3.1. Progress to impact

The IEEA had a positive effect in terms of economic performance and social inclusiveness in the countries implemented (contributed to changes in costs savings of some companies, and to changes in training of some individuals and companies and built capacity in some government institutions) and although it is moderately likely that the proposed long-term effects will be materialized, the conditions for a transformational process are not fully in place, except in Morocco, where passed legislation (Sep 2018) made mandatory for industry (companies with an energy consumption of more than 1,500 tones oil equivalent) to conduct energy audits, and thus the intervention selected was capacity building to support energy intensive industries with ISO 50001 Energy Management System implementation.

One of the assumptions was the "authorities 'commitment and participation" however there is a varying degree of that engagement, which is fundamental to drive the intended impact. Essentially, even though countries formally confirmed their interest that did not translate directly in a change in the regulation nor in full commitment or an active participation from the authorities.

Additionally, in the deployment of the IEEA, in the first Component, Maximizing the impact of the Accelerator through multi-country private sector engagement, political commitment of initial pilots and creating a more detailed roadmap of interventions across the first 5 high impact countries, two indicators were not met and/or collected: CO_2 reduction and Private Sector Engagement. Therefore, the outcome is partially met, the sole exception is Morocco, because of the energy audit mandate, which effectively translated in the need to build capacity in the private sector. In the second Component, Unlocking industrial energy efficiency opportunities in 5 countries by leveraging 4 pillars (policy, skills and capacity building, pipeline development and financing), the pillar on pipeline development was not requested. Consequently, without pipeline development is unlikely or moderately unlikely that the IEEA will help in unlocking industrial EE opportunities. In the third Component, Leveraging learning from first five countries to scale-up to an additional 10 countries, producing high level plans for these 10 additional countries. One of the outputs was partially completed (discussions have been initiated in 7 out of 10: Egypt, India, Malaysia, Myanmar, Palestine, South Africa and Ukraine), then the outcome was not met.

However, there are two elements that can contribute to the realization of its intended impact. First, three of the IEEA´s outputs have been adopted (Green technology list in China; financial mechanism in Indonesia; EnMS handbook in Mexico), which increases the chances of replicating them in other places. Second, one of the outputs is being published by one country Government (EnMS handbook

in Mexico), which has the potential to become a reference across Latin America and the Caribbean given that Mexico is leading on energy efficiency efforts in the region, and other of the outputs (Feasibility study on developing a "Belt and Road Energy Efficiency Technology Mechanism") has potential to be adopted beyond China therefore contributing to mainstream and scale up the IEEA.

Table 7: Progress to Impact Rating

#	Evaluation criteria	Definition	Rating
A	**Progress to impact**	**Positive and negative, primary and secondary long-term effects produced by a development intervention, directly or indirectly, intended or unintended, including redirecting trajectories of transformational process and the extent to which conditions for trajectory change are being put into place.**	**Moderately Likely (4/6)**

3.2. IEEA´s design

Table 8: Project Design Rating

#	Evaluation criteria	Definition	Rating
B	**Project design**	**Formulation of the intervention, the plan to achieve a specific purpose.**	**Satisfactory (5/6)**

3.2.1. Overall design

The IEEA design included a diagnostic tool that was adequate to assess and deliver on its outputs in the four specific areas of activity: 1) Policy measures; 2) Capacity building; 3) Pipeline of investable industrial energy efficiency projects; and 4) Financing solutions.

The IEEA is consistent with each Country's priorities, UNIDO's Inclusive and Sustainable Industrial Development, and GEF´s priorities and policies, given that the process followed required a letter of interest from the governments.

Its approach was sound and appropriate, and its design, including funding, institutional architecture, and implementation arrangements are still valid and relevant.

The IEEA does include a Monitoring and Evaluation (M&E) plan, and although consistent with the project results framework, some of the indicators were not directly related to the activities of the platform. The indicators on CO_2 reduction and private sector engaged in the first component were not directly related to the activities of the IEEA. In the second component, the prioritization of activities resulted in not having all of the outputs (Pipeline of investable industrial energy efficiency projects). In the third component, one of the outputs was not completed (discussions have been initiated to conduct basic assessments of interventions in 7 out of the 10 new countries planned: Egypt, India, Malaysia, Myanmar, Palestine, South Africa and Ukraine).

There were no changes in the IEEA´s design nor in the expected results after start of implementation.

The IEEA did establish a baseline yet given that some of the activities were not directly related to the outcome, it was not possible to meet that specific target (CO_2 reductions).

The IEEA did identify specific risks and mitigation measures. However, a couple of the mitigation measures were not included in the IEEA´s activities/outputs and monitored under the M&E plan (a major sector engagement campaign for industrial companies that do not show interest to deploy energy efficiency projects; and focusing on the equipment suppliers and technology providers that do not come forward to offer solutions).

Table 9: Overall Design Rating

#	Evaluation criteria	Definition	Rating
1	Overall design	Assessment of the design in general.	Satisfactory (5/6)

3.2.2. Project results framework

3.2.2.1. Expected results

The expected result-chain (impact, outcomes and outputs) is clear and logical, however, in spite of the fact that the assumptions were

correct, still there are varying degrees of commitment and participation from the stakeholders that are fundamental to drive the intended impact. Essentially, even though countries formally confirmed their interest that did not translate directly in a change in the regulation nor in full commitment or an active participation from the authorities.

Although the intended impact does describe a desired long-term benefit globally, the outcomes do portray change in global engagement in industrial energy efficiency, and the outputs define deliverables that the IEEA did produce, the expected results were not fully realistic; because of budgetary constraints and the assumptions did not take into account the institutional capacity which translated in more or less active participation. Moreover, even if all the outputs would have been delivered, the assumptions did not lead directly to outcomes and impact.

3.2.2.2. Indicators

The indicators do describe and specify expected results (impact, outcomes and outputs), in terms of quantity, quality and time, and do change at each level of results. Yet a couple of the indicators were not directly related to the activities of the IEEA (CO_2 reduction and private sector engaged).

The indicators chosen were necessary but not sufficient to assess the intended outcomes and impact; and although do offer triangulation (cross-checking), the assumptions did not provide for varying levels of institutional capacity to drive the intended impact.

3.2.2.3. Sources of verification

The means of verification of the status of indicators are cost-effective and reliable, however, in a couple of the cases the activities were not translated directly into the expected results, therefore did not provide a full diagnostic of progress and potential impact of the IEEA.

Table 10: Logframe Rating

#	Evaluation criteria	Definition	Rating

2	Logframe	Assessment of the logical framework aimed at planning the intervention.	Moderately Satisfactory (4/6)

3.3. IEEA´s performance

Table 11: Performance Rating

#	Evaluation criteria	Definition	Rating
C	**Project performance**	**Functioning of a development intervention.**	**Satisfactory (5/6)**

3.3.1. Relevance

Although the IEEA´s partially fulfilled the targets of the first and third components (CO_2 reduction; and seven out of ten countries have initial industrial EE diagnostics –Egypt, India, Malaysia, Myanmar, Palestine, South Africa and Ukraine–), yet it is fully aligned with the priorities of the countries (methodology used to prepare the outputs) and the donor (contributed to the Climate Change focal area by enhancing the adoption of management practices and of policy, planning and regulatory frameworks for GHG emission reduction).

While the IEEA is a technically sound solution and completely in line with UNIDO´s comparative advantage, yet the assumptions were not fully assessed, therefore limiting the scope and focus to drive the intended impact. Moreover, the expected impact continues to be pertinent and more so today, to get onto the deep decarbonization pathway.

Table 12: Relevance Rating

#	Evaluation criteria	Definition	Rating
1	Relevance	The extent to which the aid activity is suited to the priorities and policies of the target group, recipient and donor.	Satisfactory (5/6)

3.3.2. Effectiveness

The main results of the IEEA are presented in table 13:

Table 13: Main results of the IEEA

Outcomes	Outputs	Status
Global engagement on industrial energy efficiency improved and in-country assessments in 5 countries completed	Partnership coalitions with Governments, Private sector, Development Finance Institutions (DFIs) and local finance institutions formed across several high impact countries	Initiated
	Deeper engagement in 5 countries initiated	Completed
	High-level diagnostic of energy efficiency opportunities in the industrial sectors conducted and linked with countries' Intended Nationally Determined Contributions (INDCs) in five countries	Partially completed
Design of interventions to help unlock industrial energy efficiency opportunities in five countries	National-level policies recommendations generated	Completed
	Energy management skills programmes designed	Completed
	Programmes that generate a pipeline of investible projects created	Initiated

	Suitable financing instruments in consultation with financial sector and key partners designed	Completed
Engagement scaled up in 10 additional countries	A global best practices synthesis report is drafted	Completed
	Package of tools, material compiled and disseminated	Completed
	Basic assessments of interventions in 10 new countries completed	Partially completed

The main results of the IEEA in-countries are presented in table 14:

Table 14: Main results of the IEEA in-countries

Country	Results
Brazil	• Energy Efficiency policy simulation model • Risk assessment tool and capacity building for banks
China	• In-depth study in global cases and policy advice on improving China's "Energy Saving and Low-Carbon Technology Catalogue" • Recommendations on potential financial incentives to accelerate Energy Efficiency technology deployment projects • Feasibility study on developing a "Belt and Road Energy Efficiency Technology Mechanism"
Indonesia	• Design and implementation of a financial mechanism and de-risking facility for industrial Energy Efficiency
Mexico	• Creation of a certification system for energy auditors and managers, and providing 'Training for trainers' capacity building

Morocco	• Delivery of 'Expert-User' Training on Energy Management System (ISO 50001)

The IEEA completed or partially completed eight out of the ten outputs planned; yet the project was based upon a set of assumptions that were not fully assessed. However, the results are satisfactory based upon the opinions of the different stakeholders and the limited budget.

There are three reasons that prevented the IEEA from fully meeting its objectives. First, the premise about the countries' priorities assumed that the commitment from the stakeholders would be complete and therefore any regulatory or institutional change needed would follow; second, the instrument was designed to engage public sector entities and not industry, therefore, private sector engagement was limited; third, the choice of activities does not translate directly into emissions reductions, as is the case with training.

The quality of the results is satisfactory and attributable to the IEEA´s. The stakeholders perceive the IEEA as a good initiative with a robust methodology, helpful, but with a limited budget, and given the national institutional capacity difficult to implement.

The IEEA could have benefited in the design stage from bringing on board policy and technical counterparts from the national institutions along with private sector representatives, to allow co-designing to become the central element for developing ownership of the intervention, to facilitate implementation and to target groups accordingly. The IEEA could have also been benefited from the engagement of the educational sector for the capacity building pillar, and of trade associations for the pipeline development and financial mechanisms pillars.

Table 15: Effectiveness Rating

#	Evaluation criteria	Definition	Rating
2	Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved, taking into account their relative importance.	Satisfactory (5/6)

3.3.3. Efficiency

The IEEA was very productive in the use of inputs and activities for delivering most of the planned outputs and outcomes. However, given the complex array of barriers and assumptions it would have been required a spectrum of solutions that go beyond the IEEA´s capacity and budget. Yet, the IEEA focused on a set of activities that laid the groundwork for a potential scale up.

In any case, even though the budget was very tight, the IEEA strictly adhered to it. It would have been useful to revise activities in coordination with the local stakeholders to make adjustments in line with the budget available and reach out to industry to secure engagement and co-financing.

There were minor delays during the implementation of the IEEA for two reasons, political cycles and the COVID-19 pandemic. 1) Political cycles. There were elections in Brazil and Mexico, thus changing the administration and some of the technical staff, which led to slight adjustments in the interventions. 2) COVID-19 pandemic. The measures implemented to address the pandemic put restrictions in certain activities, which resulted in reprograming their delivery.

Table 16: Efficiency Rating

#	Evaluation criteria	Definition	Rating
3	Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results.	Highly Satisfactory (6/6)

3.3.4. Sustainability of benefits

The IEEA´s results and benefits are likely to be sustained after the end of GEF´s funding because of three reasons. First, some of the interventions delivered an outcome that would be permanent, v.gr. Technology catalogue or the EnMS handbook; second, there is some follow-on funding secured to continue with some of the activities developed by the pillar interventions in Brazil, China, Indonesia and Morocco; and third, UNIDO is evaluating the possibility of creating some synergies with other projects and institutions like the Green Climate Fund and the Inter-American Development Bank.

The exit strategy of the IEEA is based upon the fact that the outcomes were thought in a way that the tools and knowledge in country have been left, to

help continue building upon the results and minimizing the risk of delivering temporary solutions.

a. *Financial risks*. There is some funding already secured for follow-on activities and there are conversations with other institutions to continue with the IEEA.

b. *Socio-political risks*. The communication´s strategy implemented in the final stage of the IEEA is increasing the level of awareness among stakeholders; however, there is still very limited engagement from the private sector.

c. *Institutional framework and governance risks*. One of the assumptions of the IEEA was focused on the commitment and participation by the authorities, which is fundamental to support the outputs and outcomes and to reach the desired impact, however, in some of the jurisdictions a very limited institutional infrastructure and/or budget prevent them from engaging and supporting at the level required to maintaining or continue building upon the results.

d. *Environmental risks*. There are no environmental risks identified that may put at risk the sustainability of project outcomes.

Table 17: Sustainability of Benefits Rating

#	Evaluation criteria	Definition	Rating
4	Sustainability of benefits	The continuation of benefits from a development intervention after major development assistance has been completed. The probability of continued long-term benefits. The resilience to risk of the net benefit flows over time.	Satisfactory (5/6)

3.4. Cross-cutting performance criteria

Table 18: Cross-Cutting Performance Rating

#	Evaluation criteria	Definition	Rating

D	Cross-cutting performance criteria	Other important criteria that cut across the UNIDO intervention.	Satisfactory (5/6)

3.4.1. Gender mainstreaming

Although the gender dimension was not mandatory, it was specifically incorporated in the design of the IEEA, based upon UNIDO´s policies of promoting both gender equality and the empowerment of women and access to sustainable energy which have a significant positive impact on sustained economic growth and inclusive industrial development, which are key drivers of poverty alleviation and social progress.

The IEEA promoted equal participation of women and men in capacity building activities and in recruitment. There was a genuine interest in the gender dimension, which led to the following results:

- Representation of women in the project governance at steering committee and coordination level
- In some of the training activities, there was gender parity and even active participation of a non-governmental organization focused on gender (Women´s in Energy Efficiency network in Mexico)
- Communication´s platform highlights gender imbalance in the sector
- One of the outputs used gender inclusive language (EnMS Handbook in Mexico)

Table 19: Gender Mainstreaming Rating

#	Evaluation criteria	Definition	Rating
1	Gender mainstreaming	The extent to which UNIDO interventions have contributed to better gender equality and gender related dimensions were considered in an intervention.	Highly Satisfactory (6/6) (2a)

3.4.2. Monitoring and evaluation

3.4.2.1. M&E design

The Monitoring plan at the point of project approval was practical and sufficient, and with an adequate budget, however, a couple of the indicators were not directly related to the activities of the Accelerator (CO_2 reduction and private sector engaged).

3.4.2.2. M&E implementation

The information from the M&E system was used during the project implementation to adjust the IEEA to the circumstances, v.gr. Political cycles and communications strategy. Yet given the limited budget, the decisions made were to implement corrective actions rather than to redesign the IEEA, for example, varying degrees of institutional capacity across jurisdictions or private sector participation.

There was one progress report and it was complete and accurate.

The project results framework was used for M&E purposes to measure progress towards expected outputs and outcomes.

The IEEA did identify specific risks and mitigation measures. However, a couple of the mitigation measures were not included in the IEEA´s activities/outputs and monitored under the M&E plan (a major sector engagement campaign for industrial companies that do not show interest to deploy energy efficiency projects; and focusing on the equipment suppliers and technology providers that do not come forward to offer solutions).

Table 20: M&E Rating

#	Evaluation criteria	Definition	Rating
2	M&E	Refers to all the indicators, tools and processes used to measure if a development intervention has been implemented according to the plan (monitoring) and is having the desired result (evaluation).	Satisfactory (5/6)

3.4.3. Results-based management (RBM)

The IEEA structure has been effective in delivering almost all of the outputs and outcomes planned, nevertheless, there are two areas in which the project did not meet the expectations: recruitment of private sector partners (except Morocco) and funding. However, these shortcomings are not attributable to the management, but to the assumptions and the institutional capacity in jurisdictions and budget.

Functionally, the responsibilities and reporting lines were clear, and decision-making was transparent and undertaken in a timely manner. However, with more coordination between implementation and execution, and taking advantage of UNIDO´s in-country presence and institutional capacity, some minor delays could have been prevented.

The UNIDO HQ-based management, coordination, monitoring, quality control and technical inputs have been efficient, timely and effective, yet the IEEA would have benefited from increasing the staff and field visits, to augment the interaction and engagement in-country and to reach out to private sector stakeholders to secure participation and follow-up funding.

In the final stage of the IEEA it was implemented a communication´s strategy, which has been effective in raising awareness to industrial energy efficiency and its benefits, including the gender dimension, and disseminating the outputs of the IEEA, in line with UNIDO and GEF advocacy guidelines.

Table 21: Results-Based Management Rating

#	Evaluation criteria	Definition	Rating
3	Results-based management (RBM)	Assessment of issues related to results-based work planning, results-based M&E and reporting based on results.	Satisfactory (5/6)

3.5. Performance of partners

Table 22: Performance of Partners Rating

#	Evaluation criteria	Definition	Rating

E	**Performance of partners**	**Assessment of partners' roles and responsibilities engaged in the intervention.**	**Satisfactory (5/6)**

3.5.1. UNIDO

3.5.1.1. Design

Did mobilize adequate technical expertise and ensure inclusiveness of country authorities in the IEEA´s design. Did also plan and ensure sufficient budget to carry on M&E activities.

3.5.1.2. Implementation

UNIDO recruited IEEA´s staff in a timely fashion. The use of funds, procurement and contracting of goods and services was efficient.

IEEA´s modifications were made to adjust to the circumstances (political cycle) and as a result of the Mid-Term Review (communication´s strategy).

There was follow-up to address implementation bottlenecks and its country presence helped in supporting the IEEA, in particular the policy dialogue to increase local participation, however, the engagement with the private sector was limited.

Its coordination function was performed effectively; nevertheless, a change in the IEEA´s structure to include early in the design private sector would potentially have been beneficial in securing their engagement and funding.

The Exit strategy was planned together with the government to make sure that the tools and knowledge would be left permanently in country.

Table 23: UNIDO Performance Rating

#	**Evaluation criteria**	**Definition**	**Rating**

1	UNIDO	Assessment of the contribution of partners to project design, implementation, monitoring and reporting, supervision and backstopping and evaluation. The performance of each partner will be assessed individually, based on its expected role and responsibilities in the project life cycle.	Satisfactory (5/6)

3.5.2. National counterparts

3.5.2.1. Design

There is large variability in terms of the level of response to UNIDO's invitation for engagement in designing the project, for two reasons mainly, the political cycle and institutional capacity.

3.5.2.2. Implementation

Although the IEEA received formal support, the sense of ownership varies across jurisdictions, which in turn results in different levels of support and internal coordination, based on actions, policies, and counterpart funding. For example, in some cases, the outcomes would be published locally, yet there will be no additional funding; in other cases, there was coordination to engage non-governmental actors.

The Exit strategy was planned together with UNIDO to make sure that the tools and knowledge would be left permanently in country.

Engagement with UNIDO in policy dialogue was active, however, private sector engagement was limited.

Table 24: National Counterparts Performance Rating

#	Evaluation criteria	Definition	Rating

2	National counterparts	Assessment of the contribution of partners to project design, implementation, monitoring and reporting, supervision and backstopping and evaluation. The performance of each partner will be assessed individually, based on its expected role and responsibilities in the project life cycle.	Satisfactory (5/6)

3.5.3. Donor

The disbursement of the IEEA´s funds was timely, in line with the schedule.

Table 25: Donor Performance Rating

#	Evaluation criteria	Definition	Rating
3	Donor	Assessment of the contribution of partners to project design, implementation, monitoring and reporting, supervision and backstopping and evaluation. The performance of each partner will be assessed individually, based on its expected role and responsibilities in the project life cycle.	Satisfactory (5/6)

3.6. Overall project achievement

The IEEA is moderately likely to achieve the intended impact given the complex array of barriers and assumptions, yet the IEEA focused on a set of activities that laid the groundwork for a potential scale up.

The performance of the IEEA is satisfactory for four reasons:

i. Locally and globally industrial energy efficiency is a relevant action to reduce carbon intensity and to follow a deep decarbonization pathway.

ii. It was effective given that completed or partially completed most of the outputs planned.

iii. It made a very productive use of the inputs and activities, in spite of the very tight budget.

iv. The results and benefits are likely to be sustained after the end of GEF´s funding.

The overall rating table of the IEEA is presented in Table 26:

Table 26: Overall Rating

#	Evaluation criteria	Definition	Rating
A	**Progress to impact**	**Positive and negative, primary and secondary long-term effects produced by a development intervention, directly or indirectly, intended or unintended, including redirecting trajectories of transformational process and the extent to which conditions for trajectory change are being put into place.**	**Moderately Likely (4/6)**
B	**Project design**	**Formulation of the intervention, the plan to achieve a specific purpose.**	**Satisfactory (5/6)**
1	Overall design	Assessment of the design in general.	Satisfactory (5/6)
2	Logframe	Assessment of the logical framework aimed at planning the intervention.	Moderately Satisfactory (4/6)
C	**Project performance**	**Functioning of a development intervention.**	**Satisfactory (5/6)**
1	Relevance	The extent to which the aid activity is suited to the priorities and policies of the target group, recipient and donor.	Satisfactory (5/6)
2	Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved, taking into account their relative importance.	Satisfactory (5/6)
3	Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results.	Highly Satisfactory (6/6)
4	Sustainability of benefits	The continuation of benefits from a development intervention after major	Satisfactory (5/6)

		development assistance has been completed. The probability of continued long-term benefits. The resilience to risk of the net benefit flows over time.	
D	**Cross-cutting performance criteria**	**Other important criteria that cut across the UNIDO intervention.**	**Satisfactory (5/6)**
1	Gender mainstreaming	The extent to which UNIDO interventions have contributed to better gender equality and gender related dimensions were considered in an intervention.	Highly Satisfactory (6/6) (2a)
2	M&E	Refers to all the indicators, tools and processes used to measure if a development intervention has been implemented according to the plan (monitoring) and is having the desired result (evaluation).	Satisfactory (5/6)
3	Results-based management (RBM)	Assessment of issues related to results-based work planning, results-based M&E and reporting based on results.	Satisfactory (5/6)
E	**Performance of partners**	**Assessment of partners' roles and responsibilities engaged in the intervention.**	**Satisfactory (5/6)**
1	UNIDO	Assessment of the contribution of partners to project design, implementation, monitoring and reporting, supervision and backstopping and evaluation. The performance of each partner will be assessed individually, based on its expected role and responsibilities in the project life cycle.	Satisfactory (5/6)
2	National counterparts		Satisfactory (5/6)
3	Donor		Satisfactory (5/6)
F	**Overall assessment**	**Overarching assessment of the project, drawing upon the analysis made under Project performance and Progress to Impact criteria above but not an average of ratings.**	**Satisfactory (5/6)**

4. Conclusions, recommendations and lessons learned

4.1. Conclusions

The IEEA at the conceptual stage was relevant and continues to be relevant today, especially because now in the decade of action, industrial energy efficiency is one of the key areas of opportunity to scale up action and drive productive activities towards a deep decarbonization pathway needed to comply with the premises of a 1.5 °C future.

The IEEA had a positive effect in terms of economic performance and social inclusiveness in the countries implemented and although it is moderately likely that the proposed long-term effects will be materialized, the conditions for a transformational process are not fully in place, as discussed in section 3.1.

The main challenge is related to the legal framework, because one of the assumptions was the “authorities ‘commitment and participation” however there is a varying degree of that engagement, which is fundamental to drive the intended impact. Essentially, even though countries formally confirmed their interest that did not translate directly in a change in the regulation nor in full commitment or an active participation from the authorities to mandate or create the conditions for industry to work on their EE improvements.

However, there are two elements that can contribute to the realization of its intended impact. First, three of the IEEA´s outputs have been adopted which increases the chances of replicating them in other places. Second, one of the outputs is being published by Mexico which has the potential to become a reference across Latin America and the Caribbean given that this country is leading on energy efficiency efforts in the region, and other of the outputs has potential to be adopted beyond China therefore contributing to mainstream and scale up the IEEA.

Therefore, although the intended impact does describe a desired long-term benefit globally, the outcomes do portray change in global engagement in industrial energy efficiency, and the outputs define deliverables that the IEEA did produce, the expected results were not fully realistic; because of budgetary constraints and the assumptions did not take into account the institutional capacity which translated in more or less active participation. Moreover, even if all the outputs would have been delivered, the assumptions did not lead directly to outcomes and impact.

However, the performance of the IEEA is satisfactory for four reasons:

v. Locally and globally industrial energy efficiency is a relevant action to reduce carbon intensity and to follow a deep decarbonization pathway.

vi. It was effective given that completed or partially completed most of the outputs planned.

vii. It made a very productive use of the inputs and activities, in spite of the very tight budget.

viii. The results and benefits are likely to be sustained after the end of GEF´s funding.

4.2. Recommendations

- **Private sector involvement**. At the design stage UNIDO can set up a national steering committee with involvement at strategic and technical levels from both national authorities (including education, energy, environment and finance) and local industry (energy users, technology providers and service companies) to ensure participation, ownership, and potential funding.

- **Pre-baseline survey and ex-post survey.** UNIDO can conduct a preliminary diagnostic to assess the conditions to ensure that the relevant stakeholders are included in the design stage. It would be useful to use more detailed data, including local (state/municipal) and industry group (Cement, Food, Steel, etc.) data to better identify and focus the interventions, and to rate progress against the indicators selected.

- **Quantitative and qualitative indicators**. The pre-baseline survey would be helpful to UNIDO in assessing the assumptions and inputs to design the intervention to make sure that deliver the outputs and outcomes required to increase the likelihood of impact.

4.3. Lessons learned

- In the proposal stage one of the assumptions was not fully assessed, i.e. commitment and participation by the authorities, because even though there was a formal commitment in each of the countries, the institutional capacity in country predetermined the level of support that the institution could lend to the Accelerator, and therefore the ability of the project to deliver on outputs and outcomes to drive the intended impact. Therefore, it would be useful to state the specific inputs required from the national governments for the success of the intervention, v.gr. the adoption of energy management systems into the Nationally Determined Contribution.

- In the proposal stage the Accelerator selected a couple of indicators that were not directly related to the activities of the platform, v.gr. CO_2 reduction was not directly related to capacity building activities which made it difficult to the programme manager to track progress. Therefore, limiting its ability to assess progress and/or of the need to adjust the project. Thus, selecting an instrument directly related to the intervention would ease tracking, allowing for the possibility to adjust as needed, v.gr. a capacity building intervention can use an indicator based upon certifications, that ensure knowledge attained and the expertise required to perform the function.

- In the implementation stage the Accelerator did not include private sector participants to design the interventions. This resulted in limited engagement from industry, because of the lack of ownership and little awareness of the benefits, in spite of being direct recipients of the results of the project and reducing the probability of achieving the intended impact. Consequently, an intervention could be potentially more effective if from the design stage all the relevant stakeholders are involved.

Annex 1: Terms of Reference of the Independent Terminal Evaluation

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

DRAFT

TERMS OF REFERENCE

Independent terminal evaluation

Global deployment of the industrial energy efficiency accelerator

UNIDO Project ID: 170041

GEF ID: 9807

APRIL 2020

CONTENTS

I. Project background and overview

1. Project factsheet

Project title	**Global deployment of the industrial energy efficiency accelerator**
UNIDO project No. and/or ID	**Project ID: 170041**
GEF project ID	**9807**
Region	**GLO**
Country(ies)	**GLO**
Planned implementation start date (for GEF projects, as indicated in CEO endorsement/Approval document)	**1 April 2017**
Planned implementation end date (for GEF projects, as indicated in CEO endorsement/Approval document)	**12 June 2019**
Actual implementation start date	**12 June 2017**
Actual implementation end date	**31 August 2018**
GEF Focal Areas and Operational Project (in addition, also indicate whether the project is linked to a GEF programme)	CC (CCM)
Implementing agency(ies)	**UNIDO**
Executing partner(s)/entity(ies)	**Carbon Trust, UK**
Donor(s):	**GEF**
Total project allotment (for GEF: project grant)	**2,000,000**
Total co-financing at design (in cash and in-kind)	**Cash:160,000** **In-kind:6,650,000**
Materialized co-financing at project completion (in cash and in -kind)	**Cash:** **In-kind:**
Mid-term review date	**N/A**

(Source: Project document)[18]

2. Project context

Background to the energy efficiency accelerator platform

[18] Project information data throughout these TOR are to be verified during the inception phase.

The Global energy efficiency accelerator platform was launched at the Climate Summit in September 2014, as a flagship programme to drive action towards SEforALL's goal of doubling the rate of improvement in global energy efficiency by 2030. Through the platform, partners pledged to contribute to expand action to accelerate energy efficiency in five areas: fuel economy, lighting, appliances, buildings and district energy systems. Since the inception of the platform, the GEF played a key role in supporting the individual accelerators and a number of in-country follow up programmes that were formulated by the various accelerators especially in lighting and appliances. Industry accounts for 37% of global total final energy consumption and around one third of global GHG emissions, with 60% of the energy efficiency potential identified by the IEA still to be realized.

The IEA identifies industry as offering a better return on investment in terms of fuel cost savings (3:1) than either transport or buildings (both less than 2:1) across both OECD and Non-OECD countries. Action to stimulate the uptake of energy efficiency in industry makes sense both economically and environmentally and should be prioritized given the need to front-load action on carbon targets.

Therefore, UNIDO in collaboration with the Institute for Industrial Productivity (IIP), The Energy and Resource Institute (TERI) and a number of other partners lauchned an accelerator targeting energy efficiency in Industry in April 2015. The accelerator is co-lead by UNIDO and the Carbon Trust. The Industrial Energy Efficiency Accelerator (IEEA) aims to secure public commitments by governments, industrial corporations, trade associations, utilities, and financial institutions to drive the adoption of Energy Management Systems (EnMS), best practices and innovation in industry. It will engage these actors across the 4 pillars of policy, skills and capacity building, project pipeline development and financing.

The full programme seeks to work with 15 countries over 8 years to rapidly drive higher energy productivity in industry, a major segment with the potential to reduce energy use by 25% or 3.9 Gt CO2. This would make a real impact in reaching the SEforAll's goals before 2030.

Energy efficiency in industry: Potential, High-impact Sectors and Countries

During the Conference of the Parties 21 (COP 21) under the United Nations Framework Convention on Climate Change, the international community agreed to halt the increase in global average temperature to "well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels." Energy efficiency is the most cost-effective, high impact opportunity to reduce greenhouse gas (GHG) emissions globally; it has been estimated that energy efficiency has the potential to reduce 50% of the GHG emissions necessary to achieve the 2°C target.

Between 1990 and 2012, global industrial energy consumption increased by 41%. In 2012, the industrial sectors final energy demand reached 140 EJ. According to the Intergovernmental Panel on Climate Change's (IPCC) Fifth Report, it is estimated that industry produced 29% of global GHG emissions in 2014, making it a target sector for

global mitigation efforts. In the future, demand for energy use in the industrial sector is anticipated to rise at a higher and faster rate than other sectors like transport and buildings, signaling that its share of global energy consumption is set to increase

The bulk of industrial energy use in developed countries, but even more so in developing countries, comes from a small number of energy intensive sectors, such as iron and steel, chemicals and refining, often accounting for 50% of total final energy demand. These heavy industries are likely to be key sectors of focus for the Accelerator to maximize impact. However, in some countries, other sectors may dominate, such as mining, and these will also to be considered.

Currently, the top 20 industrial energy-consuming countries represent over 80% of total energy consumption in industry. In 2013, 12 of the top 20 countries were non-OECD countries such as China, India, Brazil, Saudi Arabia, Indonesia, Mexico, Thailand, United Arab Emirates, South Africa and Turkey. In 1990, these 12 countries consumed only 38% of global industry energy consumption; by 2013, their share increased to 59%. From 1990 to 2013, the average annual growth rate for major non-OECD energy consumers was 3.6%, while for OECD countries it was -0.2%. Therefore, it can be established that these 12 countries have been major drivers of rising industrial energy consumption and the related energy emissions worldwide over the last 25 years.

In addition to their environmental contribution, energy efficiency measures in the industrial sector can advance the Sustainable Development Goals (SDGs): increased disposable income and economic growth; improved industrial productivity; improved local air quality with the associated health benefits; and poverty alleviation. Such gains could add another 50% in economic benefits on top of direct energy cost reductions.

Barriers to energy efficiency in industry

Several barriers are preventing governments from creating an effective backdrop to drive investments in energy efficiency. The root causes of such gaps vary from country to country but include: inadequate information, skills, and methods to assess the costs and benefits of industrial energy efficiency policies and measures; limited institutional capacity for policy design, development and implementation; inappropriate tariff structures; distorted market incentives; and inadequate regulatory or legal frameworks to support energy service companies.

For industrial companies, there is a disconnection between industry shareholders' drive for profit and the ability of energy efficiency to contribute to it. Unfortunately, industry tends to favor short-term (1-3 year) risk-adverse tactics in the name of productivity, including extending energy technology operational life beyond economic replacement cycles or persisting with sub-optimal processes and practices. This behavior produces a range of negative externalities including global and local pollution, waste generation, poor safety and quality and productivity losses. So,

despite significant economic opportunity to save energy costs and emissions, industry hits a number of barriers, including:

- Awareness. In both developed and developing countries, companies are still not fully aware of the all the energy efficiency best practice options available to them, many with zero or low cost.
- Technical Understanding. Companies struggle to know exactly how to deploy solutions
- Risk. The belief that a change in the process or deployment of new equipment may impact production, prevents action.
- Finance. Many companies continue to struggle to access capital to finance energy efficiency measures, and financial institutions often lack understanding of energy efficiency to provide loans.

Industry experience around the world has shown that companies can save around 10-20% of their annual energy consumption and reduce costs through better energy management. On broader terms, energy efficiency in industry generates a number of economic benefits including; increased productivity, lower costs, and job creation. It further improves the well-being of employees and helps companies achieve their climate and sustainability goals. The economic benefits have been well documented and proven within various initiatives implemented by UNIDO and a number of partners in various parts of the world. While these programmes have been successful, there are shortcoming and gaps, which require a global and long-lasting approach.

The proposed programme builds up on the work undertaken by various organizations to accelerate the adoption of new and efficient technologies and practices in the industrial sector. The accelerator will work closely with the local governments, industry associations, private sector companies, energy efficiency experts, technology providers and financial institutions at the national, regional and global level to develop blueprints of industrial energy efficiency programmes. The interventions planned by the accelerator, will take into account the country-specific context and will be tailored to address the key issues identified during the country level assessments. The blueprints will be developed in a way that they can serve as a guide for other countries interested in pursuing and improving industrial energy efficiency.

Project implementation started in June 2017 and the initial project end date was in June 2019. The same was revised to August 2020.

The project document foresees regular monitoring and a terminal evaluation (TE). In view of the project size, this is foreseen to be a self-evaluation to derive the main lessons learned from the implementation of the programme.

3. Project objective

Objective: The Accelerator aims to secure public commitment from governments, industrial corporations and associations, and utilities to drive the adoption of Energy Management Systems (EnMS), best practices and innovation in industry. The Accelerator delivers across a number of SDGs by creating a multi-stakeholder partnership that promotes larger and more significant impacts in a range of different countries and industrial sectors. It also delivers multiple benefits from increased productivity as well as reductions in energy demand and related GHG and local pollutants.

Short term impacts: The funding requested from the GEF within this project will be instrumental in kickstarting this programme:

Through this project, the accelerator will:

- Set up the Accelerator Secretariat to fulfill the central programme management functions, including global coordination, development of tools for industry, knowledge sharing, tracking against key metrics and recruitment of private sector partners.
- Identify and sign-up 5 countries, design relevant policies and programmes and commence incountry project delivery.
- Develop blueprints for future work.
- Identify and sign-up a further 10 countries for engagement until 2025.
- Secure follow-on funding for years 3 to 8 to complete in-country work in all 15 countries.

Long-term impacts: The full programme will unlock significant public and private sector investment in energy efficiency, drive tangible near and long-term emissions reductions, improve competitiveness benefits, and will align with the Sustainable Development Goals.

To achieve this objective, the project will develop and implement the following interrelated components.

Component 1: Maximizing the impact of the Accelerator through multi-country private sector engagement, political commitment and creating a more detailed roadmap of interventions across the first 5 high impact countries

Component 2: Unlocking industrial energy efficiency opportunities in 5 countries by leveraging 4 pillars (policy, skills and capacity building, project pipeline development and financing)

Component 3. Leveraging learnings from first five countries to scale-up to an additional 10 countries, producing very high level plans for these 10 additional countries

4. Project implementation arrangements

As the GEF Implementing Agency, UNIDO holds the ultimate responsibility for the implementation of the project, the delivery of the planned outputs and the achievement of the expected outcomes. UNIDO will be responsible for the general management and monitoring of the project, and reporting on the project performance to the GEF. It will manage, supervise and monitor the work of the international teams and ensure that deliverables are technically sound and consistent with the requirements of the project. UNIDO will provide execution support for procuring the international expertise and services needed to deliver the outputs planned predominantly at the regional and global scale in addition to the issues related to capacity development at the national level.

UNIDO will be responsible for governance of the Accelerator, including the governing principles of the project. It will play a dominant role in coordination, oversight and performance tracking, knowledge and best practice share, and capacity building through carrying out tasks such as the final evaluation.

UNIDO will be mainly responsible for capacity building in the five countries. Capacity building involves determining the need for EnMS and constructing a program of engagement to disseminate the tool. National and regional training, certification schemes, industry engagement with EnMs and creating global dialogue on EnMS tools will aim to ensure that the Accelerator creates a self-sufficient energy efficiency policy regime within the sectors and industries targeted in the countries.

5. Project execution arrangements

The project will be executed by the Carbon Trust, which was established in 2001 by the UK Government to accelerate the transition to a sustainable, low carbon economy. It is an independent organization that works with leading actors around the world to create a more sustainable world. Through stimulating low carbon action, the Carbon Trust is contributing significantly to the key goals of lowering carbon emissions, developing low carbon businesses and formulating national, regional and international low carbon policy and thinking.

The role of the Carbon Trust in this Accelerator will be to provide cutting-edge policy advice and insights on the development and implementation of industrial energy efficiency policies and regulatory frameworks. Furthermore, it will share its expertise and experience in designing and delivering national and internationalscale energy efficiency programmes, as well as its understanding of the environmental impact of industry and how to reduce it. The Carbon Trust will be responsible for the day-to-day execution of the project activities in accordance with the agreed annual project work plan. The Carbon Trust will report to UNIDO regularly.

As the Executing Agency of the initiative, the Carbon Trust will also carry out the majority of country engagement and will be primarily responsible for three of the four main pillars of the Accelerator: policy support; pipeline development; financing mechanisms, as well as scoping out countries to work with. For example, a national level assessment will be carried out with each country's government to agree how to improve industrial

competitiveness and produce a de-carbonization roadmap and energy efficiency financing mechanisms for each target country.

6. Main findings on project progress

Main information on project progress can be obtained from the attached project implementation report.

7. Budget information

Table 2. Financing plan summary – project component breakdown

Project outcomes	**GEF grant amount (excl. PPG) Donor(s)** (in USD)	**Co-financing** (in USD)	**Total** (in USD)
1. Maximizing the impact of the accelerator through multi country private sector engagement, political commitment and creating a roadmap of interventions across the first 5 high impact countries	325,909	1,025,000	**1,060,909**
2. Unlocking industrial energy efficiency opportunities in 5 countries by leveraging 4 pillars (policy, skills and capacity building, pipeline development and financing)	1,108,728	3,325,000	**4,433,728**
3. Leveraging learnings from first five countries to scale up to an additional 10 countries, producing high level plans for these 10 additional countries	293,545	2,060,000	**2,353,545**
4. Monitoring and evaluation	90,000	100,000	**190,000**
Project Management	181,818	300,000	**562,818**
Total (in USD)	**2,000,000**	**6,180,000**	**8,180,000**

Source: Project document/GEF: CEO endorsement document

Table 3. Co-financing source breakdown

Name of co-financier (source)	**Classification**	**Type** (Specify: cash and/or in-kind)	**Total** (in USD)

UNIDO	Implementing Agency	Cash	110,000
	Implementing Agency	In-kind	300,000
Government	Government	In-kind	3,000,000
Private sector	Private sector partners	In-kind	3,150,000
Others	Carbon Trust	Cash	50,000
	Carbon Trust	In-kind	150,000
	C2E2	In-kind	50,000
Total co-financing (in USD)			**3,600,000**

Source: Project document/GEF: CEO endorsement document

Table 4. UNIDO budget execution[19] (Grant No.: 200003667)

Year	Sponsored Program	Sponsored Class		USD	USD	USD
2017	170041-1-01-02	1100	Staff & Intern Consultants	0.00		0.00
2017	170041-1-01-02	2100	Contractual Services	192,334.32	0.00	0.00
2017	170041-1-01-02	Result		192,334.32	0.00	0.00
2017	170041-1-01-03	1100	Staff & Intern Consultants	0.00		0.00
2017	170041-1-01-03	1500	Local travel	0.00		0.00
2017	170041-1-01-03	2100	Contractual Services	580,000.00	0.00	0.00
2017	170041-1-01-03	3500	International Meetings	3,208.57		0.00
2017	170041-1-01-03	Result		583,208.57	0.00	0.00
2017	170041-1-01-04	1100	Staff & Intern Consultants	0.00		0.00
2017	170041-1-01-04	2100	Contractual Services	150,000.00	0.00	0.00
2017	170041-1-01-04	3000	Train/Fellowship/Study	94.19	0.00	0.00
2017	170041-1-01-04	Result		150,094.19	0.00	0.00
2017	170041-1-01-05	1100	Staff & Intern Consultants	4.63		0.00
2017	170041-1-01-05	1700	Nat.Consult./Staff	4,335.77		0.00
2017	170041-1-01-05	2100	Contractual Services	60,909.00	0.00	0.00
2017	170041-1-01-05	Result		65,249.40	0.00	0.00
2017	170041-1-01-06	2100	Contractual Services	18,000.00	0.00	0.00

[19] Disbursement: Expenditure, incl. commitment

2017	Result			1,008,886.48	0.00	0.00
2018	170041-1-01-02	1100	Staff & Intern Consultants	0.00		0.00
2018	170041-1-01-02	1700	Nat.Consult./Staff	16,423.66		0.00
2018	170041-1-01-02	2100	Contractual Services	0.00	0.00	0.00
2018	170041-1-01-02	3000	Train/Fellowship/Study	0.00		0.00
2018	170041-1-01-02	5100	Other Direct Costs	-24.95	0.00	0.00
2018	170041-1-01-02	Result		16,398.71	0.00	0.00
2018	170041-1-01-03	1100	Staff & Intern Consultants	3,100.00		0.00
2018	170041-1-01-03	1500	Local travel	10,810.00		0.00
2018	170041-1-01-03	1700	Nat.Consult./Staff	0.00		0.00
2018	170041-1-01-03	2100	Contractual Services	120,000.00	0.00	0.00
2018	170041-1-01-03	3000	Train/Fellowship/Study	0.00	0.00	0.00
2018	170041-1-01-03	3500	International Meetings	0.00		0.00
2018	170041-1-01-03	Result		133,910.00	0.00	0.00
2018	170041-1-01-04	1100	Staff & Intern Consultants	0.00		0.00
2018	170041-1-01-04	1500	Local travel	12,710.78		0.00
2018	170041-1-01-04	2100	Contractual Services	68,367.60		0.00
2018	170041-1-01-04	3000	Train/Fellowship/Study	0.00		0.00
2018	170041-1-01-04	3500	International Meetings	2,378.85	0.00	0.00
2018	170041-1-01-04	5100	Other Direct Costs	70.66		0.00
2018	170041-1-01-04	Result		83,527.89	0.00	0.00
2018	170041-1-01-05	1100	Staff & Intern Consultants	41,725.73		0.00
2018	170041-1-01-05	1700	Nat.Consult./Staff	13,844.28		0.00
2018	170041-1-01-05	2100	Contractual Services			
2018	170041-1-01-05	Result		55,570.01		0.00
2018	170041-1-01-06	2100	Contractual Services	5.13		0.00
2018	Result			289,411.74	0.00	0.00
2019	170041-1-01-02	1100	Staff & Intern Consultants	0.00		0.00
2019	170041-1-01-02	1500	Local travel	3,016.33		0.00
2019	170041-1-01-02	1700	Nat.Consult./Staff	-177.56		0.00
2019	170041-1-01-02	2100	Contractual Services	113,540.48	0.00	0.00
2019	170041-1-01-02	3000	Train/Fellowship/Study	0.00		0.00
2019	170041-1-01-02	5100	Other Direct Costs	702.59	0.00	0.00

2019	170041-1-01-02	Result		117,081.84	0.00	0.00
2019	170041-1-01-03	1100	Staff & Intern Consultants	88,519.40		0.00
2019	170041-1-01-03	1500	Local travel	17,925.95		0.00
2019	170041-1-01-03	1700	Nat.Consult./Staff	24,339.93		0.00
2019	170041-1-01-03	2100	Contractual Services	181,758.64	0.00	0.00
2019	170041-1-01-03	3000	Train/Fellowship/Study	78,961.92	0.00	0.00
2019	170041-1-01-03	3500	International Meetings	0.00		0.00
2019	170041-1-01-03	5100	Other Direct Costs	723.64	0.00	0.00
2019	170041-1-01-03	Result		392,229.48	0.00	0.00
2019	170041-1-01-04	1100	Staff & Intern Consultants	13,132.03		0.00
2019	170041-1-01-04	1500	Local travel	7,506.73		0.00
2019	170041-1-01-04	2100	Contractual Services	5,688.08	0.00	0.00
2019	170041-1-01-04	3000	Train/Fellowship/Study	33,593.58	0.00	0.00
2019	170041-1-01-04	3500	International Meetings	0.00		0.00
2019	170041-1-01-04	5100	Other Direct Costs	0.00		0.00
2019	170041-1-01-04	Result		59,920.42	0.00	0.00
2019	170041-1-01-05	1100	Staff & Intern Consultants	55,955.17		0.00
2019	170041-1-01-05	1500	Local travel	3,640.34		0.00
2019	170041-1-01-05	1700	Nat.Consult./Staff	2.48		0.00
2019	170041-1-01-05	3000	Train/Fellowship/Study	1,514.29	0.00	0.00
2019	170041-1-01-05	5100	Other Direct Costs	4,091.79	0.00	0.00
2019	170041-1-01-05	Result		65,204.07	0.00	0.00
2019	170041-1-01-06	1100	Staff & Intern Consultants	6,898.71		0.00
2019	170041-1-01-06	1500	Local travel	11,037.01		0.00
2019	170041-1-01-06	2100	Contractual Services	19,031.73	0.00	0.00
2019	170041-1-01-06	3500	International Meetings	1,751.52		0.00
2019	170041-1-01-06	5100	Other Direct Costs	5,622.09	0.00	0.00
2019	170041-1-01-06	Result		44,341.06	0.00	0.00
2019	Result			678,776.87	0.00	0.00
2020	170041-1-01-02	1500	Local travel	0.00		0.00
2020	170041-1-01-02	2100	Contractual Services	31.00		0.00
2020	170041-1-01-02	5100	Other Direct Costs	0.00		0.00
2020	170041-1-01-02	Result		31.00		0.00

2020	170041-1-01-03	1100	Staff & Intern Consultants	0.00		0.00
2020	170041-1-01-03	1500	Local travel	0.00		0.00
2020	170041-1-01-03	1700	Nat.Consult./Staff	0.00		0.00
2020	170041-1-01-03	2100	Contractual Services	-0.69		0.00
2020	170041-1-01-03	5100	Other Direct Costs	0.00		0.00
2020	170041-1-01-03	Result		-0.69		0.00
2020	170041-1-01-04	1100	Staff & Intern Consultants	0.00		0.00
2020	170041-1-01-04	1500	Local travel	0.00		0.00
2020	170041-1-01-04	2100	Contractual Services	-175.60		0.00
2020	170041-1-01-04	5100	Other Direct Costs	0.00		0.00
2020	170041-1-01-04	Result		-175.60		0.00
2020	170041-1-01-05	1100	Staff & Intern Consultants	0.00		0.00
2020	170041-1-01-05	2100	Contractual Services			
2020	170041-1-01-05	5100	Other Direct Costs	0.00		0.00
2020	170041-1-01-05	Result		0.00		0.00
2020	170041-1-01-06	1100	Staff & Intern Consultants	15,603.00		0.00
2020	170041-1-01-06	1500	Local travel	7,512.81		0.00
2020	170041-1-01-06	2100	Contractual Services	-21.04		0.00
2020	170041-1-01-06	3500	International Meetings	0.00		0.00
2020	170041-1-01-06	5100	Other Direct Costs	-24.57		0.00
2020	170041-1-01-06	Result		23,070.20		0.00
2020	Result			22,924.91		0.00
Result				2,000,000.00	0.00	0.00

Source: UNIDO. ERP database as of [6 April 2020]

II. Scope and purpose of the evaluation

The terminal evaluation (TE) will cover the whole duration of the project from its starting date up to the date of the evaluation. It will assess project performance against the evaluation criteria: relevance, effectiveness, efficiency, sustainability and impact.

The TE has an additional purpose of drawing lessons and developing recommendations for UNIDO, Donors, and the project stakeholders and partners that may help improving the selection, enhancing the design and implementation of the accelerator and its activities at global and in country beyond the completion of

the GEF grant. The TE report should include examples of good practices for other similar global programmes.

The TE should provide an analysis of the attainment of the project objective and the corresponding outputs and outcomes. Through its assessments, the Evaluation Team (ET) should enable the counterparts, UNIDO and other stakeholders and donors to verify prospects for development impact and sustainability, providing an analysis of the attainment of global environmental objectives, project objectives, delivery and completion of project outputs/activities, and outcomes/impacts based on indicators. The assessment shall include reexamination of the relevance of the objectives and other elements of project design according to the project evaluation parameters defined in chapter III below.

The overall purpose of the TE is to assess whether the project has achieved or is likely to achieve its main objective, and to what extent the project has also considered sustainability and scaling-up factors for increasing contribution to sustainable results and further impact.

The evaluation has three specific objectives:

(i) Assess the project performance in terms of relevance, effectiveness, efficiency, sustainability and progress to impact;
(ii) Identify key learning to feed into the design and implementation of the forthcoming projects; and
(iii) Develop a series of findings, lessons and recommendations for enhancing the design of new and implementation of ongoing projects by UNIDO.

III. Evaluation approach and methodology

The TE will be conducted in accordance with the UNIDO Evaluation Policy[20] UNEG Norms and Standards for evaluation and the UNIDO Guidelines for the Technical Cooperation Project and Project Cycle[21].

In addition, the GEF Guidelines for GEF Agencies in Conducting Terminal Evaluations, the GEF Monitoring and Evaluation Policy and the GEF Minimum Fiduciary Standards for GEF Implementing and Executing Agencies must to be considered.

The evaluation will be carried out as an independent in-depth evaluation using a participatory approach whereby all key parties associated with the project will be informed and consulted throughout the evaluation. The evaluation team leader will liaise with the UNIDO Independent Evaluation Division on the conduct of the evaluation and methodological issues.

In line with its objectives, the evaluation will have two main components. The first component focuses on an overall **assessment of performance** of the project,

[20] UNIDO. (2015). Director General's Bulletin: Evaluation Policy (UNIDO/DGB/(M).98/Rev.1)
[21] UNIDO. (2006). Director-General's Administrative Instruction No. 17/Rev.1: Guidelines for the Technical Cooperation Programme and Project Cycle (DGAI.17/Rev.1, 24 August 2006)

whereas the second one focuses on the **learning** from the successful and unsuccessful practices in project design and implementation.

The evaluation will use a theory of change approach and mixed methods to collect data and information from a range of sources and informants. It will pay attention to triangulating the data and information collected before forming its assessment. This is essential to ensure an evidence-based and credible evaluation, with robust analytical underpinning.

The theory of change will identify causal and transformational pathways from the project outputs to outcomes and longer-term impacts, and drivers as well as barriers to achieve them. The learning from this analysis will be useful to feed into the design of the future projects so that the management team can effectively manage them based on results.

In those cases where baseline information for relevant indicators is not available, the evaluation team will aim at establishing a proxy-baseline through recall and secondary information.

1. Data collection methods

The ET will be required to use different methods to ensure that data gathering and analysis deliver evidence-based qualitative and quantitative information, based on diverse sources, as necessary: desk studies and literature review, statistical analysis, individual interviews, focus group meetings/discussions, surveys and direct observation. This approach will not only enable the evaluation to assess causality through quantitative means but also to provide reasons for why certain results were achieved or not and to triangulate information for higher reliability of findings. The specific mixed methodological approach will be described in the inception report.

Following are the main instruments for data collection:

(a) **Desk and literature review** of documents related to the project, including but not limited to:
- The original project document, monitoring reports (such as progress and financial reports), mid-term review report, output reports, back-to-office mission report(s), end-of-contract report(s) and relevant correspondence
- Notes from meetings of committees involved in the project

(b) **Stakeholder consultations** will be conducted through structured and semi-structured interviews and focus group discussion. Key stakeholders to be interviewed include:
- UNIDO Management and staff involved in the project; and
- Representatives of donors (for GEF projects, it should include the national GEF focal point) and counterparts
- Other donors and partners of the initiative or working in the broader energy efficiency area (including Sustainable energy for all, UN Environment and others)

(c) **Virtual interviews replacing on-site visits**

- Virtual interviews with the 5 pilot countries to assess the project results.
- Interviews with the relevant UNIDO Country Office(s) representative to the extent that he/she was involved in the project, and the project's management members and the various national [and sub-regional] authorities dealing with project activities as necessary

(d) Other interviews, surveys or document reviews as deemed necessary by the evaluation team and/or by the Independent Evaluation Division for triangulation purposes

2. Evaluation key questions and criteria

The evaluation team will develop interview guidelines. Field interviews can take place either in the form of focus-group discussions or one-to-one consultations.

The key evaluation questions are the following:

(a) What are the key drivers and barriers to achieve the long term objectives? To what extent has the project helped put in place the conditions likely to address the drivers, overcome barriers and contribute to the long term objectives?
(b) How well has the project performed? Has the project done the right things? Has the project done things right, with good value for money?
(c) What have been the project's key results (outputs, outcome and impact)? To what extent have the expected results been achieved or are likely to be achieved? To what extent the achieved results will sustain after the completion of the project?
(d) What lessons can be drawn from the successful and unsuccessful practices in designing, implementing and managing the project?

The evaluation will assess the likelihood of sustainability of the project results after the project completion. The assessment will identify key risks (e.g. in terms of financial, socio-political, institutional and environmental risks) and explain how these risks may affect the continuation of results after the project ends. Table 5 below provides the key evaluation criteria to be assessed by the evaluation. The detailed questions to assess each evaluation criterion are in annex 2. The **rating criteria** and table to be used is presented in annex 8.

(a) Table 5. Summary of Project evaluation criteria

Index	Evaluation criteria	Mandatory rating
A	**Progress to Impact**	**Yes**
B	**Project design**	**Yes**
1	• Overall design	Yes
2	• Logframe	Yes
C	**Project performance**	**Yes**

1	• Relevance	Yes
2	• Effectiveness	Yes
3	• Efficiency	Yes
4	• Sustainability of benefits	Yes
D	**Cross-cutting performance criteria**	
1	• Gender mainstreaming	Yes
2	• Environment and socio-economic aspects[22]	
2	• M&E: (focus on Monitoring) ✓ M&E design ✓ M&E implementation	Yes
3	• Results-based Management (RBM)	Yes
E	**Performance of partners**	
1	• UNIDO	Yes
2	• National counterparts	Yes
3	• Donor	Yes
F	**Overall assessment**	Yes

[22] All GEF-4 and GEF-5 projects have incorporated relevant environmental and social considerations into the project design / GEF-6 projects have followed the provisions specified in UNIDO/DGAI.23: UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP)

IV. Evaluation process

The evaluation will be implemented in phases which are not strictly sequential, but in many cases iterative, conducted in parallel and partly overlapping:

- UNIDO Independent Evaluation Division (IED) identifies and selects the Evaluation Team members, in consultation with project manager
- Inception phase
  - ✓ Desk review and data analysis: The evaluation team will review project-related documentation and literature and carry out a data analysis (incl. familiarization with GEF programmes and strategies, and with relevant GEF policies such as those on project cycle, M&E, co-financing, fiduciary standards, gender, and environmental and social safeguards)
  - ✓ Briefing of consultant(s) at UNIDO Headquarters (HQ)
  - ✓ Preparation of inception report: The evaluation team will prepare the inception report providing details on the methodology for the evaluation and include an evaluation matrix with specific issues for the evaluation; the specific site visits will be determined during the inception phase, taking into consideration the findings and recommendations of project progress reports or mid-term reviews.
  - ✓ Interviews, survey
- Virtual interviews
  - ✓ Country field interviews
- Reporting phase
  - ✓ After field mission, HQ debriefing with preliminary findings, conclusions and recommendations by the ET leader
  - ✓ Data analysis and draft report writing
  - ✓ Draft report submission
  - ✓ Sharing and factual validation of draft report with stakeholders
  - ✓ Final evaluation report Submission and QA/clearance by IED, and
  - ✓ Two pages summary take-away message
- IED Final report issuance and distribution with the respective management response sheet and further follow-up, and publication of evaluation report in UNIDO intra/internet sites

V. Evaluation team composition

A staff from the UNIDO Independent Evaluation Division will be assigned as Evaluation Manager and will coordinate and provide evaluation backstopping to the evaluation team and ensure the quality of the evaluation. The UNIDO Project Manager and national project teams will act as resourced persons and provide support to the evaluation team and the IED evaluation manager.

The evaluation team will be composed of an international evaluation consultant. The evaluation consultant will possess relevant strong experience and skills on evaluation and evaluation management, including social safeguards and gender. Expertise and

experience in the related technical subject of the project is desirable. The evaluation consultants will be contracted by UNIDO.

In some specific cases (e.g. complex projects, regional projects, projects at risk), an IED evaluation officer could be also assigned to be part of the evaluation team and hence participate in the whole conduct as such.

The tasks of the evaluation consultant are specified in the job descriptions in annex 3 to these terms of reference.

According to UNIDO Evaluation Policy, members of the evaluation team must not have been directly involved in the design and/or implementation of the project under evaluation.

The UNIDO GEF Coordinator and GEF OFP(s) will be briefed on the evaluation and provide support to its conduct. GEF OFP(s) will, where applicable and feasible, also be briefed and debriefed at the start and end of the evaluation mission.

VI. Time schedule

The evaluation is scheduled to take place from May to July 2020.

The evaluation interviews are planned for May 2020.

The Draft Evaluation report will be submitted 2 to 4 weeks after the interviews.

The Final Evaluation report will be submitted 2 weeks after comments received.

VII. Evaluation Deliverables

Inception report

This Terms of Reference (ToR) provides some information on the evaluation methodology, but this should not be regarded as exhaustive. After reviewing the project documentation and initial interviews with the project manager, the International Evaluation Consultant will prepare, in collaboration with the national consultant, a short inception report that will operationalize the ToR relating to the evaluation questions and provide information on what type of and how the evidence will be collected (methodology). It will be discussed with and approved by the responsible UNIDO Evaluation Manager.

The Inception Report will focus on the following elements: preliminary project theory model(s); elaboration of evaluation methodology including quantitative and qualitative approaches through an evaluation framework (“evaluation matrix”); division of work between the International Evaluation Consultant and the national

consultant; mission plan, including places to be visited, people to be interviewed and possible surveys to be conducted and a debriefing and reporting timetable[23].

Evaluation report and review procedures

The draft report will be delivered to UNIDO Independent Evaluation Division (the suggested report outline is in annex 4) and circulated to UNIDO staff and national stakeholders associated with the project for factual validation and comments. Any comments or responses, or feedback on any errors of fact to the draft report provided by the stakeholders will be sent to UNIDO Independent Evaluation Division for collation and onward transmission to the project evaluation team who will be advised of any necessary revisions. On the basis of this feedback, and taking into consideration the comments received, the evaluation team will prepare the final version of the terminal evaluation report.

The ET will present its preliminary findings to the local stakeholders at the end of the field visit and take into account their feed-back in preparing the evaluation report. A presentation of preliminary findings will take place at UNIDO HQ after the field mission.

The TE report should be brief, to the point and easy to understand. It must explain the purpose of the evaluation, exactly what was evaluated, and the methods used. The report must highlight any methodological limitations, identify key concerns and present evidence-based findings, consequent conclusions, recommendations and lessons. The report should provide information on when the evaluation took place, the places visited, who was involved and be presented in a way that makes the information accessible and comprehensible. The report should include an executive summary that encapsulates the essence of the information contained in the report to facilitate dissemination and distillation of lessons.

Findings, conclusions and recommendations should be presented in a complete, logical and balanced manner. The evaluation report shall be written in English and follow the outline given in annex 4. The ET should submit the final version of the TE report in accordance with UNIDO Independent Evaluation Division standards.

VIII. Quality assurance

All UNIDO evaluations are subject to quality assessments by UNIDO Independent Evaluation Division. Quality assurance and control is exercised in different ways throughout the evaluation process (briefing of consultants on methodology and process of UNIDO Independent Evaluation Division, providing inputs regarding findings, lessons learned and recommendations from other UNIDO evaluations, review of inception report and evaluation report).

[23] The evaluator will be provided with a Guide on how to prepare an evaluation inception report and a Guide on how to formulate lessons learned (including quality checklist) prepared by the UNIDO Independent Evaluation Division.

The quality of the evaluation report will be assessed and rated against the criteria set forth in the Checklist on evaluation report quality, attached as annex 5. UNIDO's Independent Evaluation Division should ensure that the evaluation report is useful for UNIDO in terms of organizational learning (recommendations and lessons learned) and is compliant with UNIDO's evaluation policy and these terms of reference. The draft and final evaluation report are reviewed by UNIDO Independent Evaluation Division, which will issue and circulate it within UNIDO together with a management response sheet, as well as submit to relevant stakeholders as required.

Annex 1: Project results framework

As per Annex A of the CEO endorsement document.

Annex 2: Detailed questions to assess evaluation criteria

The evaluation team will assess the project performance guided by the questions below.

No.	Evaluation criteria
A	**Progress to impact**
1	✓ Likelihood to contribute to the expected impact ✓ Positive and negative, primary and secondary long-term effects produced by a development intervention, directly or indirectly, intended or unintended, including redirecting trajectories of transformational process and the extent to which conditions for trajectory change are being put into place. ✓ Replication: To what extent the project's specific results (e.g. methodology, technology, lessons, etc.) are reproduced or adopted ✓ Mainstreaming: To what extent information, lessons or specific results of the project are incorporated into broader stakeholder mandates and initiatives such as laws, policies, regulations and project? ✓ Scaling-up: To what extent the project's initiatives and results are implemented at larger geographical scale? ✓ What difference has the project made to the beneficiaries? ✓ What is the change attributable to the project? To what extent? ✓ What are the social, economic, environmental and other effects, either short-, medium- or long-term, on a micro- or macro-level? ✓ What effects are intended or unintended, positive or negative? [The three UNIDO impact dimensions are: ✓ Safeguarding environment: To what extent the project contributes to changes in the status of environment. ✓ Economic performance: To what extent the project contributes to changes in the economic performance (e.g. finances, income, costs saving, expenditure) of individuals, groups and entities? ✓ Social inclusiveness: To what extent the project contributes to changes in capacity and capability of individuals, groups and entities in society, such as employment, education, and training?]
B	**Project design**
1	• Overall design ✓ The project design was adequate to address the problems at hand? ✓ Is the project consistent with the Country's priorities, in the work plan of the lead national counterpart? Does it meet the needs of the target group? Is it consistent with UNIDO's Inclusive and Sustainable Industrial Development? Does it adequately reflect lessons learnt from past projects? Is it in line with the donor's priorities and policies? ✓ Is the applied project approach sound and appropriate? Is the design technically feasible and beased on best practices? Does UNIDO have in-house technical expertise nd experience for this type of intervention? ✓ To what extent the project design (in terms of funding, institutional arrangement, implementation arrangements…) as foreseen in the project document still valid and relevant? ✓ Does the project document include a M&E plan? Does the M&E plan specify what, who and how frequent monitoring, review, evaluations and data collection will take place? Does it allocate budget for each exercise? Is the M&E budget adequately allocated and consistent with the logframe (especially indicators and sources of verification)? ✓ Were there any changes in project design and/or expected results after start of implementation.

No.	Evaluation criteria
	✓ Did the project establish a baseline (initial conditions)? Was the evaluation able to estimate the baseline conditions so that results can be determined? ✓ Risk management: Are critical risks related to financial, social-political, institutional, environmental and implementation aspects identified with specific risk ratings? Are their mitigation measures identified? Where possible, are the mitigation measures included in project activities/outputs and monitored under the M&E plan?
2	• <u>Logframe</u> ✓ Expected results: Is the expected result-chain (impact, outcomes and outputs) clear and logical? Does impact describe a desired long-term benefit to a society or community (not as a mean or process), do outcomes describe change in target group's behaviour/performance or system/institutional performance, do outputs describe deliverables that project will produce to achieve outcomes? Are the expected results realistic, measurable and not a reformulation or summary of lower level results? Do outputs plus assumptions lead to outcomes, do outcomes plus assumptions lead to impact? Can all outputs be delivered by the project, are outcomes outside UNIDO's control but within its influence? ✓ Indicators: Do indicators describe and specify expected results (impact, outcomes and outputs) in terms of quantity, quality and time? Do indicators change at each level of results and independent from indicators at higher and lower levels? Do indicators not restate expected results and not cause them? Are indicators necessary and sufficient and do they provide enough triangulation (cross-checking)? Are they indicators sex-diaggregated, if applicable? ✓ Sources of verification: Are the sources of verification/data able to verify status of indicators, are they cost-effective and reliable? Are the sources of verification/data able to verify status of output and outcome indicators before project completion?
C	**Project performance**
1	• <u>Relevance</u> ✓ How does the project fulfil the urgent target group needs? ✓ To what extent is the project aligned with the development priorities of the country (national poverty reduction strategy, sector development strategy)? ✓ How does project reflect donor policies and priorities? ✓ Is the project a technically adequate solution to the development problem? Does it eliminate the cause of the problem? ✓ To what extent does the project correspond to UNIDO's comparative advantages? ✓ Are the original project objectives (expected results) still valid and pertinent to the target groups? If not, have they been revised? Are the revised objectives still valid in today's context?
2	• <u>Effectiveness</u> ✓ What are the main results (mainly outputs and outcomes) of the project? What have been the quantifiable results of the project? ✓ To what extent did the project achieve their objectives (outputs and outcomes), against the original/revised target(s)? ✓ What are the reasons for the achievement/non-achievement of the project objectives? ✓ What is the quality of the results? How do the stakeholders perceive them? What is the feedback of the beneficiaries and the stakeholders on the project effectiveness? ✓ To what extent is the identified progress result of the project rather than external factors? ✓ What can be done to make the project more effective? ✓ Were the right target groups reached?

No.	Evaluation criteria
3	• <u>Efficiency</u> ✓ How economically are the project resources/inputs (concerning funding, expertise, time…) being used to produce results? ✓ To what extent were expected results achieved within the original budget? If no, please explain why. ✓ Are the results being achieved at an acceptable cost? Would alternative approaches accomplish the same results at less cost? ✓ What measures have been taken during planning and implementation to ensure that resources are efficiently used? Were the project expenditures in line with budgets? ✓ To what extent did the expected co-financing materialize, in cash or in-kind, grants or loan? Was co-financing administered by the project management or by some other organization? Did short fall in co-financing or materialization of greater than expected co-financing affected project results? ✓ Could more have been achieved with the same input? ✓ Could the same have been achieved with less input? ✓ How timely was the project in producing outputs and outcomes? Comment on the delay or acceleration of the project's implementation period. ✓ To what extent were the project's activities in line with the schedule of activities as defined by the Project Team and annual Work Plans? ✓ Have the inputs from the donor, UNIDO and Government/counterpart been provided as planned, and were they adequate to meet the requirements?
4	• <u>Sustainability of benefits</u> ✓ Will the project results and benefits be sustained after the end of donor funding? ✓ Does the project have an exit strategy? *Financial risks:* ✓ What is the likelihood of financial and economic resources not being available once the project ends? *Socio-political risks:* ✓ Are there any social or political risks that may jeopardize the 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 project benefits continue to flow? ✓ Is there sufficient public/stakeholder awareness in support of the project's long-term objectives? *Institutional framework and governance risks:* ✓ Do the legal frameworks, policies, and governance structures and processes within which the project operates pose risks that may jeopardize the sustainability of project benefits? ✓ Are requisite systems for accountability and transparency and required technical know-how in place? *Environmental risks:* ✓ Are there any environmental risks that may jeopardize the sustainability of project outcomes? ✓ Are there any project outputs or higher level results that are likely to have adverse environmental impacts, which, in turn, might affect the sustainability of project benefits?
D	**Cross-cutting performance criteria**
1	• <u>Gender mainstreaming</u>

No.	Evaluation criteria
	✓ Did the project design adequately consider the gender dimensions in its interventions? Was the gender marker assigned correctly at entry? ✓ Was a gender analysis included in a baseline study or needs assessment (if any)? Were there gender-related project indicators? ✓ Are women/gender-focused groups, associations or gender units in partner organizations consulted/ included in the project? ✓ How gender-balanced was the composition of the project management team, the Steering Committee, experts and consultants and the beneficiaries? ✓ Do the results affect women and men differently? If so, why and how? How are the results likely to affect gender relations (e.g., division of labour, decision-making authority)? ✓ To what extent were socioeconomic benefits delivered by the project at the national and local levels, including consideration of gender dimensions?
2	✓ Environment and socio-economic aspects[24]
3	• M&E: ***(focus on Monitoring)*** ✓ ***M&E design*** ○ Was the Monitoring plan at the point of project approval practical and sufficient? ○ Did it include baseline data and specify clear targets and appropriate indicators to track environmental, gender, and socio economic results? ○ Did it include a proper M&E methodological approach; specify practical organization and logistics of the M&E activities including schedule and responsibilities for data collection; ○ Did it include budget adequate funds for M&E activities? ✓ ***M&E implementation*** ○ How was the information from M&E system used during the project implementation? Was an M&E system in place and did it facilitate timely tracking of progress toward project results by collecting information on selected indicators continually throughout the project implementation period? Did project team and manager make decisions and corrective actions based on analysis from M&E system and based on results achieved? ○ Are annual/progress project reports complete and accurate? ○ Was the information provided by the M&E system used to improve performance and adapt to changing needs? Was information on project performance and results achievement being presented to the Project Steering Committee to make decisions and corrective actions? Do the Project team and managers and PSC regularly ask for performance and results information? ○ Are monitoring and self-evaluation carried out effectively, based on indicators for outputs, outcomes and impact in the logframe? Do performance monitoring and reviews take place regularly? ○ Were resources for M&E sufficient? ○ How has the logframe been used for Monitoring and Evaluation purposes (developing M&E plan, setting M&E system, determining baseline and targets, annual implementation review by the Project Steering Committee…) to monitor progress towards expected outputs and outcomes? ○ How well have risks outlined the project document and in the logframe been monitored and managed? How often have risks been reviewed and updated? Has a risk management mechanism been put in place?

No.	Evaluation criteria
4	• <u>Project management</u> ✓ Review overall effectiveness of project management as outlined in the Project Document. Have changes been made and are they effective? Are responsibilities and reporting lines clear? Is decision-making transparent and undertaken in a timely manner? Recommend areas for improvement. ✓ Review whether the national management and overall coordination mechanisms have been efficient and effective? Did each partner have assigned roles and responsibilities from the beginning? Did each partner fulfil its role and responsibilities (e.g. providing strategic support, monitoring and reviewing performance, allocating funds, providing technical support, following up agreed/corrective actions)? ✓ The UNIDO HQ-based management, coordination, monitoring, quality control and technical inputs have been efficient, timely and effective (e.g. problems identified timely and accurately; quality support provided timely and effectively; right staffing levels, continuity, skill mix and frequency of field visits)? ✓ The project implemented outreach and public awareness campaigns. Outreach and public awareness materials produced are in line with the relevant UNIDO and donor advocacy guidelines?"
E	**Performance of partners**
1	• <u>UNIDO</u> ✓ ***Design*** o Mobilization of adequate technical expertise for project design o Inclusiveness of project design (with national counterparts) o Previous evaluative evidence shaping project design o Planning for M&E and ensuring sufficient M&E budget ✓ ***Implementation*** o Timely recruitment of project staff o Appropriate use of funds, procurement and contracting of goods and services o Project modifications following changes in context or after the Mid-Term Review o Follow-up to address implementation bottlenecks o Role of UNIDO country presence (if applicable) supporting the project o Engagement in policy dialogue to ensure up-scaling of innovations o Coordination function o Exit strategy, planned together with the government
2	• <u>National counterparts</u> ✓ ***Design*** o Responsiveness to UNIDO's invitation for engagement in designing the project ✓ ***Implementation*** o Ownership of the project o Support to the project, based on actions and policies

No.	Evaluation criteria
	○ Counterpart funding ○ Internal government coordination ○ Exit strategy, planned together with UNIDO, or arrangements for continued funding of certain activities ○ Facilitation of the participation of Non-Governmental Organizations(NGOs), civil society and the private sector where appropriate ○ Suitable procurement procedures for timely project implementation ○ Engagement with UNIDO in policy dialogue to promote the up-scaling or replication of innovations
3	✓ ***Donor*** ✓ Timely disbursement of project funds ✓ Feedback to progress reports, including Mid-Term Evaluation ✓ Support by the donor's country presence (if applicable) supporting the project for example through engagement in policy dialogue
F	**Overall project achievement** ✓ Overarching assessment of the project, drawing upon the analysis made under Project performance and Progress to Impact criteria above but not an average of ratings.

Annex 3: Job descriptions

TERMS OF REFERENCE FOR PERSONNEL UNDER INDIVIDUAL SERVICE AGREEMENT (ISA)

Title:	International evaluation consultant
Main Duty Station and Location:	Home-based
Missions:	N/A
Start of Contract (EOD):	1 May 2020
End of Contract (COB):	31 July 2020
Number of Working Days:	45 working days

ORGANIZATIONAL CONTEXT

The UNIDO Independent Evaluation Division (ODG/EIO/IED) is responsible for the independent evaluation function of UNIDO. It supports learning, continuous improvement and accountability, and provides factual information about result and practices that feed into the programmatic and strategic decision-making processes. Evaluation is an assessment, as systematic and impartial as possible, of a programme, a project or a theme. Independent evaluations provide evidence-based information that is credible, reliable and useful, enabling the timely incorporation of findings, recommendations and lessons learned into the decision-making processes at organization-wide, programme and project level. ODG/EIO/IED is guided by the UNIDO Evaluation Policy, which is aligned to the norms and standards for evaluation in the UN system. As a the programme under consideration is a medium size project, a self-evaluation by the project management team respecting the UNIDO evaluation guidelines and principles is required.

PROJECT CONTEXT

In April 2017, the Global Environment Facility (GEF) approved funding (USD 2 million) to support the initial deployment of the Accelerator in five selected high-impact countries: Brazil, China, Mexico, Morocco and Indonesia. IEEA seeks to work in total with 15 countries to stimulate significant uptake of industrial energy efficiency by 2025. The project includes 3 components: setting up a global team to support the deployment, developing 5 country actions in high impact countries and supporting the upscaling in 10 more countries.

The international evaluation consultant will evaluate the project in accordance with the evaluation-related terms of reference (TOR). He/she will perform, inter alia, the following main tasks:

MAIN DUTIES	Concrete/ Measurable Outputs to be achieved	Working Days	Location
Undertake a desk review of project documentation (incl. familiarization with the GEF programmes and strategies, and with relevant GEF policies such as those on project cycle, M&E, co-financing, fiduciary standards, gender, and environmental and social safeguards) and relevant reports produced by the accelerator (national diagnostic reports, infographics, fact sheets, etc..); determine key questions to be used to guide the interview and inform UNIDO on issues to consider in continuing the operation of the accelerator; Assess the adequacy of actions performed in each of the 5 countries in view of the relevant legislative and regulatory framework and other background info.	• A table of evaluation questions for global and national partners • A draft list of stakeholders to be interviewed during the evaluation field mission • A brief assessment of the adequacy of the accelerator activities versus country activities	10 days	Home-based
Prepare an inception report which streamlines the specific questions to address the key issues in the TOR, specific methods that will be used and data to collect in the field visits, detailed evaluation methodology confirmed, draft theory of change, and tentative agenda for field work	Inception report submitted to the project manager	3 days	Home-based
Remote briefing with the UNIDO project manager and other key stakeholders at UNIDO HQ.	• Detailed evaluation schedule with tentative mission agenda (incl. list of stakeholders to be interviewed and planned site visits) submitted to project manager	2 days	Homebased
3. Undertake evaluation interviews with the project stakeholders, partners and beneficiaries to verify and complete preliminary evaluation findings from desk review and assess the institutional capacities of the recipient country	• Interviews conducted • Evaluation/debriefing presentation of the evaluation's preliminary findings prepared, draft conclusions, recommendations	15 days	Homebased

MAIN DUTIES	Concrete/ Measurable Outputs to be achieved	Working Days	Location
4. Debriefing presentation: Present preliminary findings, recommendations and lessons learnt to project stakeholders/partners for factual validation and comments Hold additional meetings with and obtain additional data from evaluation/project manager and other stakeholders as required	• Power point presentation • Feedback from stakeholders obtained and discussed • Additional meetings held as required	2 days	Vienna, Austria
5. Prepare the draft evaluation report, with inputs from the various partners, and in accordance with the evaluation TOR Submit draft evaluation report to the project manager for feedback and comments	• Draft evaluation report submitted to evaluation manager for review and comments	10 days	Home-based
6. Revise the draft evaluation report based on comments and suggestions received from the project manager and edit the language and finalize the evaluation report according to UNIDO Independent Evaluation Division standards Prepare a two pages summary of a take-away message from the evaluation	Final evaluation report submitted to evaluation manager Two pages summary take-away message from the evaluation submitted to the evaluation manager	3 days	Home-based
	TOTAL	**45 days**	

MINIMUM ORGANIZATIONAL REQUIREMENTS

Education: Advanced degree in environment, energy, engineering, development studies or related areas

Technical and functional experience:

- Minimum of 10 years' experience in environmental/energy project management and/or evaluation (of development projects), including social safeguards and gender
- Knowledge about GEF operational programs and strategies and about relevant GEF policies such as those on project life cycle, M&E, incremental costs, and fiduciary standards
- Experience in the evaluation of GEF projects and knowledge of UNIDO activities an asset
- Knowledge about multilateral technical cooperation and the UN, international development priorities and frameworks

- Working experience in developing countries

Languages: Fluency in written and spoken English is required.

Absence of conflict of interest:

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract with the UNIDO Independent Evaluation Division.

Annex 4: Outline of an in-depth project evaluation report

Acknowledgement (incl. list of evaluation team members)
Abbreviations and acronyms
Glossary of evaluation-related terms

Executive summary

- Must provide a synopsis of the storyline which includes the main evaluation findings and recommendations
- Must present strengths and weaknesses of the project
- Must be self-explanatory and should be maximum 3-4 pages in length

I. Evaluation objectives, methodology and process

- Information on the evaluation: why, when, by whom, etc.
- Scope and objectives of the evaluation, main questions to be addressed
- Information sources and availability of information
- Methodological remarks, limitations encountered and validity of the findings

II. Country and project background

- Brief country context: an overview of the economy, the environment, institutional development, demographic and other data of relevance to the project
- Sector-specific issues of concern to the project[25] and important developments during the project implementation period
- Project summary:
    - Fact sheet of the project: including project objectives and structure, donors and counterparts, project timing and duration, project costs and co-financing
    - Brief description including history and previous cooperation
    - Project implementation arrangements and implementation modalities, institutions involved, major changes to project implementation
    - Positioning of the UNIDO project (other relevant initiatives by government, other donors, private sector, partners, etc.)
    - Counterpart organization(s)

III. Project assessment

This is the key chapter of the report and should address all evaluation criteria and questions outlined in the TOR (see section VI Project Evaluation Parameters). Assessment must be based on factual evidence collected and analyzed from different sources. The evaluators' assessment can be broken into the following sections:

A. Project design
B. Implementation performance

[25] Explicit and implicit assumptions in the logical framework of the project can provide insights into key-issues of concern (e.g. relevant legislation, enforcement capacities, government initiatives, etc.)

- Ownership and relevance (Report on the relevance of project towards countries and beneficiaries, country ownership, stakeholder involvement)
- Effectiveness (The extent to which the development intervention's objectives, outcomes and deliverables were achieved, or are expected to be achieved, taking into account their relative importance)
- Efficiency (Report on the overall cost-benefit of the project and partner countries' contribution to the achievement of project objectives)
- Likelihood of sustainability of project outcomes (Report on the risks and vulnerability of the project, considering the likely effects of sociopolitical and institutional changes in partner countries, and its impact on continuation of benefits after the project ends, specifically the financial, sociopolitical, institutional framework and governance, and environmental risks)
- Project coordination and management (Report project management conditions and achievements, and partner countries commitment)
- Assessment of monitoring and evaluation systems (Report on M&E design, M&E plan implementation, and budgeting and funding for M&E activities)
- Monitoring of long-term changes
- Assessment of processes affecting achievement of project results (Report on preparation and readiness / quality at entry, financial planning, UNIDO support, co-financing, delays of project outcomes/outputs, and implementation approach)

C. Gender mainstreaming

At the end of this chapter, an overall project achievement rating should be developed as required in annex 8. The overall rating table should be presented here.

IV. Conclusions, recommendations and lessons learned

This chapter can be divided into three sections:

A. Conclusions

This section should include a storyline of the main evaluation conclusions related to the project's achievements and shortfalls. It is important to avoid providing a summary based on each and every evaluation criterion. The main conclusions should be cross-referenced to relevant sections of the evaluation report.

B. Recommendations

This section should be succinct and contain few key recommendations. They should:

- be based on evaluation findings
- be realistic and feasible within a project context
- indicate institution(s) responsible for implementation (addressed to a specific officer, group or entity who can act on it) and have a proposed timeline for implementation if possible
- be commensurate with the available capacities of project team and partners

- take resource requirements into account.

Recommendations should be structured by addressees:
- UNIDO
- Government and/or Counterpart Organizations
- Donor

C. Lessons learned
- Lessons learned must be of wider applicability beyond the evaluated project but must be based on findings and conclusions of the evaluation
- For each lesson, the context from which they are derived should be briefly stated

For further guidance on the formulation and expected quality of lessons learned, please consult the guidance document on lessons learned prepared by the UNIDO Independent Evaluation Division (annex 6). The document also includes a checklist on the quality of lessons learned.

Annexes should include the evaluation TOR, list of interviewees, documents reviewed, a summary of project identification and financial data, including an updated table of expenditures to date, and other detailed quantitative information. Dissident views or management responses to the evaluation findings may later be appended in an annex.

Annex 5: Checklist on evaluation report quality

Project title:
UNIDO Project ID:
GEF ID:

Evaluation team
Evaluation team leader:
National evaluation consultant:
Evaluation manager (IED):

Quality review done by: Date:

Report quality criteria	UNIDO Independent Evaluation Division assessment notes	Rating
A. Was the report well-structured and properly written? (Clear language, correct grammar, clear and logical structure)		
B. Was the evaluation objective clearly stated and the methodology appropriately defined?		
C. Did the report present an assessment of relevant outcomes and achievement of project objectives?		
D. Was the report consistent with the ToR and was the evidence complete and convincing?		
E. Did the report present a sound assessment of sustainability of outcomes or did it explain why this is not (yet) possible? (Including assessment of assumptions, risks and impact drivers)		
F. Did the evidence presented support the lessons and recommendations? Are these directly based on findings?		
G. Did the report include the actual project costs (total, per activity, per source)?		
H. Did the report include an assessment of the quality of both the M&E plan at entry and the system used during the implementation? Was the M&E sufficiently budgeted for during preparation and properly funded during implementation?		
I. Quality of the lessons: were lessons readily applicable in other contexts? Did they suggest prescriptive action?		
J. Quality of the recommendations: did recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?'). Can these be immediately implemented with current resources?		
K. Are the main cross-cutting issues, such as gender, human rights and environment, appropriately covered?		
L. Was the report delivered in a timely manner? (Observance of deadlines)		

Rating system for quality of evaluation reports

A rating scale of 1-6 is used for each criterion: Highly satisfactory = 6, Satisfactory = 5, Moderately satisfactory = 4, Moderately unsatisfactory = 3, Unsatisfactory = 2, Highly unsatisfactory = 1, and unable to assess = 0.

Annex 6. Guidance and checklist on lessons learned quality criteria

UNIDO evaluation lessons learned

Definition

The Organisation for Economic Cooperation and Development's (OECD) Development Assistance Committee (DAC) (2002) defines lessons learned related to the evaluation of development assistance as follows: "***Generalizations based on evaluation experiences*** *with projects, programs, or policies that abstract from the specific circumstances to broader situations. Frequently, lessons highlight strengths or weaknesses in preparation, design, and implementation that affect performance, outcome, and impact."*[26]

Focus on generalization

The International Labour Organisation (ILO) provides one of the most comprehensive definitions of lessons learned with relevance for evaluations in the UN system (2014) "***A lesson learned is an observation from project or programme experience which can be translated into relevant, beneficial knowledge by establishing clear causal factors and effects****. It focuses on a specific design, activity, process or decision and may provide either positive or negative insights on operational effectiveness and efficiency, impact on the achievement of outcomes, or influence on sustainability.* ***The lesson should indicate, where possible, how it contributes to 1) reducing or eliminating deficiencies; or 2) building successful and sustainable practice and performance***"[27].

Focus on transferability & generalization

UNIDO evaluation lessons learned contain information about the context, challenges, causal factors, target users and success/failure, as also shown in below **Lessons learned quality criteria checklist.**

What is not a lesson learned?

Lessons learned are not:	• Simply restating or paraphrasing existing doctrine, policy, process, etc. This does not qualify as an appropriate and bona fide lessons learned[28]. • Just applicable to a specific situation but applicable to a generic situation[29] • The same as recommendations. Recommendations usually refer to very specific situations including who should take action on what by when

[26] http://www.oecd.org/dataoecd/29/21/2754804.pdf
[27] ILO Evaluation Unit, 2014: Guidance Note 3: Evaluation lessons learned and emerging good practices
[28] www.dtic.mil/ndia/2004cmmi/CMMIT2Tue/LessonsLearnedtc3.pdf
[29] *www.globalhivmeinfo.org/Pages/Glossary.aspx* globalhivmeinfo.org/DigitalLibrary/Digital%20Library/Glossary%20of%20Monitoring%20and%20Evaluation%20Terms.doc

Examples of lessons learned

Source	Well-identified lessons learned in UNIDO evaluations
UNIDO, 2016: Independent UNIDO country evaluation: Thailand	• A more effective collaboration between the government of Thailand and UNIDO *(context; target users)* will be more beneficial in developing a "country programme" that identifies the priority areas in which they should work together and then seek funding from potential sources *(success)* than the choice of the projects being driven by UNIDO on the basis of the financial support the latter is able to mobilize *(causal factor; challenge)*.
UNIDO, 2017: Evaluación final independiente del proyecto: Centro de Automatización Industrial y Meca-trónica (Uruguay)	• It is important that UNIDO projects get adequate technical in-house support *(context).* When this capacity is limited to persons that at a later stage get detached from the project the risk emerges *(challenge)* that UNIDO can't adequately met the expectations raised *(causal factor; failure).* UNIDO *(target user)* risks to loose its reputation as a strategic partner in such situations.
UNIDO, 2016: Independent Terminal Evaluation: Demonstration of BAT/BEP in fossil fuel-fired utilities and industrial boilers in response to the Stockholm Convention on POPs	• To UNIDO programme managers *(target users)*: The implementation of this regional project involving six countries *(context)* was very challenging and required more time and better planning to meet deadlines *(challenge).* One important lesson that emerged is that the design should be kept simple. For the same set of objectives, the design should consider to have smaller number of components meaning less administrative burden and more flexibility *(success)* resulting in a better and more successful implementation process (causal factor)*. Lesson learned was amended for this guideline.*
UNIDO, 2016: Independent terminal evaluation. Industrial Energy Efficiency in Ecuador	• To UNIDO country director *(target user)*: Lack of synergies *(challenge)* between energy efficiency projects and Clean Production activities developed by UNIDO at local level *(context)* drives to lose opportunities *(failure)* for a more efficient achievement of shared goals *(causal factor). Lesson learned was amended for this guideline.*

Examples of statements that do not qualify as lessons learned

Statements identified in UNIDO evaluation reports in the lessons learned sections that are in fact no lessons learned
• "Focus on product development innovation methods and tools". *The context, challenge, causal factors, success/failure and target users are omitted. This statement resembles more to a recommendation with suboptimal formulation.*
• "UNIDO, as the International executing Agency, was instrumental in: a) introducing new technologies such as the Vallerani System, the use of Zander in tree planting; b) linking environmental preservation to economic development; c) providing support to the HCEFLCD for upgrading its nursery network". *The context, challenge, causal factors, success/failure and target users are omitted. This statement is a finding.*
• "Include in the peer review process also other agencies, such as UNEP and UNDP, which also support countries in the implementation of Enabling Activities and NIP update projects for the Stockholm Convention". *The context, challenge, causal factors, success/failure and target users are omitted. This statement resembles more to a recommendation with suboptimal formulation.*

Lessons learned quality criteria checklist

The evaluator should cite and explain the points below.
✓ **Context** – Explain the context from which the lesson has been derived (e.g. economic, social, political). If possible, point to any relevance to the broader UNIDO mandates or broader technical or regional activities.
✓ **Challenges** – Cite any difficulties, problems or obstacles encountered / solutions found - Positive and negative aspects should be described.
✓ **Causal factors** – Present evidence for "how" or "why" something did or did not work?
✓ **Target users affected by the lessons learned should be cited** (e.g. Management, programme managers, donors or beneficiaries)

✓ **Success or failure** – The lessons learned should cite any decisions, tasks, or processes that constitute reduced or eliminated deficiencies or built successful and sustainable practice and performance; or have the potential of success. Avoid repetition of failure

✓ **The lesson learned is not mistaken for a recommendation or conclusion**

(Source: ILO Evaluation Unit, 2014: Guidance Note 3: Evaluation lessons learned and emerging good practices, amended with UNIDO IEV)

For assessing the quality of evaluation lessons leaner UNIDO uses a 6-point (with one point for each criterion) rating scheme:

Ratings 4-6 are **satisfactory** and **meet quality criteria**.
Ratings 1-3 are **unsatisfactory** and **fail to meet quality criteria**.

The criterion "The lesson learned is not mistaken for a recommendation or conclusion" **is an exclusion criterion**, i.e. when this criterion is met the lesson learned automatically fails the quality check regardless the quality in other criteria.

Annex 7. GEF Minimum requirements for M&E[30]

Minimum requirement 1: Project design of M&E

All projects will include a concrete and fully budgeted M&E plan by the time of work program entry for full-sized projects (FSP) and CEO approval for medium-sized projects (MSP). This M&E plan will contain as a minimum:

- SMART indicators for project implementation, or, if no indicators are identified, an alternative plan for monitoring that will deliver reliable and valid information to management;

- SMART indicators for results (outcomes and, if applicable, impacts), and, where appropriate, indicators identified at the corporate level;

- Baseline for the project, with a description of the problem to be addressed, with indicator data, or, if major baseline indicators are not identified, an alternative plan for addressing this within one year of implementation;

- Identification of reviews and evaluations that will be undertaken, such as mid-term reviews or evaluations of activities; and

- Organizational set-up and budgets for monitoring and evaluation.

Minimum requirement 2: Application of project M&E

Project monitoring and supervision will include implementation of the M&E plan, comprising:

- SMART indicators for implementation are actively used, or if not, a reasonable explanation is provided;

- SMART indicators for results are actively used, or if not, a reasonable explanation is provided;

- The baseline for the project is fully established and data compiled to review progress reviews, and evaluations are undertaken as planned; and

[30] http://www.thegef.org/gef/sites/thegef.org/files/documents/ME_Policy_2010.pdf

- The organizational set-up for M&E is operational and budgets are spent as planned.

Annex 8. Rating tables

The following table should be used for rating the different key evaluation criteria:

Evaluation Rating Table

#	Evaluation criteria	Definition	Mandatory rating
A	**Progress to impact**	**Positive and negative, primary and secondary long-term effects produced by a development intervention, directly or indirectly, intended or unintended, including redirecting trajectories of transformational process and the extent to which conditions for trajectory change are being put into place.**	Yes
B	**Project design**	**Formulation of the intervention, the plan to achieve a specific purpose.**	Yes
1	Overall design	Assessment of the design in general.	Yes
2	Logframe	Assessment of the logical framework aimed at planning the intervention.	Yes
C	**Project performance**	**Functioning of a development intervention.**	Yes
1	Relevance	The extent to which the aid activity is suited to the priorities and policies of the target group, recipient and donor.	Yes
2	Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved, taking into account their relative importance.	Yes
3	Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results.	Yes

4	Sustainability of benefits	The continuation of benefits from a development intervention after major development assistance has been completed. The probability of continued long-term benefits. The resilience to risk of the net benefit flows over time.	Yes
D	**Cross-cutting performance criteria**	**Other important criteria that cut across the UNIDO intervention.**	
1	Gender mainstreaming	The extent to which UNIDO interventions have contributed to better gender equality and gender related dimensions were considered in an intervention.	Yes
2	M&E	Refers to all the indicators, tools and processes used to measure if a development intervention has been implemented according to the plan (monitoring) and is having the desired result (evaluation).	Yes
3	Results-based management (RBM)	Assessment of issues related to results-based work planning, results based M&E and reporting based on results.	Yes
E	**Performance of partners**	**Assessment of partners' roles and responsibilities engaged in the intervention.**	**Yes**
1	UNIDO	Assessment of the contribution of partners to project design, implementation, monitoring and reporting, supervision and backstopping and evaluation. The performance of each partner will be assessed individually, based on its expected role and responsibilities in the project life cycle.	Yes
2	National counterparts		Yes
3	Donor		Yes
F	**Overall assessment**	**Overarching assessment of the project, drawing upon the analysis made under Project performance and Progress to Impact criteria above but not an average of ratings.**	**Yes**

It is acknowledged that some issues covered by one criterion might overlap with others. Yet to enable UNIDO to learn from the deeper evaluation analyses and lessons on a number of areas, separate criteria are included such as those on Monitoring and Evaluation and Results-Based Management. The consistent use of the criteria pertinent to the evaluation object allow for comparability of UNIDO's performance over time. Evaluation questions are formulated around those evaluation criteria in UNIDO, as specified in the following section.

Rating systems and criteria

UNIDO introduced a six-point rating system for the evaluation criteria in 2015, in line with the practice adopted by other development agencies, including the GEF. The aim of the system is to quantify the judgment of evaluators, identify good and poor practices, to facilitate aggregation within and across projects and enable tracking performance trends over a period. The six-point rating system, with six (6) representing the best and one (1) the worst score, allows for nuanced assessment of performance and results. The same rating scale is used for all rating areas as shown below.

UNIDO evaluation rating scale

Score		Definition*	Category
6	Highly satisfactory	Level of achievement presents no shortcomings (90% - 100% achievement rate of planned expectations and targets).	SATISFACTORY
5	Satisfactory	Level of achievement presents minor shortcomings (70% - 89% achievement rate of planned expectations and targets).	
4	Moderately satisfactory	Level of achievement presents moderate shortcomings (50% - 69% achievement rate of planned expectations and targets).	
3	Moderately unsatisfactory	Level of achievement presents some significant shortcomings (30% - 49% achievement rate of planned expectations and targets).	UNSATISFACTORY
2	Unsatisfactory	Level of achievement presents major shortcomings (10% - 29% achievement rate of planned expectations and targets).	

1	Highly unsatisfactory	Level of achievement presents severe shortcomings (0% - 9% achievement rate of planned expectations and targets).	

Note: * For impact, the assessment will be based on the level of *likely* achievement, as it is often too early to assess the long-term impacts of the project at the project completion point.

Table below contains the formula applied to transform the results of UNIDO's six-point rating scale to the GEF's four-point scale for sustainability[31].

Formula transforming UNIDO ratings into GEF ratings

UNIDO rating	UNIDO rating: sustainability	GEF rating: sustainability
6	Highly likely (HL)	Likely (L)
5	Likely (L)	Moderately Likely (ML)
4	Moderately likely (ML)	Moderately Likely (ML)
3	Moderately Unlikely (MU)	Moderately Unlikely (MU)
2	Unlikely (U)	Moderately Unlikely (MU)
1	Highly unlikely (HU)	Unlikely (U)

This formula underscores the distinction of ratings into "satisfactory" and "unsatisfactory", both in applying UNIDO's six-point rating scale and the transformation into the GEF four-point rating scale for sustainability. To ensure coherence in ratings, the rating is defined above. The use of benchmarks like the performance of peers for the same criteria helps to facilitate the interpretation of ratings.

Project design

Criteria for rating project design are related to the logical framework approach and the quality of overall project design. These criteria include:

Overall design quality

- Pertinence to country priorities, needs of target groups and UNIDO strategies
- Consideration and use of lessons and evaluative evidence from other projects
- Technical feasibility and validity of project design
- Budgeted M&E plan with clear timelines, roles, and responsibilities
- Adequacy of risk assessment (for example financial, sociopolitical, institutional, environmental and implementation aspects)

Logframe/logframe-like matrix based on the project's theory of change

[31] GEF uses a four-point scale for the criterion of sustainability.

- Clarity and logic of results-chain, including impacts, outcomes and outputs
- SMART indicators
- Adequacy of Means of Verification and Assumptions

Implementation performance

Implementation performance criteria correspond broadly to DAC criteria and need to be customized according to the context of the intervention to be evaluated.

- Relevance
- Effectiveness
- Efficiency
- Progress to Impact
- Sustainability of benefits

Partners' performance

UNIDO's projects are characterized by a group of main partners with specific roles and responsibilities. UNIDO itself acts as project implementer and supervisor. Though supplemented by implementation performance criteria listed above, the criteria to assess UNIDO as a partner are more specific and help to address frequent issues in its performance. Governments are local executers, and owners of the project and donors provide project funding. Hence, rating the partners is a key part of UNIDO project evaluations[32]. The six-point rating scale applies[33].

The key issues to be addressed to rate **UNIDO's performance** are:

Project design

- Mobilization of adequate technical expertise for project design
- Inclusiveness of project design (with national counterparts)
- Previous evaluative evidence shaping project design
- Planning for M&E and ensuring sufficient M&E budget

Implementation

- Timely recruitment of project staff
- Project modifications following changes in context or after the Mid-Term Review
- Follow-up to address implementation bottlenecks
- Role of UNIDO country presence (if applicable) supporting the project
- Engagement in policy dialogue to ensure up-scaling of innovations

[32] As practiced by the World Bank and the International Fund for Agriculture Development.

[33] 6 = Highly satisfactory; 5 = Satisfactory; 4 = Moderately satisfactory; 3 = Moderately unsatisfactory; 2 = Unsatisfactory; 1 = Highly unsatisfactory

- Coordination function
- Exit strategy, planned together with the government
- Overall effectiveness of project management as outlined in the Project Document
- Project's governance system
- National management and overall coordination mechanisms
- UNIDO HQ-based management, coordination, monitoring, quality control and technical input

To assess the ***performance of national counterparts***, the evaluation looks into the following issues:

Project design
- Responsiveness to UNIDO's invitation for engagement in designing the project

Implementation
- Ownership of the project
- Financial contributions (cash or in-kind)
- Support to the project, based on actions and policies
- Counterpart funding
- Internal government coordination
- Exit strategy, planned together with UNIDO, or arrangements for continued funding of certain activities
- Facilitation of the participation of Non-Governmental Organizations (NGOs), civil society and the private sector where appropriate
- Suitable procurement procedures for timely project implementation
- Engagement with UNIDO in policy dialogue to promote the up-scaling or replication of innovations

For the assessment of ***donor performance***, the following issues require ratings:
- Timely disbursement of project funds
- Feedback to progress reports, including Mid-Term Evaluation, if applicable
- Support by the donor's country presence (if applicable) supporting the project for example through engagement in policy dialogue

Gender mainstreaming

The UNIDO Policy on gender equality and the empowerment of women, issued initially in April 2009, and revised in March 2015 (UNIDO/DGB/(M).110/Rev.), provides the overall guidelines for establishing a gender mainstreaming strategy and action plans to guide the process of addressing gender issues in the Organization's industrial development interventions. It commits the organization that evaluations will demonstrate effective use of the UNEG guidance on evaluating from a human rights and gender equality perspective,

as indicated by the Organization's meta-evaluation scores according to the UNEG Evaluation Scorecard.

In line with the UNIDO Gender Equality and Empowerment of Women Strategy, 2016-2019, all UNIDO technical assistance projects post-2015 are to be assigned a gender marker and should go through a gender mainstreaming check-list before approval. UNIDO's gender marker is in line with UN System-wide action plan (SWAP) requirements, with four categories: 0 — no attention to gender, 1 — some/limited attention to gender, 2a — significant attention to gender, 2b — gender is the principal objective[34].

Besides, Guides on Gender Mainstreaming for Inclusive and Sustainable Industrial Development (ISID) Projects in different areas of UNIDO's work have been developed and published during 2015[35], which have specific guidance on suitable outputs/activities/ indicators per technical area.

If the project design and gender analysis/existing indicators are not sufficient to allow for an accurate appraisal at the final evaluation, specific indicators could be created during the evaluation planning stage (preparing and revising the inception report) and assessed during the evaluation process. Together with the budget, the time required to adequately carry out a gender responsive evaluation will need to be taken into account. The evaluation time depends on the questions the assessment needs to answer, on how deep the analyses are requested to be, and on financial and human resources available as well as other external factors.

For terminal evaluations of projects that have been approved after 2015, evaluations should assess if the rating was correctly done at entry, if appropriate outputs/activities/indicators and monitoring were put in place during implementation and what results can be actually observed at the time of terminal evaluation (in line with UNIDO's organizational results reporting to SWAP). The Gender Mainstreaming six-point rating scale should then be used accordingly.

For projects that have **2a** or **2b ratings** at project design/entry at least one evaluation team member should have demonstrated/significant experience in evaluating GEEW projects. For other projects, evaluators are encouraged to further familiarize themselves with the key gender aspects and impacts of UNIDO projects, both through the foundation modules of "I know Gender" online course of UN Women and the UNIDO's Guides on Gender Mainstreaming ISID Projects.

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[34] http://intranet.unido.org/intra/Gender_Mainstreaming_Tools_and_Guides

[35] www.unido.org/en/what-we-do/cross-cutting-issues/gender/publications.html

Annex 2: List of interviewees

No.	Name	Organization	Position	e-mail	Role
1	Brian Dean	SEforALL	Energy Efficiency and Cooling	brian@seforall.org	Steering Group
2	Rana Ghoneim	UNIDO	Chief of Energy Systems & Infrastructure	R.GHONEIM@unido.org	Secretariat
3	Nurzat Myrsalieva	UNIDO	Industrial Energy Efficiency Officer	N.MYRSALIEVA@unido.org	GEF Agency
4	Tom Jennings	Carbon Trust	Director of Policy & Innovation	tom.jennings@carbontrust.com	Executor
5	Ashok Sarkar	World Bank	Senior Energy Specialist	asarkar@worldbank.org	Steering Group
6	Lisa Hiller-Garvey	Small World Stories	Project Manager	lisa@smallworldstories.org	Contractor
7	Macarena Aguilar	Small World Stories	Communications Strategy Development	maca@smallworldstories.org	Contractor

Countries

Brazil

No.	Name	Organization	Position	e-mail	Role
1	Alexandra de Albuquerque Maciel	MME	Energy Efficiency	alexandra.maciel@mma.gov.br	Beneficiary
2	Samira Sana Fernandes De Sousa Carmo	MME	Energy Efficiency	samira.sousa@mme.gov.br	Beneficiary
3	Rodrigo Bacellar	BNDES	Manager, Energy Department	rodrigom@bndes.gov.br	Beneficiary
4	Guilherme Teixeira	SITAWI Finance for Good	Energy Efficiency	gteixeira@sitawi.net	Contractor
5	João Lampreia	Carbon Trust	Energy Efficiency	Joao.Lampreia@carbontrust.com	Executor
6	Clovis Zapata	UNIDO Brazil Office	National Programme Officer	C.ZAPATA@unido.org	Implementer

China

No.	Name	Organization	Position	e-mail	Role
1	Tina He	Carbon Trust	Senior Analyst	tina.he@carbontrust.com	Executor
2	Nurzat Myrsalieva	UNIDO	Industrial Energy Efficiency Officer	N.MYRSALIEVA@unido.org	GEF Agency

Indonesia

No.	Name	Organization	Position	e-mail	Role
1	Puti Faraniza	PT SMI	Project Development & Advisory, Sustainable Finance Division	puti@ptsmi.co.id	Beneficiary
2	Daniel Marten	Carbon Trust	Manager	daniel.marten@carbontrust.com	Executor
3	Chris Stephens	Carbon Trust	Director	Chris.stephens@carbontrust.com	Executor
4	Chris Stephens	Carbon Trust	Director	Chris.stephens@carbontrust.com	Executor

Mexico

No.	Name	Organization	Position	e-mail	Role
1	Israel Jáuregui	CONUEE	Deputy Director-General	israel.jauregui@conuee.gob.mx	Implementer
2	Israel Jáuregui	CONUEE	Deputy Director-General	israel.jauregui@conuee.gob.mx	Implementer
3	Guillermo Castellá	UNIDO	Mexico Representative	g.castella@unido.org	GEF Agency
4	Ramiro Magaña	UNIDO	Officer	r.magana@unido.org	GEF Agency
5	Erika Salinas	Carbon Trust	Director	erika.salinas@carbontrust.com	Executor
6	Daniel Marten	Carbon Trust	Director	daniel.marten@carbontrust.com	Executor

Morocco

No.	Name	Organization	Position	e-mail	Role
1	Mr. Younness EL Fouih	UNIDO Consultant	National Project Coordinator	fouih.younness@gmail.com	Executor
2	Nurzat Myrsalieva	UNIDO	Industrial Energy Efficiency Officer	N.MYRSALIEVA@unido.org	Implementer

Annex 3: Lists of documents reviewed

1. GEF CEO Approval of the Global deployment of the Industrial Energy Efficiency Accelerator, UNIDO Project ID: 170041, GEF ID: 9807, March 27 2017
2. UNEG, UNEG Quality Checklist for Evaluation Terms of Reference and Inception Reports, 2010
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5. UNIDO, Director General´s Bulletin, Charter of the Office of Evaluation and Internal Oversight, 2019
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15. IEEA, Diagnostics
16. IEEA, Resources
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Annex 4: Financial data

GRANT 2000003667 in US$		
Component	**Description**	**2017 to 2020**
170041-1-01-02	Contractual Services	305,874.80
Maximizing the impact of the Accelerator through multi-country private sector engagement, political commitment and creating a roadmap of interventions across the first 5 high impact countries	National Consultant	16,246.10
	International Consultant	
	Travel	3,016.33
	Total	**325,137.23**
Component	**Description**	**2017 to 2020**
170041-1-01-03	Contractual Services	881,758.64
Unlocking industrial energy efficiency opportunities in 5 countries by leveraging 4 pillars (policy, skills and capacity building, pipeline development and financing)	National Consultant	24,339.93
	International Consultant	91,619.40
	Travel	28,735.95
	Total	**1,026,453.92**
Component	**Description**	**2017 to 2020**
170041-1-01-04	Contractual Services	224,055.68
Leveraging learnings from first five countries to scale-up to an additional 10 countries, producing high level plans for these 10 additional countries	National Consultant	
	International Consultant	13,132.03
	Travel	20,217.51
	Total	**257,405.22**
Component	**Description**	**2017 to 2020**
170041-1-01-05	Contractual Services	60,909.00
Project Management & Monitoring	National Consultant	18,180.05
	International Consultant	97,680.90
	Travel	3,640.34
	Total	**180,410.29**
Component	**Description**	**2017 to 2020**
170041-1-01-06	Contractual Services	37,031.73
Evaluation	National Consultant	
	International Consultant	28,228.71
	Travel	11,037.01
	Total	**76,297.45**
	TOTAL	**1,865,704.11**