Terminal Evaluation of the UN Environment Project "Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment" (GEF ID 5831) (2014-2017)

Final report

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"Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment"
(GEF Project ID 5831)
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ABOUT THE EVALUATION[1]

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Brief Description: This report is a terminal evaluation of a UN Environment-GEF project implemented between 2015 and 2017. The project aimed to foster partnerships and prepare knowledge products required for facilitating market transformation for energy efficient appliances and equipment. The evaluation sought to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UN Environment, UNDP, the GEF, International Copper Association (ICA),

Collaborative Labelling and Appliance Standards Program (CLASP) and National Resources Defence Council (NRDC) as well as other relevant agencies of the project participating countries.

Key words: Project Evaluation; Climate Change; TE; Terminal Evaluation; GEF; GEF Project; Energy Efficiency; Energy Conservation; Market Transformation.

[1] *This data is used to aid the internet search of this report on the Evaluation Office of UN Environment Website*

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List of acronyms and abbreviations

10 YFP	**The 10 Year Framework of Programmes on Sustainable Consumption and Production**
ASEAN	**Association of Southeast Asian Nations**
BASE	**Basel Agency for Sustainable Energy**
BEE	**Bureau of Energy Efficiency (India)**
bigEE	**"bridging the information gap on Energy Efficiency", co-ordinated by the Wuppertal Institute (Germany)**
BSP	**Bali Strategic Plan**
CCAC	**Climate and Clean Air Coalition to Reduce Short-Lived Pollutants**
CCM	**Climate Change Mitigation**
CEIT	**Countries with Economies in Transition**
CEO	**Chief Executive Officer**
CFL	**Compact Fluorescent Lamp**
CIP	**Consumer Information Programme**
CIS	**Commonwealth of Independent States**
CLASP	**Collaborative Labelling and Appliance Standards Program**
CMU	**Climate Mitigation Unit**
COP	**Conference of Parties**
CSO	**Civil Society Organizations**
CTCN	**Climate Technology Centre & Network**
DEDE	**Department of Alternative Energy Development and Efficiency (Thailand)**
DSM	**Demand-side management**
DTIE	**Division of Technology, Industry and Economics**
DTU	**Danish Technical University**
EA	**Expected Accomplishment**
ECOWAS	**Economic Community of West African States**
EE	**Energy Efficiency**
EOU	**Evaluation Office of UN Environment**
ESCO	**Energy Service Company**
GCPF	**Global Climate Partnership Fund**
GEF	**Global Environment Facility**
GELC	**Global Efficient Lighting Centre**
GHG	**Greenhouse Gas**
GIZ	**German Corporation for International Cooperation GmbH**
GLA	**Global Lighting Association**
GWP	**Global Warming Potential**
HEPS	**Higher Efficiency Performance Standards**
HFC	**Hydrofluorocarbons (coolant)**
IADB	**Inter-American Development Bank**
ICA	**International Copper Association**
IEA	**International Energy Agency**
IEC	**International Electrotechnical Commission**

IGO	**Inter-governmental Organization**
IMIS	**Integrated Management Information System**
INDC	**Intended Nationally Determined Contributions**
IPEEC	**International Partnership for Energy Efficiency Cooperation**
K-CEP	**Kigali Cooling Efficiency Program**
LED	**Light Emitting Diode**
LEDVANCE	**International company based in Germany for lighting products and networked light applications**
M&E	**Monitoring and Evaluation**
MEPS	**Minimum Energy Performance Standards**
MVE	**Monitoring, Verification and Enforcement**
NAMA	**Nationally Appropriate Mitigation Action**
NGO	**Non-Governmental Organization**
NLTC	**National Lighting Test Centre, China**
NRDC	**National Resources Defense Council**
ODP	**Ozone Depletion Potential**
OECD	**Organisation for Economic Co-operation and Development**
OLADE	**Latin America Energy Organization**
PIR	**Project Implementation Review**
PMC	**Project Management Cost**
PMT	**Project Management Team**
PoW	**Programme of Work**
PPP	**Public-Private Partnership**
PRC	**Project Review Committee**
PRF	**Project Results Framework**
PSC	**Project Steering Committee**
RAC	**Room Air Conditioner (also referred to as AC)**
RCE	**Request for CEO Endorsement**
RE	**Renewable Energy**
ROtI	**Review of Outcomes to Impacts**
SAPP	**Southern African Power Pool**
SBCI	**Sustainable Building and Climate Initiative**
SDG	**Sustainable Development Goal**
SE4ALL	**Sustainable Energy for All**
SEAD	**Super-Efficient Equipment and Appliance Deployment**
SFM	**Sustainable Forest Management**
SGP	**Small Grants Programme**
SMART	**Criteria to guide the setting of objectives (Specific, Measurable, Assignable, Realistic, Time-related)**
SME	**Small to Medium Enterprise**
SPP	**Sustainable Public Procurement**
STAP	**Scientific and Technical Advisory Panel**
TA	**Technical Assistance**

TE	**Terminal Evaluation**
TF	**Trust Fund**
TNA	**Technology Need Assessment**
ToC	**Theory of Change**
ToR	**Terms of Reference**
TTU	**Technology Transfer Unit**
U4E	**United for Efficiency**
UN	**United Nations**
UNDP	**United Nations Development Programme**
UNEP	**United Nations Environment Programme**
UNEP DTIE	**UNEP Division of Technology, Industry and Economics**
UNFCCC	**United Nations Framework Convention on Climate Change**
VSQI	**Viet Nam Standards and Quality Institute**

Table 1: Project Identification Table

Sub-programme:	**Climate Change Mitigation**	*Expected Accomplishment(s):*	**MTS 2014-2017: CC - EA (b)[2]**	
UN Environment approval date:	**18 Sept 2015**	*Programme of Work Output(s):*	**PoW Output 3[3]**	
GEF project ID:	**5831**	*Project type:*	**Medium-size project**	
GEF Operational Programme:	**6**	*Focal Area(s):*	**CCM-1 and CCM-2**	
GEF approval date:	**19 May 2015**	*GEF Strategic Priority:*	**CC 1 - Program 1**	
Expected start date:	**n/a**	Actual start date:	**18-Sept-15**	
Planned completion date:	**19-Mar-17**	Actual completion date:	**31-Dec-17**	
Planned project budget at approval:	**US$ 9,095,000**	Actual total expenditures reported as of 30 June 2018:	**US$ 7,318,417**	
GEF grant allocation:	**US$ 1,370,000**	Actual GEF grant expenditures reported as of 30 June 2018:	**US$1,358,129**	
Project Preparation Grant - GEF financing:	**n/a**	*Project Preparation Grant - co-financing:*	**n/a**	
Expected Medium-Size Project co-financing:	**US$ 7,725,000**	*Secured Medium-Size Project co-financing:*	**US$ 5,960,288**	
First disbursement:	**October 2015**	Date of financial closure:	**n/a**	
No. of revisions:	**1**	Date of last revision:	**18-Mar-17**	
No. of Steering Committee meetings:	**3**	Date of last/next Steering Committee meeting:	**Last: 01-Mar-17**	**First: 15-May-15**
Mid-term Review/ Evaluation *(planned date):*	**n/a**	Mid-term Review/ Evaluation (actual date):	**n/a**	
Terminal Review (planned date):	**June 2017**	Terminal Review (actual date):	**May-October 2018**	
Coverage - Country(ies):	**Global**	Coverage - Region(s):	**Global**	
Dates of previous project phases:	**en.lighten (Feb 2010-Nov 2015)**	Status of future project phases:	**Global Program "Leapfrogging Markets to high Efficiency products (appliances, including lighting and electrical equipment)", which includes a Global Project approved by the GEF on 16 Nov 2017 and several country child projects[4] (Chile, Myanmar, Tunisia, Indonesia, Costa Rica, Sudan, Kazakhstan, South Africa).**	

[2] Expected Accomplishment (b): "Energy efficiency is improved and the use of renewable energy is increased in partner countries to help reduce greenhouse gas emissions and other pollutants as part of their low emission development pathways".

[3] Output 3: "Tools and approaches designed and piloted in countries to develop mitigation plans, policies, measures, and low emission development strategies, and spur sector investment and innovation within and across selected sectors".

[4] Refers to an individual project under a GEF Program.

Executive Summary

Project Background

1. **The medium-sized Global Environment Facility (GEF) Project entitled "Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment" (herein referred to as the "Project") was implemented by UN Environment's Climate Change Unit under its Economy Division, Energy & Climate Branch. Execution of the Project was under the Energy Unit (formerly Technology Transfer Unit, TTU), also under the Economy Division. The Project was in response to the UN Secretary-General's 2011 launch of the "Sustainable Energy for All (SE4ALL)" initiative, a global initiative with leaders in government, the private sector and civil society on doubling the global rate of energy efficiency by 2030 that contribute to the achievement of Sustainable Development Goal 7 (SDG-7), and meeting the long-term goal of the Paris Climate Agreement, which calls for reducing Greenhouse Gas (GHG) emissions that would limit global warming to less than 2°C (Para 28).**
2. **The SE4ALL initiative identified lighting, appliances and equipment among the top priority themes to achieve the goal of doubling the global rate of improvement in energy efficiency, through "SE4ALL Accelerators" (see Para 28 for further details). The Project is one of several accelerators launched at the Climate Summit in 2015, via the SE4ALL initiative that has received GEF support in 2 separate projects:**
    - **the Project being evaluated in this report, initiated in September 2015 with an 18-month GEF funding commitment of US$1.37 million and co-financing of US$7.725 million; and**
    - **the "Global Project to Leapfrog Markets to Energy Efficient Lighting, Appliances and Equipment" (GEF ID #9337) or the "*Leapfrogging Project*" (commenced in April 2018) that has a 3-year GEF funding commitment of US$3.1 million and co-financing of US$18.677 million.**
3. **This Project was designed as bridge support between the UN Environment-GEF "Global Market Transformation for Efficient Lighting (en.lighten)" project that focused on the global approach to market transformation of the lighting market)[5], and the Leapfrogging Project (focusing on market transformation to an expanded list of appliances and equipment).**
4. **The "Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment" project objective was to "mitigate climate change by reducing the growth of global electricity production through the creation of a global partnership accelerating markets for highly efficient electrical appliances and equipment". This was achieved using Project funds through the formation of a global public-private partnership, United for Efficiency (U4E), consisting of multilateral donor agencies, global NGOs and CSOs, manufacturing partners, and technical organizations and initiatives. Achievement of this objective was a crucial precursor to being able to achieve the Leapfrogging Project objective of "mitigating climate change by transforming national and regional markets to energy-efficient products" (Paras 29 to 31 for further detail).**

Purpose of Terminal Evaluation

5. **This Terminal Evaluation was prepared in 2018 to assess performance of the Project towards its intended goal "to mitigate climate change by reducing the growth of global electricity production through the creation of a global partnership accelerating markets for highly efficient electrical appliances and equipment", and meeting intended outcomes (which were slightly reconstructed through a *Theory of Change (ToC)* approach as detailed in Section 2.8), which were:**

[5] **The UN Environment-GEF en.lighten initiative started in January 2010 with a 5M grant from the GEF Earth Fund and contributions from partners valued at USD15.5m. Activities were completed in November 2015. (Source en.lighten Terminal Evaluation Report (2018) available for download in UN Environment Repository and GEF website),**

- **Consensus is reached amongst expert taskforces on policy and strategy framework options (Outcome 1);**
- **Developing and emerging country decision makers have increased awareness of the benefits of energy efficient policies (Outcome 2);**
- **Key partners are committed to energy efficiency of appliances, equipment and lighting (Outcome 3);**
- **Consensus is reached amongst en.lighten technical experts on best practice policy, awareness raising, and financial mechanisms to facilitate the transition to efficient and advanced lighting (Outcome 4).**

6. **The assessment of the Project's performance also included the following key considerations:**
   - **The extent to which, and how the Project is contributing to SDG-7 "Ensure access to affordable, reliable, sustainable and modern energy for all" and to Intended Nationally Determined Contributions (INDCs);**
   - **The extent to which, and how organizations participating in the partnership are promoting market shifts and encouraging innovations outside the partnership;**
   - **Alignment of this Project with the overall SE4ALL strategy up to 2030 including coordination with other Accelerators and Hubs;**
   - **Lessons learned from this Project can be applied during a subsequent phase on the Leapfrogging Project.**

Evaluation Findings

7. **The overall Project performance is rated as 'Highly Satisfactory'. The Project implemented during a 27-month period (between October 2015 and December 2017) was highly effective driving a call to action to build the foundations necessary to expand energy efficiency beyond lighting devices. Using lessons learned from the successful model from the predecessor "en.lighten" project, this Project brought together a critical mass of stakeholders from government, manufacturing, technical organizations, civil service organizations and international donors for energy efficient lighting, to facilitate market transformation for energy efficiency for 4 high energy consuming products: refrigerators, air conditioners, electric motors, distribution transformers, plus a fifth product, Light Emitting Diodes (LEDs) and lighting controls that used existing en.lighten partnerships (Paras 114 and 115).**

8. **This Project achieved intended Outcomes 1 to 4, with the close collaboration with other like-minded organizations such as International Copper Association (ICA), National Resource Defense Council (NRDC), bridging the information gap on Energy Efficiency (bigEE) and Collaborative Labelling and Appliance Standard Program (CLASP), all of whom had provided in-kind co-financing towards encouraging market transformation of energy efficient appliances and equipment:**
   - **Consensus was reached amongst expert taskforces on the policy and strategy framework options (Direct Outcome 1) through the issuance of 4 policy guides for refrigerators, air conditioners, motors and distribution transformers that were posted on the U4E website[6]. These guides were a culmination of substantial contributions from more than 20 international and technical organizations including government personnel from partner countries, manufacturers, international organizations, and regional organizations (Paras 88 and 94). The quality and comprehensiveness of each of the policy guides (containing a U4E integrated policy approach) was strengthened through the provision of numerous case studies from developing countries**

[6] https://united4efficiency.org/

designed to boost the confidence of policymakers of the applicability of the policies and strategic framework provided in the guides (Paras 77 and 78);

- **Developing and emerging country decision makers have increased awareness of the benefits of energy efficient policies (Direct Outcome 2) through the availability of analyses of over 150 countries on their readiness of policies, standards and enforcement for 5 priority products, and estimates of national energy savings through transition to these 4 energy efficient priority products plus energy efficient lighting (see Direct Outcome 4). These analyses provided a framework and key information on which decision makers in these developing and emerging countries can assess the costs and benefits of transitioning to energy efficient policies (Table 7). The extent of this increased awareness is somewhat reflected in the number of commitments made by key partners to energy efficiency in Outcome 3 (Para 89);**
- **Key partners gave commitments to energy efficiency of appliances, equipment and lighting (Direct Outcome 3) as reflected in over 40 countries committing to energy efficiency of appliances, equipment and lighting with 19 countries already signatories to the U4E partnership form. Other commitments are reflected in the securing of further funding at the national level including 7 countries using GEF, Climate Technology Centre and Network (CTCN) or other sources of funding, and another 20 who have commitments with regional bodies such as Southern Africa Power Pool (SAPP) and Association of Southeast Asian Nations (ASEAN) (Para 90). With Project activities on organizing workshops and side events at major global and regional energy and climate events (Para 82) as well as the preparation and dissemination of a plethora of communication materials on the global partnership (Para 83), several of these countries had initiated actions to catalyse market transformation for energy efficient appliances and equipment (see Table 6). There are currently more than 14 U4E partners who represent major manufacturers of lighting, appliances and equipment with ongoing talks to have Daikin, Siemens and LEDVANCE as U4E partners (Para 90);**
- **Consensus was reached amongst en.lighten technical experts on best practice policy, awareness raising, and financial mechanisms to facilitate the transition to efficient and advanced lighting (Direct Outcome 4) as reflected in the issuance of the Lighting Policy Guide in 2017 that focused on Light Emitting Diodes and control devices. The Guide is a reflection of the consensus reached amongst en.lighten technical experts on best practice policy, awareness raising, and financial mechanisms that would facilitate the transition to efficient and advanced lighting (Para 91).**

9. **With the Project having achieved all of its targets, the Project reached its primary aim of providing the necessary knowledge products enabling policymakers of developing and emerging countries to implement integrated policy approaches for market transformation of energy efficient products (Para 116). These are key successes towards all countries achieving the SDG-7 of "ensuring access to affordable, reliable, sustainable and modern energy for all". Moreover, Project resources were also used to initiate start-up activities for market transformation for over 20 countries (see Table 6) and to support international and regional events to inform stakeholders from developing and emerging countries of the U4E integrated policy approach on a global scale (Para 115). The Project's knowledge products and workshops have enabled policy makers of over 40 developing countries to design and manage national programs for market transformation towards energy efficient products and equipment, as a contribution towards meeting GHG emission reduction targets of their INDCs (Para 116).**

10. **The likelihood of mitigating climate change by reducing global electricity consumption would be diminished without the Leapfrogging Project. The 3-year Leapfrogging Project will be providing the sustained technical assistance for emerging and developing countries to implement programs using U4E's integrated policy approach that was developed for these countries to realize reduced electricity consumption and GHG emission reductions from a transition towards energy efficient appliances and equipment. The Leapfrogging Project is critical in assisting emerging and developing countries in imparting best international practices in the enforcement of policies with Monitoring, Verification and Enforcement, developing the capacity to enforce environmentally sound management using best international practices, and setting up supporting financial programs to increase access of the general population to energy efficient appliances and equipment (Para 95).**

11. Notwithstanding, significant challenges remain in achieving the SDG-7 goal of doubling the global energy efficiency by 2030 including:

- **being able to fully engage a critical mass of stakeholders who can move the energy efficiency agenda for a particular product to a level that can contribute to achievement of the SDG-7 goal;**
- **delivering sufficient information dissemination activities such as seminars, workshops and conferences at regional and international levels, on U4E's integrated policy approach to facilitate market transformation actions on energy efficiency;**
- **ensuring adequate pace and quality of technical assistance based on local absorptive capacities to facilitate full adoption of U4E's integrated policy approaches at national levels to appliances energy efficiency;**
- **bridging the financing gap on investments into effective recycling and disposal programs that reduce or eliminate leakage from old inefficient products in developing and emerging countries; and**
- **having sufficient fiscal resources for the required technical assistance that allows a critical mass of countries to effectively implement integrated policy approaches of U4E sufficient towards meeting the SDG-7 goal of doubling the global energy efficiency by 2030 (Para 117).**

Recommendations and Lessons Learned

12. The Project provided the foundations necessary to expand energy efficiency beyond lighting devices on a global scale. However, more certainty is required on the resources and efforts required to achieving the SDG7 goal of doubling global energy efficiency by 2030. One of these efforts is for SE4ALL personnel to continue an emphasis on conducting Energy Efficiency (EE) workshops at the regional level to maximize global effectiveness of the Leapfrogging Project and facilitating the start-up of additional national and regional level energy efficiency projects. Experience indicates that the regional workshops can *catalyse national level interest* for technical assistance. With the intention of maximizing *global exposure of countries* to the U4E integrated policy approach, Leapfrogging Project support to regional workshops will raise the importance of a harmonized approach to energy efficiency appliances and equipment (Recommendation #1).

13. To meet the challenge of "ensuring adequate pace and quality of technical assistance based on local absorptive capacities to facilitate full adoption of U4E's integrated policy approaches at national levels to energy efficiency of appliances and equipment", the Leapfrogging Project through its own resources or those of the co-financers, will need to allocate sufficient resources for customized technical assistance for each country given the varying degrees of readiness of each country (Recommendation #2). The "Leapfrogging Project" should examine more closely the financial mechanisms at a national level that can be unlocked or shifted to focus more on green credit lines that can support EE policies (that may, for example, be used to phase out inefficient products) and improve access of EE appliances for wider sectors of their population. The unlocking of nationally available sources of funding would complement and strengthen country efforts in implementing U4E's integrated policy approach for market transformation for energy efficient appliances and equipment (Recommendation #3).

14. To overcome the constraints in many countries which do not have the appropriate level of fiscal resources and knowledge to implement proper waste disposal of these appliances, the Leapfrogging Project should include in their future market transformation activities, activities to assist in the proper disposal or recycling of old inefficient appliances and equipment (Recommendation #4).

15. To improve the outreach of the U4E partnership and allow a critical mass of countries to effectively implement integrated policy approaches of U4E sufficient towards meeting the SDG-7 goal of doubling the global energy efficiency by 2030, Leapfrogging should strive to achieve a further broadening of private sector stakeholder partnerships that should have an impact of increasing the likelihood of GHG emission reduction impacts. Notwithstanding that this may already be a planned activity under the Leapfrogging Project, specific recommendations include increased U4E outreach to a wider base of air conditioning manufacturers and electric motor manufacturers as well as to Chinese-based

manufacturers for the 4 priority appliances (Recommendation #5). The Leapfrogging Project and its co-financing partners can also consider further effort in translating its knowledge products into Chinese, Russian, and other languages as on an as-needed basis (Recommendation #6).

16. **Key lessons learned from the Project include:**

- **This Project is an example of the benefits of providing funding for the forming of global partnerships to engage a wider section of partners and sharing global knowledge towards a common goal of transforming a market for energy efficient appliances and equipment. The absence of these partnerships would lead to several disparate energy efficient solutions that are less efficient in achieving the goal of SDG-7. Such global partnerships can then build a critical mass of key stakeholders and facilitate a higher likelihood of market transformation actually occurring in participating countries (Lesson #1);**
- **There should be "acceptable uncertainties" in setting targets of future market transformation projects where allocated funds and project time can only serve as estimates to finalize these partnerships. This Project has demonstrated that there are uncertainties in the estimated efforts required to forge partnerships with UN Environment projects (Lesson #2);**
- **The success of this Project in achieving its goals was related to articulating clear targets, clear roles of the co-financing partners on the policy guides, and ambitious goals. The presence of SMART indicators and targets was crucial to project management teams being able to more effectively channeling work towards meeting these targets (Lesson #3);**
- **Gender is likely to be under-reported on UN Environment projects where gender impacts on project activities are not obvious. While the evaluator has observed that UN Environment has made efforts to staff this Project as equitably as possible for expert task forces, the importance of mainstreaming gender needs to be highlighted to project designers. Useful targets for mainstreaming gender on Leapfrogging should be formulated and harmonized in close collaboration with initiatives and organizations active in this area such as the SE4ALL's "People-Centered Accelerator"[7], which can provide more focus on gender-related issues in an appropriate context for market transformation of energy efficient appliances (Lesson #4).**

1 Introduction

17. **The UN Environment-GEF Project entitled "Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment" (herein referred to as the "Project") was implemented by UN Environment's Climate Mitigation Unit under its Economy Division[8], Energy & Climate Branch. Execution of the Project was under the Energy Unit (formerly Technology Transfer Unit, TTU), also under the Economy Division. The objective of the Project was to "mitigate climate change by reducing the growth of global electricity consumption through the creation of a global partnership accelerating markets for highly efficient electrical appliances and equipment".**

18. **The Project was internally reviewed by the UN Environment Project Review Committee (PRC) in December 2014, endorsed by GEF in May 2015 and approved by UN Environment in September 2015. The Project provided a focus on supporting a global transition to efficient and advanced lighting, appliances and equipment through a public-private partnership referred to as "United for Efficiency" or U4E. The Project contributed to the UN Environment Medium-Term Strategy 2014-2017: CC - EA Expected Accomplishment (b): "Energy efficiency is improved and the use of renewable energy is increased in partner countries to help reduce greenhouse gas (GHG) emissions and other pollutants as part of their low emission development pathways". As a GEF-6 project, the Project falls under focal areas CCM-1 "Promote Innovation, Technology transfer and Supportive Policies and Strategies" and CCM- 2**

[7] https://www.seforall.org/connecting-partners/accelerators/people-centered-accelerator
[8] The Economy Division was formerly known as the Division of Technology, Industry and Economics (DTIE)

"Develop and demonstrate innovative policy packages and market initiatives to foster a new range of mitigation actions" (see Para 59 for details).

19. **The Project consisted of US$1.37 million from GEF with expected co-financing of US$7.725 million, and commenced operations on 18 September 2015 with an expected completion date within 18 months to 17 March 2017. However, as is the case with numerous projects involving several levels of government and a wide spectrum of stakeholders, this Project did not conclude its activities until 31 December 2017. No Midterm Review was conducted for the Project because of its short duration and because the en.lighten project was being evaluated during the implementation of this Project.**

20. **In line with the UN Environment Evaluation Policy[9] and the UN Environment Programme Manual, this Terminal Evaluation was undertaken to assess its performance (in terms of relevance, effectiveness and efficiency), and to determine outcomes and impacts (actual and potential) stemming from the Project. This evaluation serves two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned from UN Environment and its executing partners of the Project. This evaluation may inform future UN Environment proposals, projects or programs in appliance and equipment energy efficiency, particularly those that rely on many collaborating organizations that aspire to reduce their GHG emissions.**

1.1 Evaluation Methods

21. **This Terminal Evaluation was undertaken in 2018, 5 months after the 2017 completion of the Project. The evaluation was approached using information primarily from the following sources:**

    - **Project documentation including all project reports (see Annex III for list of documents);**
    - **Information posted on the U4E website which was assessed for its value in disseminating information on appliance energy efficiency to global stakeholders and in improving the rate of adoption of these appliances (https://united4efficiency.org/);**
    - **In person or phone interviews with selected stakeholders ranging from the implementing agency, the Climate Mitigation Unit (within the Energy and Climate Branch) of UN Environment, the executing agency, the Energy Unit of UN Environment, and the wide spectra of Project partners including multi-lateral organizations (such as UNDP, World Bank), appliance manufacturers and industry groups, testing laboratories and other important stakeholders involved in the preparation and dissemination of the country assessments and appliance technical guides. For a number of stakeholders, interviews were conducted more than once in an effort to triangulate the evidence received, and to provide assurance that the conclusions of the evaluation are robust (see Annex II for list of persons interviewed);**
    - **Unstructured interviews with national level beneficiaries to gauge the awareness of end users and the public on the knowledge products provided on the U4E platform.**

22. **This Terminal Evaluation also employed a Theory of Change (ToC) approach to depict the cause-effect pathways of the Project to assess the likelihood of impact that identifies the Project's *intended impacts* against a *review of the Project Results Framework (PRF)*, followed by the analysis and modelling of the Project's *outcomes-impact pathways*. Notwithstanding that a ToC and PRF were prepared for this Project[10], the Evaluation determined that minor adjustments to the language of the ToC and PRF were required leading to the necessity of a slight re-construction of the Project's ToC; this is further discussed in Section 2.8. This re-constructed ToC for the Project was used a "Review of Outcomes to Impacts" (ROtI) to determine the likelihood of intended impacts of the Project as further discussed in Para 92.**

[9] http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationPolicy/tabid/3050/language/en-US/Default.aspx

[10] **The ToC and PRF were extensively reviewed and tweaked by the PRC in September 2014.**

1.2 Main evaluation criteria and questions

23. The evaluation assesses the Project performance against the following criteria: (1) strategic relevance; (2) quality of project design; (3) nature of external context; (4) effectiveness, which comprises assessments of the achievement of outputs, achievement of outcomes and likelihood of impact; (5) financial management; (6) efficiency; (7) monitoring and reporting; (8) sustainability; and (9) factors affecting project performance. The evaluation follows the guidance provided by the Evaluation Office of UN Environment in 2017 as required.

24. The assessment of the Project's performance includes consideration of a set of key questions within the evaluation framework[11] including:

- **To what extent, and how, is the project contributing to SDG 7 "Ensure access to affordable, reliable, sustainable and modern energy for all" and to the Intended Nationally Determined Contributions (INDCs)?**
- **To what extent, and how, are organizations participating in the Partnership promoting market shifts and encouraging innovations outside the Partnership?**
- **How well is this intervention aligned with the overall SE4ALL strategy up to 2030 including coordination with other Accelerators and Hubs?**
- **What are the lessons learned can be applied during the implementation of the subsequent phase of the project, which began in April 2018 and runs until March 2022?**

25. The evaluation also needed to clarify the need for assessing the energy saving and GHG reduction impacts of the Project. The Request for CEO Endorsement Document (referred to as the Project Document) provides an estimate in Annex J on GHG emission reductions from this project. The quality of these GHG emission reduction estimates, however, is not robust considering the number of countries involved on a global project, and the inexact methodology of estimating the future uptake of efficient appliances and equipment. As these estimates were not PRF targets, the performance of the Project was not to be assessed against this estimate. These estimates are provided in Annex VI.

26. Limitations to this evaluation include some constraints on the opportunities for the evaluator to talk with persons involved with the Project. While several of these persons were based on several continents, the evaluator has been able to meet or talk with several of them to obtain an appropriate sampling of opinions on the Project. Several of these persons were gathered in Copenhagen between 21-23 May 2018 for the Energy Efficiency Global Forum and a Steering Committee meeting for the follow-on Leapfrogging Project. The Project implementation period of 18 September 2015 to 31 December 2017 was recent, contributing to good stakeholder recollection of the activities and events. As such, limitations to this evaluation can be considered as insignificant.

2 Project Background

2.1 Context

27. In 2011, the UN Secretary-General launched the "Sustainable Energy for All (SE4ALL)" initiative. The global initiative, based in Vienna, is run as a non-profit organization working with leaders in government, the private sector and civil society to drive faster action towards the achievement of Sustainable Development Goal 7 (SDG-7), which calls for universal access to sustainable energy by 2030, and

[11] These questions were in line with the strategic questions provided in the evaluation ToR and were revised/ specified to better serve the purpose of the evaluation

meeting the long-term goal of the Paris Climate Agreement, which calls for reducing GHG emissions that would limit global warming to less than 2ºC.

28. **The 65/151 resolution by the UN General Assembly[12] recognized the importance of energy for sustainable development and called for intensifying efforts of member states to provide universal access to modern energy services, noting that significant proportions of the global population still do not have access to affordable energy services. The SE4ALL initiative identified lighting, appliances and equipment among the top priority themes to achieve the goal of doubling the global rate of improvement in energy efficiency, through "SE4ALL Accelerators". The Project is one of several accelerators launched at the Climate Summit in 2015, via the SE4All initiative[13].**

29. **GEF support for the Project was provided in 2 separate GEF-funded projects:**

    - **the "Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment" Project (GEF ID #5831) or the *Project* (initiated in September 2015 as a medium-size GEF project) that had an 18-month GEF funding commitment of US$1.37 million and co-financing of US$7.725 million, which is the project being evaluated in this report; and**
    - **the "Global Project to Leapfrog Markets to Energy Efficient Lighting, Appliances and Equipment" (GEF ID #9337) or the "*Leapfrogging Project*" (commenced in April 2018) that has a 3-year GEF funding commitment of US$3.1 million and co-financing of US$18.677 million.**

30. **The Project was designed as bridge support between the UN Environment-GEF "Global Market Transformation for Efficient Lighting (en.lighten)" project (GEF ID 3451) (that focused on the global approach to market transformation of the lighting market), and the Leapfrogging Project (focusing on market transformation to an expanded list of appliances and equipment that included efficient lighting). The "Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment" Project objective was to "mitigate climate change by reducing the growth of global electricity production through the creation of a global partnership accelerating markets for highly efficient electrical appliances and equipment". Achievement of this objective was a crucial precursor to being able to achieve the Leapfrogging Project objective of "mitigating climate change by transforming national and regional markets to energy-efficient products".**

31. **The ambition of the Project was to motivate policymakers of developing and emerging countries to consider actions to transform markets for energy efficient appliances through replication of the successful en.lighten Project approach to a selected list of high energy consuming appliances. The en.lighten approach, adopted by more than 50 countries, resulted in measurable reductions in energy consumption due to the phase-out of inefficient incandescent lights to more efficient compact fluorescent lamps (CFLs). The approach of the Project was to:**

    - **prepare strategies based on the experiences of the predecessor en.lighten project to facilitate market transformation of 5 selected appliances as a means of accelerating energy efficiency and global GHG mitigation goals on a global scale;**
    - **develop baseline energy profiles of targeted countries;**
    - **obtain agreements from targeted countries, appliance manufacturers and international organizations to join the global partnership, "United for Efficiency" or U4E[14], dedicated to accelerate market transitions to energy efficient appliances and equipment;**

[12] http://undocs.org/A/RES/65/151

[13] Other SE4ALL accelerators are the: District Energy Accelerator–District Energy in Cities Initiative (http://www.districtenergyinitiative.org/); Building Efficiency Accelerator (BEA) (http://buildingefficiencyaccelerator.org/), the people centered accelerator (https://www.seforall.org/connecting-partners/accelerators/people-centered-accelerator) and Energy Efficiency Hub - Copenhagen Centre for Energy Efficiency

[14] https://united4efficiency.org/

- **extend the activities of the en.lighten project to include market transformation towards LED fixtures in commercial, industrial, outdoor and residential applications.**

2.2 Project Objectives and Components

32. As mentioned in Para 30, the objective of the Project was to "mitigate climate change by reducing the growth of global electricity consumption through the creation of a global partnership accelerating markets for highly efficient electrical appliances and equipment". To reach this objective, the Project sought to achieve 4 outcomes:

- ***Outcome 1: Consensus reached on the policy and strategy framework options by expert taskforces (NGOs, IGOs, industry) for 3 products*. Activities to reach this outcome were essentially facilitating the adoption of a global approach to policy formulation and the design of strategy frameworks to accelerate the transition to energy efficient appliances and equipment. Outputs to attain this outcome included drafted policies and strategic frameworks for 3 products, and case study reports on best practice policies and strategies for energy efficient appliances and equipment;**
- ***Outcome 2: Developing and emerging country decision-makers have increased awareness of the benefits (economic, financial and climate) of adopting enabling polices to foster the transition to more energy efficient products*. Activities for reaching this outcome included the provision of assistance to developing countries in their preparation of baseline energy scenarios and estimates of national benefits from energy efficiency programs. Outputs to attain this outcome included country specific analyses related to energy baselines, existing policies, standards, enforcement capacities and preliminary estimates of national benefits resulting from the transition to energy efficient of the 3 priority products;**
- ***Outcome 3: Commitment is gained from key private sector partners and political leaders on energy efficiency of appliances, equipment, and lighting (to support implementation of this Project and other projects on improving appliances and equipment efficiency)*. This outcome was to be achieved through securing agreements and partnerships between key private sector partners and political leaders to facilitate market transformation towards energy efficient appliances and equipment in several countries. Outputs included partnership engagement and branding strategies, workshops and side events at major global and regional energy and climate events, and targeted communication campaigns showcasing energy efficiency benefits; and**
- ***Outcome 4: Consensus is reached by en.lighten technical experts on best practice policy, awareness raising, and financial mechanism tool kits to facilitate the transition to efficient and advanced lighting (light emitting diodes) in the commercial, industrial and outdoor lighting applications*. Activities to achieve this outcome were to be the continuation of en.lighten initiatives for transitioning from CFLs to LEDs through a more diverse range of applications. Outputs to reach this outcome included convened expert meetings on best practice policy tools for transitioning to LEDs and raising awareness on advanced lighting systems, and support tools on finance mechanisms that have been developed and tested in 2 partner countries.**

33. At the time of the design of the Project in 2014, there were no globalized and standardized approaches to the development of minimum energy performance standards (MEPS) for common household appliances and equipment. The exception to this, however, was the approach developed through the en.lighten Project for market transformation of the lighting industry from incandescent lamps to CFLs, an approach that was adopted by this Project for selected priority appliances and equipment such as refrigerators, air conditioners, electric motors and distribution transformers.

2.3 Target Areas/Groups

34. The objective of this Project was to foster partnerships, similar to other SE4ALL accelerators mentioned in Para 28. For this Project, the stakeholders were diverse including:

- **public agencies from both developed countries as well as developing and emerging countries including government ministries, efficiency agencies and national standard setting bodies;**
- **manufacturers, industry groups and testing laboratories with expertise in product development;**
- **environmental advocates and consumer groups; and**
- **international organizations, UN agencies, global efficiency initiatives, and international financing institutions.**

Collectively, these stakeholders were grouped together to reach consensus on options that would lead to commitments of accelerating energy efficiency of appliances and equipment. A listing of stakeholders interviewed during this evaluation is provided in Annex II.

35. **Government ministries, energy efficiency agencies and national standard setting bodies: Several government agencies with expertise in the implementation of market transformation programs for efficient appliances and equipment were to be involved with the Project. This would have included agencies from developed countries such as the US Department of Energy who have expertise in the phase-out of incandescent lighting fixtures on the highly successful en.lighten Project implemented by UN Environment. This would have also included agencies from emerging and developing countries such as VSQI in Viet Nam, DEDE in Thailand and BEE in India who serve as resources for information and data on their respective national policies that promote energy efficiency on the products covered under the Project and whose views were deemed crucial on adoption of best practice policies and standards for energy efficiency of these products.**

36. **Manufacturers, industry groups and testing laboratories: Private sector manufacturers, industry groups and national testing laboratories possess expertise in energy efficiency designs, costs of production, marketing, product design based on needs of the clients and distribution modalities. The Project's intent was to engage stakeholders manufacturing targeted products and having a significant proportion of share in their respective market in developing and emerging countries. This includes companies such as Philips Lighting, who played a significant role in the formation of the expert taskforce for the phase-out of incandescent lamps under the en.lighten project. The Project also intended to engage stakeholders with capacities for testing of appliances and equipment using best international practices. This includes the Global Efficient Lighting Center (GELC), a partnership between China's National Lighting Test Center (NLTC) and UN Environment that serves as an independent third party validator.**

37. **Environmental advocates and consumer groups: Based on the successful involvement of CSOs during the en.lighten project, a similar involvement was envisaged during the Project to impact market transformation of the 3 targeted products covered under the Project. Their key roles were to transfer their experiences to developing countries as representatives of consumers, special interests and environmental advocacy and complement the contributions made by private sector manufacturers. Some of the key stakeholders included:**

    - **the International Copper Association[15] who promote energy efficiency by encouraging the use of superior conductors to optimize energy efficiency and reduced greenhouse gas emissions. Their contribution to the Project has been taking the lead in convening expert taskforces and writing the Project's policy guides for distribution transformers and electric motors, and undertaking outreach and communication activities, notably the maintenance and updating of the Project website (https://united4efficiency.org/);**
    - **Collaborative Labelling and Appliance Standards Program[16] who have internationally recognized experience in the delivery of technical assistance to governments to support standardization and labelling of appliances and equipment. Their contribution to the Project has been convening expert**

[15] http://copperalliance.org/benefits-of-copper/energy-efficiency/
[16] https://clasp.ngo/who-we-are/mission

task forces, the writing of policy guides for air conditioners, and modelling on air conditioners, refrigerators and electric motors for inputs into the U4E Country Savings Assessments;

- **National Resources Defense Council[17] who are a non-profit environmental advocacy group that has advocated for initiating global energy efficiency projects, served as a founding partner of the en.lighten project. Their contribution to the Project has been to the governance of Project work through steering committees as well as to technical working groups and country assessments;**
- **bigEE[18] who are an international initiative of research institutes that provides technical and policy advice on energy efficiency for building-related technologies that is coordinated through the Wuppertal Institute in Germany. Their contribution to the Project has been to policy guides for equipment related to cooling technologies in buildings such as air conditioners and refrigeration.**

38. **International organizations: Organizations targeted in the Project Document included:**
    - **GIZ, who had provided specific support for country assessments and guidelines for the environmentally-responsible disposal of refrigerators and air conditioners; and**
    - **UNDP through their Country Offices who implement national level energy efficiency projects including GEF-6 projects in China, Turkey, Kazakhstan, Indonesia, South Africa and Sudan.**
39. **The Project Document, however, did not give substantive consideration of gender issues in Project implementation with the only gender reference being the assurance of appropriate gender representation on expert task forces. Given that the Project was focused on fostering of global partnerships, the issue of gender was overlooked. Moreover, the Terminal Evaluation of the predecessor en.lighten project recommended "consideration of the human rights and gender dimensions of the new project(s) in the same way as they should be considered in the design, implementation and management of every intervention by UN Environment"[19]. In the context of this Project and the focus on partnerships, this Evaluation considers this as a gap that should be addressed in the Leapfrogging project. Para 74 and Recommendation #7 provides further context and details on how this should be addressed on future projects.**

2.4 Milestones in Project Design and Implementation

40. **Table 2 presents the milestones and key dates in the Project design and implementation. The evaluation notes that this comparatively short medium-sized project did not have an inception phase or a midterm evaluation.**

2.5 Implementation Arrangements and Project Partners

41. **According to the Project Document, UN Environment was to be tasked with overall responsibility for Project coordination of global activities over a period of 18 months for actions designed to accelerate market transition to energy efficient appliance and equipment through harmonized policies and strategy frameworks, and harmonized approaches to country calculations of energy baselines for specific appliances and estimations of the potential benefits of energy efficiency of selected appliances. Lastly, UN Environment was to lead efforts supported by the Project to raise the profile of energy efficiency in**

[17] https://www.nrdc.org/
[18] http://www.bigee.net/en/
[19] See Pg 7 (Para 7) of this Terminal Evaluation. The Evaluation also recommended that the "successor project should undertake an expanded stakeholder analysis, ensuring that human rights and gender analysis is conducted adequately, even if this is done after the start of the new project. All future data on the project activities, outputs and outcomes should cover appropriate data on human rights and gender aspects, disaggregated as required. The expanded stakeholder analysis and participation must include consumer groups, and those involved in recycling and waste disposal. with policy guides".

appliances and equipment through leveraging of the global partnerships, and providing leadership to achieve global political consensus through the global partnership "United for Efficiency" or U4E.

42. A Project Steering Committee (PSC) was to be setup to provide overall guidance on the strategic orientation of the Project, strategic advice on annual or bi-annual programme of work, and assessments on the progress of its implementation. UN Environment, UNDP, ICA, CLASP, NRDC, GEF, SE4ALL Global Facilitation Team, World Bank, and up to 4 appliance and equipment manufacturers were suggested as PSC members. It was anticipated that PSC members would facilitate resource mobilisation through their high-level contacts to possible funding sources. A Project Management Team (PMT) was to be setup to prepare an annual or bi-annual programme of work (on the basis of strategic guidance provided by the PSC), facilitate resource intakes through PSC member contacts with potential funding sources, provide guidance on the composition of the taskforces (and working groups), provide strategy recommendations for completion of Component 2 (country-by-country analysis on policy and savings potential), and participate in outreach events (as panellists) and key international and regional energy and climate events to promote the U4E and position appliance and equipment efficiency on top of the international agenda as a key solution in the climate, energy and sustainable development discussions.

Table 2: Key Achievements and milestones in Project design and implementation

Milestones	Applicable dates
UN Environment PRC approval for the Project concept	September 2014
Approval of Project by GEF	19 May 2015[20]
UN Environment approval of the Project	18 September 2015
96 country assessments completed for 5 products	November 2015
U4E website launched	December 2015
Expert task forces for advanced lighting initiatives first convening	November 2015 – March 2016
Expert task forces for air conditions, refrigerators first convening	April-June 2016
Expert task forces for motors and transformers first convening	August 2016
Start of support to ASEAN SHINE for harmonization of air conditioner standards	August 2016
Commencement of Central American regional harmonization	August 2016
Attendance at COP22	December 2016
Commencement of South African regional harmonization	March 2017
Request for extension for the Project	March 2017
Policy guides for air conditioners and refrigerators posted on U4E website	May 2017
150 country assessments completed for 5 products	June 2017
Policy guide for motors posted on U4E website	11 September 2017
Policy guides for energy efficient lighting and transformers posted on U4E website	7 November 2017
Attendance at COP 23	November 2017
Terminal date of the Project	31 December 2017

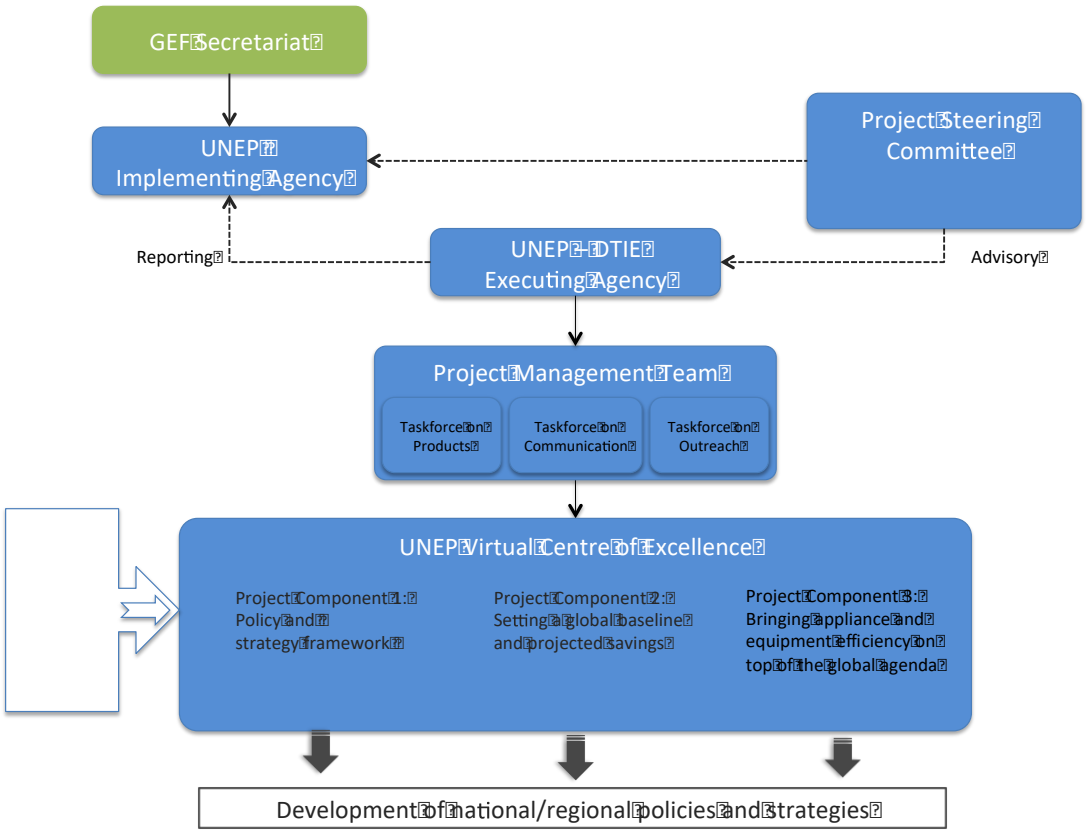
43. The U4E website (https://united4efficiency.org/) was to be initially hosted by UN Environment with assistance from ICA. The website was conceived to provide a platform to motivate governments located on different continents to take action. The platform served as a placeholder of key information for PSC and PMT decision-making and execution of their decisions; preparing terms of reference for

[20] https://www.thegef.org/project/establishing-foundations-partnership-accelerate-global-market-transformation-efficient

each of the priority product group taskforce; supporting preparation of taskforce meetings (with the leader of each taskforce being the primary liaison), ensuring development of a common methodology for country analysis on readiness of policies and standards, and country assessments on benefits of the transition to efficient products; reviewing and ensuring the quality of knowledge products (case study reports on best practice policies) and country assessments and analysis; undertaking global resource mobilisation with governmental donors and other potential funders; leading mobilisation of additional partners for U4E; and implementing communication and outreach activities and coordinating relevant contributions of partners and services of sub-contractors. Figure 1 depicts the execution arrangements of the Project.

44. **A key partner of the Project was to be UNDP, notably for their implementation support and rollout of integrated national and regional appliance efficiency strategies, policies and concrete on-the-ground implementation of activities using their strong country presence and experience on national projects promoting energy efficiency on focal products. With the creation and setup of the U4E Global Partnership and the knowledge products, UNDP, as well as other local or regionally-based agencies, would be able to catalyse the interest of national governments for the design and implementation of national and regional projects to accelerate market transformation to efficient appliances and equipment.**

Figure 1: Organigram of Project execution arrangements



2.6 Project Financing

45. **The total cost of the Project was budgeted as US$9,095,000[21]. This cost was broken down into the GEF grant of US$1,370,000 and co-financing of US$7,725,000 as detailed on Table 3. With the exception of the Australian Department of Industry, all other co-financing discussed in this section consists of in-kind contribution estimates from these other stakeholders.**

2.7 Changes in design during implementation

46. **No changes in Project design were made during implementation. There were, however, a number of minor changes made in the Project budget resulting from adaptive changes made by the PMT:**

Table 3: Project co-financing budget prior to implementation

Particulars	Expected Amount (USD)
UNEP	200,000
UNDP	200,000
CLASP (USA)	200,000
Natural Resources Defence Council (NRDC, USA)	25,000
bigEE (Wuppertal Institute, Germany)	600,000
Topten	100,000
Department of Industry, Australia	2,000,000
IEA-4E	500,000
Copenhagen Centre on Energy Efficiency	500,000
Philips Lighting BV	800,000
OSRAM Licht AG	800,000
International Copper Association (ICA)	800,000
ABB	200,000
Mabe	500,000
Arcelik A.S.	300,000
Total expected co-financing of the Project	7,725,000
GEF grant to Energy Unit of UN Environment (executing agency)	1,370,000
Total expected cost of the Project	9,095,000

- **Recruitment of a communications consultant instead of a communications officer who would have been full time on the Project;**
- **No recruitment of a finance specialist as this need was filled by co-financing partners (BASE, Carbon Trust, GCPF) who had financing specialists who sat on U4E taskforces;**
- **No need for recruiting a technical lighting consultant since the cost of this consultant was covered under Australia's co-financing from the en.lighten project;**
- **Demand for funds originally allocated for UN Environment staff travel to expert workshops was low resulting in re-allocation of these funds for travel to engage governments on the Project and securing agreements with partners;**
- **Five-fold increase in budget for "developing consensus on best practices" to cover agreements with partners (CLASP, ICA) to develop policy guides and an additional but overarching fundamental**

[21] From Request for CEO Endorsement Document (Project Document) that does not include in-kind contribution for the preparations for the Project by UN Environment

guide covering policies that are not product specific. Budgets that were reduced to cover this additional cost were modelling of country-by-country savings and their policy status.

2.8 Reconstructed Theory of Change of the Project

47. This section is a review of the design of the Project and its Project Results Framework (PRF) to obtain a comprehensive understanding of the intended Project outcomes and the actual outcomes achieved. The PRF for the Project can be viewed in Annex IV.

48. The intended outcomes of the medium-sized Project grant of US$1.37 million were to facilitate the foundations of a global partnership, United for Efficiency (U4E), with international organizations, like-minded organizations, and private sector companies to accelerate markets for highly efficient electrical appliances and equipment that will mitigate climate change by reducing the growth of global electricity consumption, all to be done within an 18-month period. A sampling of Project targets included:

- **at least 30 countries with agreements to transform their markets to energy efficient lighting, appliances, and equipment[22];**
- **20 countries will expand their scope to include policies to promote energy efficiency in commercial, industrial and outdoor lighting;**
- **3 policies and strategy frameworks endorsed by expert taskforces and posted on the website for access by countries (does not include lighting);**
- **150 countries that have country-by-country policy assessments available for 3 products as well as quantitative analysis on the projected national benefits (environmental, energy, climate, financial, business);**
- **20 countries expand their scope to commercial, industrial and outdoors lighting;**
- **an information centre (http://united4efficiency.org/resources/publications/) that identifies and promotes global best practices in transforming markets to high efficiency equipment;**
- **a program to inform policymakers of potential environmental, energy, financial and economic benefits resulting from the transition to high efficiency appliances and equipment;**
- **a service (with knowledge products) that is setup to deliver tailored assistance under the follow-up Global Leapfrogging Program to governments to develop national and regional strategies that accelerate and sustain market transformation to high efficiency products. These products were to include residential refrigerators, air conditioners, electric motors, and distribution transformers;**
- **a global communication campaign under the U4E partnership to encourage adoption of energy efficient appliances and equipment;**
- **consensus on recommended policies for LED technology deployment;**
- **8 global manufacturers supporting the U4E partnership.**

49. Achievement of these targets appeared feasible with the level of GEF allocation and the 18-month period of the Project, and the expectations of the follow-up Leapfrogging Project that was designed to continue the acceleration of market transformation of energy efficient appliances and equipment at the regional and national levels. Most importantly, this Project was designed to prepare knowledge products containing policy and strategic frameworks to transform markets of lighting plus 4 other high energy consuming products. This was intended to have the impact of raising the interest of countries globally to initiate the transformation of the market to EE products, and broadening the stakeholder base for U4E.

[22] **This includes 19 countries which had already signed a U4E partnership form prior to the Project.**

50. The assessment of the Project design was approached using a Theory of Change (ToC). The ToC of a project intervention describes the processes of change by outlining the causal pathways from outputs (goods and services delivered by the project) through direct outcomes (changes resulting from the use of outputs by key stakeholders) through other "intermediate states" towards impact. A ToC for the Project was provided in the Project Document (as shown in Figure 2), which is closely linked to the Project PRF in Annex II. The logic of the ToC diagram flows in a horizontal direction (left to right) from component activities (green boxes) to long term impacts (dark blue boxes) of the project. In between, there are the Project outputs (yellow boxes), intended outcomes (red boxes), and an intermediate state that leads to the intended long-term impacts of the Project of "reduced GHG emissions and local environmental pollution". An initial assessment of the ToC and PRF by the Evaluator during inception led to minor adjustments to the language of the ToC which led to the necessity of re-constructing the Project's ToC; Table 4 provides an elaboration of these proposed changes to the outputs and outcomes. A re-constructed TOC is provided in Figure 3 with the addition of linkages between activities, outputs and outcomes.

51. The intended outcomes of the Project were to strengthen the partnerships amongst various national governments, appliance and equipment manufacturers, international organizations and key technical advisors on appliance and equipment energy efficiency strategies and policies that would result in the intermediate state of more countries adopting energy efficiency measures. This would generate long-term impacts after the end of project (EOP) to be driven by:

- **high-level political commitments for the promotion of energy efficient appliances and equipment;**
- **support from the SE4ALL initiative for the Energy Efficiency Accelerator.**

Figure 2: Theory of Change Diagram for the Project (from approved Project Document)

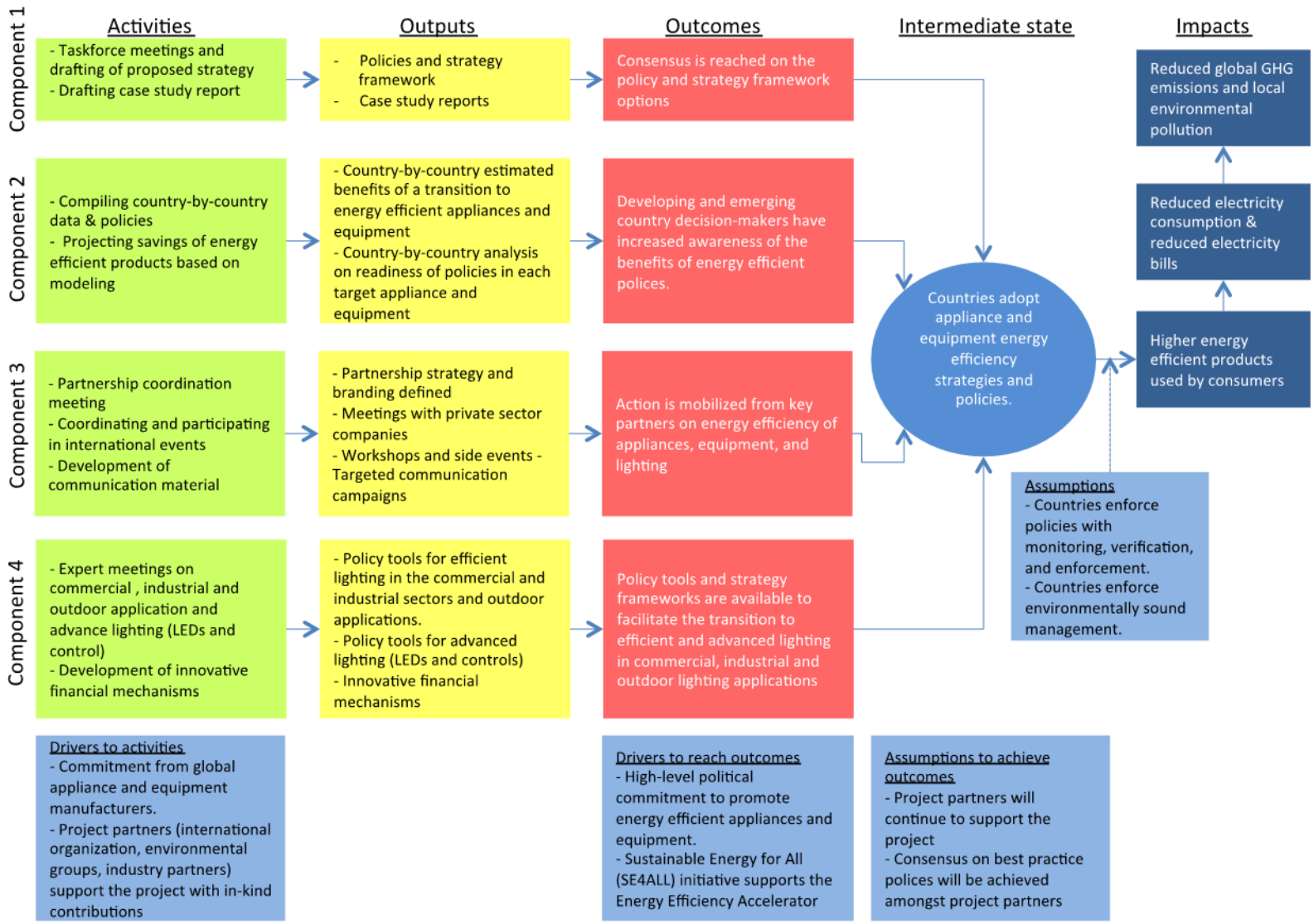


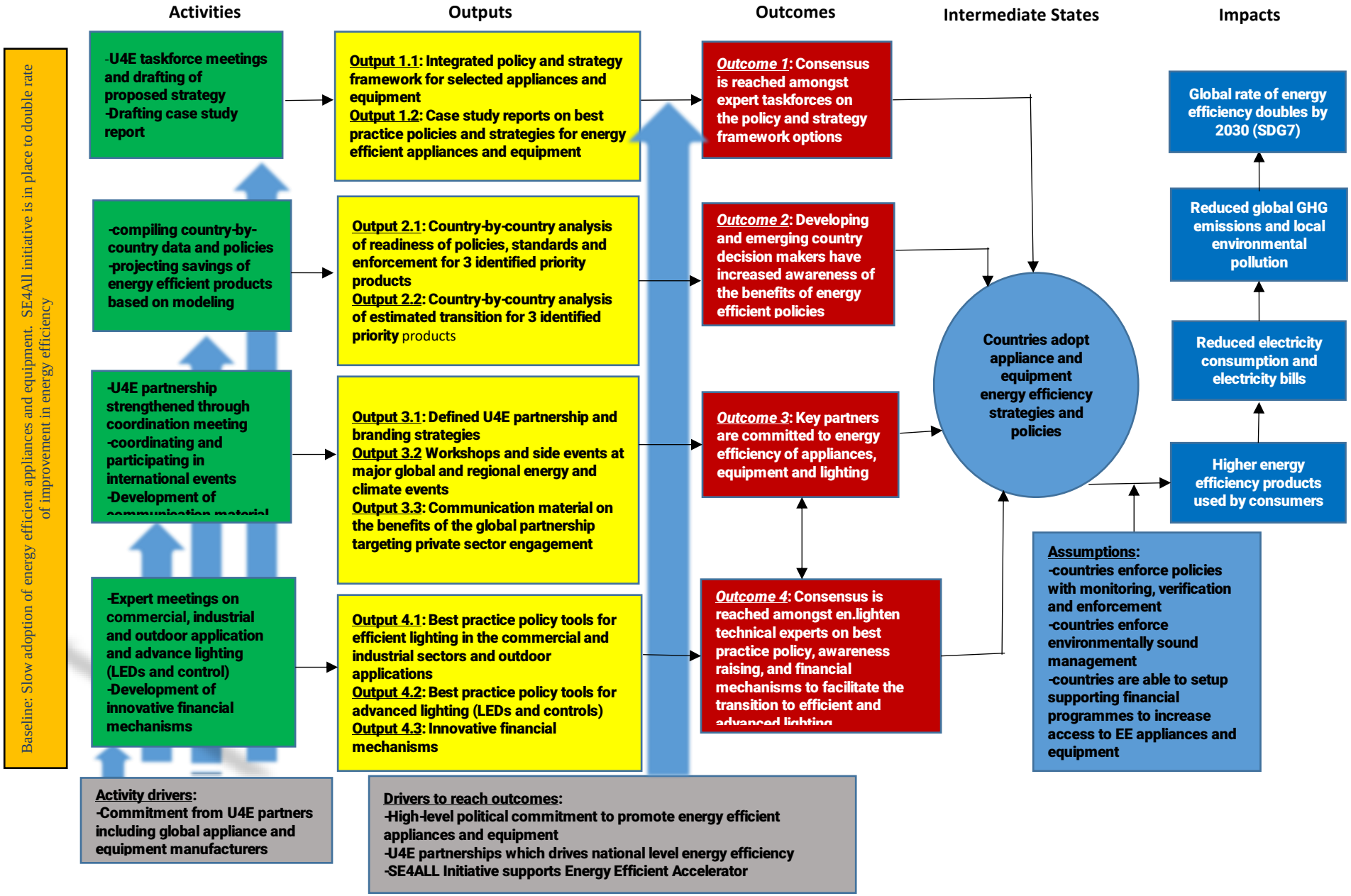
Table 4: Proposed Changes in ToC Language (at Evaluation)

Original TOC diagram outputs and outcomes	Original PRF outputs and outcomes	Corrective Action	Reconstructed TOC output and outcomes
Outcome 1: Consensus is reached on the policy and strategy framework options	**Outcome 1: Consensus is reached on the policy and strategy framework options by expert taskforces (NGOs, IGOs, industry) for 3 products**	**Consensus amongst expert taskforces should be reflected in the ToC outcome descriptor.**	**Outcome 1: Consensus is reached amongst expert taskforces on the policy and strategy framework options**
Output 1.1: Policies and strategy framework	**Output 1.1: Policy and strategy framework are drafted and discussed**	**Output descriptor in PRF should not include verbs. ToC output descriptor needs to be more descriptive on the purpose of the output.**	**Output 1.1: Integrated policy and strategy framework for selected appliances and equipment**
Output 1.2: Case study reports	**Output 1.2: Case study reports on best practice policies and strategies for energy efficient appliance and equipment developed**	**Output descriptor in PRF should not include verbs. ToC output descriptor needs to be more descriptive on the purpose of the output.**	**Output 1.2: Case study reports on best practice policies and strategies for energy efficient appliances and equipment**
Outcome 2: Developing and emerging country decision makers have increased awareness of the benefits of energy efficient policies	**Outcome 2: Developing and emerging country decision makers have increased awareness of the benefits (economic, financial and climate) of adopting enabling policies to foster the transition to more energy efficient products**	**None proposed.**	
Output 2.1: Country by country analysis on readiness of policies in each target appliance and equipment.	**Output 2.1: Country-by-country analysis of the readiness of policies, standards and enforcement is developed for 3 identified priority products**	**Need for language of output to not include verbs as provided in the ToC output.**	**Output 2.1: Country-by-country analysis of readiness of policies, standards and enforcement for 3 identified priority products**
Output 2.2: Country-by-country estimated benefits of a transition to energy efficient appliances and equipment	**Output 2.2: Country-by-country estimated benefits (environmental, energy, climate, financial, business) of the transition to efficient products developed for 3 products.**	**Need for a slight amendment to ToC output descriptor**	**Output 2.2: Country-by-country analysis of estimated transition for 3 identified priority products**
Outcome 3: Action is mobilized from key partners on energy efficiency of appliances, equipment and lighting	**Outcome 3: Commitment is gained from key private sector partners and political leaders on energy efficiency of appliances, equipment, and lighting (to support implementation of this project and other projects on improving appliances and equipment efficiency)**	**ToC outcome descriptor is too general and requires an improved description that reflects the more specific PRF outcome descriptor using less words.**	**Outcome 3: Key partners are committed to energy efficiency of appliances, equipment and lighting**
Output 3.1: Partnership strategy and branding defined	**Output 3.1: Partnership engagement strategy and branding strategy are developed**	**Verbiage in output descriptor is not required**	**Output 3.1: Defined partnership and branding strategies**

Original TOC diagram outputs and outcomes	Original PRF outputs and outcomes	Corrective Action	Reconstructed TOC output and outcomes
Output 3.2: Workshops and side events and targeted communication campaigns	**Output 3.2: Workshops and side events alongside major global and regional energy and climate events**	**ToC output descriptor needs to reflect the indicators in the PRF**	**Output 3.2 Workshops and side events at major global and regional energy and climate events**
Output 3.3: Meetings with private sector companies	**Output 3.3: Targeted communication material showcasing the benefits including taking the business case for private sector engagement**	**ToC descriptor of meetings with private sector companies is not reflected in any of the indicators. Moreover, effectiveness of the targeted material is provided as one of the outcome indicators," number of agreements by global manufacturers joining the new global partnership". As such, ToC descriptor should be edited to reflect PRF descriptor.**	**Output 3.3: Communication material on the benefits of the global partnership targeting private sector engagement.**
Outcome 4: Policy tools and strategy frameworks are available to facilitate the transition to efficient and advanced lighting in commercial, industrial and outdoor lighting applications	**Outcome 4: Consensus is reached by en.lighten technical experts on best practice policy, awareness raising, and financial mechanism tool kits to facilitate the transition to efficient and advanced lighting (light emitting diodes) in the commercial, industrial and outdoor lighting applications**	**PRF outcome descriptor can be improved in consideration of the outcome indicators that reflect the number of countries committed to expanding their policy scope on efficient lighting.**	**Outcome 4: Consensus is reached amongst en.lighten technical experts on best practice policy, awareness raising, and financial mechanisms to facilitate the transition to efficient and advanced lighting**
Output 4.1: Policy tools for efficient lighting in the commercial and industrial sectors and outdoor applications	**Output 4.1: Expert meetings convened on best practice policy tools to support the transition to efficient and advanced lighting (LEDs) in commercial and industrial sectors and to outdoor applications**	**PRF output descriptor does not contribute directly to the outcome (expert meetings contribute to the policy tools which lead to the outcome). As such, the output descriptor of the ToC is appropriate with a slight improvement on wording**	**Output 4.1: Best practice policy tools for efficient lighting in the commercial and industrial sectors and outdoor applications**
Output 4.2: Policy tools for advanced lighting (LEDs and controls)	**Output 4.2: Expert meetings convened on best practice policy tools for awareness raising on efficient and advanced lighting (to emphasize a systems approach and hours-of-use controls) for optimal savings benefits developed**	**PRF output descriptor does not contribute directly to the outcome (expert meetings contribute to the policy tools which lead to the outcome). As such, the output descriptor of the ToC is appropriate with a slight improvement on wording**	**Output 4.2: Best practice policy tools for advanced lighting (LEDs and controls)**
Output 4.3: Innovative financial mechanisms	**Output 4.3: Support tools on finance mechanisms are developed and tested in 2 partner countries (including tools for measuring, reporting, and verifying results)**	**PRF output descriptor has too many words and verbiage which is not required. ToC descriptor is appropriate**	**No changes in ToC are necessary.**

Original TOC diagram outputs and outcomes	Original PRF outputs and outcomes	Corrective Action	Reconstructed TOC output and outcomes
		with indicators in the PRF that measure its adoption effectiveness.	

Figure 3: Reconstructed TOC for the Appliance Accelerator Project



52. The ToC also identified external drivers that would include government commitments to low carbon development that would generally assume countries enforce EE policies with Monitoring, Verification and Enforcement and environmentally sound management. Notwithstanding, the ToC was re-constructed to:

- **include internal drivers that contribute to the impacts that are outcome "by-products" of the Project (including the use of policy tools to facilitate market transformation towards energy efficient appliances and equipment);**
- **more strongly illustrate the linkage of the Project to SDG-7, Target 7.3 which states the continuity of these efforts to double the global rate of energy efficiency by 2030[23]. This target would strengthen the linkages between the en.lighten Project and this Project that is consistent with this SDG framework;**
- **harmonize the language between the ToC and the PRF. There are some subtle changes in language that were amended to reduce ambiguities in outcomes and state the outputs that are required from the Project;**
- **reflect the baseline conditions of the Project which essentially is the end of the en.lighten Project;**
- **reflect the complementarity of terminal conditions with the baseline conditions of the Project.**

3 Evaluation Findings

3.1 Strategic Relevance

3.1.1 Alignment with UN Environment's strategy, policies and mandate

53. UNEP Medium-Term Strategy (MTS) 2014 to 2017[24] identifies an Expected Accomplishment (EA2/low emission growth) through improving energy efficiency in partner countries to reduce GHG emissions and other pollutants as part of their low emission development pathways. UNEP's MTS of 2010 to 2013 also identifies similar EAs including assisting countries to make sound policy, technology and investment choices that lead to GHG emission reductions and potential co-benefits with a focus on clean and renewable energy sources, energy efficiency and energy conservation. As such, the Project's relevance to the MTS is 'Highly Satisfactory' in making tangible contributions to the acceleration of market transformation of energy efficient appliances and equipment in all participating countries.

54. The Bali Strategic Plan (BSP) has the objectives of "strengthening the capacity of governments of developing countries through targeted capacity building within the mandate of UN Environment, using and sustaining the capacity or technology obtained through training or other capacity building efforts, and developing national research, monitoring and assessment capacity that supports national institutions in data collection, analysis and monitoring of environmental trends and in establishing infrastructure for scientific development and environmental management (that will ensure sustainability of capacity building efforts)". The Project was aligned to the BSP through its efforts to achieve this objective, the results of which are discussed in the following sections of this report.

55. In addition, the BSP has a specific objective, amongst others, to "strengthen cooperation amongst UNEP, multilateral agreement secretariats (that take into account their autonomous decision-making processes), and other bodies engaged in environmental capacity building including UNDP and GEF in particular". The Project is strongly aligned to this objective.

[23] https://unstats.un.org/sdgs/metadata/

[24] See page 17 on the following link: https://wedocs.unep.org/bitstream/handle/20.500.11822/7670/-UNEP_Medium_Term_Strategy_2014-2017-2015MTS_2014-2017.pdf.pdf?sequence=3&isAllowed=y

56. The Project aligns well with several recently completed and ongoing energy efficiency initiatives under UN Environment (as listed on Table 2 of the Project Document) including the recently completed en.lighten Project and the Copenhagen Centre on Energy Efficiency. UN Environment also implements global initiatives that directly contribute to the Project (as listed on Table 3 of the Project Document) including Climate and Clean Air Coalition to Reduce Short-Lived Pollutants (CCAC) initiative that promotes HFC alternative technologies, Sustainable Consumption and Production (SCP) 10-Year Framework Programmes (10YFP), and the Promotion and Deployment of Energy Efficient Air Conditioners in ASEAN. There are also several other GEF supported initiatives that align well with the Project (including 5 listed on pages 19 and 20 of the Project Document). In the context of gender balance, the Project design does address appropriate representation of gender groups in expert task forces under Component 1 (pgs 22-23) in the Project Document.

57. With regards to South-South Cooperation (SSCo), the Project has been designed to foster partnerships between developed countries with best international practices and developing countries for the purpose of information exchanges to facilitate market transformation for EE appliances and equipment. As such, SSCo was not designed to be prominent in the Project notwithstanding that Arcelik (a Turkish multi-national company) and the Global Efficient Lighting Centre (UN Environment and National Lighting Test of China collaborating centre), are providing support on best international practices on EE appliances and equipment.

3.1.2 Alignment with GEF focal areas and strategic priorities

58. The GEF provides grants for projects in focal areas of biodiversity, climate change, international waters, land degradation, the ozone layer, persistent organic pollutants, and chemicals and waste. The GEF funds for the Project were approved during the latter stages of the GEF-5 Operational Phase (2010 - 2014). The Project supports GEF climate change focal area objective CCM-1 that deals with the promotion, demonstration, deployment, and transfer of innovative low-carbon technologies. The products identified in the Project constitute major electricity-consuming appliance system in all buildings, sectors, and industries; therefore the project is consistent with GEF climate change focal area objective CCM-2 that deals with the promotion of market transformation for energy efficiency in industry and building sectors.

59. Since the Project overlaps into the GEF-6 Operational Phase, it also responds to GEF 6 Climate Change Mitigation Focal Area Objective 1 (or CCM-1) "Promote Innovation, Technology transfer and Supportive Policies and Strategies" and CCM- 2 "Develop and demonstrate innovative policy packages and market initiatives to foster a new range of mitigation actions":

- **Under CCM-1, Outcome 1.2: Enabling policy environment and mechanisms created for technology transfer:**
  - ***Output 1.1: Innovative low carbon technologies demonstrated and deployed on the ground;***
  - ***Output 1.2: National strategies for the deployment and commercialization of innovative low-carbon technologies adopted;* and**
- **Under CCM-2, Outcome 2.1: Appropriate policy, legal and regulatory frameworks adopted and enforced, and Outcome 2.2: Sustainable financing and delivery mechanisms established and operational:**
  - ***Output 2.1: Energy efficiency policy and regulation in place;***
  - ***Output 2.2: Investment mobilized; and***
  - ***Output 2.3: Energy savings achieved.***

As such, the Project's rating for alignment to UN Environment and GEF strategic priorities is 'Highly Satisfactory'.

3.1.3 Relevance to global, regional and national environmental issues and needs and complementarity to other interventions

60. The energy efficiency objectives of the Project are in line with the national priorities of numerous countries. These national priorities are readily available in the national communications of these countries to the UNFCCC, where energy efficiency is deemed a critical action for reducing their CO_2 emissions[25]. The outputs of the Project provide support to these countries in energy efficiency by providing international consensus of the best practice policies and strategies for 5 priority products. The credibility of these analyses and policy guides should motivate governments on changing national policies that will accelerate the transition to efficient technologies. The Global Partnerships with international organizations, and the linkages of the Project in supporting accelerators in the SE4ALL Accelerator Platform (see Para 28 for linkages) should also benefit the acceleration towards energy efficiency of appliances and equipment at regional and national levels as well as building political will within governments and supporting future capacity building. Moreover, these will promote faster actions towards the achievement of SDG-7 as mentioned in Para 28. As such, the strategic relevance of this Project to national and regional issues and needs as well as complementarity to existing interventions is 'Highly Satisfactory'.

The overall rating for strategic relevance is Highly Satisfactory.

3.2 Quality of Project Design

61. With regards to *project preparation and readiness*, the Project was designed in 2014 within the Economy Division of UN Environment near the conclusion of the en.lighten Project that was implemented during the 2010-2015 period. Using positive lessons learned from the en.lighten Project, the objectives of the Project were an expansion of the en.lighten Project objectives intending to "mitigate climate change by reducing the growth of global electricity consumption through the creation of a global partnership accelerating markets for highly efficient electrical appliances and equipment". To achieve this objective at the time of the Project design, a harmonized approach to minimum energy performance standards (MEPS) applicable to a wider range of household appliances was required. Using similar approaches of the en.lighten Project, the Project was designed using a modest grant amount of US$1.37 million to set up the partnership between governments, manufacturers and NGOs and International organizations deemed essential for widespread adoption of efficient appliances that comply with a global standard for MEPS.

62. Incremental support strategically provided by the Project to expand the number of efficient appliances beyond household lighting devices was formulated including activities to support:

- **harmonization and consensus on a framework for supporting policy and strategies for 3 products amongst members of an expert group of NGOs, governments, international organizations and industry. The expert group was to include some of the world's best technical experts on the targeted products to formulate policies and standards that can be used by any of the U4E members;**
- **increased awareness of decision makers in emerging and developing countries on the benefits of enabling policies that encourage the increased use of energy efficient products. This was to be achieved through providing assistance to countries to assess their national energy scenarios and estimate potential national benefits from a transition to more efficient appliances and equipment;**

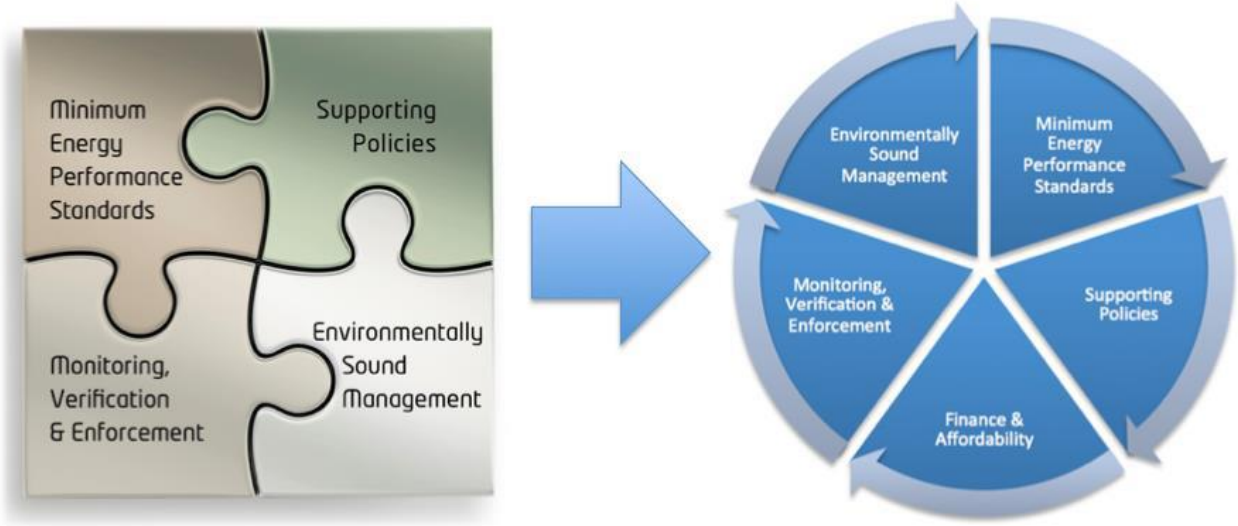
[25] **In addition to national communications, this information is also expressed in numerous and recent national plans, energy efficiency agencies, Technology Need Assessments (TNAs) and press releases. As of 2015, there were overviews of energy efficiency priorities for 144 non-annex I parties to the UNFCCC, 52 have expressed interest in implementing measures for energy efficiency for appliances, equipment and/or lighting.**

- **obtaining commitments from political leaders and key private sector partners on promoting energy efficiency of targeted appliances and equipment; and**
- **the reaching of consensus of en.lighten technical experts on best practice policies, awareness raising and financial mechanisms that will facilitate the transition to efficient lighting on commercial, industrial and outdoor lighting applications.**

63. **With the Project being designed in 2014 with a Theory of Change approach, the quality of the Project design with respect to intended results and desired impacts was 'Satisfactory'. This was aided by the en.lighten Project which was nearing completion at the time of the Project's design, providing lessons learned on the value of global partnerships to facilitate the widespread adoption of efficient lighting. Figure 4 depicts the *replication* of the integrated policy approach of the en.lighten project (for only lighting appliances) that was slightly modified in the Project to include "finance and affordability" required due to the higher cost of appliances and equipment covered under the Project.**

64. **The Project incorporated catalysing activities to "foster partnerships to accelerate market transformation of EE appliances and equipment" and raise the profile of energy efficiency through a global project implemented by a UN agency. The success of catalysing these partnerships to generate knowledge products designed to accelerate the intended market transformation (such as the country specific assessments of estimated environmental, energy, climate, financial, business benefits of the transition to efficient products) was intended to encourage replication of these partnerships and knowledge products to further facilitate acceleration market transformation.**

Figure 4: Modification of integrated policy approach for the Project



65. **The quality of the Project design to a large extent was dependent on the track record and legitimacy of UN Environment in developing and successfully implementing environment, climate and energy-related projects at the global and regional levels, which includes its role as a UN leading agency in promoting energy efficiency in developing and emerging countries. With UN Environment's Executive Director co-chairing the Energy Efficiency Committee under the SE4ALL initiative, as well as the SE4ALL Energy Efficiency Accelerators on Lighting and Appliances and Equipment, UN Environment had built a network of cooperation with several international partners (such as CLASP, ICA and K-CEP considered leading experts in various fields of energy efficiency) that had engaged over 19 countries to commit politically and take action to phase-out inefficient incandescent lamps through the en.lighten initiative. With this track record, UN Environment can be considered a preferred agency to replicate this model to further**

engage countries that would implement policies for leapfrogging to highly efficient products through this Project.

66. **The design of the Project had UN Environment "internalizing" the implementation and execution roles by designating its Climate Mitigation Unit (formerly known as the Climate Change Mitigation Unit or CCMU) as the GEF implementation agency, and the Energy Unit (formerly known as the Technology Transfer Unit or TTU) as the GEF executing agency for the Project. Both the Energy Unit and the Climate Mitigation Unit are within the Economy Division, Energy and Climate Branch of UN Environment. For the purposes of executing and implementing the Project, an Internal Cooperation Agreement between the Energy Unit and the Climate Mitigation Unit was signed in September 2015, delineating the internal arrangements for implementing and executing the Project, as well as the roles and responsibility of each of the units on the Project. This internalized arrangement simplifies the management of GEF funds as elaborated in Para 97.**

67. **Annex G of the Project Document provides detailed budgets at project design for both GEF funds and co-financing contributions. The detail of the GEF budget was sufficient for the purposes of the Project Management Team (PMT) in their preparation of project budgets for approval from the Fund Management Officer (FMO) within UN Environment's Economy Division (specifically the GEF Climate Mitigation Unit of the Energy and Climate Branch). The detail of the co-financing of the Project is also sufficiently detailed to identify the in-kind contributions of professional time from counterpart officers and staff as well as travel.**

68. **Annex H of the Project Document describes the intended governance and supervision arrangements of the Project that included a Project Steering Committee, a Project Management Team and a virtual Centre of Excellence (vCoE) that combined the collective knowledge of global experts in energy efficiency of the targeted products onto the U4E website (https://united4efficiency.org/). The governance and supervision arrangements follow the arrangements of the en.lighten initiative and its public-private partnership model. In addition, the Project was to build upon the en.lighten project achievements by expanding the energy efficient lighting market for LEDs to the commercial, industrial and outdoor sectors in various countries.**

69. **Project supervision of the Project is also described in Annex H of the Project Document including the role of the Project Management Team. Since a significant portion of the UN Environment's role on the Project is for M&E activities, the role of the Project Task Manager was important in the development of the Project supervision plan during its inception phase, during the inception workshop to inform project partners of their roles, and on outcome monitoring but without neglecting project financial management and implementation monitoring.**

70. **The Project's *monitoring and evaluation design* of indicators, targets and timelines included details of monitoring Project progress which was satisfactory due to clarity of the language of the Project Results Framework (PRF) as presented in Annex A of the Project Document. The PRF included SMART indicators for each expected outcome as well as defined milestones for monitoring progress. In addition, Annex I in the Project Document contains an elaboration of these indicators and milestones with the key deliverables, benchmarks, delivery dates and means of verification that are useful in assessing implementation progress and achievement of intended Project results. M&E related costs are also presented in the Costed M&E Plan (in Annex G) that is fully integrated in the overall project budget.**

71. **Risk identification and safeguards in project design are covered in Annex M of the Project Document. While Annex M does cover environmentally sound practices for the manufacture, installation and disposal of all products covered under the Project, it does not fully address the required assistance to member countries on planning and implementing environmentally responsible disposal and recycling programs of old appliances. However, due, to the small size and time duration of this GEF grant, an introduction of the issues of disposal and recycling programs is being done on this Project that should be expanded in the Leapfrogging Project as mentioned in Recommendation #4. Such disposal and recycling programs do present a large additional cost to a number of developing nations, which they**

cannot afford in the near term. Implementation of these disposal and recycling schemes, however was, and remains, important in maximizing emission reductions during the transition to more efficient appliances and equipment, especially in the current global environment which is increasingly placing more emphasis on circular economies and reducing waste.

72. **The Project underwent a review by the Project Review Committee (PRC) in September 2014 prior to its June 2015 submission to GEF. The main issues discussed during the PRC was the PRF which was tweaked for language and clarity and consistency with the text of the Project Document. As such, the PRF is well presented in the Project Document (notwithstanding the changes made in Section IV), facilitating clear M&E activities for the PMT.**

73. **Considering the size of GEF support of US$1.37 million, the design of the Project was clearly scoped to provide incremental support to set up the partnership foundations between host governments, international appliance and equipment manufacturers, and international organizations, and to set up the virtual Centre of Excellence to increase access for emerging and developing nations to best international practices for accelerating energy efficiency for targeted appliances and equipment. In conclusion, the Project is based on a strong design which has benefitted from the ToC in providing clarity on the pathways to the intended impacts of the overall SE4ALL Efficient Appliances and Equipment Accelerator, providing an excellent foundation for the launching of the Leapfrogging Project.**

***Project Design Weaknesses*:**

74. **There are few weaknesses in the Project design considering that the Project is bridging support between the en.lighten Project which facilitated market transformation to efficient household lighting devices, and the Leapfrogging Project, designed to facilitate market transformation of other common household appliances and equipment. The only design weaknesses of the Project would be:**

    - **its duration of 18 months, which represents a limited time period to set up the partnerships and complete a targeted number of country assessments. Implementation efficiencies were reviewed in this report to rationalize why the Project required 27 months (or 50% more time) to complete all its activities; and**
    - **the absence of any substantive discussion on gender dimensions (with the exception of appropriate gender representation on expert task forces on pg 22 of the Project document). In the opinion of the Evaluator, this Project could have addressed gender by communicating with other Accelerators on their gender approaches for consistency, addressing gender issues through gender-disaggregated data and information, and how such information can be usefully presented in its policy guides.**

The overall rating for project design is Satisfactory.

3.3 Nature of External Context

75. **Project operations can be affected by externalities beyond the control of the Project. This may include externalities such as severe and unexpected climatic events, high-risk security situations, poor or lack of supporting infrastructure, economic instability, and politics. With the Project being concerned over market transformation towards energy efficient appliances that would reduce a country's dependence on imported energy, disruption of these activities by climate events, economic instability or the lack of supporting infrastructure appears minimal. As such, the nature of external context for the Project was assessed as being favourable.**

The overall rating for nature of external context is Favourable.

3.4 Effectiveness

3.4.1 Delivery of Outputs

76. Delivery of key incremental outputs specified by the Project Document are described in this section. Given the issues regarding the need to tweak the ToC and some of the language in the PRF, the intended outputs of the Project are evaluated as presented in Figure 3 in this report. Project activities were implemented with the assistance of its co-financing and founding partners ICA, CLASP and NDRC, who also serve on the Project Steering Committee of the Project. Several of the outputs described in this section are comprehensive policy guides and country assessments, all of which were collaborative efforts of the Project amongst more than 20 technical organizations and donor agencies.

77. Output 1.1: Integrated policy and strategy framework for selected appliances and equipment. Through the Project's expert taskforces, policy guides for the 4 products[26] (against a target of 3 appliances) were completed in August 2017 and posted on the U4E website[27]. In addition, the Project also produced an overarching report, "Policy Fundamentals Guide," that provides crosscutting, general guidance critical to the establishment of a successful energy efficiency programme. Details of the integrated policy framework and strategies are provided on the comprehensive Policy Guides of these 4 products that provide:

- **an overview of the technology and potential development of the market for energy efficiency of the technology;**
- **standards, regulations and best practice policies for each product group;**
- **financing delivery mechanisms to increase usage of energy efficient models of the technology;**
- **Monitoring, Verification and Enforcement; and**
- **environmental sustainability and health that includes disposal and recycling programmes.**

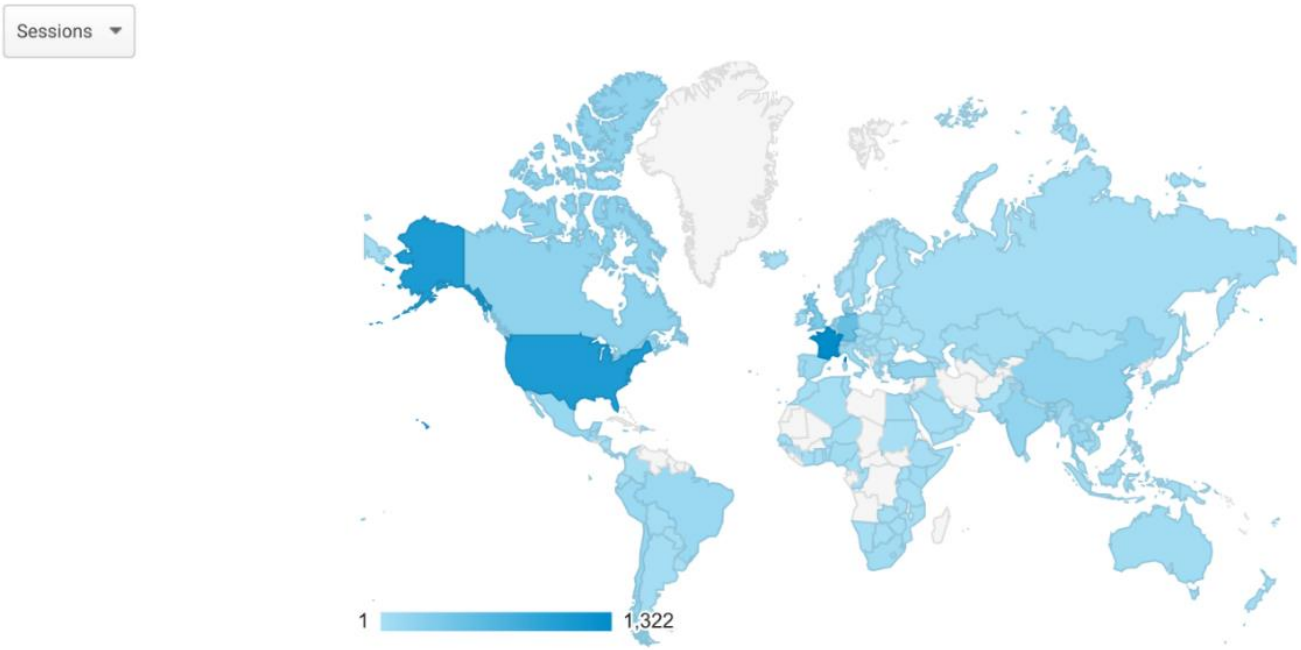
These Guides were designed for policymakers from developing countries on how to promote and increase energy efficiency of a targeted appliance or equipment. They serve as excellent resource material for such purposes. The evaluation had access to the 2017 Google analytics of the U4E website (https://united4efficiency.org/) which provides an indicator of the geographic distribution of downloads of these Guides globally. Figure 5 shows 60% of the 7,099 users of the website distributed in 2017 within 10 countries (only 2 of which are developing countries, China and India). Figure 6 is an indicator of the geographic distribution of countries accessing the U4E website with a high number of developing countries that have accessed the website.

[26] Refrigerators, air conditioners, motors and distribution transformers. The policy guide for energy efficient lighting is discussed separately in Para 84 under Output 4.1.
[27] https://united4efficiency.org/resources/publications/

Figure 5: Top 10 countries accessing U4E website

Country	Acquisition			Behavior		
	Sessions ↓	% New Sessions	New Users	Bounce Rate	Pages / Session	Avg. Session Duration
	7,099 % of Total: 100.00% (7,099)	53.70% Avg for View: 53.67% (0.05%)	3,812 % of Total: 100.05% (3,810)	48.95% Avg for View: 48.95% (0.00%)	3.48 Avg for View: 3.48 (0.00%)	00:03:32 Avg for View: 00:03:32 (0.00%)
1. France	1,322 (18.62%)	18.53%	245 (6.43%)	30.56%	4.84	00:05:49
2. United States	1,065 (15.00%)	66.38%	707 (18.55%)	57.84%	3.08	00:03:09
3. Germany	506 (7.13%)	60.67%	307 (8.05%)	53.95%	2.64	00:02:45
4. United Kingdom	340 (4.79%)	47.35%	161 (4.22%)	47.35%	3.39	00:03:16
5. China	195 (2.75%)	81.03%	158 (4.14%)	71.79%	3.33	00:03:29
6. Canada	191 (2.69%)	90.58%	173 (4.54%)	81.68%	1.66	00:00:55
7. Switzerland	178 (2.51%)	43.26%	77 (2.02%)	36.52%	3.07	00:03:08
8. India	172 (2.42%)	63.37%	109 (2.86%)	52.91%	2.50	00:02:42
9. Netherlands	164 (2.31%)	42.07%	69 (1.81%)	46.95%	2.79	00:03:15
10. Belgium	163 (2.30%)	51.53%	84 (2.20%)	55.21%	3.04	00:02:35

Figure 6: Number of U4E website sessions in 2017 per country



78. **<u>Output 1.2: Case study reports on best practice policies and strategies for energy efficient appliances and equipment</u>. These Policy Guides also provided case studies from developing economies that have made or are making the transition to energy efficiency to demonstrate the actions and measures required to achieve this progress. Examples include Minimum Energy Performance Standards (MEPS)**

and labelling for refrigerators in Ghana and Turkey, regional harmonization of air conditioners for the ASEAN, voluntary comparative energy labelling in Thailand as applied to air conditioners, mobile phone applications for appliance databases and energy performance at the point of retail in India, star ratings for fluorescent tubes in India, a regional efficient lighting strategy for Central America, MEPS development for motors in Turkey, and mandatory energy labelling for motors in Chile.

79. **Output 2.1: Country-by-country analysis of readiness of policies, standards and enforcement for 3 identified priority products. There were 150 country analyses completed in November 2016 after extensive research and consultations with country representatives (including ministries of energy), project partners and international organizations. These analyses were completed on the presence of policies and strategies in various countries, as well as on the completion of the compilation of policy status onto an interactive world map. This was done for the 4 products under the Project: refrigerators, air conditioners, electric motors and distribution transformers. Lighting is further discussed in Paras 84 and 85.**

80. **Output 2.2: Country-by-country analysis of estimated transition for 3 identified priority products. Country savings assessments were completed for 150 countries on 4 products[28]. Similar to Output 2.1, work required to complete these assessments included data collection from country representatives (including ministries of energy), project partners and international organizations, use of a common model for calculating national energy savings and GHG emission reductions, peer and country reviews and updates of energy saving estimates as required, and dissemination of results and posting on the U4E website. The products provide a framework and basis on which developing countries partnering with U4E can initiate national programs on energy efficiency for selected appliances and equipment. The quality of this output has caught the attention of the Global Climate Partnership Fund (GCPF) which partnered with the Project in 2017 to provide continual improvement to these analyses. Further details are provided in Para 108.**

81. **Output 3.1: Defined partnership and branding strategies. Project resources were used to develop the U4E logo, brand and website with the intention of accelerating outreach to build partnerships with countries and manufacturers. Up to May 2016, the Project has been managed to regularly convening Project partners to discuss engagement strategies through conference calls and bilateral meetings culminating in an agreed engagement strategy during the PMT team meeting in May 2016.**

82. **Output 3.2: Workshops and side events at major global and regional energy and climate events. The Project has efficiently managed its resources to attend numerous major global and regional energy and climate events. This includes high profile events during the July to December 2017 period of the Project such as the COP 23 event in November 2017 on "Energy Efficient Lighting, Applications and Equipment: Opportunities for Developing and Emerging Countries", and a 2-day U4E-led APEC Distribution Transformers Workshop in December 2017 (that included several regulatory organizations). A sampling of other events attended by U4E during the FY 2016-17 are shown on Table 5.**

83. **Output 3.3: Communication material on the benefits of the global partnership targeting private sector engagement. This output was delivered over a period of time up to August 2017 consisting of 4 updated brochures on policy briefs. These 4-page briefs are posted on the U4E website and provide an introduction to the Policy Guides (Outputs 1.1. and 1.2) which contain the integrated policy framework and strategies needed to facilitate the transition to targeted energy efficient products. In October 2017, a Twitter account for U4E was also opened and maintained on a daily basis to reach an increasingly larger audience that includes policymakers, journalists and senior managers of private sector companies. Access to the U4E quarterly newsletter has also been posted on the U4E website with over 3,000 subscribers.**

[28] **Lighting is discussed separately in Para 84 and 85. The Countries Savings Assessments can be found on the U4E website here: http://united4efficiency.org/countries/country-assessments/**

84. **Output 4.1: Best practice policy tools for efficient lighting in the commercial and industrial sectors and outdoor applications. This output was delivered with the completion of the 2017 Lighting Policy Guide entitled "Accelerating Global Adoption of Energy Efficient Lighting" that is also available in a condensed version as a Policy Brief and posted on the U4E website[29] for easy access for policymakers of developing and emerging countries. Expert meetings were convened and completed by March 2016 to obtain consensus of best practice policy tools to support the transition to efficient and advanced lighting (LEDs) in commercial and industrial sectors and to outdoor applications.**

85. **Output 4.2: Best practice policy tools for advanced lighting (LEDs and controls). An expert meeting to achieve consensus on best practice policies for awareness raising on efficient & advanced lighting (emphasizing a systems approach and hours-of-use controls) was completed in March 2016. These tools were delivered in the Lighting Policy Guide (Output 4.1).**

86. **Output 4.3: Innovative financial mechanisms. This output was also delivered in the Lighting Policy Guide (Output 4.1) under Section 5 on Finance and Financial Delivery Mechanisms. The Guide provided guidance on sources of finance, and financial delivery mechanisms (through utility Demand-Side Management, Energy Service Companies, bulk procurement or other business models). U4E hosted a regional workshop in October 2017 in Panama to present opportunities for regional countries to develop financial mechanisms for energy efficient street lighting. U4E also hosted meetings in the Dominican Republic during the same month to assist them in developing financial mechanisms for energy efficient lighting in close collaboration with country's Ministry of Environment and Natural Resources, the Energy Commission and local financial institutions.**

The overall rating for the delivery of direct outputs is highly satisfactory.

Table 5: List of 2016-17 U4E Attended Events

Date	Event	Location
August 2016	International Copper Association - Latin America Council	Santiago, Chile
7 September 2016	G20 Forum on Energy Efficiency	Beijing, China
8-9 September 2016	Integrating Energy Efficiency into the 10YFP (i.e. The 10- year framework of programme on sustainable consumption and production patterns)	Copenhagen, Denmark
11 September 2016	48th Meeting of the APEC Expert Group on Energy Efficiency & Conservation	Tarapoto, Peru
27 September 2016	2do. Congreso Internactional Sobre Economía, ambiente y energía para el desarrollo sostenible de los países	Panama City, Panama
28 September 2016	Latin American Carbon Forum	Panama City, Panama
October 2016	International Copper Association - Board of Directors	London, United Kingdom
11-12 October 2016	ASEAN SHINE Lighting Policy and Technical Working Group Meeting	Bangkok, Thailand
13 October 2016	GIZ Proklima – Climate Friendly Cooling	Nuremberg, Germany
14-16 November 2016	International Conference on Demand-Side Energy Efficiency	New Delhi, India
10 -16 November 2016	COP22 1.ABB Event - Energy Efficiency as the Most Cost-Effective Way to Cut Industrial Emissions 2.What do NDCs need to succeed? Energy Efficiency" 3. Energy-Efficient Lighting for Africa and Beyond 4. EU Energy Day: Implementing joint solutions for a sustainable planet 5. Momentum for Change: Energy Efficiency Through Smart	Marrakech, Morocco

[29] https://united4efficiency.org/resources/accelerating-global-adoption-energy-efficient-lighting/

Date	Event	Location
	Lighting Systems Event 6. Sustainable Innovation Forum 7. EP100 High-Level Dinner	
29 November 2016	The 2nd Regional Stakeholders consultation workshop on intra-ASEAN value change cooperation and trade in EE and RE technologies	Bangkok, Thailand
30 November 2016	ASEAN SHINE dissemination conference	Bangkok, Thailand
1 December 2016	Taller para el fortalecimiento de la Eficiencia Energética en Mesoamérica. Programa Mesoamericano para el Uso Eficiente y Racional de Energía	San Salvador, El Salvador
13 December 2016	El futuro de la Eficiencia Energética en Chile y el Mundo	Santiago, Chile
15 December 2016	REGATTA/United Nations Development Programme: Urban water supply systems: efficiency and resilience	Webinar (Spanish)
3-5 April 2017	Sustainable Energy for All Forum	New York City, US
2 May 2017	G20 Energy Efficiency Forum	Hamburg, Germany
18-19 May 2017	EE Global	Washington DC
22-25 May 2017	Innovate4Climate	Barcelona, Spain
23 May 2017	GOGLA Member Conference	Paris, France
5-8 June 2017	Asia Clean Energy Forum	Manila, Philippines
6-8 June 2017	8th Clean Energy Ministerial	Beijing, China
12-16 June 2017	IEA Energy Efficiency in Emerging Economies Training Week	Paris, France
19 June 2017	Launch of Cooling EU	Brussels, Belgium
28-29 June 2017	IEA Energy Efficiency Ministerial and Finance Workshop	Paris, France
7-8 July 2017	Proklima C4 workshop - climate-friendly and energy-efficient cooling	Bangkok, Thailand
24 August 2017	Astana Expo 2017: High Level UN Environment event 'Options and solutions for a clean energy future'	Astana, Kazakhstan
6-8 September 2017	Energy Efficiency in Motor Driven Systems (EEMODS)	Rome, Italy
11-13 September 2017	Dialogues for the Future of Energy Mexico 2017 (DEMEX)	Mexico City, Mexico
12-13 October 2017	Asia-Pacific Economic Cooperation – Developing Qualified Products for High-Quality and High-Efficiency Commercial, Industrial, and Outdoor Lighting Products and Control Systems in the APEC Region	Zhuhai, China
27-30 October 2017	Hong Kong International Lighting Fair	Hong Kong, China
13-14 December 2017	Lighting Days	Lyon, France

3.4.2 Achievement of direct outcomes as defined in the reconstructed ToC

87. As discussed in Para 30, the Project sought to achieve outcomes that would contribute to an overall objective of "mitigating climate change by reducing the growth of global electricity consumption through the creation of a global partnership accelerating markets for highly efficient electrical appliances and equipment". The evaluation of the effectiveness of the Project in achieving intended direct outcomes is based on the reconstructed ToC (in Figure 3), and assessing causal pathways from the baseline to the outputs of the Project that would generate intermediate and direct outcomes towards long-term impacts. The intended direct outcomes of the Project included:

- Intended Direct Outcome 1: Consensus is reached amongst expert taskforces on the policy and strategy framework options;
- Intended Direct Outcome 2: Developing and emerging country decision makers have increased awareness of the benefits of energy efficient policies;
- Intended Direct Outcome 3: Key partners are committed to energy efficiency of appliances, equipment and lighting;

- **Intended Direct Outcome 4: Consensus is reached amongst en.lighten technical experts on best practice policy, awareness raising, and financial mechanisms to facilitate the transition to efficient and advanced lighting.**

88. **The intended Direct Outcome 1 was achieved through the issuance of 4 policy guides (refrigerators, air conditioners, motors and distribution transformers) on the U4E website[30] (this was against a target of 3 products in the PRF and does not include lighting which is separately discussed in Direct Outcome 4). Each of the 4 policy guides have had substantial contributions from more than 20 international and technical organizations to project stakeholders reflecting the consensus reached by these expert taskforces that includes focal points in U4E partner countries, manufacturers, international organizations, and regional organizations. The comprehensiveness of each of the policy guides is strengthened through the provision of numerous case studies within the guides that are designed to boost the confidence of policymakers in developing countries of the policies and strategic framework provided in the guides. The convening of these taskforces comprising of persons from across the globe to produce quality policy guides within a 27-month period is a reflection of the high quality of project management by the PMT.**

89. **The intended Direct Outcome 2 was achieved through the availability of analyses of over 150 countries on their readiness of policies, standards and enforcement for 5 priority products, and estimates of national energy savings through transition to these 5 energy efficient priority products[31]. The increased awareness of policy makers in developing and emerging countries on the benefits of the transition to energy efficient policies was bolstered by regional and national workshops on energy efficiency, and knowledge products on the framework for estimating national benefits of energy efficient products. The extent of this increased awareness is somewhat reflected in the number of commitments made by key partners to energy efficiency in Outcome 3. Similar to Direct Outcome 1, the achievement of this outcome to produce these analyses over a 27-month period is a reflection of the high quality of project management by the PMT.**

90. **The intended Direct Outcome 3 was achieved including key partners committed to energy efficiency of appliances, equipment and lighting located within 43 countries including 19 countries that have signed the U4E partnership form, 12 that are using GEF, CTCN or other sources of funding[32], and 20 that have given commitment through regional bodies[33]. Some of the 32 projects that reflect these commitments are listed in Table 6. There are also 8 new lighting, appliance and equipment manufacturers that have joined the partnership to broaden the manufacturing stakeholder base for U4E[34]. Based on the strong commitment of members of the PMT, talks are progressing with Daikin, Siemens and LEDVANCE with the U4E website updating these partnerships[35].**

[30] http://united4efficiency.org/resources/publications/?fwp_products=air-conditioners,lighting,refrigerators&fwp_year=2017
[31] http://united4efficiency.org/countries/country-assessments/
[32] GEF support for Albania, Chile (Refrigerators), Costa Rica, Kazakhstan, Myanmar, South Africa, Sudan and Turkey. CTCN is supporting a Honduras refrigerator project. K-CEP has letters of interest from Barbados, Dominican Republic and St. Lucia.
[33] This would include as regional harmonization with 1) seven countries in Central America and the Dominican Republic to finalise the adoption of technical regulations to establish MEPS and labelling for lighting products, motors, refrigerators and air conditioners; 2) Southern Africa to leapfrog to energy-efficient lighting, appliances and equipment; 3) ASEAN SHINE (a public-private partnership program between UN Environment and the ICA to support the regional harmonisation of air conditioner standards (2012-2016), and to provide recommendations and suitable policy options toward accelerating the transition to efficient lighting in ASEAN.
[34] Manufacturing partners: ABB, Arcelik, BSH, Electrolux, Mabe, Megaman, Sanhua and Whirlpool
[35] https://united4efficiency.org/category/event-summaries/

Table 6: Status of National and Regional Projects

Country or Region	Market Transformation Activity	Status as of December 2017
Caribbean Countries	Energy efficiency market assessment, development of a national cooling strategy and energy performance standards, piloting a financial mechanism to support adoption of high-performance products, and training of government officials to adopt and implement the recommended policies	Discussions on a "Caribbean Cooling Initiative" which was launched on April 28, 2018
Turkey	Developing appropriate governance and information infrastructure, upgrading test laboratories at the Turkish Standards Institute, launching a sustainable financial support mechanism, and implementing a public awareness and training programme. These activities are supported under a 5-year UNDP-GEF project "Promoting Energy Efficient Motors for SMEs".	Project inception in May 2018
Rwanda	Five action areas that are supported under the Rwanda Cooling Initiative (funded by the Kigali Cooling Efficiency Program) include an energy efficiency market assessment, development of a national cooling strategy and energy performance standards, and training of government officials to adopt and implement the recommended policies	Discussions and arrangements were being made for the "Africa Cooling Efficiency Conference", which was held on 20 March 2018.
Dominican Republic	A participant in the development of a Regional Strategy for Energy Efficient Lighting (agreed to in 2013), followed by the recommended steps for transitioning to efficient lighting systems, and developing financial mechanism to support consumers and businesses to purchase LED lighting.	As of March 2018, the Government called for a ban on fluorescent lamp imports and urged state institutions to switch to LED lighting
Kazakhstan	The UNDP-GEF project entitles "Energy efficient standards, certification, and labeling for appliances and equipment in Kazakhstan" is aiming to develop MEPS for selected products, develop product labeling, establishing MVE protocols and build capacity, and establishing financial mechanisms for the Kazakh appliance market.	Project is ongoing until 2020.
Myanmar	GEF funding has been approved for the "Leapfrogging Myanmar's market to high efficiency lighting and appliances" that aims to adopt MEPS and labeling, enhance existing MVE, and conduct public awareness campaigns, small scale demonstration projects and capacity building.	Project approved for implementation by UN Environment in early 2019.

91. The intended Direct Outcome 4 was achieved through the issuance of the Lighting Policy Guide in 2017. The issuance of the energy efficient lighting policy guide is a reflection of the consensus reached amongst en.lighten technical experts on best practice policy, awareness raising, and financial mechanisms to facilitate the transition to efficient and advanced lighting. The outputs supporting this direct outcome are described in Paras 84 to 86.

The overall rating for achievement of direct outcome is rated as Highly Satisfactory.

3.4.3 Likelihood of impact

92. Achievement of the likelihood of impact for the Project was assessed using Figure 3 of the reconstructed ToC to gauge the level of achievement of the intermediate state of "countries adopting appliance and equipment energy efficiency strategies and policies", and the impact of "reduced global GHG emissions and local environmental pollution". The logic of the ToC dictates that if these countries

do adopt the integrated policy approach and appropriate strategies advocated by U4E, more consumers in those countries will use higher efficiency products which would lead to the desired impact of the Project of "reduced electricity consumption and bills and reduced global GHG emissions". It is important to note that attainment of the intermediate state is being aided through a follow-on project to the Project, namely the Leapfrogging Project, currently being implemented by UN Environment since April 2018, and its linkage and overlaps with the other SE4ALL accelerators such as the building efficiency and district energy accelerators which would advocate the use of equipment and appliances that meet MEPS[36]. Table 7 provides a summary of a Review of Outcomes to Impacts (ROtI) to determine the likelihood of intended impacts of the Project.

93. **Early work by the "Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment" project resulted in the formation of the "Efficient Appliance and Equipment Global Partnership Program" which was subsequently renamed "United for Efficiency" or U4E which was designed by global technical organizations as a platform for bringing together the relevant stakeholders who can accelerate the adoption of energy efficient appliances on a global scale. This has included policymakers and technical specialists from developed, developing and emerging countries, as well as international technical organizations, standard setting organisations, testing laboratories and global manufacturers of targeted appliances and equipment. The technical contributions of U4E taskforces to the various policy guides available on the U4E website has been significant, contributing to the availability of knowledge products of energy efficiency of specific equipment, EE standards and regulations, supporting policies, financial mechanisms, MVE systems, environmental sustainability, and recommendations for preparing, designing and implementing EE programs. The comprehensiveness of these contributions has increased the credibility of the knowledge products and has had an impact on increased awareness amongst relevant stakeholders in developing countries on the benefits of EE programmes, and setting up the foundations for developing countries to implement policies that are intended to increase the use of energy efficient equipment at the national level. This is evidenced by more than 43 countries now being involved with U4E partnerships.**

[36] See Para 28 and Footnote 12 for listing and links to other Accelerators

Table 7: ROtI Summary

Actual Outcomes	Contribution towards Intermediate State	Assessment	Projected Long-Term Impact
Actual Outcome 1: Consensus has been attained amongst expert taskforces on the policy and strategy framework options for 4 appliances (including refrigerators, air conditioners, electric motors and distribution transformers).	The consensus of these expert taskforces is in the form of the U4E Policy Guides for these 4 products that provides an overview of the technology and the markets for these products, as well as standards and regulations, supporting policies, finance and financial delivery mechanisms, Monitoring, Verification and Enforcement and environmentally sound management of these products. Expert taskforces consisted of specialists from international technical organizations, appliance and equipment manufacturers, experts from multilateral and bilateral donors, and specialists from developing and emerging countries. This facilitated the preparation of policy guides to a high quality standard to become reference documents. The high quality of these policy guides increases the likelihood of the uptake of these documents and adoption of appliance and equipment energy efficiency strategies and policies.	Likely	The high quality of these documents will enable government officials from emerging and developing countries (possibly through the assistance of Civil Society Organisations) to increase the likelihood of adoption of appliance and equipment energy efficiency strategies and policies. This in turn will create additional demand for energy efficient products, and thus, catalyze manufacturers into the production of EE products. Notwithstanding, there are still several unknown factors that can obstruct progress towards impact such as unforeseen reluctance of future government administrations to continue support of EE programs, and slower economic progress of a country, which may increase reluctance of consumers to purchase newer more efficient appliances and equipment.
Actual Outcome 2: Developing and emerging country decision makers have increased awareness of the benefits of energy efficient policies in more than 60 countries who are	U4E efforts have provided country specific analyses of national readiness of policies, standards and enforcement for the EE market transformation of electric motors, distribution transformers, refrigerators and air conditioners. U4E has also provided national estimates of the estimated energy savings and GHG emission reductions resulting from a market transformation to energy efficiency of these	Moderately Likely	The more than 43 countries involved with the U4E partnership is a reflection of the global interest in energy efficient policies, and the drivenness of these countries to reduce their energy consumption and GHG emissions related to electricity generation. However, there are several unknown factors that can obstruct progress towards impact such as insufficient capacities that impede implementation of integrated policy approaches for energy efficient policies. Insufficient capacities may

Actual Outcomes	Contribution towards Intermediate State	Assessment	Projected Long-Term Impact
involved with U4E partnerships.	products. These knowledge products have increased the awareness of policymakers of those countries on the benefits of policies and EE programs for market transformation of these products towards energy efficiency (based on 19 countries that have signed the U4E partnership form, 7 that are using GEF, CTCN or other sources of funding, and 20 that have given commitment through regional bodies such as SAPP and ASEAN as mentioned in Para 90).		result from ineffective or insufficient capacity building activities or limited absorptive capacities of government officers in various countries.
Actual Outcome 3: Key partners are committed to energy efficiency of appliances, equipment and lighting.	The U4E partnership has attended a number of key events at all levels including international conferences, regional workshops, and national level seminars. All of these events have contributed to raising the profile of energy efficiency in appliances (with a focus on key products with high energy consumption). As a result, U4E has transformed itself into a large partnership consisting of more than 60 governments, 20 manufacturers, and 15 international technical organizations and CSOs.	Likely	The U4E partnership will increase the effectiveness of several countries in implementing energy efficiency of the 4 new focus products under this Project plus energy efficient lighting. With the involvement of manufacturers in setting the standards for their equipment and the involvement of international technical organizations and CSOs to facilitate national level market transformation programs, there is a strong likelihood that this will result in reduced energy consumption and GHG emissions in these. This result will be largely dependent on the effectiveness of activities under the Leapfrogging Project, and to some extent, broadening the base of appliance manufacturers, most notably, air conditioning manufacturers.
Actual Outcome 4: Consensus is reached amongst en.lighten technical experts on best practice policy, awareness raising, and financial mechanisms to facilitate	The U4E partnership has already completed a Policy Guide to assist developing countries in market transformation of their lighting market towards LEDs. This Policy Guide is a reflection of the consensus that been reached amongst the en.lighten technical experts on the details of a transition to efficient and advanced lighting.	Likely	With the U4E partnership already inclusive of the en.lighten stakeholders, there is already uptake in the Lighting Policy Guide by over 30 countries. Their transition towards LEDs and advanced lighting will be largely dependent on the effectiveness of activities under the Leapfrogging Project. There are, however, several unknown factors that can obstruct progress

Actual Outcomes	Contribution towards Intermediate State	Assessment	Projected Long-Term Impact
the transition to efficient and advanced lighting.			**towards impact such as unforeseen reluctance of future government administrations to continue support of EE programs, and slower economic progress of a country, which may increase reluctance of consumers to purchase newer more efficient lighting devices, and a lack of resources or initiative to keep guides up to date to ensure technological innovations are captured**

94. Further to the assessment of the likelihood of impact of the Project, the contributions made by the direct outcomes towards the intermediate state of "developing countries adopting appliance and equipment energy efficiency strategies and policies" are described as follows:

- **emerging and developing countries have increased confidence in the contents of the policy guides provided by the U4E taskforces since these guides were prepared through collaboration amongst several international and technical organizations and government agencies that employ some of the best technical expertise of the 5 priority products under the Project;**
- **policymakers from emerging and developing countries have had opportunities to interact with U4E technical experts in national, regional and international workshops as well as seminars and high profile events to accelerate their learning and understanding of the benefits of energy efficiency policies and strategies of the 5 priority products, and U4E's integrated policy approaches to implementing national energy efficiency programs;**
- **Civil Society Organisations such as the ICA, CLASP, NRDC, K-CEP and bigEE have participated in the preparation of the Policy Guides for the 5 products through the participation of their experts, many of whom are globally recognized for their work in environmental advocacy;**
- **Private sector manufacturers of the 5 product lines comprise a significant proportion of the U4E partnership that advises on the production of energy efficient appliances and equipment. Prominent private sector members include Philips Lighting, Haier Air Conditioning, Daikin Air Conditioning, Arçelik AŞ and Electrolux (for refrigeration), ABB (motors and distribution transformers), and Hitachi Metals (distribution transformers);**
- **Various government agencies were involved, lending their knowledge on standards and regulations that can have an impact on market transformation. This included the US Department of Energy (on lighting and refrigeration), China National Institute of Standardization (air conditioning), the Turkish Ministry of Science and Technology (electric motors), and the Southern African Power Pool (distribution transformers);**
- **The Project Management Team have translated some of the knowledge products to other languages on an "as needed" basis to improve outreach to policymakers and technical staff in developing and emerging countries. While there have been translations of policy briefs and guides into French and Spanish and two briefs into Chinese, Project resources were insufficient to add to this effort. The evaluator is also not aware of any other offers from the other co-financers to increase the number of translations of current knowledge products to other languages such as Chinese or Russian;**
- **An increasing number of key partnerships with global manufacturers of appliances and equipment has helped to increase the geographic coverage of UE4 partnerships and impact of U4E policy and strategy guidance (as indicated in Para 77). Moreover, manufacturers are driven to these partnerships as a means to undertake a proactive role in accelerating the use of selected energy efficient appliances[37]. To this end, the growth of these partnerships needs to be sustained through a U4E lead to include a critical mass of major manufacturers of air conditioners, refrigerators, electric motors and distribution transformers. At the time of writing of this evaluation, there were still a number of major air conditioner manufacturers who were not yet U4E partners including Carrier Corporation, LG, Samsung, and GREE, some of which U4E has approached in partnering[38];**

[37] The converse of no partnerships or dialogue on common MEPS and regulations would lead to competition amongst manufacturers and the creation of opportunities for low quality manufacturers to sell low efficiency appliances on the market.

[38] Chinese does have proportional representation on U4E through the China National Institute who have oversight of the development of standards in China and is partner to U4E. In additional the National Lighting Test Centre of China is a partner and has close relations with Chinese partners. This include the hosting a of a lighting focused event in the side lines of the Clean Energy Ministerial in 2017 with participation from many lighting manufacturers, many of which are based in China.

- **30 countries[39] have prioritized LEDs within their EE programs to include applications for commercial, industrial and outdoor lighting. An estimated 20 new countries[40] are partnering with U4E to advance efficient lighting.**

95. The likelihood of impact of the Project in mitigating climate change by reducing global electricity consumption would be diminished without the Leapfrogging Project. The 3-year Leapfrogging Project will be providing the sustained technical assistance for emerging and developing countries to implement programs using U4E's integrated policy approach that was developed during the Project. Such assistance which will be provided by the Leapfrogging Project over the next 3 years, is critical to assist emerging and developing countries in:

- **best international practices in the enforcement of policies with monitoring, verification and enforcement;**
- **developing the capacity to enforce environmentally sound management using best international practices;**
- **setting up supporting financial programs to increase access of the general population to energy efficient appliances and equipment.**

However, efforts are still required to secure continued funding for these aforementioned activities after the exhaustion of Leapfrogging project resources to meet the energy efficiency goals of SDG-7 by 2030, and the desired impact of the Project to reduce GHG emissions. As such, the overall rating for the likelihood of impact for this Project is *moderately likely*.

The overall rating for likelihood of impact of the Project is Moderately Likely

3.5 Financial Management

96. The following financial information was made available to the evaluation:

- **approved detailed Project budgets, both GEF budgets and co-financing budgets[41] for the entire 18-month planned duration of the Project;**
- **an annual expenditure report for Project implementation during 2016;**
- **three (2) half-yearly expenditure reports for accounting for all Project activities to the end of December 2017 (with the fiscal end of the Project on 30 June 2018). The expenditure report for the reporting period between December 2017 and June 2018 indicates that at the conclusion of the Project, the cumulative unspent balance was US$11,871. At the time of this Evaluation, no decision has yet been made on whether these funds could be transferred to the Leapfrogging project or if they are to be returned to the GEF once a closing revision has been done;**
- **Project budget revision that reconciles GEF activity-based budgets and UN Environment budget lines. These revisions included amongst other changes, re-allocation of budget lines from full-time project staff to consultants (such as the communications consultant instead of a full-time communications staff person), and re-allocating funds for travel to workshops to increasing costs to partners for preparing policy guides.**

As such, the completeness of project financial information was assessed as 'Satisfactory'.

97. Since the Project is internally implemented and executed, no cash advances were necessary between the implementing agency, the Climate Mitigation Unit, and the executing agency, Energy

[39] SAPP, ASEAN and the 10 following countries: Chile, China, Costa Rica, Dominican Republic, Jordan, Nigeria, Pakistan, Panama, Sudan, Tunisia

[40] The 20 new countries are: Botswana, China, Cote d'Ivoire, Ecuador, Lao PDR, Lesotho, Malaysia, Malawi, Morocco, Mozambique, Namibia, Panama, Sierra Leone, Singapore, Swaziland, Tanzania, Tonga, Vietnam, Zambia, Zimbabwe.

[41] Detailed co-financing reports contain partner expenditures, planned and actual, against UN Environment budget lines plus a narrative description of the contribution of each partner

Unit. Instead, half-yearly budgets were approved and released by the Energy Unit for expenditures. Release of these budgets was based on progress reports provided by the PMT (the PIRs and the half-yearly reports) along with justification of resources required. Both the FMO and the Task Manager have oversight on the budget release as well as access to the real-time project budgetary expenditures (these do get summarized into budget expenditure reports which were made available to the evaluation). The Energy Unit also had the leeway to make revisions to the budget that were submitted for approval to the Climate Mitigation Unit as long as the revisions upheld the spirit of meeting the objectives of the project. As such, the communication between finance and project management staff was assessed as 'Satisfactory'.

98. **The Project was also started at the same time when UN Environment's new financial system, UMOJA had started up. The financial aspects of the Project appear to have been served well by UMOJA, likely due to the internalized arrangements of the project implementation and execution. Unfortunately, UMOJA does not have the capacity to divide project expenditures into components. As such, expenditures are only available as UN Environment budget lines, not Project components. A summary of Project expenditures can be found on Table V-1 in Annex V.**

The rating for financial management is Satisfactory.

3.6 Efficiency

99. **With regards to the assessment of the timeliness of Project implementation, the Project was originally scheduled for implementation over an 18-month period (from October 2015 to March 2017). The Project expenditure report up to 30 June 2017, however, indicated that US$375,177 remained in the budget, thus providing the rationale for an extension up to 31 December 2017. Reasons for only 72% of the GEF budget of US$1.37 million being expended by 30 June 2017 are likely due to:**

- **more efforts required than anticipated to forge partnerships with private sector and other CSOs. These efforts required longer consultations and time to formalizing agreements; and**
- **less GEF funds being expended due to in-kind co-financing contributions from Project partners (that included considerable efforts being made by manufacturing partners and international organizations), and budgetary efficiencies identified by the Project Management Team (see Paras 46 and 96).**

100. **With regards to the cost efficiencies of the Project, the US$1.37 million grant from GEF was sufficient to meet and in some cases, exceed the targets set in the Project Document. Within a 15-month period, the Project Management Team was able to set up expert taskforces for 5 products and prepare Policy Guides which were prepared to assist governments in developing and emerging countries in their awareness of the benefits of transitioning to efficient appliances and equipment, and to inform them in quantitative terms of the national benefits of energy efficiency in the context of energy savings and GHG emission reductions. Additional achievements under this grant also include raising the profile of energy efficiency in appliances and equipment to a global level as detailed in Para 90. These are excellent achievements of the Project.**

101. **In conclusion, the reasons for the 9-month Project extension were not due to inefficiencies in the implementation of the Project. Considering that all output targets were achieved resulting in policy guides for 5 products and 150 country assessments, surplus Project funds identified on the 30 June 2017 expenditure report were allocated to broadening the stakeholder base of the Project, and to strengthen the Policy Guides.**

The overall rating for efficiency is Satisfactory.

3.7 Monitoring and Reporting

102. **Design of the monitoring and evaluation (M&E) plan for the Project are provided Section C of the Project Document. The Project M&E plan is sufficiently detailed with linkages to the SMART**

indicators of the PRF as mentioned in Para 70 and is rated as 'Highly Satisfactory'. The M&E plan contains details of:

- **the roles and responsibilities of the PMT, PSC and the Task Manager of UN Environment;**
- **project inception workshop, midterm management review (after 9 months of implementation) and the terminal evaluation regarding their purposes in monitoring and evaluation of the Project;**
- **the GEF tracking tool to provide estimates of energy savings and GHG emission reductions resulting from market transformation to the 5 efficient products covered under this project. This estimate assumes 15 out of 30 countries that have committed to U4E's approaches and then go on to transform their markets;**
- **each M&E activity along with responsible parties, frequency of the M&E activity, and the budget (from GEF and financing) required for each activity (in Annex G of the Project Document).**

103. Monitoring activities for project implementation primarily consisted of regular conference calls between the PMT and various working groups on the progress of policy guides and country assessments being undertaken with Project resources and in-kind contributions from various co-financing partners with oversight of M&E activities undertaken by the Task Manager in the Climate Mitigation Unit. These communications also took place at events being attended by the PMT such as COP 22 and COP23. In consideration that the Project PRF had clear and SMART indicators and that the Project was clearly designed to prepare reference policy guides, country analyses of policy readiness, and estimates of national benefits from energy efficiency of the selected products, the activities for Project monitoring were appropriate considering that all targets for each outcome and output was achieved. Given the quality of Project management and supervision, the monitoring of Project implementation is rated as 'Satisfactory'.

104. Progress reporting was in the form of:

- **Project Implementation Review (PIR) reports for GEF FY 2016, 2017 and 2018. These reports were comprehensive providing descriptive commentary on the achievement of targets against the outcomes, and percent completion of the delivery of outputs;**
- **Half-yearly progress reports for 2015, 2016 and 2017. These were generally issued at the end of the calendar year and focused on updating progress on the delivery of outputs and providing risk assessments and adaptive management measures.**

105. In general, the M&E plan was executed as described in the Project Document due to the high quality of Project management and supervision that allowed the PMT to meet all of its targets. Exceptions to the M&E plan execution included:

- **no midterm review (MTR) being carried out. With an 18-month implementation period of the Project, the PMT and Task Manager made the decision that a MTR would not provide any benefit to improving the pace and quality of Project implementation, especially considering that the en.Lighten project was under evaluation during implementation of the Project;**
- **lack of reporting to the evaluator on appropriate representation of gender in expert task forces, despite the Project document addressing this monitoring need;**
- **the ability of the PMT to only provide estimates of energy savings and GHG emission reduction impact of the Project for the GEF tracking tool. The obvious reason would be the insufficient time available within this 18-month Project to undertake the required and substantial efforts for monitoring sales of EE products. As such, the estimates in the GEF Tracking Tool only provide rough estimates of energy savings and GHG emission reductions. This Evaluation is encouraged that the follow-up Leapfrogging Project will be providing support to improve Monitoring, Verification and Enforcement (MVE) systems for monitoring energy savings and GHG emission reductions at the national level.**

106. In conclusion, the monitoring and reporting for the Project has been rated as 'Satisfactory' in consideration of the quality of information provided and the PIRs and progress reports that have led to the outcome of the Project meeting all of its targets and intended outcomes, and the shortcomings mentioned in Para 105.

The rating for monitoring and reporting is Satisfactory

3.8 Sustainability of Outcomes

107. Project sustainability is essentially assessed through determining whether the achievements made by the Project at outcome level are sustainable including the level of sustained actions of national policy level makers to transform markets of the 5 products covered under the Project and continued utility of Project knowledge products at the national level. Sustainability is measured in the context of financial, socio-political and institutional framework sustainability.

3.8.1 Financial sustainability

108. In the assessment of *financial sustainability*, most of the Project direct outcomes do not have a high dependency on future funding. Only Outcome 3, "Key partners are committed to energy efficiency of appliances, equipment and lighting", appears to have some degree of dependency on future funding given that a key partner such as a host government would need financial resources to catalyse local investments into EE appliances and equipment. To this extent, the U4E country saving assessments (Output 2.2) have been recognized as a tool to provide loans from the Global Climate Partnership Fund (GCPF) for the purchase of energy efficient products (see Para 80). An agreement exists between GCPF and the Project to continually improve these country assessments, which should lead to future financing of energy efficiency programs in selected countries.

109. This dependency has been further mitigated through the securing of funding through the Leapfrogging Project (US$3.1 million from GEF and US$18.677 million of co-financing) to support U4E for another 3 years. Resources from the Leapfrogging Project will be used to support partner countries to develop and implement energy efficiency policy frameworks and increase the ambition of the U4E partnerships through:

- **guiding countries and regions on successful implementation of market transformation projects;**
- **facilitating country commitments financing energy efficiency of lighting and the 4 products covered under the Project; and**
- **facilitating regional harmonization of standards.**

110. Moreover, the Leapfrogging Project was setup to facilitate countries to access their GEF System for Transparent Allocation of Resources (STAR) for national projects that promote energy efficient lighting, appliances and equipment. With the Leapfrogging Project supporting these national projects through U4E's integrated policy approach, these national projects will have a greater likelihood of success and harmonized energy efficiency policies. This has leveraged GEF support at the national level for another 10 countries for their implementation of U4E's integrated policy approach that was to include MEPS, MVE, communication campaigns, financial mechanisms and environmentally sound management[42].

111. While the Project meeting its intended outcomes is a significant contribution to SDG-7, there is still uncertainty if sufficient resources are available to meet the SDG-7 goal of doubling the global energy efficiency by 2030. With the Leapfrogging Project and associated child projects providing 3 to 5 years of support to build capacities at the national level for implementing U4E's integrated policy approach for market transformation activities, the level of resources required to achieve the SDG-7 goal is likely much higher. Furthermore, capacity building needs of each country are going to vary considerably depending on their baseline conditions and absorptive capacities. While GEF has provided solid support to market transformation for these products to varying degrees in several countries, there are some indications that a more diversified approach to funding sources is underway as described in Para 90. A continuation of this approach is required to attain more

[42] These national GEF projects are referred to as "child projects" that fall under the global Leapfrogging Program. There are 10 countries with child projects including Costa Rica, Indonesia, Tunisia, Myanmar, Tunisia and Chile (all implemented by UN Environment) and Sudan, Kazakhstan, South Africa, Turkey and China (all implemented by UNDP). Details of these child projects can be found on pgs 7-8 on the RCE Document for the Global Leapfrogging Program.

certainty that sufficient financial resources are in place to meet the SDG-7 goal of doubling the global energy efficiency by 2030. This may include financial mechanisms at the national level that may not yet have been adequately explored by child projects or other initiatives, and other sources of international funding such as with regional development banks and other funds such as the Green Climate Fund. As such, financial sustainability of the Project is rated as 'Likely'.

3.8.2 Socio-Political sustainability

112. In the assessment of social political sustainability, all Project outcomes have a high degree of dependency on social and political factors which drive developing and emerging countries towards implementing energy efficiency programs and market transformation activities. The 43 countries committing to the U4E Partnership is a good indicator of the high level of interest of these governments in committing towards energy efficiency and market transformation programs. Due to the strong national benefits of energy efficiency from the country assessments generated by the Project, ownership of these programs by developing and emerging governments will likely remain strong and should survive even with future government changes although there are always risks that future government administrations may do otherwise. In addition, the Leapfrogging Project will provide mechanisms to facilitate the implementation of the U4E integrated policy approach for energy efficient equipment and appliances at both the national and regional levels. As such, socio-political sustainability of the Project is rated as 'Highly Likely'.

3.8.3 Institutional framework sustainability

113. In the assessment of institutional framework sustainability, all Project outcomes are highly sensitive to institutional support. Moreover, Project outputs have provided the knowledge products for guidance to developing and emerging countries to develop their policies and laws to enable market transformation of energy efficiency for the 5 products under the Project. While it is difficult to assess the institutional framework for energy efficiency in the 43 countries, it is likely that these individual countries have a range of institutional support capacities that have benefited somewhat from the Project's knowledge transfers and attitudinal changes, ranging from weak to robust mechanisms that are in place to sustain the capacity of relevant government officers to manage a market transformation program. However, there is still uncertainty as to whether or not these capacities will result in market transformation of energy efficient appliances and equipment. As such, technical assistance will still be required to refine approaches and build the necessary capacities for several relevant individuals in each country to implement U4E's integrated policy approach for which the Leapfrogging Project is providing for the next 3 years. With some uncertainty of technical assistance beyond Leapfrogging, the institutional framework sustainability of this Project is rated as 'Likely'.

The overall Project sustainability rating is Likely.

4 Conclusions, Recommendations and Lessons Learned

4.1 Conclusions

114. The Project, conceptualized by UN Environment in collaboration with other founding partners that included UNDP, ICA, NRDC, and CLASP, was highly effective driving a call to action to expand energy efficiency beyond lighting devices. Building on the successful en.lighten initiative, the Project succeeded in bringing together a critical mass of stakeholders from government, manufacturing, technical organizations, civil service organizations and international donors, all relevant for transforming markets towards energy efficiency of 4 high energy consuming products, namely: refrigerators, air conditioners, electric motors, distribution transformers, plus a fifth product, LEDs and lighting controls.

115. These effective partnerships fostered by the Project developed the U4E's integrated policy approach to facilitate market transformation towards the 5 targeted energy efficient products. Within a 27-month period, Project resources as well as in-kind contributions from Project partners, were utilized to complete 5 comprehensive reference policy guides to advance the knowledge of policymakers

from emerging and developing countries on implementing energy efficiency programs for each set of products. The contribution of co-financing partners significantly leveraged Project efforts for the timely delivery of 150 country assessments on policy readiness and national energy efficiency benefits. With the policy guides and the country assessments, Project resources were also used to initiate start-up activities for market transformation in over 20 countries (see Table 6) and to support international and regional events to inform stakeholders from developing and emerging countries of the U4E integrated policy approach on a global scale.

116. **With the Project having achieved all of its targets, its primary aim of providing the necessary knowledge products enabling policymakers of developing and emerging countries to implement integrated policy approaches for market transformation of energy efficient products was met. These knowledge products were comprehensive ranging in detail on how to determine energy baselines for the 5 targeted products to implementing recycling and proper disposal programmes of old appliances (as mentioned in Para 77). These remain key steps towards all countries achieving the SDG-7 of *"ensuring access to affordable, reliable, sustainable and modern energy for all"*. Moreover, Project knowledge products and workshops have provided policy makers of developing countries with the necessary technical tools to design and manage national programs for market transformation towards energy efficient products and equipment and meeting the GHG emission reduction targets of their INDCs.**

117. **The success of the Project has leveraged GEF support through the Leapfrogging Project for another 36 months to continue the work of transforming the market for energy efficient products at the national level. Notwithstanding, significant challenges remain in achieving the SDG-7 goal of doubling the global energy efficiency by 2030, as mentioned in Para 95. These challenges include:**

- **being able to fully engage a critical mass of stakeholders who can move the energy efficiency agenda for a particular product to a level that can contribute to achievement of the SDG-7 goal;**
- **delivering sufficient dissemination activities such as seminars, workshops and conferences at regional and international levels, on U4E's integrated policy approach to facilitate market transformation actions on energy efficiency to the extent that the SDG-7 goal can be achieved by 2030;**
- **ensuring adequate pace and quality of technical assistance based on local absorptive capacities to facilitate full adoption of U4E's integrated policy approaches at national levels to energy efficiency of appliances and equipment;**
- **bridging the financing gap on investments into effective recycling and disposal programs that reduce or eliminate leakage from old inefficient products in developing and emerging countries; and**
- **having sufficient fiscal resources for the required technical assistance that allows a critical mass of countries to effectively implement integrated policy approaches of U4E sufficient to meet the SDG-7 goal of doubling the global energy efficiency by 2030.**

Table 8: Summary of Project terminal evaluation findings and ratings

Criterion	Summary assessment	Rating
Strategic Relevance		HS
1. Alignment to MTS and POW	Full alignment with EA2 related to improving energy efficiency in partner countries to reduce GHG emissions as part of their low emission development pathways (see Para 53)	HS
2. Alignment to UN Environment /Donor/GEF strategic priorities	Full alignment with Bali Strategic Plan to strengthen capacity of governments of developing countries through targeted capacity building (see Paras 54-55).	HS
3. Relevance to regional, sub-regional and national environmental priorities	Energy efficiency is a national priority for numerous countries (see Para 60)	HS
4. Complementarity with existing interventions	Several examples provided in Paras 56 and 60.	HS

Criterion	Summary assessment	Rating
Quality of Project Design	**The Project is based on a strong project design which provides an excellent foundation for the launching of the Global Leapfrogging Program (Para 73) although there is the absence of any substantive discussion on gender dimensions (Para 74)**	**S**
Nature of External Context	**Minimal risks of externalities to disruption of market transformation leading to a favourable assessment (see Para 75)**	**F**
Effectiveness	**Achievement of all outputs and direct outcomes maximizes the probability of intended impacts of global GHG emission reductions resulting from energy efficiency work done under the Project.**	**HS**
1. Delivery of outputs	**All targets related to the outputs have been achieved (see Paras 76 to 86)**	**HS**
2. Achievement of direct outcomes	**All direct outcomes have been achieved (see Paras 87 to 91)**	**HS**
3. Likelihood of impact	**Efforts are still required to secure continued funding for these aforementioned activities after the exhaustion of Leapfrogging project resources to meet the energy efficiency goals of SDG-7 by 2030, and the desired impact of the Project to reduce GHG emissions (see Paras 92 to 95)**	**ML**
Financial Management		**S**
1. Completeness of project financial information	**As listed on Para 96**	**S**
2. Communication between finance and project management staff	**Effective communication between Energy Unit and Climate Mitigation Unit (see Para 97)**	**S**
Efficiency	**The 9-month Project extension was not due to implementation inefficiencies, but due to additional efforts required to forge private sector and Civil Society Organisation partnerships and less GEF funds being expended due to in-kind co-financing contributions from project partners (see Paras 99 to 101)**	**S**
Monitoring and Reporting	**See Paras 102-106**	**S**
1. Monitoring design and budgeting	**Complete design provided in Project Document (see Para 102)**	**HS**
2. Monitoring of project implementation	**Mainly done on regular conference calls between PMT and various working groups (see Para 103)**	**S**
3. Project reporting	**Mainly delivered as PIRs and half yearly progress reports (see Para 104)**	**S**
Sustainability	**Rating determined by financial and institutional sustainability which requires additional resources which are coming from the Leapfrogging Project.**	**L**
1. Socio-political sustainability	**Resources from follow-on Leapfrogging Project will sustain implementation of U4E integrated policy approach at national and regional levels (see Para 112)**	**HL**
2. Financial sustainability	**Financial resources from the Leapfrogging Project and the GCPF will sustain U4E's integrated policy approach for energy efficient products in the short term. However, sufficient financial resources are not yet confirmed to meet SDG-7 goal of doubling global energy efficiency by 2030 (see Paras 108-111)**	**L**
3. Institutional sustainability	**Technical assistance is still required to refine approaches and build the necessary capacities for countries to institutionalize the 4 direct outcomes of the Project (see Para 113).**	**L**
Factors Affecting Performance		**S**
1. Preparation and readiness	**See Para 61 for details.**	**S**
2. Quality of project management and supervision	**Satisfactory in consideration of the overall outcomes and delivery of outputs from the Project.**	**S**

Criterion	Summary assessment	Rating
3. Stakeholders participation and cooperation	A diverse and wide range of stakeholders who participated on the Project as described in Paras 35-38	HS
4. Responsiveness to human rights and gender equity	Absence in Project design of substantive consideration of gender issues in Project implementation considering that the Project was focused on fostering of global partnerships (Paras 39 and 74). The evaluator also notes the lack of reporting on appropriate representation of gender in these expert task forces (Paragraph 105).	U
5. Country ownership and driven-ness	Satisfactory based on the participation of more than 43 countries with U4E partnerships	S
6. Communication and public awareness	U4E website (https://united4efficiency.org/) provides appropriate level of information regarding progress on the U4E partnerships and reference material on energy efficiency for appliances and equipment.	S
Overall Project Rating		HS

4.2 Lessons Learned

118. The following are some lessons compiled by the Evaluator on some of the Project's successes as well challenges:

Context:	**The Project, conceptualized by UN Environment in collaboration with other founding partners that included UNDP, ICA, NRDC, and CLASP, was highly effective driving a call to action to expand energy efficiency beyond lighting devices. Building on the successful en.lighten initiative, the Project succeeded in bringing together a critical mass of stakeholders from government, manufacturing, technical organizations, civil service organizations and international donors, all relevant for transforming markets towards energy efficiency of 4 high energy consuming products (Paragraph 114).**
Lesson # 1:	**This Project is an example of the benefits of providing funding for the forming of global partnerships that engages a diverse spectrum of partners for sharing global knowledge towards a common goal of transforming a market for energy efficient appliances and equipment. The absence of these partnerships would likely lead to several disparate energy efficient solutions that are less efficient in achieving the goal of SDG-7. Such global partnerships can build a critical mass of key stakeholders from:** • **governments from developed nations with experience in EE market transformation;** • **governments from developing nations who can provide their own experiences and limitations to EE market transformation;** • **private sector manufacturers on the production of targeted appliances and equipment that comply with a MEPS regime;** • **technical organizations with capacities for best international practices for testing standards;** • **civil service organizations or locally-based national champions who can serve as drivers to accelerate national energy efficiency; and** • **international donors to provide supplemental funding for technical assistance for market transformation activities.** **The outcomes of the Project, primarily the partnerships it has facilitated, the resources mobilised and the documents of consensus built with these partnerships, have been manifested into the follow-up Leapfrogging Project to assist countries in adopting best practices in the market transformation of selected energy efficient appliances. The Leapfrogging Project now provides a higher likelihood of market transformation actually occurring in participating countries.**
Application:	**Design of future market transformation projects.**
Context:	**One design weakness of the Project would be its duration of 18 months, which represents a limited time period to set up the partnerships and complete a targeted number of country assessments within that period. Implementation efficiencies are reviewed in this report that will rationalize why the Project required 27 months (or 50% more time) to complete all its activities (Paragraph 74).** **Reasons for only 72% of the GEF budget of US$1.37 million being expended by 30 June 2017 are likely due to more efforts required than anticipated to forge partnerships with private sector and other CSOs. These efforts required longer consultations and time to formalizing agreements (Paragraph 99).**

Lesson # 2:	**Expectations of global projects that form, manage and foster global partnerships and cooperation networks need to be realistic given the limited means of the available resources to influence results towards market transformation, and the uncertainties in the estimated efforts required to forge partnerships with UN Environment projects. While the en.lighten project was successful in fostering partnerships with a critical mass of private sector entities, international organizations and national champions, it provided some indications of the level of efforts required to complete these partnerships. The Project's partnerships provided additional indications of these efforts to foster partnerships with a wider spectrum of manufacturers globally that covered a larger variety of appliance and equipment.**
Application:	**Leapfrogging Project and the design of future market transformation projects.**
Context:	**The Project Results Framework included SMART indicators for each expected outcome and output as well as defined milestones for monitoring progress of each outcome and output. In addition, Annex I in the Project Document contains an elaboration of these indicators and milestones with the key deliverables, benchmarks, delivery dates and means of verification that are useful in assessing implementation progress and achievement of intended Project results. M&E related costs are also presented in the Costed M&E Plan (in Annex G of the RCE Document) that is fully integrated in the overall project budget (Paragraph 70).** **In consideration that the Project's PRF had a manageable and strategic number of clear and SMART indicators, the activities for Project monitoring were appropriate considering that all targets for each outcome and output was achieved (Paragraph 103).**
Lesson # 3:	**The success of the Project in achieving its goals was related to articulating clear and a limited number of targets, clear roles of the co-financing partners on the policy guides, and ambitious goals. The presence of SMART indicators and targets was crucial to project management teams being able to more effectively meeting these targets and adjusting project work plans towards meeting these targets.**
Application:	**Preparation and management of future GEF projects.**
Context:	**In the context of gender balance, the Project design does address appropriate representation of gender groups in expert task forces under Component 1 in the Project Document (Paragraph 56), but notes an absence of any substantive discussion on gender dimensions (Para 74). The evaluator also notes the lack of reporting on appropriate representation of gender in these expert task forces (Paragraph 105).**
Lesson # 4:	**Gender is likely to be under-reported on UN Environment projects where gender has not been considered during design. While the evaluator has observed that UN Environment has made efforts to staff the Project as equitably as possible for expert task forces, the importance of mainstreaming gender to achieve larger and more sustainable results needs to be highlighted to project designers and managers. Recommendation #7 provides suggestions along these lines.**
Application:	**Future GEF projects.**

4.3 Recommendations

119. The following are some recommendations compiled by the Evaluator to enhance and increase the likelihood of impact of the Appliance Accelerator Project and the Leapfrogging Project:

Context:	**Para 111 references the uncertainties of capacity building resources required to bring more certainty to achieving the SDG-7 goal of doubling global energy efficiency. Though the Leapfrogging Project has generated 10 child projects for 10 countries, there remains more than 100 countries with national assessments who likely will need technical assistance support for implementing U4E's integrated policy approach for market transformation for energy efficient lighting, appliances and other equipment.**
Recommendation #1	**Continue an emphasis on EE workshops at the regional level to maximize global effectiveness of Leapfrogging Project and facilitating the start-up of additional national and regional level energy efficiency projects. Experience from this Project indicates that the regional workshops can *catalyse national level interest* for technical assistance such as the 32 national and regional projects generated by this Project (as mentioned in Para 90, some of which are listed in Table 6 including the Caribbean Cooling Initiative). With the intention of maximizing *global exposure of countries* to the U4E integrated policy approach, Leapfrogging Project support to regional workshops will raise the importance of a harmonized approach to energy efficiency appliances and equipment including:** • **Harmonized set of standards and regulations for specific appliances and equipment;** • **Supporting the setup of regional testing facilities for appliances and equipment;** • **Involvement of regional banks for finance and financial delivery mechanisms to improve consumer access to energy efficient products;** • **Regional MVE schemes, important for small countries that will not have sufficient personnel to manage a national MVE scheme;** • **Support from regional donors or international organizations for assistance in implementing supporting policies related to identifying and engaging key stakeholders, labelling schemes, and public communications and outreach;** • **Regional support for the setup and implementation of recycling schemes for old appliances.**
Responsibility:	**Steering Committee Members of Leapfrogging that includes UN Environment, UNDP, NRDC, CLASP and ICA**
Time-frame:	**During the Leapfrogging Project and during the design and operational phases for follow-on projects**
Context:	**Notwithstanding GEF support through the Leapfrogging Project for another 36 months, significant challenges remain in achieving the SDG-7 goal of doubling the global energy efficiency by 2030. These challenges include (amongst other challenges) "ensuring adequate pace and quality of technical assistance based on local absorptive capacities to facilitate full adoption of U4E's integrated policy approaches at national levels to energy efficiency of appliances and equipment" (Para 117).**

Recommendation #2	**To facilitate the desired market transformational impact, the Leapfrogging Project through its own resources or those of the co-financers will need to allocate sufficient resources for customized technical assistance for each country given the varying degrees of readiness of each country. Considerations for customization will need to be made for:** • **the baseline scenario for each country, some which may need to start from a position where no EE standards and regulations have been addressed or developed to those countries that have had partial regulatory developments or weak (and under-resourced) implementation of EE programs;** • **providing additional focus to countries where regional uptake potential is excellent. Countries such as South Africa or Ghana could undertake a regional leadership role in EE program implementation. This would encourage smaller countries (who have not yet developed the critical mass of regulatory infrastructure) to replicate EE programmes of these lead countries;** • **a targeted appliance of interest in a particular country. For example, in Pakistan where no child project plans are in place, the government has expressed an interest in higher standards for refrigerators. A project partner such as Arcelik may be in the best position to undertake such a programme promotion due to its investments made in the manufacturing of refrigerators in Pakistan;** • **countries where substantial investments have not been yet made by utilities in the distribution grid, stabilization of power factors and promoting energy efficiency. While the number of countries with these conditions is likely to be small, they have a low level of readiness for energy efficient products. As such, it may be more prudent to discuss plans with the electric utilities of these countries on when additional investments will be made into their power grid, at which time, energy efficiency programme for appliances and equipment can be promoted to consumers of that country.**
Responsibility:	**Steering Committee Members of Leapfrogging that includes UN Environment, UNDP, NRDC, CLASP and ICA**
Time-frame:	**During the Leapfrogging Project and during the design and operational phases for follow-on projects.**
Context:	**In reference to Paragraph 111 on the likelihood of financial sustainability and the uncertainty of sufficient resources to meet the SDG-7 goal of doubling global energy efficiency by 2030, the financing for energy efficiency from national programs needs to be explored more thoroughly on the Leapfrogging Project.**
Recommendation #3	**The "Leapfrogging Project" should examine more closely the financial mechanisms at a national level that can be unlocked or shifted to focus more on green credit lines that can support EE policies (that may, for example, be used to phase out inefficient products) and improve access of EE appliances for wider sectors of their population. The unlocking of nationally available sources of funding would complement and strengthen country efforts in implementing U4E's integrated policy approach for market transformation for energy efficient appliances and equipment. Specific recommendations include the provision of assistance to specific countries to:** • **improve access to credit lines for suppliers or manufacturers of efficient appliances and equipment for investments into new production lines for efficient products;** • **setup credit lines to provide rebates or concessional loan rates as incentives to consumers to purchase energy efficient products;**

	• generate interest of regional banks in such schemes to overcome their lack of interest especially if such schemes are deemed too small and onerous to administer; • design these credit lines within parameters so as not to distort the appliance market but also to increase national compliance to U4E's integrated policy approach.
Responsibility:	Steering Committee Members of Leapfrogging that includes UN Environment, UNDP, NRDC, CLASP and ICA.
Time-frame:	During the Leapfrogging Project and during the design and operational phases for follow-on projects.
Context:	Paras 71, 116 and 117 reference the importance and need for more effective progress on disposal and recycling programs for old appliances. There are, however, constraints in many countries to have the appropriate level of fiscal resources and knowledge to implement proper waste disposal of these appliances. For example, the scale of investment required for the proper disposal of refrigerators is in the millions of dollars, and would require a large multinational manufacturing company to be involved with the proper disposal of these appliances.
Recommendation #4	Provide more focus during the Leapfrogging Project in future market transformation activities on the proper disposal or recycling of old inefficient appliances and equipment. Specific recommendations for the Leapfrogging Project include: • exposure of selected personnel from child projects to operational and effective disposal programs (similar to the Project's support for South Africans to meet Arcelik in Turkey on their refrigerator disposal programs in late 2017); • plan focused technical assistance on disposal and recycling programs in countries with a reasonable chance of success in implementing such a program. A number of examples are given in the various Policy Guides such as Mexico's National Appliance Replacement Programme[43], Brazil's Utilities' Refrigerator-Replacement Programme[44] and Sri Lanka's CFL Recycling Scheme[45]. With these examples and the willingness of the host country, technical assistance from the Leapfrogging Project or its co-financing partners could prepare strategic plans on implementing proper recycling and disposal programs along with estimated costs and environmental benefits[46]. This may be useful for policymakers for raising financing for such programmes; • ensuring that current and future child projects be properly resourced to include sufficient technical assistance on best practices for compliance to disposal and recycling programmes for old appliances. This may include the aforementioned preparations of strategic plans on implementing proper recycling and disposal programs that may be helpful in approving such investments.

[43] Pg 82 of the "Accelerating Global Adoption of Energy Efficient and Climate Friendly Air Conditioners" or the AC Policy Guide.
[44] Pg 49 of the "Accelerating Global Adoption of Energy Efficient and Climate Friendly Refrigerators" or the Refrigerator Policy Guide.
[45] Pg 69 of the "Accelerating Global Adoption of Energy Efficient Lighting" or the Lighting Policy Guide.
[46] Such assistance in smaller countries such as small island nations may not be feasible since the costs to administer such a program may be too costly given the fixed costs and low number of appliances that are being disposed or recycled.

Responsibility:	**Steering Committee Members of Leapfrogging that includes UN Environment, UNDP, NRDC, CLASP and ICA.**
Time-frame:	**During the Leapfrogging Project and during the design and operational phases for follow-on projects.**
Context:	**In reference to Paras 94, 99, and 117 on the limitations and constraints of private sector partnerships, the evaluation notes that the air conditioner expert task force still does not have a large representation of major air conditioning manufacturers (the Evaluation notes that the Task Force for Air Conditioner Policy Guide includes Daikin, Haier and Midea as representatives from the air-conditioning manufacturer sector). Considering the expected growth of air-conditioning globally and associated climate impacts, the representation on the task force for air-conditioning manufacturing has not yet reached a critical mass. In addition, China which globally has the largest manufacturing base, does not have a proportional representation within U4E.**
Recommendation #5	**Continue broadening the stakeholder partnerships that will increase the likelihood of achieving the GHG reduction impact. Notwithstanding that this may already be a planned activity under the Leapfrogging Project, specific recommendations include increased U4E outreach to:** • **more progressive air-conditioning manufacturers to increase the stakeholder base of air-conditioning manufacturers under the U4E partnership. This can include outreach to global air-conditioning manufacturers such as the Carrier Corporation, LG, Samsung, and GREE;** • **more major electric motor manufacturers such as Siemens and Toshiba. The only major private sector electric motor manufacturer on the taskforce is ABB;** • **Chinese-based manufacturers of air conditioners, refrigerators, motors, and distribution transformers (manufacturers of LEDs seems to have been covered under en.lighten);** • **Municipalities that have green city aspirations (Bangkok and Manila as examples).**
Responsibility:	**Steering Committee Members of Leapfrogging that includes UN Environment, UNDP, NRDC, CLASP and ICA.**
Time-frame:	**During the Leapfrogging Project and during the design and operational phases for follow-on projects.**
Context:	**In reference to Para 94, the PMT have translated some of the knowledge products to other languages on an "as needed" basis to improve outreach to policymakers and technical staff in developing and emerging countries. While there have been translations of policy briefs and guides to French and Spanish, Project resources were insufficient to add to this effort. The evaluator is not aware of any other offers from the other co-financers to increase the number of translations of current knowledge products to other languages such as Chinese or Russian.**
Recommendation #6	**The Leapfrogging Project and its co-financing partners should consider further effort into translation of its knowledge products that would increase the effectiveness of U4E outreach stakeholders. Specific recommendations include translations into:** • **Chinese which may increase the participation of Chinese-based manufacturers as mentioned in Recommendation #5. Leapfrogging personnel will need to determine if this is a worthy effort;**

	• Russian which would cover many of the CIS countries where there are active efforts to harmonize MEPS for selected appliances and equipment under the Eurasian Customs Union; • Other local languages on an as-needed basis, and where significant outreach can be accomplished.
Responsibility:	**Steering Committee Members of Leapfrogging that includes UN Environment, UNDP, NRDC, CLASP and ICA.**
Time-frame:	**During the Leapfrogging Project and during the design and operational phases for follow-on projects.**
Context:	**The Project Document did not give substantive consideration of gender issues in Project implementation with the only gender reference being the assurance of appropriate gender representation on expert task forces. Given that the Project was focused on fostering of global partnerships, the issue of gender was overlooked (Para 39). In the context of gender balance, the Project design does address appropriate representation of gender groups in expert task forces under Component 1 in the Project Document (Paragraph 56), but notes an absence of any substantive discussion on gender dimensions (Para 74). The evaluator also notes the lack of reporting on appropriate representation of gender in these expert task forces (Paragraph 105).**
Recommendation #7	**UN Environment should strengthen gender mainstreaming as recommended in the en.lighten Terminal Evaluation which stressed the importance of conducting adequate gender analysis and setting specific gender-related targets. While the Project has a significant number of women in leadership and facilitation roles within UN Environment, partner organizations and consultants, useful targets for mainstreaming gender in market transformation of energy efficient appliances should be formulated in close collaboration with the SE4ALL or the "People-Centered Accelerator"[47].**
Responsibility:	**UN Environment Energy and Climate Branch**
Time-frame:	**During the Leapfrogging Project and during the design and operational phases for follow-on projects.**

[47] https://www.seforall.org/connecting-partners/accelerators/people-centered-accelerator

5 Annexures

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Annex I. Terms of Reference for the Evaluation

I-1: Key Evaluation principles

I-1. 14. Evaluation findings and judgements should be based on sound evidence and analysis, clearly documented in the evaluation report. Information will be triangulated (i.e. verified from different sources) as far as possible, and when verification is not possible, the single source will be mentioned (whilst anonymity is still protected). Analysis leading to evaluative judgements should always be clearly spelled out.

I-2. The "Why?" Question. As this is a terminal evaluation and a follow-up project was already initiated in November 2017, particular attention should be given to learning from this earlier project experience. Therefore, the 'Why?" question should be at the front of the consultants' minds all through the evaluation exercise and is supported by the use of a theory of change approach. This means that the consultants need to go beyond the assessment of "what" the project performance was, and make a serious effort to provide a deeper understanding of "why" the performance was as it was. This should provide the basis for the lessons that can be drawn from the project.

I-3. Baselines and counterfactuals. In attempting to attribute any outcomes and impacts to the project intervention, the evaluators should consider the difference between what has happened with, and what would have happened without, the project. This implies that there should be consideration of the baseline conditions, trends and counterfactuals in relation to the intended project outcomes and impacts. It also means that there should be plausible evidence to attribute such outcomes and impacts to the actions of the project. Sometimes, adequate information on baseline conditions, trends or counterfactuals is lacking. In such cases this should be clearly highlighted by the evaluators, along with any simplifying assumptions that were taken to enable the evaluator to make informed judgements about project performance.

I-4. Communicating evaluation results. A key aim of the evaluation is to encourage reflection and learning by UN Environment staff and key project stakeholders. The consultant should consider how reflection and learning can be promoted, both through the evaluation process and in the communication of evaluation findings and key lessons. Clear and concise writing is required on all evaluation deliverables. Draft and final versions of the main evaluation report will be shared with key stakeholders by the Evaluation Manager. There may, however, be several intended audiences, each with different interests and needs regarding the report. The Evaluation Manager will plan with the consultant(s) which audiences to target and the easiest and clearest way to communicate the key evaluation findings and lessons to them. This may include some or all of the following; a webinar, conference calls with relevant stakeholders, the preparation of an evaluation brief or interactive presentation.

I-2: Objective of the Evaluation

I-5. In line with the UN Environment Evaluation Policy[48] and the UN Environment Program Manual[49], the Terminal Evaluation (TE) is undertaken at completion of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among U4E project partners

I-6. Given the Terminal Evaluation of the en.lighten initiative has recently concluded and that a 36 month follow up Global Program and several country projects are starting or about to start, the evaluation is intended to contribute to the learning process and to inform SE4ALL existing Accelerators and Hubs on issues related to approach and implementation.

[48] http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationPolicy/tabid/3050/language/en-US/Default.aspx

[49] http://www.unep.org/QAS/Documents/UNEP_Programme_Manual_May_2013.pdf . *This manual is under revision.*

I-3: Key Strategic Questions

I-7. In addition to the evaluation criteria outlined in Section 10 below, the evaluation will address the strategic questions listed below. These are questions of interest to UN Environment and to which the project is believed to be able to make a substantive contribution:

- **To what extent, and how, is the project contributing to SDG 7 '*Ensure access to affordable, reliable, sustainable and modern energy for all*' and to the Intended Nationally Determined Contributions (INDCs)?**
- **To what extent, and how, are organizations participating in the Partnership promoting market shifts and encouraging innovations outside the Partnership?**
- **How well is this intervention aligned with the overall SE4ALL strategy up to 2030 including coordination with other Accelerators and Hubs?**
- **Within the 'Lessons Learned' and 'Recommendations' sections, particular attention should be paid to the immediate learning that should be applied during the implementation of the subsequent phase of the project, which will begin shortly (February 2018) and runs until end November 2021.**

I-4: Evaluation Criteria

I-8. All evaluation criteria will be rated on a six-point scale. Sections A-I below, outline the scope of the criteria and a link to a table for recording the ratings is provided in Annex 1). A weightings table will be provided in excel format (link provided in Annex 1) to support the determination of an overall project rating. The set of evaluation criteria are grouped in nine categories: (A) Strategic Relevance; (B) Quality of Project Design; (C) Nature of External Context; (D) Effectiveness, which comprises assessments of the delivery of outputs, achievement of outcomes and likelihood of impact; (E) Financial Management; (F) Efficiency; (G) Monitoring and Reporting; (H) Sustainability; and (I) Factors Affecting Project Performance. The evaluation consultants can propose other evaluation criteria as deemed appropriate.

Strategic Relevance

I-9. The evaluation will assess, in line with the OECD/DAC definition of relevance, 'the extent to which the activity is suited to the priorities and policies of the target group, recipient and donor'. The evaluation will include an assessment of the project's relevance in relation to UN Environment's mandate and its alignment with UN Environment's policies and strategies at the time of project approval. Under strategic relevance an assessment of the complementarity of the project with other interventions addressing the needs of the same target groups will be made. This criterion comprises four elements:

- ***Alignment to the UN Environment Medium Term Strategy*[50] *(MTS) and Programme of Work (POW).* The evaluation should assess the project's alignment with the MTS and POW under which the project was approved and include, in its narrative, reflections on the scale and scope of any contributions made to the planned results reflected in the relevant MTS and POW;**
- ***Alignment to UN Environment / Donor/GEF Strategic Priorities*. Donor, including GEF, strategic priorities will vary across interventions. UN Environment strategic priorities include the Bali Strategic Plan for Technology Support and Capacity Building[51] (BSP) and South-South Cooperation (S-SC). The BSP relates to the capacity of governments to: comply with international agreements and obligations at the national level; promote, facilitate and finance environmentally sound technologies and to strengthen frameworks for developing coherent international environmental policies. S-SC is regarded as the exchange of resources, technology and knowledge between developing countries. GEF priorities are specified in published programming priorities and focal area strategies;**
- ***Relevance to Regional, Sub-regional and National Environmental Priorities*. The evaluation will assess the extent to which the intervention is suited, or responding to, the stated environmental**

[50] UN Environment's Medium Term Strategy (MTS) is a document that guides UN Environment's programme planning over a four-year period. It identifies UN Environment's thematic priorities, known as Sub-programmes (SP), and sets out the desired outcomes, known as Expected Accomplishments (EAs), of the Sub-programmes.

[51] http://www.unep.org/GC/GC23/documents/GC23-6-add-1.pdf

concerns and needs of the countries, sub-regions or regions where it is being implemented. Examples may include: national or sub-national development plans, poverty reduction strategies or Nationally Appropriate Mitigation Action (NAMA) plans or regional agreements etc;

- ***Complementarity with Existing Interventions*. An assessment will be made of how well the project, either at design stage or during the project mobilization, took account of ongoing and planned initiatives (under the SE4ALL initiative, same sub-programme, other UN Environment sub-programmes, or being implemented by other agencies) that address similar needs of the same target groups. The evaluation will consider if the project team, in collaboration with Regional Offices and Sub-Programme Coordinators, made efforts to ensure their own intervention was complementary to other interventions, optimized any synergies and avoided duplication of effort. Examples may include UN Development Assistance Frameworks or One UN programming. Linkages with other interventions should be described and instances where UN Environment's comparative advantage has been particularly well applied should be highlighted.**

I-10. Factors affecting this criterion may include:

- **Stakeholders' participation and cooperation**
- **Responsiveness to human rights and gender equity**
- **Country ownership and driven-ness**

Quality of Project Design

I-11. The quality of project design is assessed using an agreed template during the evaluation inception phase, ratings are attributed to identified criteria and an overall Project Design Quality rating is established (www.unep.org/evaluation). This overall Project Design Quality rating is entered in the final evaluation ratings table as item B. In the Main Evaluation Report a summary of the project's strengths and weaknesses at design stage is included, while the complete Project Design Quality template is annexed in the Inception Report.

I-12. Factors affecting this criterion may include (at the design stage):

- **Stakeholders participation and cooperation**
- **Responsiveness to human rights and gender equity**

Nature of External Context

I-13. At evaluation inception stage a rating is established for the project's external operating context (considering the prevalence of conflict, natural disasters and political upheaval). This rating is entered in the final evaluation ratings table as item C. Where a project has been rated as facing either an Unfavourable or Highly Unfavourable external operating context, and/or a negative external event has occurred during project implementation, the ratings for Effectiveness, Efficiency and/or Sustainability may be increased at the discretion of the Evaluation Consultant and Evaluation Manager together. A justification for such an increase must be given.

Effectiveness

i. Delivery of Outputs

I-14. The evaluation will assess the project's success in producing the programmed outputs (products, capital goods and services resulting from the intervention) and achieving milestones as per the project design document (ProDoc). Any formal modifications/revisions made during project implementation will be considered part of the project design. Where the project outputs are inappropriately or inaccurately stated in the ProDoc, reformulations may be necessary in the reconstruction of the TOC. In such cases a table should be provided showing the original and the reformulation of the outputs for transparency. The delivery of outputs will be assessed in terms of both quantity and quality, and the assessment will consider their ownership by, and usefulness to, intended beneficiaries and the timeliness of their delivery. The evaluation will briefly explain the reasons behind the success or shortcomings of the project in delivering its programmed outputs and meeting expected quality standards.

I-15. Factors affecting this criterion may include:

- **Preparation and readiness**
- **Quality of project management and supervision[52]**

ii. Achievement of Direct Outcomes

I-16. The achievement of direct outcomes (short and medium-term effects of the intervention's outputs; a change of behavior resulting from the use/application of outputs, which is not under the direct control of the intervention's direct actors) is assessed as performance against the direct outcomes as defined in the reconstructed[53] Theory of Change. These are the first-level outcomes expected to be achieved as an immediate result of project outputs. As in 1, above, a table can be used where substantive amendments to the formulation of direct outcomes is necessary. The evaluation should report evidence of attribution between UN Environment's intervention and the direct outcomes. In cases of normative work or where several actors are collaborating to achieve common outcomes, evidence of the nature and magnitude of UN Environment's 'substantive contribution' should be included and/or 'credible association' established between project efforts and the direct outcomes realized.

I-17. *Factors affecting this criterion may include:*

- **Preparation and readiness**
- **Quality of project management and supervision**
- **Stakeholders' participation and cooperation**
- **Responsiveness to human rights and gender equity**
- **Communication and public awareness**

iii. Likelihood of Impact

I-18. Based on the articulation of longer term effects in the reconstructed TOC (i.e. from direct outcomes, via intermediate states, to impact), the evaluation will assess the likelihood of the intended, positive impacts becoming a reality. Project objectives or goals should be incorporated in the TOC, possibly as intermediate states or long term impacts. The Evaluation Office's approach to the use of TOC in project evaluations is outlined in a guidance note available on the EOU website, web.unep.org/evaluation and is supported by an excel-based flow chart, 'Likelihood of Impact Assessment Decision Tree'. Essentially the approach follows a 'likelihood tree' from direct outcomes to impacts, taking account of whether the assumptions and drivers identified in the reconstructed TOC held. Any unintended positive effects should also be identified and their causal linkages to the intended impact described.

I-19. The evaluation will also consider the likelihood that the intervention may lead, or contribute to, unintended negative effects. Some of these potential negative effects may have been identified in the project design as risks or as part of the analysis of Environmental, Social and Economic Safeguards[54] e.g. accelerated market transformations may lead to a rapid increase of stocks to be managed and eventually disposed of in appropriate ways to minimize toxicity hazards.

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[52] In some cases 'project management and supervision' will refer to the supervision and guidance provided by UN Environment to implementing partners and national governments while in others, specifically for GEF funded projects, it will refer to the project management performance of the executing agency and the technical backstopping provided by UN Environment.

[53] UN Environment staff are currently required to submit a Theory of Change with all submitted project designs. The level of 'reconstruction' needed during an evaluation will depend on the quality of this initial TOC, the time that has lapsed between project design and implementation (which may be related to securing and disbursing funds) and the level of any changes made to the project design. In the case of projects pre-dating 2013 the intervention logic is often represented in a logical framework and a TOC will need to be constructed in the inception stage of the evaluation.

[54] Further information on Environmental, Social and Economic Safeguards (ESES) can be found at http://www.unep.org/about/eses

I-20. The evaluation will consider the extent to which the project has played a catalytic role or has promoted scaling up and/or replication[55] as part of its Theory of Change and as factors that are likely to contribute to longer term impact.

I-21. Ultimately UN Environment and all its partners aim to bring about benefits to the environment and human well-being. Few projects are likely to have impact statements that reflect such long-term or broad-based changes. However, the evaluation will assess the likelihood of the project to make a substantive contribution to the high level changes represented by UN Environment's Expected Accomplishments, the Sustainable Development Goals[56] and/or the high level results prioritised by the funding partner.

I-22. *Factors affecting this criterion may include:*

- **Quality of Project Management and Supervision (including adaptive management)**
- **Stakeholders participation and cooperation**
- **Responsiveness to human rights and gender equity**
- **Country ownership and driven-ness**
- **Communication and public awareness**

Financial Management

I-23. Financial management will be assessed under two themes: completeness of financial information and communication between financial and project management staff. The evaluation will establish the actual spend across the life of the project of funds secured from all donors. This expenditure will be reported, where possible, at output level and will be compared with the approved budget. The evaluation will assess the level of communication between the Project/Task Manager and the Fund Management Officer as it relates to the effective delivery of the planned project and the needs of a responsive, adaptive management approach. The evaluation will verify the application of proper financial management standards and adherence to UN Environment's financial management policies. Any financial management issues that have affected the timely delivery of the project or the quality of its performance will be highlighted.

I-24. *Factors affecting this criterion may include:*

- **Preparation and readiness**
- **Quality of project management and supervision**

Efficiency

I-25. In keeping with the OECD/DAC definition of efficiency the evaluation will assess the extent to which the project delivered maximum results from the given resources. This will include an assessment of the cost-effectiveness and timeliness of project execution. Focusing on the translation of inputs into outputs, cost-effectiveness is the extent to which an intervention has achieved, or is expected to achieve, its results at the lowest possible cost. Timeliness refers to whether planned activities were delivered according to expected timeframes as well as whether events were sequenced efficiently. The evaluation will also assess to what extent any project extension could have been avoided through stronger project management and identify any negative impacts caused by project delays or extensions. The evaluation will describe any cost or time-saving measures put in place to maximise results within the secured budget and agreed project timeframe and consider whether the project was implemented in the most efficient way compared to alternative interventions or approaches.

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[55] ***Scaling up*** **refers to approaches being adopted on a much larger scale, but in a very similar context. Scaling up is often the longer term objective of pilot initiatives.** ***Replication*** **refers to approaches being repeated or lessons being explicitly applied in new/different contexts e.g. other geographic areas, different target group etc. Effective replication typically requires some form of revision or adaptation to the new context. It is possible to replicate at either the same or a different scale.**

[56] **A list of relevant SDGs is available on the EO website www.unep.org/evaluation**

I-26. The evaluation will give special attention to efforts by the project teams to make use of/build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency. The evaluation will also consider the extent to which the management of the project minimized UN Environment's environmental footprint.

I-27. The factors underpinning the need for any project extensions will also be explored and discussed. As management or project support costs cannot be increased in cases of 'no cost extensions', such extensions represent an increase in unstated costs to implementing parties.

I-28. *Factors affecting this criterion may include:*

- **Preparation and readiness (e.g. timeliness)**
- **Quality of project management and supervision**
- **Stakeholders participation and cooperation**

Monitoring and Reporting

I-29. The evaluation will assess monitoring and reporting across three sub-categories: monitoring design and budgeting, monitoring implementation and project reporting.

i. Monitoring Design and Budgeting

I-30. Each project should be supported by a sound monitoring plan that is designed to track progress against SMART[57] indicators towards the delivery of the projects outputs and achievement of direct outcomes, including at a level disaggregated by gender, vulnerability or marginalisation. The evaluation will assess the quality of the design of the monitoring plan as well as the funds allocated for its implementation. The adequacy of resources for mid-term and terminal evaluation/review should be discussed if applicable.

ii. Monitoring of Project Implementation

I-31. The evaluation will assess whether the monitoring system was operational and facilitated the timely tracking of results and progress towards projects objectives throughout the project implementation period. This should include monitoring the representation and participation of disaggregated groups in project activities. It will also consider how information generated by the monitoring system during project implementation was used to adapt and improve project execution, achievement of outcomes and ensure sustainability. The evaluation should confirm that funds allocated for monitoring were used to support this activity.

iii. Project Reporting

I-32. GEF-funded projects are required to report regularly. Reports will be supplied by the project team e.g. the Project Implementation Reviews and Tracking Tool. The evaluation will assess the extent to which both UN Environment and donor reporting commitments have been fulfilled.

I-33. *Factors affecting this criterion may include:*

- **Quality of project management and supervision**
- **Responsiveness to human rights and gender equity (e.g disaggregated indicators and data)**

Sustainability

I-34. 43. Sustainability is understood as the probability of direct outcomes being maintained and developed after the close of the intervention. The evaluation will identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of achieved direct outcomes (ie.'assumptions' and 'drivers'). Some factors of sustainability may be embedded in the project design and implementation approaches while others may be contextual circumstances or

[57] SMART refers to indicators that are specific, measurable, assignable, realistic and time-specific.

conditions that evolve over the life of the intervention. Where applicable an assessment of bio-physical factors that may affect the sustainability of direct outcomes may also be included.

i. Socio-political Sustainability

I-35. 44. The evaluation will assess the extent to which social or political factors support the continuation and further development of project direct outcomes. It will consider the level of ownership, interest and commitment among government and other stakeholders to take the project achievements forwards. In particular the evaluation will consider whether individual capacity development efforts are likely to be sustained.

ii. Financial Sustainability

I-36. 45. Some direct outcomes, once achieved, do not require further financial inputs, e.g. the adoption of a revised policy. However, in order to derive a benefit from this outcome further management action may still be needed e.g. to undertake actions to enforce the policy. Other direct outcomes may be dependent on a continuous flow of action that needs to be resourced for them to be maintained, e.g. continuation of a new resource management approach. The evaluation will assess the extent to which project outcomes are dependent on future funding for the benefits they bring to be sustained. Secured future funding is only relevant to financial sustainability where the direct outcomes of a project have been extended into a future project phase. Even where future funding has been secured, the question still remains as to whether the project outcomes are financially sustainable.

iii. Institutional Sustainability

I-37. 46. The evaluation will assess the extent to which the sustainability of project outcomes (especially those relating to policies and laws) is dependent on issues relating to institutional frameworks and governance. It will consider whether institutional achievements such as governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. are robust enough to continue delivering the benefits associated with the project outcomes after project closure. In particular, the evaluation will consider whether institutional capacity development efforts are likely to be sustained.

I-38. ***Factors affecting this criterion may include:***

- **Stakeholders participation and cooperation**
- **Responsiveness to human rights and gender equity (e.g. where interventions are not inclusive, their sustainability may be undermined)**
- **Communication and public awareness**
- **Country ownership and driven-ness**

Factors and Processes Affecting Project Performance

(These factors are rated in the ratings table, but are discussed within the Main Evaluation Report as cross-cutting themes as appropriate under the other evaluation criteria, above)

i. Preparation and Readiness

I-39. This criterion focuses on the inception or mobilisation stage of the project (ie. the time between project approval and first disbursement). The evaluation will assess whether appropriate measures were taken to either address weaknesses in the project design or respond to changes that took place between project approval, the securing of funds and project mobilisation. In particular, the evaluation will consider the nature and quality of engagement with stakeholder groups by the project team, the confirmation of partner capacity and development of partnership agreements as well as initial staffing and financing arrangements. (Project preparation is included in the template for the assessment of Project Design Quality).

ii. Quality of Project Management and Supervision

I-40. In some cases 'project management and supervision' will refer to the supervision and guidance provided by UN Environment to implementing partners and national governments while in others,

specifically for GEF funded projects, it will refer to the project management performance of the executing agency and the technical backstopping and supervision provided by UN Environment.

I-41. The evaluation will assess the effectiveness of project management with regard to: providing leadership towards achieving the planned outcomes; managing team structures; maintaining productive partner relationships (including Steering Groups etc.); communication and collaboration with UN Environment colleagues; risk management; use of problem-solving; project adaptation and overall project execution. Evidence of adaptive management should be highlighted.

iii. Stakeholder Participation and Cooperation

I-42. Here the term 'stakeholder' should be considered in a broad sense, encompassing all project partners, duty bearers with a role in delivering project outputs and target users of project outputs and any other collaborating agents external to UN Environment. The assessment will consider the quality and effectiveness of all forms of communication and consultation with stakeholders throughout the project life and the support given to maximise collaboration and coherence between various stakeholders, including sharing plans, pooling resources and exchanging learning and expertise. The inclusion and participation of all differentiated groups, including gender groups should be considered.

iv. Responsiveness to Human Rights and Gender Equity

I-43. The evaluation will ascertain to what extent the project has applied the UN Common Understanding on the human rights based approach (HRBA) and the UN Declaration on the Rights of Indigenous People. Within this human rights context the evaluation will assess to what extent the intervention adheres to UN Environment's Policy and Strategy for Gender Equality and the Environment.

I-44. In particular the evaluation will consider to what extent project design, implementation and monitoring have taken into consideration: (i) possible gender inequalities in access to, and the control over, natural resources; (ii) specific vulnerabilities of women and children to environmental degradation or disasters; and (iii) the role of women in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation.

v. Country Ownership and Driven-ness

I-45. The evaluation will assess the quality and degree of engagement of government / public sector agencies in the project. While there is some overlap between Country Ownership and Institutional Sustainability, this criterion focuses primarily on the forward momentum of the intended projects results, ie. either a) moving forwards from outputs to direct outcomes or b) moving forward from direct outcomes towards intermediate states. The evaluation will consider the involvement not only of those directly involved in project execution and those participating in technical or leadership groups, but also those official representatives whose cooperation is needed for change to be embedded in their respective institutions and offices. This factor is concerned with the level of ownership generated by the project over outputs and outcomes and that is necessary for long term impact to be realised. This ownership should adequately represent the needs of interest of all gendered and marginalised groups.

vi. Communication and Public Awareness

I-46. The evaluation will assess the effectiveness of: a) communication of learning and experience sharing between project partners and interested groups arising from the project during its life and b) public awareness activities that were undertaken during the implementation of the project to influence attitudes or shape behaviour among wider communities and civil society at large. The evaluation should consider whether existing communication channels and networks were used effectively, including meeting the differentiated needs of gendered or marginalised groups, and whether any feedback channels were established. Where knowledge sharing platforms have been established under a project the evaluation will comment on the sustainability of the communication channel under either socio-political, institutional or financial sustainability, as appropriate.

I-5: Evaluation Approach, Methods and Deliverables

I- 47. The Terminal Evaluation will be an in-depth evaluation using a participatory approach whereby key stakeholders are kept informed and consulted throughout the evaluation process. Both quantitative and qualitative evaluation methods will be used as appropriate to determine project achievements against the expected outputs, outcomes and impacts. It is highly recommended that the consultant(s) maintains close communication with the project team and promotes information exchange throughout the evaluation implementation phase in order to increase their (and other stakeholder) ownership of the evaluation findings. Where applicable, the consultant(s) should provide a geo-referenced map that demarcates the area covered by the project and, where possible, provide geo-reference photographs of key intervention sites (e.g. sites of habitat rehabilitation and protection, pollution treatment infrastructure, etc.)

I- 48. The findings of the evaluation will be based on the following:

(a) A desk review of:

- **Relevant background documentation, inter alia SE4ALL, UN Environment and GEF-VI policies, strategies and programmes at the time of the project's approval;**
- **Project design documents (including minutes of the Project Review Committee meeting at approval); Annual Work Plans and Budgets or equivalent, revisions to the project (Project Document Supplement), the logical framework and its budget;**
- **Project reports such as six-monthly progress and financial reports, progress reports from collaborating partners, Steering Committee meeting minutes, relevant correspondence and including the Project Implementation Reviews and Tracking Tool etc.;**
- **Project outputs as applicable, based on the results framework e.g. those found under http://united4efficiency.org/countries/country-assessments/**
- **Evaluations/reviews of similar projects e.g. Terminal Evaluation of the UN Environment/ Global Environment Facility project "Global Market Transformation for Efficient Lighting" (en.lighten initiative) (December 2017); UN Environment/ Global Environmental Facility project "Leapfrog Markets to Energy Efficiency Lightning, Appliances and Equipment' approved by GEF on November 16, 2017.**

(b) Interviews (individual or in group) with:

- **UN Environment Task Manager (TM), Mrs. Ruth Couto and Mr Julien Lheureux;**
- **UN Environment Climate Mitigation Unit Fund Management Officer (FMO), Mrs Leena Darlington;**
- **Project management team; Paul Kellett (since January 2017) and Jonathan Duwyn (from September 2015 to December 2016)**
- **UN Environment Energy & Climate Branch Fund Management Officer (FMO), Mrs Amanda Lees;**
- **Sub-programme Coordinator of the Climate Change Mitigation Sub-Programme, Mr Niklas Hagelberg;**
- **Project partners from: UNDP, CLASP, ICA, NRDC, Carbon Trust; BASE; Electrolux; IIEC; NLTC; Whirlpool; big EE (Wuppertal Institut); Topten; Department of Industry (Australian government); IEA-4E; C2E2; Philips Lighting; OSRAM Licht AG; ABB, Mabe, Arcelik A.S.**
- **Relevant resource persons: Gustavo Manez (design of the proposal)**

(c) Surveys [to be defined during inception]

(d) Field visit: participation at SE4ALL Forum "Leaving no one behind", Lisbon 2-3 May 2018 (updates from SE4ALL Accelerators)

(e) Other data collection tools [to be defined during inception]

Evaluation Deliverables and Review Procedures

I-49. The consultant will prepare:

- Inception Report: **(see Annex 1 for links to all templates, tables and guidance notes) containing an assessment of project design quality, a draft reconstructed Theory of Change of the project, project stakeholder analysis, evaluation framework and a tentative evaluation schedule.**
- Preliminary Findings Note: **typically in the form of a PowerPoint presentation, the sharing of preliminary findings is intended to support the participation of the project team, act as a means to ensure all information sources have been accessed and provide an opportunity to verify emerging findings. In the case of highly strategic project/portfolio evaluations or evaluations with an Evaluation Reference Group, the preliminary findings may be presented as a word document for review and comment.**
- Draft and Final Evaluation Report: **(see links in Annex 1) containing an executive summary that can act as a stand alone document; detailed analysis of the evaluation findings organised by evaluation criteria and supported with evidence; lessons learned and recommendations and an annotated ratings table.**
- Evaluation Bulletin: **a 2-page summary of key evaluation findings for wider dissemination through the EOU website.**

I-50. Review of the draft evaluation report. **The evaluation team will submit a draft report to the Evaluation Manager and revise the draft in response to their comments and suggestions. Once a draft of adequate quality has been peer-reviewed and accepted, the Evaluation Manager will share the cleared draft report with the Project Manager, who will alert the Evaluation Manager in case the report contains any blatant factual errors. The Evaluation Manager will then forward revised draft report (corrected by the evaluation team where necessary) to other project stakeholders, for their review and comments. Stakeholders may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions as well as providing feedback on the proposed recommendations and lessons. Any comments or responses to draft reports will be sent to the Evaluation Manager for consolidation. The Evaluation Manager will provide all comments to the evaluation team for consideration in preparing the final report, along with guidance on areas of contradiction or issues requiring an institutional response.**

I-51. Based on a careful review of the evidence collated by the evaluation consultants and the internal consistency of the report, the Evaluation Manager will provide an assessment of the ratings in the final evaluation report. Where there are differences of opinion between the evaluator and the Evaluation Manager on project ratings, both viewpoints will be clearly presented in the final report. The Evaluation Office ratings will be considered the final ratings for the project.

I-52. The Evaluation Manager will prepare a quality assessment **of the first and final drafts of the main evaluation report, which acts as a tool for providing structured feedback to the evaluation consultants. The quality of the report will be assessed and rated against the criteria specified in template listed in Annex 1 and this assessment will be appended to the Final Evaluation Report.**

I-53. At the end of the evaluation process, the Evaluation Office will prepare a Recommendations Implementation Plan **in the format of a table, to be completed and updated at regular intervals by the Task Manager. The Evaluation Office will track compliance against this plan on a six monthly basis.**

The Consultant

I-54. For this evaluation, one consultant who will work under the overall responsibility of the Evaluation Office represented by an Evaluation Manager (Francisco Alarcon), in consultation with the UN Environment Task Manager (Mrs Ruth Cuotto), Fund Management Officer (Mrs Leena Darlington) and the Sub-programme Coordinator of the Climate Change Mitigation Sub-Programme (Mr Niklas Hagelberg). The Consultant will liaise with the Evaluation Manager on any procedural and methodological matters related to the evaluation. It is, however, the consultant's individual responsibility to arrange for visas and immunizations as well as to plan meetings with

stakeholders, organize online surveys, obtain documentary evidence and any other logistical matter related to the assignment. The UN Environment Task Manager and project team will, where possible, provide logistical support (introductions, meetings etc.) allowing the Consultant to conduct the evaluation as efficiently and independently as possible.

I-55. The Consultant will be hired over the period 01 April 2018 to 31 September 2018 during which time the evaluation deliverables listed in Section 10 'Evaluation Deliverables' above should be submitted.

I-56. She/ He should have: an advanced university degree in urban planning, environmental sciences or other relevant technical or social sciences area; a minimum of 15 years' of technical / evaluation experience, including of evaluating large, regional or global programmes and using a Theory of Change approach; a broad understanding of approaches to introduce technical innovation in policy making, and technical experience in energy efficiency; proficiency and excellent writing skills in English is required; team leadership experience and, where possible, knowledge of the UN system, specifically of the work of UN Environment.

I-57. The Consultant will be responsible, in close consultation with the Evaluation Office of UN Environment, for overall management of the evaluation and timely delivery of its outputs described in Section 11 Evaluation Deliverables, above. The Consultant will ensure that all evaluation criteria and questions are adequately covered.

Specific Responsibilities for the Consultant

I-58. In close consultation with the Evaluation Manager, the Evaluation Consultant will be responsible for data collection and analysis and report-writing. More specifically:

I-59. Inception phase of the evaluation, including:

- **preliminary desk review and introductory interviews with project staff;**
- **draft the reconstructed Theory of Change of the project;**
- **prepare the evaluation framework;**
- **develop the desk review and interview protocols and data collection and analysis tools;**
- **prepare the Inception Report, incorporating comments until approved by the Evaluation Manager**

I-60. Data collection and analysis phase of the evaluation, including:

- **conduct further desk review and in-depth interviews with project implementing and executing agencies, project partners and project stakeholders;**
- **participate in SE4ALL Forum "Leaving no one behind", Lisbon 2-3 May 2018 to interview project partners and stakeholders. Ensure independence of the evaluation and confidentiality of evaluation interviews;**
- **regularly report back to the Evaluation Manager on progress and inform of any possible problems or issues encountered and;**
- **keep the Task Manager informed of the evaluation progress and engage the Task Manager in discussions on emerging findings throughout the evaluation process.**

I-61. Reporting phase, including:

- **draft the Main Evaluation Report, ensuring that the evaluation report is complete, coherent and consistent with the Evaluation Manager guidelines both in substance and style;**
- **liaise with the Evaluation Manager on comments received and finalize the Main Evaluation Report, ensuring that comments are taken into account until approved by the Evaluation Manager**
- **prepare a Response to Comments annex for the main report, listing those comments not accepted by the Evaluation Consultant and indicating the reason for the rejection; and**
- **prepare a 2-page summary of the key evaluation findings and lessons;**

I-62. Managing relations, including:

- **maintain a positive relationship with evaluation stakeholders, ensuring that the evaluation process is as participatory as possible but at the same time maintains its independence;**
- **communicate in a timely manner with the Evaluation Manager on any issues requiring its attention and intervention.**

Schedule of the evaluation

I- 63. The table below presents the tentative schedule for the evaluation.

Table I-3: Tentative schedule for the evaluation

Milestone	Tentative Dates
Kick off meeting via Skype	April 2018
Inception Report	Mid April 2018
Data collection and analysis, desk-based interviews and surveys	End April 2018
Field Mission: participation in SE4ALL Forum "Leaving no one behind", Lisbon 2-3 May 2018	May 2-3 2018
Powerpoint/presentation on preliminary findings and recommendations	Mid May 2018
Draft report to Evaluation Manager (and Peer Reviewer)	End May 2018
Draft Report shared with UN Environment Project Manager and team	Mid June 2018
Draft Report shared with wider group of stakeholders	End June 2018
Final Report	Mid July 2018
Final Report shared with all respondents	End July 2018

Annex II. The Evaluation Program

Date	Persons Met	Function	Topic of Discussion	Means of Contact
13 April 2017	Ms. Ruth Coutto	Task Manager for Project	Introduction to Project	Skype
21 May 2017	Mr. Patrick Blake	Project Coordinator	Overview of Project	Meeting at Copenhagen Center on Energy Efficiency
22 May 2017	Mr. Ian Crosby	SE4ALL	SE4ALL perspectives on Project	Meeting at Phoenix Hotel in Copenhagen
22 May 2017	Mr. Ashok Sarkar	World Bank, U4E Expert Taskforce Chair for Lighting	Contribution to Lighting Policy Guide	Meeting at Energy Efficiency Global (EE Global) Forum
22 May 2017	Mr. Paul Kellett	Project Manager	Overview of Project activities	Meeting at Energy Efficiency Global (EE Global) Forum
23 May 2017	Mr. Steve Kudoda	International Copper Association	ICA contribution to Project	Meeting at Phoenix Hotel in Copenhagen
23 May 2017	Mr. Harry Verhaar	Philips Lighting	Philips contribution to Project and en.lighten	Meeting at Phoenix Hotel in Copenhagen
25 May 2017	Mr. Fatih Demiray	Arcelik	Arcelik contribution to Project	Meeting at Copenhagen Center on Energy Efficiency
20 June 2017	Mr. Marcel Alers	Head, Energy, BPPS, UNDP	UNDP role on Project	Skype
4 July 2017	Ms. Ruth Coutto, Mr. Julien Lheureux	Task Manager for Project	Specific issues on Project implementation	Skype
5 July 2017	Mr. Paul Kellett	Project Manager	Overview of Project activities	Skype
10 July 2017	Mr. Noah Horowitz	NRDC Head Energy Efficiency	NRDC history on Project	Skype
12 July 2017	Ms. Leena Darlington	Finance Management Officer, UN Environment	Financial management of Project	Skype
23-24 July 2017	Ms. Kathryn Conway	Building Energy Accelerator (BEA) evaluator	Harmonizing evaluation findings with BEA	Skype

Annex III. Bibliography

1. **UNEP Global Partnership Appliances and Equipment PIF of May 2014;**
2. **UNEP Request for CEO Endorsement Document for "Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment (SE4ALL Global Project)" of January 2015;**
3. **UNEP-GEF Project Implementation Reviews 2016 to 2017;**
4. **Final Report for Energy Efficient Appliances and Equipment Accelerator Project, October 2018 (complete with 20 annexures);**
5. **Energy Efficient Appliances and Equipment Accelerator Project Expenditure and Co-Financing Reports, for January-June 2017, July-December 2017, and January-June 2018;**
6. **Check List for the final project proposals for submission to UNEP GEF PRC for "Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment (SE4ALL Global Project)" of December 2014;**
7. **Energy Efficient Appliances and Equipment Accelerator Project Co-Financing reports 2016 to 2017;**
8. **Energy Efficient Appliances and Equipment Accelerator Project 2016 Annual Expenditure Report;**
9. **Energy Efficient Appliances and Equipment Accelerator Project Steering Committee Meeting Minutes from 2015 to 2017;**
10. **Energy Efficient Appliances and Equipment Accelerator Project Cooperation Agreements with ICA and with the Technology Transfer Unit of UN Environment;**
11. **Energy Efficient Appliances and Equipment Accelerator Project Revision Correspondence from 2017;**
12. **Energy Efficient Appliances and Equipment Accelerator Project Approved Budgets from 2015;**
13. **UNEP MTS for 2014-2017;**
14. **Energy Efficient Appliances and Equipment Accelerator Project Policy Guides and Briefs from U4E website for Lighting, Air Conditioners, Refrigerators, Electric Motor and Distribution Transformers (https://united4efficiency.org/resources/publications/);**
15. **Country Assessments as posted on U4E Website (https://united4efficiency.org/countries/country-assessments/).**

Annex IV. Project Results Framework for "Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment" Project

Project Objective	Indicator	Baseline	Target	Means of Verification
To mitigate climate change by reducing the growth of global electricity consumption through the creation of a global partnership accelerating markets for highly efficient electrical appliances and equipment.	- Number of countries/regions committing to accelerate the transition to energy efficient appliances and equipment under the Global Partnership.	- Prior to project implementation 0 countries/regions have committed to the Global Partnership. - 66 countries have committed to the en.lighten Global Efficient Lighting Partnership Programme.	- 30 countries commit to the Global Partnership for appliances and equipment (does not include lighting). - 20 countries will expand their scope to include policies to promote energy efficiency in commercial, industrial and outdoor lighting.	- Endorsed country partnership forms for the Global Partnership for appliances and equipment and the en.lighten initiative. - Correlated country assessments for appliances, equipment, and lighting showing the projected electricity and GHG savings for a transition to energy efficient products.
COMPONENT 1: CREATING THE EFFICIENT APPLIANCE AND EQUIPMENT KNOWLEDGE BASE				
1. Project Outcome	Indicator	Baseline	Target	Means of Verification
- Consensus is reached on the policy and strategy framework options by expert taskforces (NGOs, IGOs, industry) for 3 products.	- Number of policies and strategy frameworks endorsed by expert taskforces and posted on the website for access by countries	- none	- 3 (does not include lighting)	- Project website
Project milestones that show progress towards achieving the project outcome				Expected Milestone Delivery Date
M1 Project taskforces kick off the development of the policy and strategy framework for each technology (3)				January 2015
M2 Project taskforces form consensus on the policy and strategy framework for each technology (3)				July 2015
M3 Project taskforces release the policy and strategy framework for 3 technologies				December 2015
2. Project Outputs:	Indicator	Baseline	Target	Means of Verification
1. Policies and strategy framework are drafted and discussed	- Number of appliances and equipment with a recommended integrated policy approach	- No recommended integrated policy approach for the select products.	- Recommended policy approach for 3 products	- Minutes from technical task forces created [ToRs, list of members, outputs from task forces].
Project output Milestones:				Expected Milestone Delivery Date

Project Objective	Indicator	Baseline	Target	Means of Verification
M1 Expert taskforce members are identified for each target technology (3) and taskforces are established.				**January 2015**
M2 Expert taskforces form consensus on the recommended policies and strategy framework.				**July 2015**
M3 Policy and strategy frameworks are developed for the implementation of energy efficiency policies for each technology (3) in developing and emerging countries.				**October 2015**
2. Case study reports on best practice policies and strategies for energy efficient appliance and equipment developed.	**Number of products that have a case study report showing examples of best practice policies and strategies.**	**- No case study reports are available on the selected products.**	**- Case study report for 3 products**	**- Policy framework and case study report posted on the project website.**
Project output Milestones:				**Expected Milestone Delivery Date**
M1 Work plan developed to complete case study reports.				**January 2015**
M2 Examples of best practice policies and strategies have been identified for 3 products.				**April 2015**
M3 Case study reports on best practice policies and strategies have been completed for 3 products.				**October 2015**
COMPONENT 2: SETTING A GLOBAL BASELINE AND PROJECTED SAVINGS FOR THE TRANSITION TO EFFICIENT APPLIANCES AND EQUIPMENT AND PERFORM A GLOBAL ASSESSMENT OF COUNTRIES' READINESS FOR THE TRANSITION				
2. Project Outcomes	**Indicators**	**Baseline**	**Target**	**Means of Verification**
Developing and emerging country decision-makers have increased awareness of the benefits (economic, financial and climate) of adopting enabling polices to foster the transition to more energy efficient products.	**- Number of countries for which national saving potential and policy assessments for 3 appliance and equipment has been made available.**	**- Assessment for 33 countries (Latin America and Caribbean) for refrigerators/air conditioners and fans.**	**- 150 country appliance and policy assessments are complete (not including lighting)**	**- The initiative's website will contain all country appliance assessments and country policy assessments.**
Project milestones that show progress towards achieving the project outcome				**Expected Milestone Delivery Date**
M1 Information has been gathered from public and private sector to perform country assessments				**April 2015**
M2 Country assessments have been presented and are universally acknowledged				**October 2015**
M3 Priority countries have been identified based on the quantification of the environmental impact				**December 2015**
M4 Contacts have been made with priority countries on regional and national level, focal points have been identified and the prioritization of countries and actions is acknowledged				**February 2016**

Project Objective	Indicator	Baseline	Target	Means of Verification
2. Project Outputs:	Indicators	Baseline	Target	Means of Verification
1. Country-by-country analysis of the readiness of policies, standards and enforcement is developed for 3 identified priority products	- Number of countries that have country-by-country policy assessments available for 3 products	None.	- 150	- The country-by-country reports will be posted on interactive map on the project's website.
Project output Milestones:				Expected Milestone Delivery Date
M1 Country questionnaires on the policy status of each appliance and equipment are provided to all developing and emerging governments.				January 2015
M2 Database on product policy is developed on the basis of global, regional and national expert and practitioners' interviews.				April 2015
M3 Responses to the country questionnaire are compiled and verification research is performed to compile the existing policy status of countries and regions of the world.				July 2015
M4 Country-by-country analysis on the policies, standards, and relevant actions is completed for 3 products and published in an interactive world map.				October 2015
2. Country-by-country estimated benefits (environmental, energy, climate, financial, business) of the transition to efficient products developed for 3 products.	Indicator	Baseline	Target	Means of Verification
	- Number of country-by-country quantitative analysis on the projected benefits (environmental, energy, climate, financial, business).	- None for the selected products	150	- Country-by-country assessments will be available on the project website.
Project output Milestones:				Expected Milestone Delivery Date
M1 Country questionnaire on data availability (i.e. total units, average unit energy consumption, and average time used daily) is sent to governments in all developing and emerging economies.				January 2015
M2 Country questionnaire on data availability (for example total units, average unit energy consumption, and average time used daily) completed by country officials, local stakeholders, and partner organizations and returned to the centres of excellence.				April 2015
M3 Peer reviewed model to calculate the energy savings of higher efficient products is completed for 3 products based on consistent methodologies.				June 2015
M4 Country-by-country results are calculated and shared with countries for opportunity to provide feedback.				August 2015
M5 Global country-by-country baseline and projected savings for the transition to efficient appliances and equipment is completed for 3 technologies and published in an interactive world map for 3 products.				October 2015
COMPONENT 3: ENGAGING PRIVATE SECTOR PARTNERS AND BRINGING APPLIANCE/ EQUIPMENT EFFICIENCY ON TOP OF THE GLOBAL AGENDA				

Project Objective	Indicator	Baseline	Target	Means of Verification
3. Project Outcomes	**Indicators**	**Baseline**	**Target**	**Means of Verification**
Commitment is gained from key private sector partners and political leaders on energy efficiency of appliances, equipment, and lighting (to support implementation of this project and other projects on improving appliances and equipment efficiency)	- **Number of agreements by government** - **Number of agreements by global manufacturers join the new global partnership.** - **Number of press releases and articles on appliance and equipment in relation to Global Partnership.**	**0**	**- 30 countries (not including lighting)** **- A minimum of eight global manufacturers of appliances and/or equipment (not including lighting manufacturers)** **- 10**	- **Official co-finance letters from global and/or regional manufacturers to join the global partnership** - **Country partnership forms from country focal points to join the Global Partnership.** - **Speeches / Press releases/SE4All**
Project milestones that show progress towards achieving the project outcome				**Expected Milestone Delivery Date**
M1 Four global manufacturers of appliances and/or equipment join the new global partnership.				**January 2015**
M2 Outreach to a minimum of 20 governments and a minimum of one region (regional integration body) to raise awareness for energy efficiency in appliances				**August 2015**
M3 Additional 4 global manufacturers of appliances and/or equipment join the new global partnership.				**July 2015**
M4 Outreach to additional 20 governments in minimum three regions to raise awareness for energy efficiency in appliances				**March 2016**
M5 Identification of two global priority areas are established for action on energy efficient appliances and equipment.				**February 2016**
3. Project Outputs:	**Indicators**	**Baseline**	**Target**	**Means of Verification**
1. Partnership engagement strategy and branding strategy are developed.	**- Partnership strategy and branding are available for the project.**	**None.**	**- 1 partnership strategy and branding**	**- Minutes of partner meetings.** **- Partnership strategy and messages document.**
Project output Milestones:				**Expected Milestone Delivery Date**
M1 Partnership meeting to discuss partnership strategy and key messages.				**January 2015**
M2 Agreement to the strategy and key messages by projects partners.				**March 2015**
2. Workshops and side-events alongside major global and regional energy and climate events.	***Indicators***	***Baseline***	***Target***	***Means of Verification***
	Number of workshops and side events alongside major global and regional energy and climate events.	**None or limited.**	**4 workshops or side events alongside major global and regional energy and climate events.**	**- Press releases, recordings, and/or agendas of workshops or side events regarding the Efficient Appliance and Equipment Global**

Project Objective	Indicator	Baseline	Target	Means of Verification
				Partnership at major global and regional energy and climate events
Project output Milestones:				**Expected Milestone Delivery Date**
M1 First side-event alongside major global and regional energy and climate events.				**February 2015**
M2 Second side-event alongside major global and regional energy and climate events, potentially at the Vienna Energy Forum.				**June 2015**
M3 Third side-event alongside major global and regional energy and climate events, potentially at the SE4ALL Forum.				**June 2015**
M4 Fourth side-event alongside major global and regional energy and climate events, potentially at COP 21 – Paris.				**December 2015**
3. Targeted communication material showcasing the benefits, including making the business case for private sector engagement.	***Indicator***	***Baseline***	***Target***	**- Communication materials that are developed on the project.**
	- Number of new communication materials that are developed on the project.	**- No product brochures, website nor interactive communication tools.**	**- 4 brochures (1 per product)** **- 1 website** **- 2 interactive communication tools showcasing the potential benefits to private sector from joining the global partnership**	
Project output Milestones:				**Expected Milestone Delivery Date**
M1 Targeted brochures convincingly showing the benefits of the project and the potential savings of efficient appliances and equipment.				**January 2015**
M2 Short video and interactive webpage that displays the project strategy and the overarching benefits of the project.				**January 2015**
M3 Website, regular newsletters and social media tools are developed and used to reach out to private sector partners, including the country-by-country assessments of the environmental and economic benefits				**October 2015**
COMPONENT 4: EXPANDING THE SCOPE OF THE EN.LIGHTEN INITIATIVE				
4. Project Outcomes	**Indicators**	**Baseline**	**Target**	**Means of Verification**

Project Objective	Indicator	Baseline	Target	Means of Verification
Consensus is reached by en.lighten technical experts on best practice policy, awareness raising, and financial mechanism tool kits to facilitate the transition to efficient and advanced lighting (light emitting diodes) in the commercial, industrial and outdoor lighting applications	**- Number of countries that have committed to expand their scope to include policies that promote energy efficiency in commercial, industrial and outdoors lighting. - Number of new countries committing to advance efficient lighting in the residential commercial, industrial and outdoor lighting applications**	**- Currently 66 countries have committed to phase-out inefficient incandescent lamps within a determined timeframe (2016)**	**- 20 countries expand their scope to commercial, industrial and outdoors lighting. - 15 new countries join the partnership.**	**- Endorsed en.lighten partnership form and official communications of governments.**
Project milestones that show progress towards achieving the project outcome				**Expected Milestone Delivery Date**
M1 UNEP provides stakeholders with strategy and policy tools regarding efficient, advanced lighting for all sectors and for outdoor applications.				**January 2015**
M2 Two countries complete comprehensive proposals for implementing and financing their efficient, advanced lighting strategies				**January 2015**
M3 Efficient, advanced lighting strategies of at least five countries incorporate evidence provided by UNEP.				**June 2016**
4. Project Outputs:	**Indicators**	**Baseline**	**Target**	**Means of Verification**
1. Expert meetings convened on best practice policy tools to support the transition to efficient and advanced lighting (LEDs) in commercial and industrial sectors and to outdoor applications	**- Number of tools published on the enlightened learning website to cover each specified topic;**	**UNEP Country Lighting Assessments version 1.1; Toolkit, reports and en.lightened learning website (limited to phase-out of inefficient incandescent lamps)**	**- UNEP Country Lighting Assessments version 2.0. - 2 Videos - 2 guides**	**The en.lighten learning website.**
Project output Milestones:				**Expected Milestone Delivery Date**
M1 Expert taskforce is convened and discussed best practice policies and strategies to support the transition to efficient and advanced lighting in commercial and industrial sectors and to outdoor applications.				**April 2015**
M2 Report summarizing the best practice policies in commercial and industrial sectors and to outdoor applications.				**June 2015**
M3 Release of Country Lighting Assessments version 2.0.				**December 2015**

Project Objective	Indicator	Baseline	Target	Means of Verification
2. Expert meetings convened on best practice policy tools for awareness raising on efficient and advanced lighting (to emphasize a systems approach and hours-of-use controls) for optimal savings benefits developed	***Indicator***	***Baseline***	***Target***	***Means of Verification***
	- **Number of new awareness raising tools available for partner to advance lighting in the commercial industrial and outdoor lighting applications.**	**Currently the en.lighten initiative does not awareness raising tools for the commercial industrial and outdoor lighting applications.**	- **3 awareness raising tools**	**The awareness raising tools will be posted on the en.lighten learning website.**
Project output Milestones:				**Expected Milestone Delivery Date**
M1 Release of awareness raising tool for the commercial and industrial sectors.				**June 2015**
M2 Release of awareness raising tool for outdoor lighting applications.				**December 2015**
M3 Webinars series to communicate to stakeholder on use and benefits of the tools.				**February 2016**
3. Support tools on finance mechanisms are developed and tested in two partner countries (including tools for measuring, reporting, and verifying results).	***Indicator***	***Baseline***	***Target***	***Means of Verification***
	- **Number of new tools to support countries develop innovative finance mechanisms.** - **Number of countries that develop new financial mechanisms to promote energy efficient lighting.**	- **en.lighten has already developed the "Guidebook for the Development of a Nationally Appropriate Mitigation Action on Efficient Lighting"** - **None.**	- **1 policy tool to support countries in developing innovative financial mechanisms.** - **2 countries prepare a new financial mechanisms to support the transition to energy efficient lighting.**	- **en.lighten website** - **Draft proposals prepared by the project and country partners.**
Project output Milestones:				**Expected Milestone Delivery Date**
M1 Draft policy tool to support countries in preparing innovative financial mechanisms.				**April 2015**
M2 2 countries are selected to receive support in developing a financial mechanism to advance the transition to energy efficient lighting.				**August 2015**
M3 Policy tool is published and available for countries on the en.lighten website.				**December 2015**
M3 2 countries have developed a financial mechanism to advance the transition to energy efficient lighting.				**June 2016**

Annex V. Project Costs and Financial Management

Table V-1: Energy Efficient Appliances and Equipment Accelerator Project GEF Expenditures

Component	Budget (from Project Document)	2015	2016	2017	2018 [58]	Actual Cost	Remainder for Project	Expenditure Ratio (actual/ planned)
1. Policy and Strategy Framework	**250,000**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**		**n/a**
2. Setting global baseline and projected savings for transition to EE appliances and equipment	**390,000**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**		**n/a**
3. Bringing appliance and equipment efficiency on top of global agenda	**190,000**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**		**n/a**
4. Expanding scope of en.lighten initiative	**420,000**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**		**n/a**
Project Management Cost	**120,000**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**		**n/a**
Total (Actual)	1,370,000	0	723,406	568,238	66,485	1,358,129	11,871	0.991
Total (Cumulative Actual)		**0**	**723,406**	**1,291,644**	**1,358,129**			

[58] **Funds committed in 2017 that were expended from January to June 2018**

Table V-2: Energy Efficient Appliances and Equipment Accelerator Project Co-financing

Co-financing (type/source)	UNEP own financing (million USD)		Government (million USD)		Partner Agency (million USD)		Private Sector (million USD)		Total (million USD)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Grants			2.000[59]	0					2.000	0[60]
Loans										
Credits										
Equity Investments										
In-kind support	0.400[61]	0.133			1.925	1.276[62]	3.400[63]	5.480	5.725	6.889
Other										
Totals	0.400	0.133	2.000	0	1.925	1.276	3.400	5.480	7.725	6.889

[59] From the Department of Industry (Australia)
[60] Dept of Industry of Australia said that this co-financing was expended against en.lighten
[61] Includes $0.2 million from UN Environment and $0.2 million from UNDP
[62] Includes co-financing from UNDP (US$0.12 mil), CLASP (US$0.14 million), NRDC (US$25,000), IEA-4E (US$0.5 million), Topten (US$0.116 million), IEA-4E (US$0.5 million), Copenhagen Center on Energy Efficiency (US$0.4 million).
[63] Includes co-financing from Philips Lighting (US$1.297 million), ICA (US$1.835 million), ABB (US$0.083 million), Mabe (US$1.318 million), BSH (US$0.191 million), NLTC (US$0.382 million) and Arcelik A.S. (US$0.062 million)

Annex VI. Calculation for GHG emission reduction estimates

Background and General Assumptions

VI - 1. The savings potential in for the Project's Tracking Tool are based off the U4E Country Savings Assessments, which were developed within the project. The assessments were developed in 2015 and having the following principle assumptions:

- **Date of policy implementation: 2020;**
- **Time frame for the savings: 2020-2030 (large savings will still to be made after this date as well but are not counted in order to be conservative). An example of this is provided on Figure VI-1 for lighting. Other similar spreadsheets are available for refrigerators, air conditioners, transformers and electric motors;**
- **Technology energy-efficiency reference: see U4E Country Savings Assessments sheets (page 3).**

VI - 2. The savings for the Tracking Tool have adjusted the Country Savings Assessments by the following areas:

- **Technologies included: dependent on the product(s) the country/region is working on (in the range of 1-3) and is described in Annex 1 (tab Allocation Scenario) and in Column I of the GHG Calculation Worksheets for the Project provided by the PMT;**
- **Compliance ratio: experience shows that even more advanced MVE schemes still allow some non-compliant products onto the market. Based off this experience, it is assumed that 70% of the products on the market are compliant with the MEPS requirements.**

More information on the Methodology of the U4E Country Savings Assessments is available on the country assessment pages of the U4E website (https://united4efficiency.org/countries/country-assessments/).

Countries Included in the Savings

VI - 3. The countries included in the calculation on the greenhouse gas savings are only the countries that have partnered with U4E to take action on energy-efficient lighting, appliances and equipment. This includes countries that have signed the U4E partnership form, developed projects with U4E (GEF, Kigali Cooling Efficiency Program, CTCN, etc.) and/or made a commitment at the regional level. A in Annex 1 (tab Allocation Scenario) and in Column B of the GHG Calculation Worksheets for the Project provided by the PMT.

Allocation of the savings

VI - 4. The Project establishes a large foundation for a global, regional and national market transformation to energy-efficient lighting, appliances and equipment. It developed key resources (Policy Guides and Country Savings Assessments) which are being used in multiple projects in addition to the above countries as many of the stakeholders involved in the development of the Policy Guides also assist in the dissemination of them. For direct savings, the Project claims 10%-33% of the savings for each country. Indirect savings are 33%-66%. Larger indirect savings are feasible since the Project lays the foundations for many countries to be taken forward with resources from other sources. The savings are shown in Table VI-1.

Table VI-1: GHG emission estimates for Project

	Lower Range tonnes CO_{2eq} (% total)	Upper Range tonnes CO_{2eq} (% total)
Lifetime direct post-project GHG emissions avoided	**23,383,840 (10%)**	**77,166,673 (33%)**
Lifetime indirect GHG emissions avoided	**77,166,673 (33%)**	**154,333,347 (66%)**

Figure VI-1: Example of GHG emission reduction estimates (in kgs) for best available technology (BAT) for lighting between 2020 and 2030

INPUTS			BAT	Lighting								
Country	*Country code*		*2021*	*2022*	*2023*	*2024*	*2025*	*2026*	*2027*	*2028*	*2029*	*2030*
Algeria	DZA		359,777,629.71	661,664,664.54	1,023,104,533.03	1,237,005,022.93	1,371,472,408.06	1,429,664,790.92	1,467,206,110.41	1,486,912,308.75	1,479,464,882.72	1,374,954,235.59
Angola	AGO		44,507,538.26	84,019,853.34	133,043,506.65	164,396,623.14	185,945,048.61	201,058,711.96	213,371,190.75	223,007,549.45	228,298,192.14	217,842,070.48
Antigua a	ATG		2,070,708.47	3,802,306.58	5,812,065.14	7,000,735.79	7,714,683.49	8,044,210.06	8,240,417.19	8,312,964.42	8,216,355.04	7,611,146.39
Argentina	ARG		474,048,790.21	860,317,548.23	1,312,091,394.79	1,574,822,259.97	1,729,309,993.70	1,796,859,581.24	1,834,825,984.31	1,843,626,968.07	1,816,256,740.35	1,679,507,791.35
Afghanis	AFG		6,450,008.04	12,837,169.11	19,549,502.28	23,793,890.41	26,653,367.12	28,086,809.21	28,712,431.39	28,919,927.99	29,042,109.29	27,157,196.43
Bahamas	BHS		9,739,561.63	17,884,120.26	27,337,004.47	32,927,907.89	36,285,955.49	37,835,881.22	38,758,740.01	39,099,965.35	38,645,563.83	35,798,969.55
Bahrain	BHR		51,702,687.23	94,280,353.99	143,788,060.24	173,909,893.94	193,657,494.46	204,201,535.94	211,401,829.04	214,926,424.84	214,643,148.29	200,778,755.01
Banglade	BGD		179,628,782.59	360,876,705.19	559,877,007.38	691,781,777.66	784,506,925.61	839,208,251.67	871,320,880.37	889,746,033.00	902,113,445.09	854,463,456.35
Barbados	BRB											
Belize	BLZ		4,263,154.94	7,828,152.69	11,965,824.54	14,413,048.40	15,882,917.14	16,561,343.31	16,965,292.71	17,114,652.25	16,915,753.76	15,669,755.95
Benin	BEN											
Bolivia	BOL											
Botswan	BWA		119,944,003.10	226,151,773.69	357,747,330.10	441,860,021.96	499,712,772.02	540,350,746.26	573,441,550.87	599,179,562.09	613,294,501.72	585,165,627.43
Brazil	BRA		101,562,361.05	219,135,958.45	324,689,159.15	405,401,901.05	474,325,658.95	524,387,523.86	556,478,885.93	576,214,327.77	591,151,107.70	566,165,693.77
Brunei D	BRN		14,075,628.89	27,247,671.70	41,458,717.36	51,561,768.34	59,489,352.60	65,228,748.90	69,775,102.40	73,545,807.33	76,221,129.33	72,240,745.87
Burkina F	BFA											
Cambod	KHM		11,680,809.81	22,827,501.85	34,256,412.03	42,517,597.94	49,297,815.94	54,523,010.33	58,717,317.37	62,220,985.25	64,846,130.83	61,696,249.46
Cape Ve	CPV											
Chile	CHL											
Colombi	COL											
Congo, D	COD		442,647.28	836,345.28	1,322,640.84	1,635,034.48	1,851,522.15	2,005,362.33	2,131,474.63	2,230,396.49	2,285,117.82	2,182,182.10
Costa Ri	CRI											
Côte d'Iv	CIV											
Cuba	CUB		40,367,151.65	86,032,645.91	126,036,411.41	155,710,758.86	180,359,562.45	198,705,853.72	210,195,142.89	216,967,407.23	221,849,470.29	211,867,449.61
Dominica	DMA		609,526.72	1,119,234.07	1,710,819.78	2,060,712.84	2,270,868.07	2,367,866.39	2,425,621.26	2,446,976.01	2,418,538.40	2,240,391.24
Dominica	DOM											
Ecuador	ECU		22,749,287.70	48,488,080.32	71,047,347.57	87,798,167.98	101,698,287.45	112,053,871.84	118,555,866.21	122,373,243.54	125,054,519.24	119,437,153.13
Egypt	EGY											
El Salvad	SLV											
Gambia	GMB											
Ghana	GHA		12,406,922.21	25,419,389.73	37,452,381.37	47,077,407.71	56,608,696.36	65,908,336.18	73,859,747.11	80,669,679.75	86,942,366.69	85,387,082.48
Grenada	GRD		1,280,056.50	2,350,484.06	3,592,862.96	4,327,667.31	4,769,010.65	4,972,715.15	5,094,005.15	5,138,851.90	5,079,130.56	4,705,006.79
Guatema	GTM											
Guinea	GIN											
Guinea-B	GNB											
Guyana	GUY		4,913,503.54	8,293,329.67	12,697,957.11	14,953,910.38	15,994,371.20	16,136,546.43	16,122,271.67	15,869,589.94	15,285,707.52	13,869,778.41
Haiti	HTI											
Hondura	HND											
India	IND		9,104,387,739.40	17,566,425,505.89	28,067,242,932.55	34,768,309,610.09	39,026,495,398.85	41,528,733,587.67	43,311,258,106.24	44,422,704,943.12	44,503,074,894.06	42,099,903,737.95
Indonesia	IDN		351,332,165.97	649,315,885.95	1,009,157,690.71	1,251,428,913.16	1,419,241,950.59	1,519,399,915.64	1,597,099,634.83	1,667,755,445.34	1,715,600,144.29	1,599,938,274.21
Iran, Islam	IRN		906,147,055.85	1,652,078,005.83	2,518,693,877.71	3,048,910,687.62	3,399,380,570.91	3,589,905,622.46	3,722,313,179.26	3,789,130,869.64	3,787,143,402.12	3,543,570,736.26
Iraq	IRQ		339,123,354.54	616,145,762.52	937,225,074.37	1,132,372,634.08	1,261,048,058.30	1,330,893,902.36	1,379,570,888.93	1,403,945,399.31	1,402,651,273.21	1,311,939,669.67
Israel	ISR		287,343,441.06	521,465,368.68	792,772,333.78	957,469,944.77	1,065,860,123.05	1,124,304,394.32	1,164,551,576.24	1,184,036,626.40	1,182,424,687.19	1,105,820,385.92
Jamaica	JAM		20,367,290.70	37,773,796.64	57,494,695.57	69,399,658.78	76,821,817.15	80,542,027.45	82,857,950.92	83,910,490.87	83,276,940.98	77,316,695.78
Jordan	JOR											

Annex VII. Consultant's Resume

Name: ROLAND WONG

Position: Chief Executive Officer of Clean Energy Alternatives Inc.
International Energy and Environment Expert

Nationality: Canadian

Education: M.Eng., Civil Engineering (Water Resources and Environment), University of British Columbia, 1981
B.Eng., Civil Engineering, McGill University, Montreal, 1977

Professional Affiliations: Registered Professional Engineer in British Columbia

Areas of Expertise: Renewable energy development with a focus on waste to energy, hydropower and solar energy
Energy efficiency in transport
Evaluations of climate change mitigation projects

Countries of work experience: Canada, Bangladesh, India, Pakistan, the Maldives, Cambodia, China, Malaysia, Thailand, Viet Nam, the Philippines, Indonesia, Fiji, Solomon Islands, Tuvalu, Tonga, Samoa, Georgia, Belarus, Bosnia and Herzegovina, Serbia, Slovakia, Romania, Russian Federation, Montenegro, Turkey, Kyrgyz Republic, Kazakhstan, Tajikistan, Egypt, Ethiopia, South Africa, Costa Rica, Dominican Republic, Haiti, St. Vincent and the Grenadines, Dominica and Peru.

Employment:

Clean Energy Alternatives Inc President, Vancouver, Canada	2005 to date
Manager, Business Development, Vancouver, Canada *Klohn Crippen Consultants Limited*	2002-2005
Environmental Management Specialist, Dhaka, Bangladesh and Halifax, Nova Scotia, Canada *KPMG Consulting*	1999-2002
Manager, Watershed Division, Richmond, B.C., Canada *Klohn Crippen Consultants Limited*	1993-1999
Water Resources Technical Advisor, Dhaka, Bangladesh *Northwest Hydraulics Consultants*	1988-1993
Area Engineer/President, Williams Lake, B.C., Canada *Ducks Unlimited/Cariboo Engineering Limited*	1984-1988
Hydropower Intermediate and Area Engineer, North Vancouver, B.C. and Nipawin, Saskatchewan, Canada	1981-1984

Klohn Crippen Consultants Limited

Junior Hydraulics Engineer, Montreal, Quebec, Canada 1978-1980
Montreal Engineering Company Limited

Roland has over 25 years' experience with a recent focus on the development and management of projects in sustainable transport, green city development, renewable energy and energy efficiency. These projects encompass his experience in environmental management, institutional capacity building, policy and economic analysis, planning, management, monitoring and evaluation for projects in more than 35 countries. His demonstrated abilities and experience include adoption and market transformation of sustainable low carbon technologies; formulation and preparation of low carbon and climate change investment projects; partnership building as a means to achieving adoption of clean technologies and energy efficiency practice; development and mentoring of energy, environmental and water resource professionals; networking, coordinating and negotiating projects in low carbon and climate change in several countries.

Key assignments that he is undertaken in climate change mitigation includes:

- **Serving as a Senior Director since 2008 for a private sector company based in Vancouver, Canada developing investments in biomass waste-to-energy and solar power development using patented technologies. This includes the use of a unique gasification / thermo-oxidizer unit to produce heat sufficient for 5.7 MW of power generation. This has involved preparation of "white papers" for the firm, studies on the comparative advantages of the WTE technology to competitors and dissemination of technical and financial information to prospective investors, financers, government policymakers and international donor institutions;**
- **Lead consultant in the formulation, preparation and evaluation (midterm and terminal) of several GEF projects since 2008 in low carbon/renewable energy development, energy efficiency, sustainable transport and green cities for several countries mainly in Asia, Eastern Europe and the Caribbean. Also involved with providing technical assistance in the management of these projects, sourcing of technical experts, strategic planning and strengthened monitoring and evaluation activities;**
- **Principal designer and international team leader for UNDP Bangladesh and UNDP-GEF (2002-2010) for a project to reduce GHGs from the brick making industry in Bangladesh. Completed concept formulation and PDF B (project preparation) phase that resulted in GEF commitment for full project funding in August 2006. GHG emission reductions based on market transformation and adoption to cleaner coal-fired kiln technology from China, increased awareness of the economic, environmental and social benefits on the use of a cleaner technology, increasing industry capacity to attract financial support for clean technologies, dissemination of a cleaner burning kiln throughout the industry. Facilitated discussions with stakeholders in the brick industry in Bangladesh, and provided a logical framework analysis in collaboration with a high calibre Bangladeshi team consisting of engineers, economists, financial and ex-government officers, and facilitated South-South cooperation on the project to access less energy intensive Chinese brick making technology. Provided assistance and negotiations to develop carbon finance that served as a means to reduce debt servicing costs for entrepreneurs;**
- **Served as environmental management specialist (1999-2002) for a CIDA-funded demonstration project in Bangladesh to introduce natural gas as an alternate fuel to mitigate urban air pollution for the Government of Bangladesh's Department of Environment. Activities were geared towards providing better stakeholder outreach in the planning and implementation of environmental management projects, to demonstrate credible efforts required to effect changes in environmental quality, to allow DoE an opportunity to review their policies and standards against project results, and to improve enforcement capacities. The project started with the conversion demonstration of the highly polluting two-stroke auto-rickshaws to CNG, a domestically available fuel. A monitoring program comparing CNG and gasoline-fueled auto-rickshaws revealed operational costs and emissions of CNG converted auto-rickshaws were reduced by over 75%. The project was widely**

viewed by all to be a major success since it catalyzed the alternate fuel debate and industry development and transformed the alternate fuels market in Bangladesh where over a 24-month period, the number of alternate fuel vehicles rose from 1,000 to over 20,000, and the sale of compressed natural gas (CNG) increased 10-fold.

Annex VIII. Quality assessment of the Evaluation Report

Evaluation Title:

GEF 5831 "Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment" (SE4ALL Appliance Accelerator Project)-

All UN Environment evaluations are subject to a quality assessment by the Evaluation Office. This is an assessment of the quality of the evaluation product (i.e. evaluation report) and is dependent on more than just the consultant's efforts and skills. Nevertheless, the quality assessment is used as a tool for providing structured feedback to evaluation consultants, especially at draft report stage. This guidance is provided to support consistency in assessment across different Evaluation Managers and to make the assessment process as transparent as possible.

	Final Report Rating	
Substantive Report Quality Criteria		
Quality of the Executive Summary: **The Summary should be able to stand alone as an accurate summary of the main evaluation product. It should include a concise overview of the evaluation object; clear summary of the evaluation objectives and scope; overall evaluation rating of the project and key features of performance (strengths and weaknesses) against exceptional criteria (plus reference to where the evaluation ratings table can be found within the report); summary of the main findings of the exercise, including a synthesis of main conclusions (which include a summary response to key strategic evaluation questions), lessons learned and recommendations.**	**Final report:**	**5**
I. Introduction **A brief introduction should be given identifying, where possible and relevant, the following: institutional context of the project (sub-programme, Division, regions/countries where implemented) and coverage of the evaluation; date of PRC approval and project document signature); results frameworks to which it contributes (e.g. Expected Accomplishment in POW); project duration and start/end dates; number of project phases (where appropriate); implementing partners; total secured budget and whether the project has been evaluated in the past (e.g. mid-term, part of a synthesis evaluation, evaluated by another agency etc.)** **Consider the extent to which the introduction includes a concise statement of the purpose of the evaluation and the key intended audience for the findings?**	**Final report:**	**5**
II. Evaluation Methods **This section should include a description of how the *TOC at Evaluation*[64] was designed (who was involved etc.) and applied to the context of the project?** **A data collection section should include: a description of evaluation methods and information sources used, including the number and type of respondents; justification for methods used (e.g. qualitative/ quantitative; electronic/face-to-face); any selection criteria used to identify respondents, case studies or sites/countries visited; strategies used to increase stakeholder engagement and consultation; details of how data were verified (e.g. triangulation, review by stakeholders etc.).**	**Final report:**	**5**

[64] **During the Inception Phase of the evaluation process a *TOC at Design* is created based on the information contained in the approved project documents (these may include either logical framework or a TOC or narrative descriptions). During the evaluation process this TOC is revised based on changes made during project intervention and becomes the *TOC at Evaluation*.**

Methods to ensure that potentially excluded groups (excluded by gender, vulnerability or marginalisation) are reached and their experiences captured effectively, should be made explicit in this section. **The methods used to analyse data (e.g. scoring; coding; thematic analysis etc.) should be described.** **It should also address evaluation limitations such as: low or imbalanced response rates across different groups; gaps in documentation; extent to which findings can be either generalised to wider evaluation questions or constraints on aggregation/disaggregation; any potential or apparent biases; language barriers and ways they were overcome.** **Ethics and human rights issues should be highlighted including: how anonymity and confidentiality were protected and strategies used to include the views of marginalised or potentially disadvantaged groups and/or divergent views.**		
III. The Project **This section should include:** • ***Context:*** **Overview of the main issue that the project is trying to address, its root causes and consequences on the environment and human well-being (i.e. synopsis of the problem and situational analyses).** • ***Objectives and components*****: Summary of the project's results hierarchy as stated in the ProDoc (or as officially revised)** • ***Stakeholders:*** **Description of groups of targeted stakeholders organised according to relevant common characteristics** • ***Project implementation structure and partners:*** **A description of the implementation structure with diagram and a list of key project partners** • ***Changes in design during implementation:*** **Any key events that affected the project's scope or parameters should be described in brief in chronological order** • ***Project financing:*** **Completed tables of: (a) budget at design and expenditure by components (b) planned and actual sources of funding/co-financing**	**Final report:**	**5.5**
IV. Theory of Change **The TOC at Evaluation should be presented clearly in both diagrammatic and narrative forms. Clear articulation of each major causal pathway is expected, (starting from outputs to long term impact), including explanations of all drivers and assumptions as well as the expected roles of key actors.** **Where the project results as stated in the project design documents (or formal revisions of the project design) are not an accurate reflection of the project's intentions or do not follow OECD/DAC definitions of different results levels, project results may need to be re-phrased or reformulated. In such cases, a summary of the project's results hierarchy should be presented for: a) the results as stated in the approved/revised Prodoc logframe/TOC and b) as formulated in the TOC at Evaluation. *The two results hierarchies should be presented as a two column table to show clearly that, although wording and placement may have changed, the results 'goal posts' have not been 'moved'*.**	**Final report:**	**5**
V. Key Findings A. Strategic relevance: **This section should include an assessment of the project's relevance in relation to UN Environment's mandate and its alignment with UN Environment's policies and strategies at the time of project approval. An assessment of the complementarity of the project with other interventions addressing the needs of the same target groups should be included. Consider the extent to which all four elements have been addressed:** **1. Alignment to the UN Environment Medium Term Strategy (MTS) and Programme of Work (POW)** **2. Alignment to UN Environment/ Donor/GEF Strategic Priorities**	**Final report:**	**5**

3. Relevance to Regional, Sub-regional and National Environmental Priorities **4. Complementarity with Existing Interventions**		
B. Quality of Project Design **To what extent are the strength and weaknesses of the project design effectively summarized?**	**Final report:**	**5**
C. Nature of the External Context **For projects where this is appropriate, key external features of the project's implementing context that limited the project's performance (e.g. conflict, natural disaster, political upheaval), and how they affected performance, should be described.**	**Final report:**	**6**
D. Effectiveness **(i) Outputs and Direct Outcomes: How well does the report present a well-reasoned, complete and evidence-based assessment of the a) delivery of outputs, and b) achievement of direct outcomes? How convincing is the discussion of attribution and contribution, as well as the constraints to attributing effects to the intervention.** **The effects of the intervention on differentiated groups, including those with specific needs due to gender, vulnerability or marginalisation, should be discussed explicitly.**	**Final report:** **Reference to the indicators praised as SMART would have made the assessment stronger**	**5**
(ii) Likelihood of Impact: How well does the report present an integrated analysis, guided by the causal pathways represented by the TOC, of all evidence relating to likelihood of impact? **How well are change processes explained and the roles of key actors, as well as drivers and assumptions, explicitly discussed?** **Any unintended negative effects of the project should be discussed under Effectiveness, especially negative effects on disadvantaged groups.**	**Final report:**	**5**
E. Financial Management **This section should contain an integrated analysis of all dimensions evaluated under financial management and include a completed 'financial management' table.** **Consider how well the report addresses the following:** • ***completeness*** **of financial information, including the actual project costs (total and per activity) and actual co-financing used** • ***communication*** **between financial and project management staff** **1.**	**Final report:**	**5**
F. Efficiency **To what extent, and how well, does the report present a well-reasoned, complete and evidence-based assessment of efficiency under the primary categories of cost-effectiveness and timeliness including:** • **Implications of delays and no cost extensions** • **Time-saving measures put in place to maximise results within the secured budget and agreed project timeframe** • **Discussion of making use of/building on pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc.**	**Final report:**	**5**

• **The extent to which the management of the project minimised UN Environment's environmental footprint.**		
G. Monitoring and Reporting **How well does the report assess:** • **Monitoring design and budgeting *(including SMART indicators, resources for MTE/R etc.)*** • **Monitoring of project implementation *(including use of monitoring data for adaptive management)*** • **Project reporting *(e.g. PIMS and donor report)***	**Final report:**	**5**
H. Sustainability **How well does the evaluation identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of achieved direct outcomes including:** • **Socio-political Sustainability** • **Financial Sustainability** • **Institutional Sustainability**	**Final report:**	**5**
I. Factors Affecting Performance **These factors are <u>not</u> discussed in stand-alone sections but are integrated in criteria A-H as appropriate. Note that these are described in the Evaluation Criteria Ratings Matrix. To what extent, and how well, does the evaluation report cover the following cross-cutting themes:** • **Preparation and readiness** • **Quality of project management and supervision[65]** • **Stakeholder participation and co-operation** • **Responsiveness to human rights and gender equity** • **Country ownership and driven-ness** • **Communication and public awareness**		**5**
VI. Conclusions and Recommendations i. Quality of the conclusions: **The key strategic questions should be clearly and succinctly addressed within the conclusions section.** **It is expected that the conclusions will highlight the main strengths and weaknesses of the project, and connect them in a compelling story line. Human rights and gender dimensions of the intervention (e.g. how these dimensions were considered, addressed or impacted on) should be discussed explicitly. Conclusions, as well as lessons and recommendations, should be consistent with the evidence presented in the main body of the report.**	**Final report:**	**5**
ii) Quality and utility of the lessons: **Both positive and negative lessons are expected and duplication with recommendations should be avoided. Based on explicit evaluation findings, lessons should be rooted in real project experiences or derived from problems encountered and mistakes made that should be avoided in the future. Lessons must have the potential for wider application and use and should briefly describe the context from which they are derived and those contexts in which they may be useful.**	**Final report:**	**5**
iii) Quality and utility of the recommendations: **To what extent are the recommendations proposals for specific action to be taken by identified people/position-holders to resolve concrete problems affecting the project or the sustainability of its results? They should be feasible to implement within the timeframe and resources available (including local capacities) and specific in terms of who would do what and when.**	**Final report:**	**5**

[65] **In some cases 'project management and supervision' will refer to the supervision and guidance provided by UN Environment to implementing partners and national governments while in others, specifically for GEF funded projects, it will refer to the project management performance of the executing agency and the technical backstopping provided by UN Environment.**

At least one recommendation relating to strengthening the human rights and gender dimensions of UN Environment interventions, should be given. **Recommendations should represent a measurable performance target in order that the Evaluation Office can monitor and assess compliance with the recommendations.**		
VII. Report Structure and Presentation Quality		
i) Structure and completeness of the report: To what extent does the report follow the Evaluation Office guidelines? Are all requested Annexes included and complete?	**Final report:**	**6**
ii) Quality of writing and formatting: **Consider whether the report is well written (clear English language and grammar) with language that is adequate in quality and tone for an official document? Do visual aids, such as maps and graphs convey key information? Does the report follow Evaluation Office formatting guidelines?**	**Final report:**	**6**
OVERALL REPORT QUALITY RATING		**S**

A number rating 1-6 is used for each criterion: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1. The overall quality of the evaluation report is calculated by taking the mean score of all rated quality criteria.

At the end of the evaluation, compliance of the evaluation process against the agreed standard procedures is assessed, based on the table below. *All questions with negative compliance must be explained further in the table below*.

Evaluation Process Quality Criteria	Compliance	
	Yes	No
Independence:		
1. Were the Terms of Reference drafted and finalised by the Evaluation Office?	X	
2. Were possible conflicts of interest of proposed Evaluation Consultant(s) appraised and addressed in the final selection?	X	
3. Was the final selection of the Evaluation Consultant(s) made by the Evaluation Office?	X	
4. Was the evaluator contracted directly by the Evaluation Office?	X	
5. Was the Evaluation Consultant given direct access to identified external stakeholders in order to adequately present and discuss the findings, as appropriate?	X	
6. Did the Evaluation Consultant raise any concerns about being unable to work freely and without interference or undue pressure from project staff or the Evaluation Office?		X
7. If Yes to Q6: Were these concerns resolved to the mutual satisfaction of both the Evaluation Consultant and the Evaluation Manager?		
Financial Management:		
8. Was the evaluation budget approved at project design available for the evaluation?	X	
9. Was the final evaluation budget agreed and approved by the Evaluation Office?	X	
10. Were the agreed evaluation funds readily available to support the payment of the evaluation contract throughout the payment process?	X	
Timeliness:		
11. If a Terminal Evaluation: Was the evaluation initiated within the period of six months before or after project operational completion? Or, if a Mid Term Evaluation: Was the evaluation initiated within a six-month period prior to the project's mid-point?	X	
12. Were all deadlines set in the Terms of Reference respected, as far as unforeseen circumstances allowed?	X	
13. Was the inception report delivered and reviewed/approved prior to commencing any travel?	X	
Project's engagement and support:		
14. Did the project team, Sub-Programme Coordinator and identified project stakeholders provide comments on the evaluation Terms of Reference?	X	
15. Did the project make available all required/requested documents?	X	
16. Did the project make all financial information (and audit reports if applicable) available in a timely manner and to an acceptable level of completeness?	X	
17. Was adequate support provided by the project to the evaluator(s) in planning and conducting evaluation missions?	X	
18. Was close communication between the Evaluation Consultant, Evaluation Office and project team maintained throughout the evaluation?	X	
19. Were evaluation findings, lessons and recommendations adequately discussed with the project team for ownership to be established?	X	
20. Did the project team, Sub-Programme Coordinator and any identified project stakeholders provide comments on the draft evaluation report?	X	
Quality assurance:		
21. Were the evaluation Terms of Reference, including the key evaluation questions, peer-reviewed?	X	
22. Was the TOC in the inception report peer-reviewed?	X	
23. Was the quality of the draft/cleared report checked by the Evaluation Manager and Peer Reviewer prior to dissemination to stakeholders for comments?	X	
24. Did the Evaluation Office complete an assessment of the quality of both the draft and final reports?	X	
Transparency:		

25. Was the draft evaluation report sent directly by the Evaluation Consultant to the Evaluation Office?	**X**	
26. Did the Evaluation Manager disseminate (or authorize dissemination) of the cleared draft report to the project team, Sub-Programme Coordinator and other key internal personnel (including the Reference Group where appropriate) to solicit formal comments?	**X**	
27. Did the Evaluation Manager disseminate (or authorize dissemination) appropriate drafts of the report to identified external stakeholders, including key partners and funders, to solicit formal comments?	**X**	
28. Were stakeholder comments to the draft evaluation report sent directly to the Evaluation Office	**X**	
29. Did the Evaluation Consultant(s) respond to all factual corrections and comments?	**X**	
30. Did the Evaluation Office share substantive comments and Evaluation Consultant responses with those who commented, as appropriate?	**X**	

Provide comments / explanations / mitigating circumstances below for any non-compliant process issues.

Process Criterion Number	Evaluation Office Comments