



GEF-6 REQUEST FOR PROJECT ENDORSEMENT/APPROVAL

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

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PART I: PROJECT INFORMATION

Project Title: Global Project to leapfrog markets to energy efficient lighting, appliances and equipment			
Country(ies):	Global (Other child projects in Costa Rica, Kazakhstan, Sudan, Myanmar, Indonesia, South Africa, Tunisia, Chile)	GEF Project ID: ¹	9337
GEF Agency(ies):	UN Environment (UNEP)	GEF Agency Project ID:	01357
Other Executing Partner(s):	UN Environment (UNEP) through the United for Efficiency (U4E) Centre of Excellence	Submission Date:	July 21, 2017
GEF Focal Area (s):	Climate Change	Project Duration (Months)	36
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>	Corporate Program: SGP <input type="checkbox"/>	
Name of Parent Program	Leapfrogging markets to high efficiency products (appliances, including lighting, and electrical equipment)	Agency Fee (\$)	UN Environment (UNEP) US\$ 279,000

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES²

Focal Area Objectives/Programs	Focal Area Outcomes	Trust Fund	Amount (in \$)	
			GEF Project Financing	Co-financing
CCM-1 Program 1	Policy, planning and regulatory frameworks foster accelerated low GHG development and emissions mitigation	GEFTF	3,100,000	18,677,000
Total project costs			3,100,000	18,677,000

B. PROJECT DESCRIPTION SUMMARY

Project Objective: To mitigate climate change by transforming national and regional markets to energy-efficient products.						
Project Components/Programs	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	Amount (in \$)	
					GEF Project Financing	Confirmed Co-financing
1. Support partner countries to develop and implement energy efficiency policies framework	TA	1.1: Countries and regions have the guidance to successfully implement market transformation projects.	1.1.1 Five training packages to support countries' implementation of the U4E Integrated Policy Approach. 1.1.2 Tools and resources developed and/or updated to support market transition to energy-efficient lighting, appliances and equipment	GEFTF	1,057,000	7,000,000 (in-kind) 9,000,000 (loans)

¹ Project ID number remains the same as the assigned PIF number.

² When completing Table A, refer to the excerpts on [GEF 6 Results Frameworks for GETF, LDCF and SCCF](#).

³ Financing type can be either investment or technical assistance.

		1.2: Increased capacity of 25 countries' officials to develop and implement projects and policies to advance energy efficiency of lighting, appliances and equipment.	<p>1.1.3 Remote support available to respond remotely to inquiries on U4E-relevant policies and products.</p> <p>1.1.4 At least four regions have guidance to implement regional harmonized policies for energy efficient products</p> <p>1.2.1 Multi-day training for policy makers in 3 regions for at least 25 countries to introduce the U4E Integrated Policy Approach</p> <p>1.2.2 Multi-day technical train-the-trainer for practitioners on how to apply a relevant elements of the U4E Integrated Policy Approach in their field/sector.</p>		1,368,000	
2. Increasing the ambition of the Global Partnership on Efficient Appliances and Equipment	TA	<p>2.1: Countries commit to advancing energy efficiency of lighting, appliances, and equipment.</p> <p>2.2: Regional harmonization of standards</p>	<p>2.1.1. Completed outreach to 75 countries and/or regions.</p> <p>2.2.1 At least 4 regional programs/projects for policy framework development on energy-efficient products designed.</p>	GEFTF	483,000	2,477,000
Evaluations				GEFTF	92,000	
Subtotal					3,000,000	18,477,000
Project Management Cost (PMC) ⁴				GEFTF	100,000	200,000
Total project costs					3,100,000	18,677,000

C. CONFIRMED SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE

Please include evidence for co-financing for the project with this form.

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
Private Sector	Global Climate Partnership Fund (GCPF)	Loans	9,000,000
Private Sector	International Copper Association (ICA)	In-kind	1,800,000
Private Sector	Philips Lighting BV	In-kind	1,200,000

⁴ For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
Private Sector	Osram	In-kind	400,000
Others	CLASP	In-kind	700,000
Private Sector	National Lighting Test Center (NLTC, China)	In-kind	700,000
Private Sector	BSH Hausgeräte GmbH	In-kind	636,000 ⁵
Others	Carbon Trust	In-kind	536,000
Private Sector	Mabe	In-kind	500,000
Others	Copenhagen Centre of Energy Efficiency (C2E2)	In-kind	500,000
Private Sector	ABB	In-kind	400,000
Others	IEA-4E – Solid State Lighting Annex	In-kind	350,000
GEF Agency	UNDP	In-kind	300,000
Private Sector	Arcelik A.S.	In-kind	300,000
GEF Agency	UN Environment	In-kind	300,000
Others	IIEC	In-kind	230,000
Others	GIZ	In-kind	200,000
Others	Energy Efficiency Services Limited (EESL)	In-kind	200,000
Private Sector	Neonlite	In-kind	150,000
Private Sector	Whirlpool Corporation	In-kind	100,000
Others	Natural Resources Defense Council (NRDC)	In-kind	75,000 ⁶
Others	Topten	In-kind	50,000
Others	BASE – Basel Agency for Sustainable Energy	In-kind	50,000
Total Co-financing			18,677,000

D. TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

GEF Agency	Trust Fund	Country Name/Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee ^{a)} (b) ²	Total (c)=a+b
UN Environment	GEF TF	Global	Climate Change		3,100,000	279,000	3,379,000
Total Grant Resources					3,100,000	279,000	3,379,000

a) Refer to the [Fee Policy for GEF Partner Agencies](#)

E. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS⁷

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	<i>hectares</i>
Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	<i>hectares</i>
Promotion of collective management of transboundary water systems and implementation of the full range of policy,	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;	<i>Number of freshwater basins</i>

⁵ BSH co-finance letters states a commitment of €600,000 which converts to \$636,000 using an exchange rate of .94339 EUR/USD.

⁶ NRDC's co-finance letter states a commitment of \$25,000 per year over three years, resulting in the \$75,000 in this table.

⁷ Update the applicable indicators provided at PIF stage. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the [GEF-6 Programming Directions](#), will be aggregated and reported during mid-term and at the conclusion of the replenishment period.

Corporate Results	Replenishment Targets	Project Targets
legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	<i>Percent of fisheries, by volume</i>
Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO _{2e} mitigated (include both direct and indirect)	30,644,000 tons of CO _{2eq} (cumulative by 2030) (direct)
Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	<i>metric tons</i>
	Reduction of 1000 tons of Mercury	<i>metric tons</i>
	Phase-out of 303.44 tons of ODP (HCFC)	<i>ODP tons</i>
Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	<i>Number of Countries:</i>
	Functional environmental information systems are established to support decision-making in at least 10 countries	<i>Number of Countries:</i>

F. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? No

(If non-grant instruments are used, provide an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF Trust Fund) in Annex D.

Not applicable.

PART II: PROJECT JUSTIFICATION

This CEO Endorsement document is for the “Global Project to leapfrog markets to energy efficient lighting, appliances and equipment” (hereinafter called “Global Leapfrogging Project”). The Global Leapfrogging Project includes the global components of the UN Environment-GEF program “Leapfrogging markets to high efficiency products (appliances, including lighting, and electrical equipment)”, hereinafter called “Global Leapfrogging Program”. The Global Leapfrogging Project develops the resources and provides training to countries/regions in order to support the transition to energy efficient lighting, appliances (room air conditioners and refrigerators) and equipment (electric motors and transformers). This is shown in Figure 1 below.

Figure 1: Relation between the SEforALL Global Project (#5831) and the Global Leapfrogging Program (#9083)



The Global Leapfrogging Program and Project both build on the UN Environment-GEF global project “Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment,” (GEF ID: #5831), hereinafter called the “SE4ALL Global Project”. The project is called this due to its contribution to the UN Secretary General’s Sustainable Energy for All (SEforALL) initiative’s Lighting and Appliance & Equipment Accelerators. The SEforALL Global Project (GEF ID: #5831), has formed a global partnership and virtual Centre of Excellence, named United for Efficiency (U4E), which comprises international organizations, like-minded organizations, and private sector companies. Further, by the end of the project, it will have the commitment from at least 30 countries to transform their markets to energy-efficient lighting, appliances, and equipment.

U4E Partner Countries (19)

Cambodia, Chile, Costa Rica, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, Haiti, Honduras, Maldives, Nepal, Nigeria, Nicaragua, Panama, Paraguay, Sierra Leone, Sudan and Tonga

Additional countries with national projects on energy-efficient lighting, appliances and/or equipment: Kazakhstan, South Africa, Indonesia, Myanmar, Tunisia, Turkey and China

The SEforALL Project (GEF ID: #5831) aims for a further 8 global manufacturers will join the partnership (in addition to Philips Lighting and Osram, which joined under the UN Environment-GEF en.lighten initiative). The project has already made good progress in achieving this goal with seven new manufacturers, which have already joined the partnership (Arçelik, ABB, Electrolux, BSH Hausgeräte GmbH, MABE, Whirlpool Corporation and Neonlite/MEGAMAN) and talks are progressing with an additional 3-5 manufacturers.

The SEforAll Project had a planned completion of March 2017, however has been extended to March 2018 in order to complete outstanding activities. The remaining activities particularly relate to outreach.

The partners, convened into Expert Taskforces during the SEforAll Global Project(GEF ID: #5831), will continue to support United for Efficiency under the Global Leapfrogging Project (GEF ID: #9083) establishing the virtual Centre of Excellence. The virtual Centre of Excellence will utilize the resources already developed under SEforALL Global Project (GEF ID: #5831), such as country assessments, best practice Policy Guides, and the partners' expertise in order to increase the number of countries committing to advance energy-efficient products. Further, it will follow the consensus recommendations on the policy framework when developing technical guides and training under the Global Leapfrogging Project. This relationship is reflected in the Figure 1: Relation between the SEforALL Global Project (#5831) and the Global Leapfrogging Program (#9083) above and the text describing each component. A full list of existing resources is in Annex Q.

The Global Leapfrogging Program also allows countries to access their STAR allocation for national projects for projects promoting energy-efficient lighting, appliances and equipment. The Global Leapfrogging Program (GEF ID #: 9083) provides countries with a coherent and consistent integrated policy approach, providing greater likelihood of success and increased harmonization between countries. The integrated policy approach developed under the en.lighten initiative has been upgraded by the United for Efficiency initiative including the finance component. Thus, the U4E integrated policy approach (minimum standards restricting the supply of inefficient products; monitoring, verification and enforcement (MVE); communication campaigns; financial mechanisms; and environmentally sound management) will accelerate market transformation to energy-efficient products while addressing environmental concerns.

As is described in Figure 1 above and further in the description of the components in the next section of the document, the support to countries can be described as follows:

➤ **Implementation of “national-child projects” (National STAR allocation)**

This component concerns countries that allocate their National STAR Allocation to projects promoting energy efficiency of lighting, appliances and equipment. Eight countries (Chile, Costa Rica, Indonesia, Kazakhstan, Myanmar, South Africa, Sudan and Tunisia) have committed their STAR allocation under the Global Leapfrogging Program on lighting, appliances, and equipment. Furthermore, two additional countries are being treated as GEF child projects (China and Turkey) that have independent GEF national projects utilizing their STAR allocations. See the below table for full list of Child project under the project. Each country has prioritized different types of products and adapted the U4E integrated policy approach to fit their national needs.

The virtual Centre of Excellence assists partner countries to implement national projects to advance energy efficiency of lighting, appliances, and equipment through the U4E integrated policy approach.

NATIONAL GEF PROJECTS INCLUDED AS CHILD PROJECTS UNDER THE GLOBAL LEAPFROGGING PROGRAM

Country	GEF ID	Product(s)	Project components	Budget (US\$)
Costa Rica U4E Child project (UN Environment)	9083	Lighting, ACs, and refrigerators	<ol style="list-style-type: none"> 1. Demonstration projects to replace conventional appliances with energy-efficient appliances in high-energy consuming public institutions. 2. Training and information program for market actors on the country's obligations to only procure efficient appliances and on mechanisms for product compliance. 3. Establishment of a revolving loan fund for the financing of large-scale replacement programs in the public sector. 4. Development of capacities for environmentally sound disposal of appliances 	2,000,000
Sudan U4E Child project (UNDP)	9328	Lighting and air conditioners	<ol style="list-style-type: none"> 1. Development of a national strategy to advance energy efficiency in lighting and air conditioners as part of the National Energy Efficiency Action plan (NEEAP) 2. Development of regulatory mechanisms, including minimum energy performance standards (MEPS) for lighting products and air conditioners 3. Creation of monitoring, verification, and enforcement (MVE) system for the MEPS 4. Awareness-building of new MEPS 5. Enhanced environmentally sound management 	1,770,000
Kazakhstan U4E Child project (UNDP)	9332	Domestic appliances (except lighting)	<ol style="list-style-type: none"> 1. Institutional, legal and regulatory framework and capacities for energy-efficiency standards and labels (EE S&L) 2. Creation of monitoring, verification, and enforcement (MVE) system 3. Boosting demand for energy-efficient appliances and equipment 4. Ensuring supply of products compliant with EE S&L policies 	3,500,000
South Africa U4E Child project (UNDP and DBSA)	tbc	LEDs and transformers	<ol style="list-style-type: none"> 1. Development of a national strategy to advance energy efficiency lighting and transformers 2. Development of regulatory mechanisms, including MEPs: 3. Creation of MVE for: 4. Development of supporting policies 5. Enhanced environmentally sound management for transformers 	10,000,000
Indonesia U4E Child project (UN Environment and UNDP)	9493	Lighting	<ol style="list-style-type: none"> 1. Support to local lighting industry to improve the efficiency of lamps and ballasts 2. Regulatory mechanisms; and market monitoring, verification, and enforcement 3. High-efficiency lighting technology penetration 	3,895,873

Myanmar U4E Child project (UN Environment)	9499	Lighting and appliances	<ol style="list-style-type: none"> 1. MEPS and labelling 2. Market monitoring, verification and enforcement 3. Supporting policies (Public awareness campaign, small scale demonstration projects, training for local lighting and appliance manufacturers) 	2,223,578
Tunisia U4E Child project (UN Environment)	9499	Lighting	<ol style="list-style-type: none"> 1. Regulatory mechanisms, including MEPS for lighting products 2. Supporting policies for high-efficiency lighting technology deployment 3. Strengthened MVE for lighting products 4. Environmentally sound management of efficient lighting products 	2,399,541
Chile U4E Child project (UN Environment)	9496	Refrigerators	<ol style="list-style-type: none"> 1. Revising regulatory mechanisms, including MEPS 2. Enhancing MVE 3. Developing supporting policies 4. Enhancing environmentally sound management 	1,473,762
Turkey Independent national project (UNDP)*	9081	Motors	<ol style="list-style-type: none"> 1. Strengthened legislative and regulatory and policy framework for EE motors in Turkey 2. Development of governance and information on infrastructure in electric motor industry 3. Upgraded Turkish Standards Institute (TSI) test laboratory and strengthened monitoring, verification and enforcement 4. One-Stop-Shop Financial Mechanism 5. Training, public awareness and PR campaign for EE motors 	3,750,000
China Independent national project (UNDP)*	5669	Lighting	<ol style="list-style-type: none"> 1. SSL Market Development Enhancements 2. SSL Market Transformation Policies and Mechanisms 3. SSL Application Demonstration 4. Strengthening of SSL Quality Assurance Capabilities 	6,242,694

* The Turkey and China projects are independent national projects, however will be treated as child projects due to alignment in products of focus and activities

➤ **Support to partner countries** (Global Funding/GEF ID: 9337)

The virtual Centre of Excellence supports all countries that join as members of the global partnership United for Efficiency initiative. Under the Global Leapfrogging Project aims to perform outreach to 75 countries, of which 30 countries that will join the GEF SEforALL Global Project (25 currently achieved) (GEG ID: 5831). The partnership will be made through official communication from a country or regional body. Countries requesting support from the project will also be considered a partner.

The countries will be supported through the virtual Centre of Excellence, including:

- a) Technical training provided to “national-child project” and additional partner countries (Global Funding): the technical training will be provided to the 10 “national-child project” countries that have submitted projects under the Global Leapfrogging Program and 15 additional partner countries. The additional partner countries will be selected based on:
 - GHG mitigation potential (using the U4E Country Savings Assessments)
 - Regional priority as the training will be conducted at the regional level
 - Expected energy consumption from U4E covered products (e.g. the larger the consumption the more compelling the candidate)
 - Ambition to pursue energy efficiency opportunities (e.g. recent government policies, goals, or other indicators)
 - Track record of successful collaboration in recent public-private partnership programs in the energy sector (e.g. Based on feedback from UNDP and UN Environment regional officers).
- b) Training for trainers provided to at least 25 countries (at least 1 participant per country) to support the enforcement of energy-efficient policies, projects and strategies. The project will host in person training for trainers to particular stakeholders to support the enforcement/development of energy-efficient policies, projects and strategies increasing their capacities on implementing MEPS, supporting policies, MVE, and environmentally sound management. The training will be held at the regional level to be more cost competitive and encourage harmonization of policies amongst countries.

➤ **Outreach to Countries** (Global Funding/GEF ID: 9337)

Outreach will be provided to developing countries and emerging economies, with a target of 75 countries by the end of the project which commit or are taking action to advance energy efficiency of lighting, appliances, or equipment.

The project will host side events and workshops alongside major environmental and energy events to ensure that energy efficiency of lighting, appliances, and equipment stays at the top of the agenda in order to receive commitment for national decisions makers to advance their markets.

Under Component 1 of this project it will extend the virtual Centre of Excellence work previously completed by providing support to partner countries for implementing the U4E integrated policy approach (MEPS – minimum energy performance standards; MVE – monitoring, verification, and enforcement; supporting policies, financial mechanisms, and environmentally sound management), training and remote support for policy makers and key stakeholders.

Under Component 2 of this project, regional workshops and an outreach campaign will occur in order to increase the number of countries committing to transform their markets. The activities of this component aim to increase regional harmonization of standards and regulatory frameworks, while taking into account the differences between countries.

By providing global funding for the project, it will have significant impact in increasing the capacities of countries to implement projects on energy efficiency and to phase out inefficient products. These capacities will allow countries to successfully implement projects using their GEF STAR allocation, and also allow some countries to implement market transformation projects independently with national budget or with external funding. Component 1 will provide support

and guidance to the 10 “national-child project” countries and 15 additional partner countries to ensure that best practices are implemented, and using a common approach across different countries, while adapting to national circumstances. By doing so, GEF resources will be able to be extended further (in scope and/or depth), while also providing higher impact results, translating into greater GHG emission reductions.

A.0. Describe any changes in alignment with the project design with the original Concept Note

The changes since the project document have been reflected in the below table.

Changes in the Project Framework since the original Project Concept

Original Project Concept	Current CEO Endorsement Document	Justification for Change
1.1 Countries and regions have the guidance and training to successfully implement market transformation projects	1.1: Countries and regions have the guidance to successfully implement market transformation projects.	“And training” has been removed as the outcome does not include training. The intention was always to include the training as part of outcome 1.2. Guidance material including training packages will be available to countries as part of 1.1.
1.2. Increased capacity of 15 countries officials to develop and implement projects and policies to advance energy efficiency of lighting, appliances, and equipment.	1.2: Increased capacity of 25 countries’ officials to develop and implement projects and policies to advance energy efficiency of lighting, appliances and equipment.	The number of country officials has been increased to 25 to provide clarity that the GEF child project countries (8) will also receive training in addition to the GEF STAR allocation.
2.1 At least 70 countries commit to advancing energy efficiency of lighting, appliances, and equipment. Target at end of project: 100 countries (30 from SEforALL Global Leapfrogging)	2.1: Countries commit to advancing energy efficiency of lighting, appliances, and equipment. Target a midterm: 50 countries Target at end of project: 75 countries	The target at the end of the project has been reduced from 100 to 75 countries. The baseline project (SEforALL Global Project) will gain the commitment from 30 countries. The number target for number of countries has been reduced in order to reflect the following: <ol style="list-style-type: none"> 1. Outreach will be focused on target regions in order to gain commitment from large blocks of trading partners. Even with the 4 target regions included (Southeast Asia, West Africa, Southern Africa and Central America) the total of 100 be highly unlikely to complete. 2. Quality support will be provided for countries that do have the willingness to take action. In order to provide quality and timely support to countries, the number of countries has been reduced to a more manageable number of 75. Also note STAP Scientific and Technical Review suggested a review of the 100 countries: “Such an ambitious expansion of coverage from 30 to 100 countries in the program is questionable and has to be

		scrutinized during program preparation.”
2.2 Regional harmonization of standards	2.2: Regional harmonization of standards	No change.

A.1. PROJECT DESCRIPTION

1) The global environmental and/or adaptation problems, root causes, and barriers that need to be addressed

In 2015, in developing countries and emerging economies, residential appliances (refrigerators, room air conditioners and lighting) accounted for approximately 25 per cent of total national electricity consumption. Over the coming decade it is expected that the purchase and use of lighting, appliances and equipment will rise with increased economic growth. In developing countries the number of appliances in use is expected to double for room air conditioners (from 0.7 billion to 1.7 billion), to increase up to 70 per cent for refrigerators (from 1 billion to 1.7 billion)⁸. Lighting will also increase up to 20 per cent⁹. Similarly, the number of transformers is expected more than double in developing and emerging (non-OECD) countries by 2040¹⁰.

In developing countries, a market transformation to climate-friendly and energy-efficient lighting, appliances and equipment can attain energy savings of approximately 10 per cent of global electricity consumption in 2030¹¹. This is equivalent to 2,500 TWh per annum or equivalent the total annual consumption of Mexico.

Due to this significant savings potential the U4E initiative established a broad partnership that involves diverse stakeholders (country representatives, technical experts, and manufacturers) with the objective to enlarge the consensus and facilitate the market transformation to energy-efficient products. Under the “SEforALL Global Project” 5 Expert Taskforces, one per each product (lighting, refrigerators, air conditioners, electric motors, and transformers), have been established to develop a consensus on best practice recommendations for a market transition to energy-efficient products. The result of this successful collaboration delivered the publication of five policy guides, plus an overarching guide, to support policy makers to develop policy frameworks for energy-efficient lighting, appliances, and equipment.

The Expert Taskforces helped identify the many different types of barriers that policymakers encounter in developing and implementing market transformation programs. The following are the main barriers identified:

Barrier	Description	Examples
Financial	Magnitude of the first cost relative to other technologies	<ul style="list-style-type: none"> - Higher relative cost of high efficiency lighting, appliances and equipment products, affecting affordability, especially to low-income consumers/businesses - Lack of sustainable financing schemes - Lack of incentives to local manufacturers to promote sales of efficient products - Lack of enhanced producer responsibility (EPR) schemes which require manufacturers to include the funding and the costs of collection and treatment of the products in the sales price

⁸ U4E Country Assessments: <http://united4efficiency.org/countries/country-assessments/>

⁹ U4E Country Assessments: <http://united4efficiency.org/countries/country-assessments/>

¹⁰ ABB

¹¹ U4E Country Assessments: <http://united4efficiency.org/countries/country-assessments/>

Barrier	Description	Examples
Market	Market structures and constraints that prevent efficient products investments and energy saving benefits	<p>Competition through low-cost, low efficiency products Limited availability of affordable high-quality products High import costs or tariffs Lack of support to establish energy service companies (ESCOs) Split incentive – landlord / tenant discrepancy; Negative impact on local manufacturers and related industries</p> <ul style="list-style-type: none"> - Distributors stock what sells in the local market leading to limited availability and longer delivery times of high efficiency motors until usage picks up, which in turn constrains the growth in usage. <p>Resistance from local motor manufacturers seeking protection by citing technology and financing constraints.</p>
Information and Awareness	Lack of information provided on efficient technologies and their energy savings benefits	<p>Lack of knowledge and skills among policymakers, products designers, importers, suppliers, operation and maintenance (O&M) facility managers Poor promotion of efficient products Low level of public awareness of the technologies and their benefits Metrics (e.g., energy efficiency ratio (EER), coefficient of performance, lumens, CCT, CRI, etc..) that are new to consumers and are difficult to understand</p> <ul style="list-style-type: none"> - Motors systems are oversized and therefore inefficient due to layer upon layer of safety margins to cover unknowns and uncertainties, as well as due to equipment manufacturer’s practices.
Regulatory and Institutional	Structural characteristics of the political and legal system that make it difficult to promote efficient products	<p>Lack of policies and practical experience to transition local manufacturers Lack of policies encouraging energy-efficient products– regulatory, monitoring/verification, enforcement Lack of warranties to ensure product quality Lack of regulations requiring installation and maintenance by certified and trained personnel Lack of standards/code of good practices to guide installation, servicing and disposal of some products (such as refrigerators, ACs due to flammable refrigerants, and appropriately sizing electric motors)</p> <ul style="list-style-type: none"> - Investments in energy efficiency considered a lower priority to core business investments. <p>Preference to repair old (usually inefficient) motors and transformers with new more efficient models</p>

Barrier	Description	Examples
Technical	Lack of resources and infrastructure for certifying and promoting efficient products	<ul style="list-style-type: none"> Poor quality mains power supply affects the longevity and performance of all lamp types Lack of adequate or accredited testing facilities Limited resources to monitor, verify and enforce national regulations Lack of technical capacity for local suppliers to provide product parts and for manufacturers to produce energy efficient products Lack of trained and certified technicians to properly install and service household products with specific requirements (such as ACs and refrigerators)
Environmental and Safety Risk Perception	Concerns over environmental, safety or health relating to household products	<ul style="list-style-type: none"> Lack of collection and recycling schemes for recovery and treatment at end-of-life Addressing environmental and health issues such as leakage of refrigerant or other hazardous materials, blue light, etc. - For example AC with low GWP refrigerants and high energy efficiency, use flammable refrigerants. These appliances need additional safety features and the installation through skilled personnel Public information campaigns about the safety household product technologies

To overcome the barriers the Global Leapfrogging Project will serve as a platform to build synergies among global stakeholders, promote global best practices and share this knowledge and information, assist countries to develop policy and regulatory frameworks, address technical and quality issues, and encourage countries to develop national and/or regional efficient appliances strategies.

2) The baseline scenario and any associated baseline projects

Energy efficiency is the most cost-effective high-impact-opportunity to reduce greenhouse gas (GHG) emissions globally. Efficient lighting, appliances, and equipment represent one of the easiest and most cost-effective areas to accelerate energy efficiency.

Policies that encourage the uptake of climate-friendly and energy-efficient products help to reduce energy consumption and lessen peak electricity demand, diminishing the need to build new power generation or upgrade existing infrastructure. Among other benefits, product energy efficiency helps to cut air pollution, abates greenhouse gas emissions, and saves governments and consumers money.

Yet, the level of deployment of efficient appliances and equipment in most developing countries remains considerably below that of developed countries (such as the European Union and United States), which have energy efficiency policies and strategies in place for a number of years now.

Furthermore, most developing countries do not have access to energy-efficient products. The large electricity consumption is mainly due to obsolete and highly inefficient appliances and equipment remaining in the market for longer periods and to lack of minimum performance standards for new products on the market. A large majority of developed countries had energy efficiency labels and MEPS in place by the end of the 1990s for refrigerators, room air

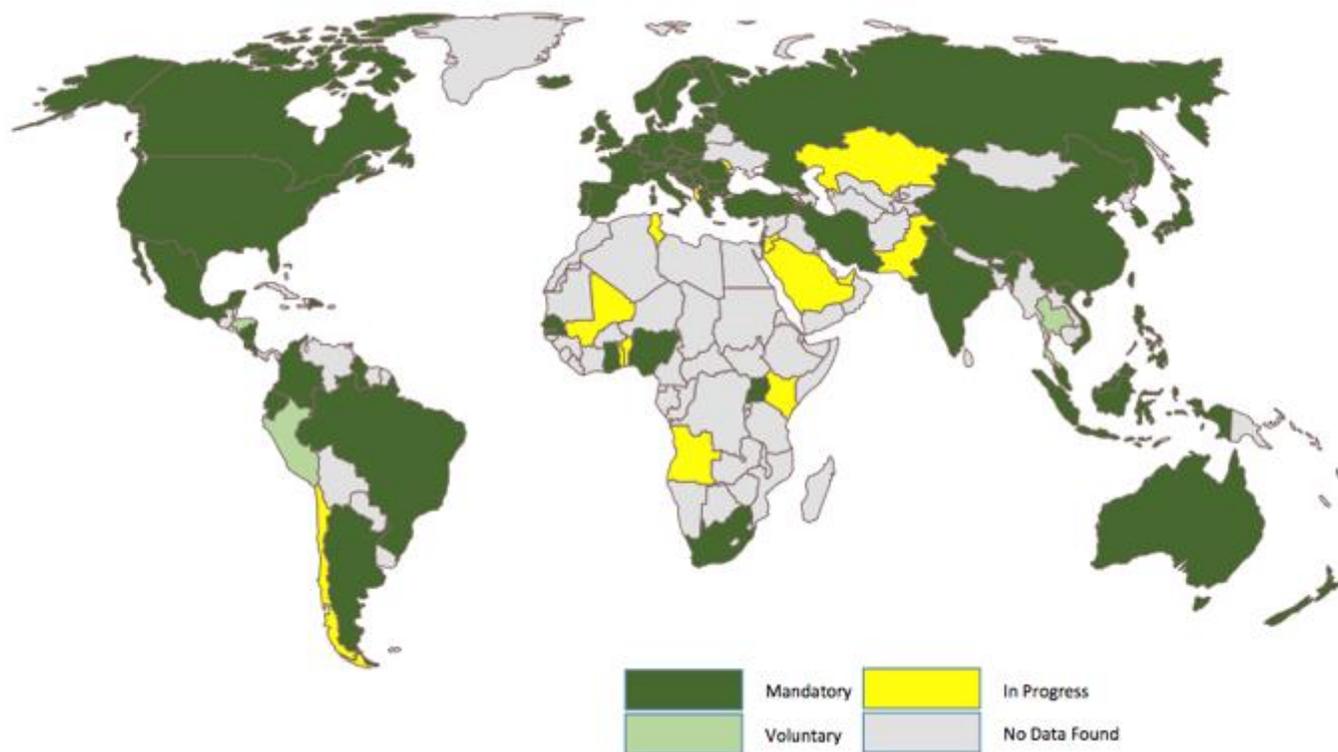
conditioners (RACs), electric motors, and transformers. As is shown in the below table on mandatory MEPS and labels are also in place in some non-OECD countries, however there remains a large amount of countries lacking MEPS. For each of the technologies (lighting, refrigerators, residential air conditioners (RACs), motors and transformers) between 60 per cent and 75 per cent of the non-OECD population can purchase products that are not subject to MEPS, meaning low efficiency products can still enter their markets. Please refer to see in the below table and maps the global status of MEPS for each of the focus products, which shows vast ranges of the globe without policies in place.

NON-OECD COUNTRIES WITH MANDATORY AND VOLUNTARY MEPS AND/OR LABELLING PROGRAMMES FOR SELECTED PRODUCTS

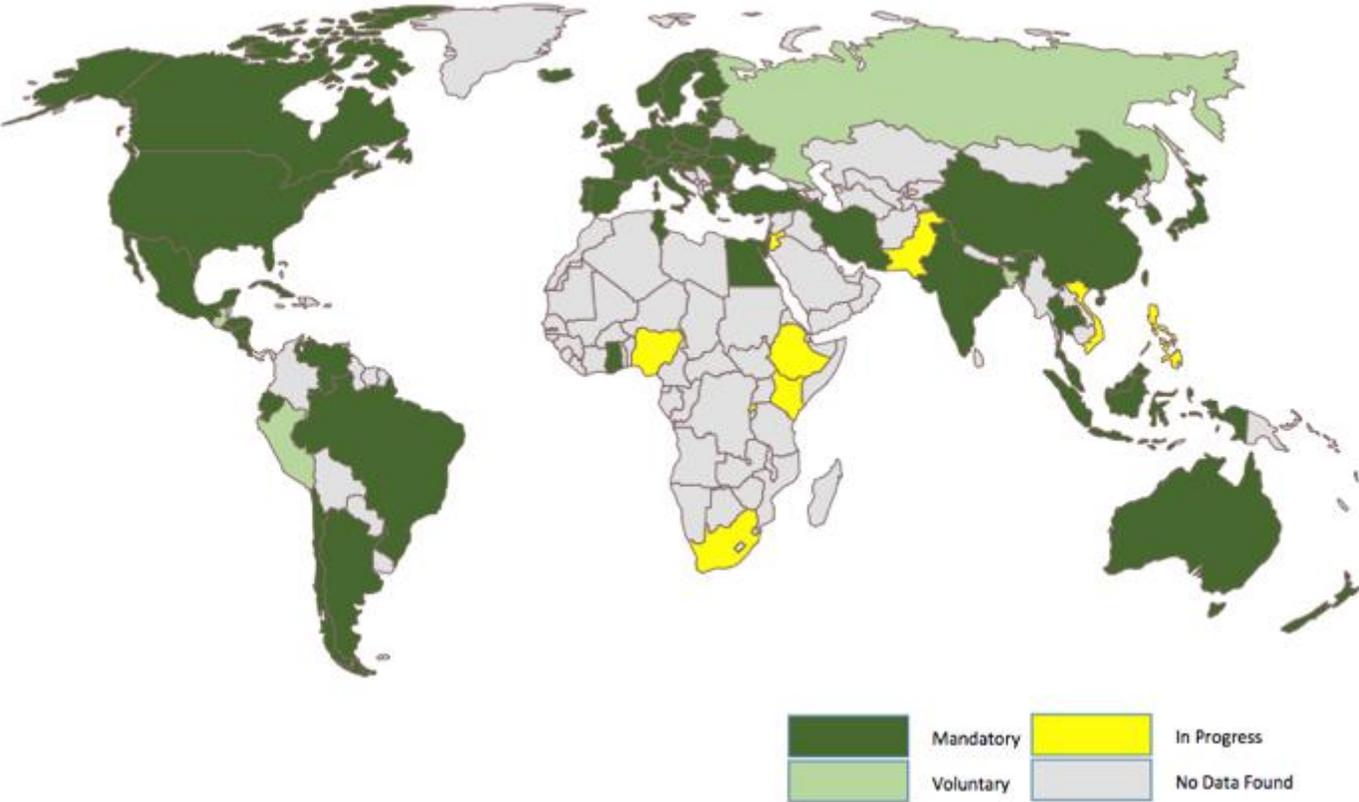
		Number of Countries	Population	% of non-OECD Population
Refrigerators	MEPS	22	3.79 billion	63%
	Labels	42	3.44 billion	57%
RACs	MEPS	22	3.69 billion	61%
	Labels	28	4.26 billion	71%
Motors (includes 3 Phase)	MEPS	9	1.96 billion	33%
	Labels	27	2.56 billion	43%
Transformers	MEPS	5	2.86 billion	47%
	Labels	27	2.56 billion	42%
Lighting	MEPS	32	4.1 billion	68%
	Labels	27	2.56 billion	42%

Sources: United for Efficiency (U4E) country and policy assessments, 2016

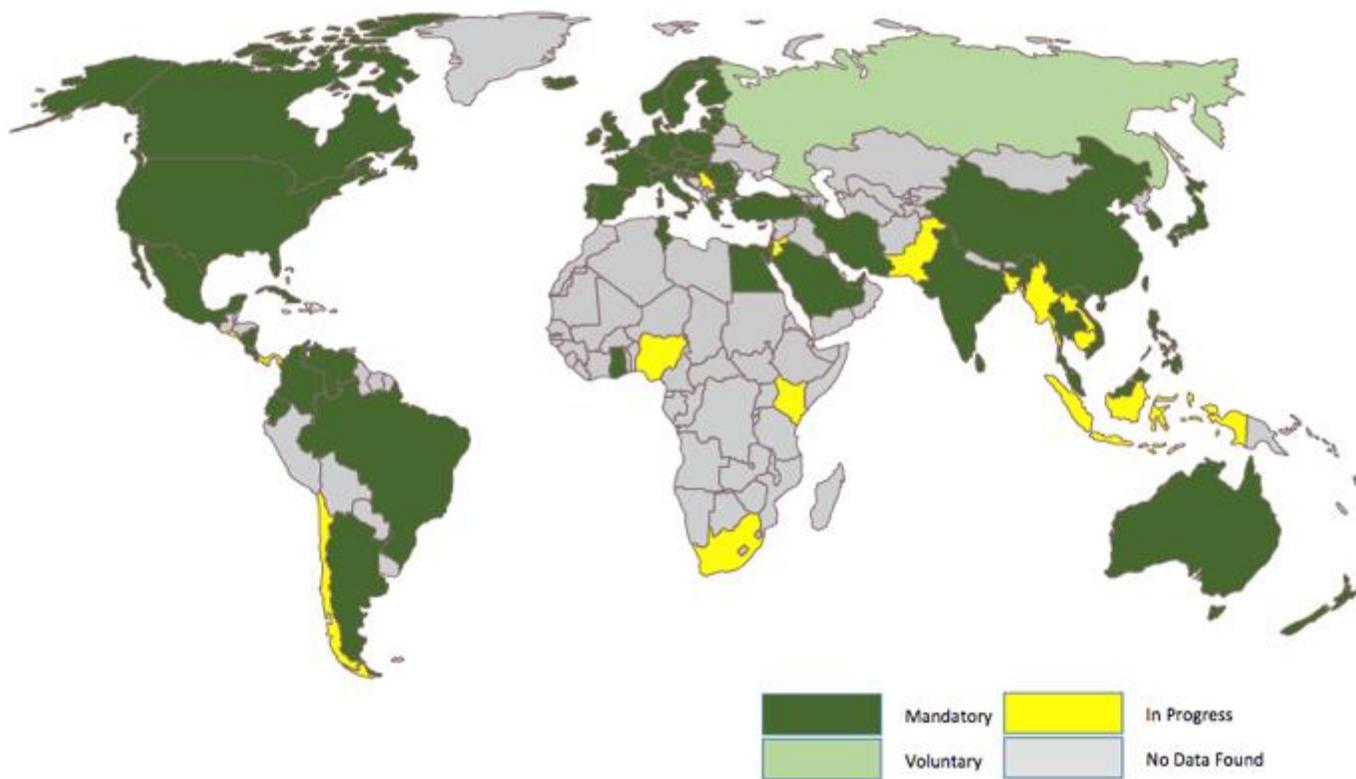
Minimum Energy Performance Standards Globally for Energy Efficient Lighting (Source: U4E)



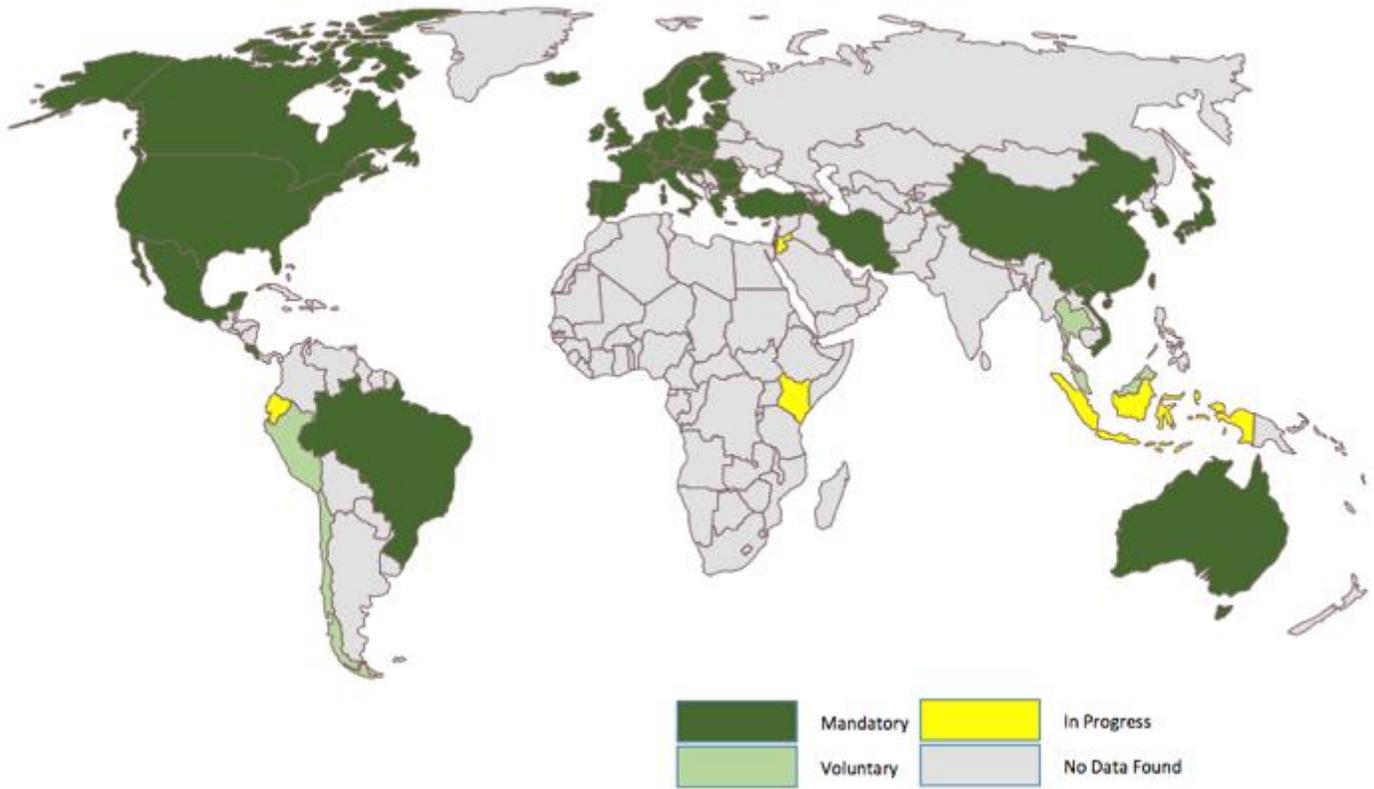
Minimum Energy Performance Standards Globally for Refrigerators (Source: U4E)



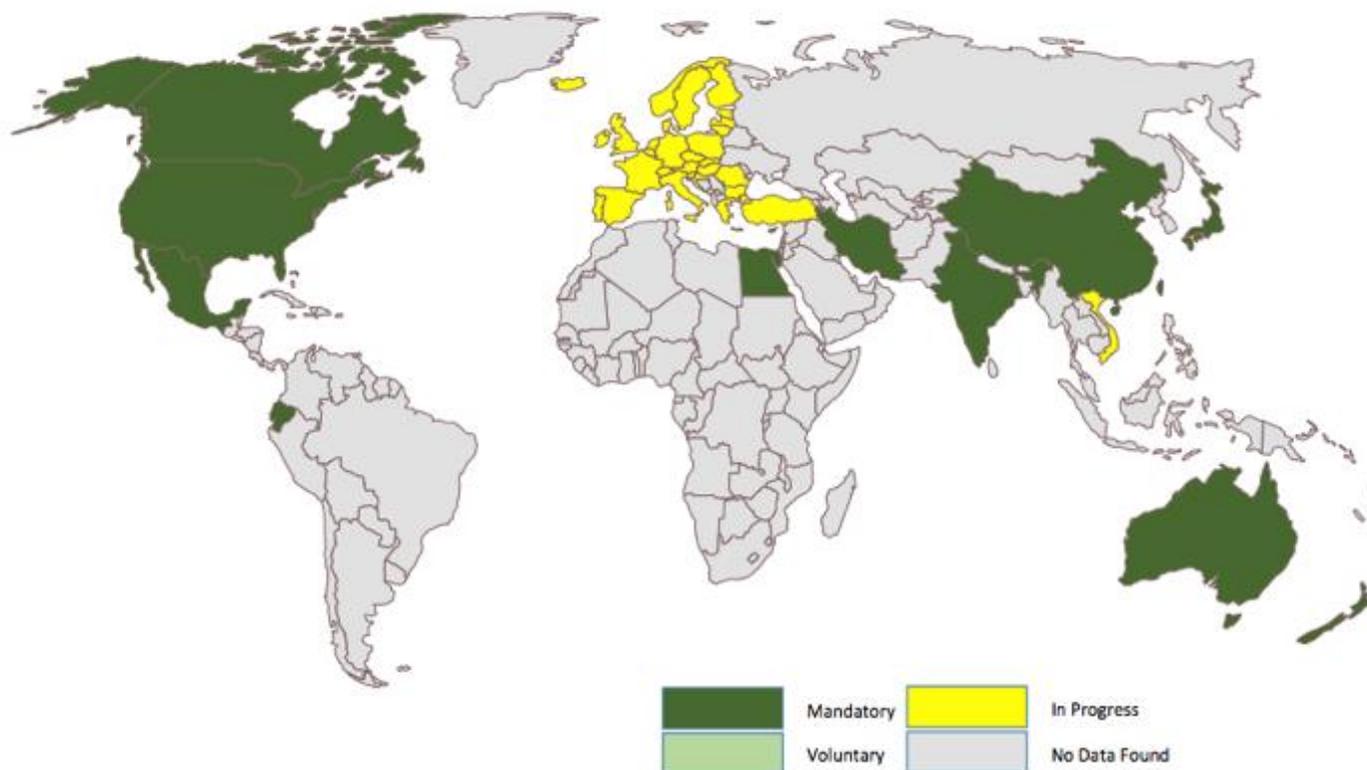
Minimum Energy Performance Standards Globally for Room Air Conditioners (Source: U4E)



Minimum Energy Performance Standards Globally for Electric Motors (Source: U4E)



Minimum Energy Performance Standards Globally for Transformers (Source: U4E)



Further, a large number of the non-OECD country norms and standards have become obsolete, since efficiency levels have not been updated following technology advancements. For instance, refrigerator labels in Argentina and the Philippines have not been updated since 1997 and 2000 respectively. The effect of such standards being 10 or 15 years out of date could be estimated by studying the rate of improvement in the United States market shown in two successive periods of 10/11 years (1980 to 1990 and 1990 to 2001), where annual consumption reduced by 30 per cent and then by 30 per cent once again. Thus standards that were set 10 or 15 years ago may be failing to achieve savings of between 30 per cent and 45 per cent in annual consumption compared with appliances under newly revised standards.

The problem of high-energy-consuming appliances and equipment in developing countries will be amplified in the future as population grows and purchasing power increases. For example, developing countries are expected to see the current stock of 700 million domestic air conditioner units nearly double by 2030 and more than triple by 2050 as populations increase their household income and increasingly live in urban environments.¹² Similarly, as developing countries and emerging economies increase their electricity consumption and grid connection in the coming years, it is expected that their number of transformers will double by 2040. Without policies and strategies put in place in the near future, high-energy-consuming products will remain in the market for 10 to 15 years for refrigerators, RACs, and motors, while transformers will remain in use for over 30 years. To avoid locking-in the high-electricity-consuming products, countries must begin transitioning their markets today.

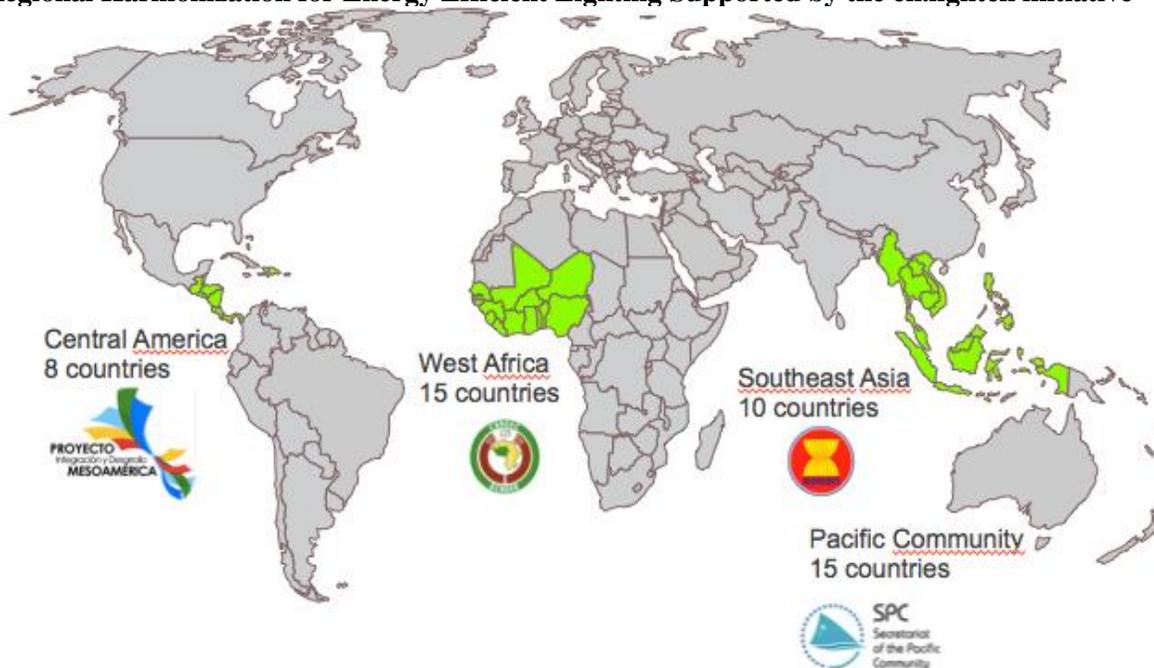
¹² U4E Country Assessments: <http://united4efficiency.org/countries/country-assessments/>

Regional Harmonizations of MEPS

If Regulations and Standards (MEPS) are to be adopted in a country or regional market, stakeholders should consider whether to harmonise with existing MEPS in their region or with the MEPS of a large market with which they have trade relationships. If one country in a trading region chooses to adopt Regulations and Standards that are not compatible with its neighbouring markets, this decision could be disruptive to the supply chain and may increase the cost of energy-efficient lamps for all parties. This could occur due to the added costs to manufacturers of needing to perform different or additional lamp tests, creating unique labels and catalogue numbers for each market, and tracking, keeping inventory and shipping country-specific lamp products.

Harmonisation of MEPS offers many benefits that allow countries, private sector and consumers to avoid the costs of duplicating testing and non-comparable performance information and requirements. Stakeholders thus benefit from the removal of this administrative trade barrier and are able to leverage the better prices and choice of goods associated with the larger economies to which they are harmonised. If countries have different requirements, it is difficult and time consuming for a manufacturer to carry out the necessary tests for each specific country. Thus, harmonisation enables multiple national markets to be accessible for the cost of only one test. Below is status of existing regions with harmonized MEPS and/or a strategy to achieve MEPS for lighting products that have been supported through the UN Environment-GEF en.lighten initiative.

Regional Harmonization for Energy Efficient Lighting Supported by the en.lighten initiative



SEforALL Global Project

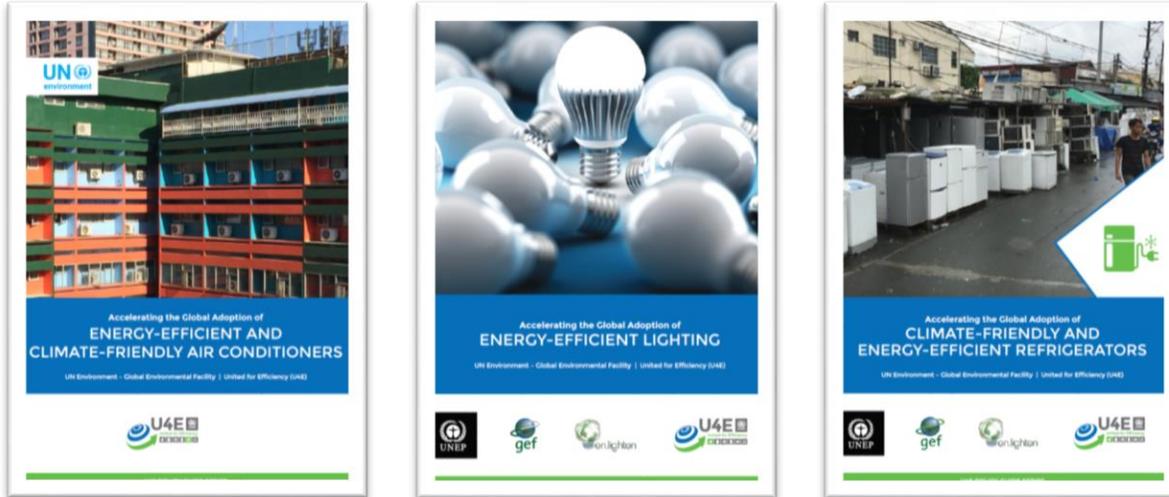
The Global Leapfrogging Project and Program builds on the SEforALL Global Project (Full name: “Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment”, GEF ID #5831) foundations to implement the U4E integrated policy approach and successful Public-Private-Partnership model. The SEforALL Global Project established the U4E Centre of Excellence that will continue to be used under the Global Leapfrogging Program/Project.

Under the SEforALL Global Project the public-private partnership kept manufacturers, technical experts and country representatives on board to successfully develop a set of best practice policy recommendations guides for 5 products

(lighting, air conditioners, refrigerators, electric motors and transformers). These policy guides are based around the U4E integrated policy approach, which has been shown to successfully accelerate the transition to energy efficient product in an affordable and environmentally sound manner. The following box provides more details on the U4E integrated policy approach.

U4E Integrated Policy Approach

United for Efficiency initiative proposes policy and strategy options following a proven integrated policy approach. This approach incorporates the needs and priorities of public and private sectors and civil society. The integrated approach has five components. With the support of the U4E-en.lighten, nearly 50 countries have agreed to national or regional efficient lighting strategies that put them on track to implement the U4E integrated policy approach. Policy Guides have been developed for lighting, refrigerators, air conditioners, electric motors and transformers:



- **Regulations and Standards** (minimum energy performance standards) cover a collection of related requirements that define which products can be marketed and those that should be eliminated to ensure a successful efficient product market transition strategy in a particular country or region.
- **Supporting Policies**, such as labelling and consumer awareness campaigns, can assist the implementation of Regulations and Standards and accelerate market transformation. A combination of complementary policies and measures may be implemented, including market-based instruments that may contain elements of voluntary or mandatory action (e.g., labelling, smart-phone apps, QR codes), and information and communication campaigns that inform end-users in order to change or modify their behaviour.
- **Finance and Affordability:** High first-cost challenges with the most highly efficient products can be addressed by implementing economic/fiscal instruments and incentives that can reduce prices. Through such mechanisms, end-users can reap electricity bill savings over the lifetime of the products. Also consider financing structures that can overcome the barrier or higher initial costs, such as energy service companies, revolving funds and electric utility on-bill financing.
- **Monitoring, Verification, and Enforcement:** The success of any efficient product policy depends on a well-functioning system of monitoring, control, and testing to ensure enforcement and compliance with Regulations and Standards. Unless effective and timely market surveillance systems are in place, incentives for energy efficiency can have the risk that substandard products risk entering markets in increasing numbers. This can jeopardize energy and financial savings. Poor quality products also create disappointment for consumers who may avoid energy efficient technologies in the future. Substandard products also create an uneven playing field, penalizing producers who comply with the mandated requirements.
- **Environmental Sustainability:** Mercury, high global warming potential (GWP) and ozone depleting refrigerants, electronic waste, and other hazardous substances should be managed in line with global best practice restrictions and recycling in order to minimize any environmental or health impact. If one doesn't already exist, attention should be given to the development of a legal framework for environmentally sound, end-of-life activities, including waste recovery and design. Policy and rigorous legislation should be instituted before the establishment of formal collection channels and recycling facilities. In addition, government and industry should raise awareness amongst consumers to stimulate collection and avoid landfill.

Furthermore, under the SEforALL Global Project, 150 [Country Savings Assessments](#)¹³ have been developed showing the potential financial, environmental, energy, and societal benefits that are possible with a transition to energy-efficient products. The Global Map also includes Country Policy Assessments for 150 countries showing the status of policies promoting the use of energy-efficient products.

With the Country Savings Assessments each country has the data available to convince stakeholders of the great importance of energy efficiency. And with the U4E integrated policy approach countries have the solution of how to get there. With committed countries and regions the Global Leapfrogging Project will provide the necessary support to quickly develop and implement the proven integrated approach.

3) The proposed alternative scenario, GEF focal area strategies, with an objective, description of expected outcomes and outputs, and activities of the project

Objective: To mitigate climate change by transforming national and regional markets to energy-efficient products.

Focus products: lighting (all sectors), residential refrigerators, room air conditioners, transformers and electric motors.

Project Component	Expected Outcomes	Expected Outputs	Grant Amount (US\$)
Component 1: Support partner countries to develop and implement energy efficiency policies framework	1.1: Countries and regions have the guidance to successfully implement market transformation projects.	1.1.1 Five training packages to support countries’ implementation of the U4E Integrated Policy Approach. 1.1.2 Tools and resources developed and/or updated to support market transition to energy-efficient lighting, appliances and equipment 1.1.3 Remote support available to respond remotely to inquiries on U4E-relevant policies and products. 1.1.4 At least four regions have guidance to implement regional harmonized policies for energy efficient products	1,057,000
	1.2: Increased capacity of 25 countries’ officials to develop and implement projects and policies to advance energy efficiency of lighting, appliances and equipment.	1.2.1 Multi-day training for policy makers in 3 regions for at least 25 countries to introduce the U4E Integrated Policy Approach 1.2.2 Multi-day technical train-the-trainer for practitioners on how to apply a relevant elements of the U4E Integrated Policy Approach in their field/sector.	1,368,000

¹³ <http://united4efficiency.org/countries/country-assessments/>

Component 2: Outreach on Efficient Appliances and Equipment	2.1: Countries commit to advancing energy efficiency of lighting, appliances, and equipment. 2.2: Regional harmonization of standards	2.1.1. Completed outreach programs in 75 countries and/or regions. 2.2.1 At least 4 regional programs/projects for policy framework development on energy-efficient products designed.	483,000
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➤ **Component 1: Support partner countries to develop and implement energy efficiency policies framework**

The Component 1 of the Global Leapfrogging Project extends and sustains the activities of the virtual Centre of Excellence. Building on the en.lighten Centre of Excellence, the U4E virtual Centre of Excellence has been established under the UN Environment and GEF project “Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliance and Equipment” (GEF ID #5831). The virtual Centre of Excellence is composed of a range of manufacturers, international organizations and initiatives. This includes the UN Environment, United Nations Development Programme, CLASP, International Copper Association, Natural Resources Defense Council, Global Efficient Lighting Centre, bigEE (Wuppertal Institute), Topten International, GIZ Green Cooling Initiative, Carbon Trust, IEA-4E Solid State Lighting Annex, Copenhagen Centre on Energy Efficiency, Basel Agency for Sustainable Energy (BASE), ABB, Arçelik, BSH Hausgeräte GmbH, Electrolux, MABE, Osram, Philips Lighting, Whirlpool Corporation and Neonlite (MEGAMAN).

Component 1 will be comprised of activities that will deliver outputs (such as practical guides and reference documents and tools) that will collectively enable countries to successfully implement national/local projects on transforming the lighting, appliance and equipment markets. This component will ensure that the best resources are handled and not duplicated with each national project (i.e. training packages used across all GEF national projects). This approach provides increased coordination between countries as they develop the policy regulations in the country based on U4E’s best practice recommendations.

Further, this component will support 25 countries with in-region training for trainers to ensure tools and recommendations are properly disseminated and used. The composition of the 25 countries will be comprised of approximately 10 GEF-6 national child projects (see Part II introduction for a list of current national projects) and another 15 partner countries.

As the project will interact with countries at varying levels of development, it will discuss with countries to define the type of training and interaction that can be carried out. For example, for least developed countries it will encourage the carrying-out of simple frameworks that can be put in place to encourage the market transformation. The project will also promote South-South collaboration in order for best practices and lessons learned to be disseminated from countries that have already taken action.

- ***Expected Outcome 1.1: Countries and regions have the guidance to successfully implement market transformation projects.***

The outputs of this component focus on providing guidance to countries, training selected representatives from 25 countries on the U4E integrated policy approach and supporting them in their efforts to promoting energy-efficient appliances and equipment. The trainees will be given all training material in order for a replication of the training at the national level by the participants in the workshop.

The resources available under this outcome are based on the requirements made by the partner countries during the consultations with the United for Efficiency partners in Beijing in September 2016. A set of five (5) training packages will be developed by the virtual Centre of Excellence to support the transition to an energy-efficient market.

The training for policymakers will include the following components:

- a) National and regional strategy for energy-efficient products built on the policy guides already developed under U4E and the en.lighten National Efficient Lighting Strategy;
- b) U4E Integrated policy approach: barriers analysis, strategy and methodology for the implementation.
- c) Data collection methodology for the development of baseline assessment;
- d) Financial mechanism for a market transition;
- e) Environmentally sound management legislation and methodology;
- f) Monitoring, verification and enforcement process.

Additional product specific training packages will be developed for practitioners in the following sectors:

- a) Lighting
- b) Refrigeration and Air Conditioning
- c) Electric Motors
- d) Transformers

The training packages will be used in delivering the training in output 1.2.1 and 1.2.2.

Outputs	Activities
1.1.1 Five training packages to support countries' implementation of the U4E Integrated Policy Approach.	1.1.1.1 Planning of training packages to be developed based on needs of the countries.
	1.1.1.2 Development of 2 training packages – illustrated with concrete case studies - to provide countries and regions with guidance on implementation of the integrated policy approach.
	1.1.1.3 Development of 3 training packages – illustrated with concrete case studies - to provide countries and regions with guidance on implementation of the integrated policy approach.
	1.1.1.4 Designing the trainings (lighting, appliances and equipment)
	1.1.1.5 Outreach of the training packages at U4E Workshops and U4E Website

The virtual Centre of Excellence will develop a mapping of indispensable tools and specific beneficiaries/users of such tools to support the end users in decision taking for the development of resources. By doing so it will save policymakers time in identifying the proper tools and also increase the likelihood of success.

A series of tools and resources will be provided by the virtual Centre of Excellence to countries to support their transition to an energy-efficient market through remote assistance. A set of five (5) new tools will be developed to support the U4E integrated policy approach implementation. In addition, at least five (5) existing tools approved by the virtual Centre of Excellence will be available to country partners. U4E will update the tools as needed, for example updating to the current market baseline.

Examples of the type of tools and resources that will be included are the following:

- a) Templates of project designs for energy efficiency policy making (e.g. EES&L program development) from past initiatives/experiences (UN Environment, United Nations Development Programme, World Bank, etc);

- b) Baseline calculation tools such as forecasting model (update of en.lighten [forecasting model](#)¹⁴), data collection, baseline development, and end-user benefits;
- c) Detailed case studies related to the elements of the integrated approach for 5 products (lighting, refrigerators, air conditioners, electric motors, and transformers);
- d) Maintenance of the global U4E policy and savings map for updates in policies and development of a benchmarking analysis and energy efficiency standards and regulations comparison.

Among the resources already available, the U4E country savings and policy assessments developed under the SEforALL Global Project will be updated to ensure that changes in the market and policies are properly tracked. The project will collaborate with other organizations active in field such as IEA, LBNL and GIZ. This collaboration will ensure the alignment of the methodologies and sharing of data on energy efficient products.

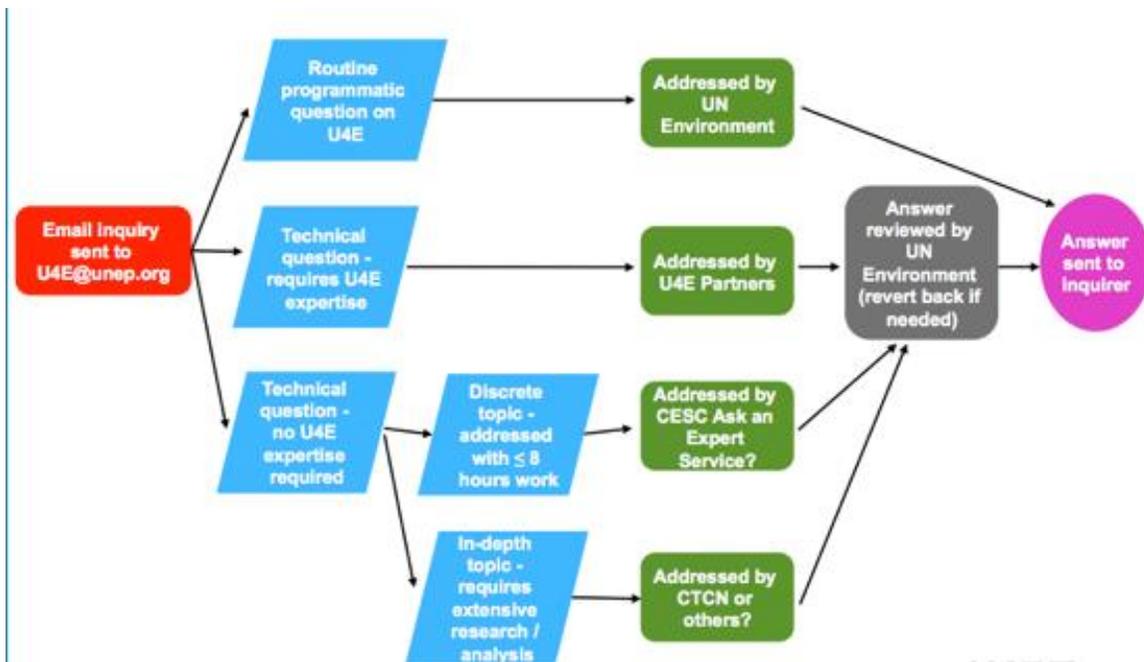
Furthermore, the [U4E website](#)¹⁵ will be updated with templates of project designs selected by the U4E partnership to facilitate and address countries' research of references and best practices.

Outputs	Activities
1.1.2 Tools and resources developed and/or updated to support market transition to energy-efficient lighting, appliances and equipment	1.1.2.1 Background research and mapping of existing tools and guidance resources from other initiatives and partners
	1.1.2.2 Baseline calculation tools such as forecasting model (update of en.lighten forecasting model), data collection, baseline development, and end-user benefits
	1.1.2.3 Detailed case studies relevant for the 5 training models (lighting, refrigerators, air conditioners, electric motors, and transformers)
	1.1.2.4 Maintenance of the global U4E policy and savings map for updates in policies and development of a benchmarking analysis and energy efficiency standards and regulations comparison.

The experts of the virtual Centre of Excellence will provide remote technical assistance to address targeted, U4E-relevant inquiries on policies, baselines, assumptions, tools, technologies, etc. General inquiries beyond the scope of U4E or requiring extensive support (e.g. beyond several hours of drafting and review by a U4E expert) will be directed toward other appropriate support mechanisms (e.g. the CTCN, Clean Energy Solutions Center -CESC, etc.). The below flowchart shows the process on how the requests from partners will be received and responded to with support from partners.

¹⁴ <http://learning.enlighten-initiative.org/Tools.aspx>

¹⁵ <http://united4efficiency.org/resources-and-tools/>



Outputs	Activities
1.1.3 Remote support available to respond remotely to inquiries on U4E-relevant policies and products.	1.1.3.1 Establish a U4E process for fielding inquiries.
	1.1.3.2 Notify country officials of the opportunity to send inquiries to the virtual Centre of Excellence
	1.1.3.3 Respond to inquiries and track common needs and questions
	1.1.3.4 Posting of common questions to the U4E website

At least four (4) sub-regions (Central America, ASEAN, ECOWAS, and Southern Africa) will receive guidance to implement regional harmonised policies for energy-efficient lighting, appliances and/or equipment. The Centre of Excellence will assist countries to develop the regional status reports defining the strategy’s scope (type of products covered), considering the stock of the current energy and electricity use for appliances and equipment in the region, identifying the legal, policy and institutional framework, and indicating regional objectives and priority actions. See Annex R for the proposed table of contents for the regional status reports.

Outputs	Activities
1.1.4 At least four regions have guidance to implement regional harmonized policies for energy efficient products	1.1.4.1 Initial consultations with sub-regions to understand interest in receiving U4E support
	1.1.4.2 Agreeing amongst partners on the sub-regions of focus and also the structure of the report
	1.1.4.3 Preparation, publication and dissemination of regional status reports showing the current use of prioritized/agreed products by region, status of policies and strategy for regional harmonization.

- **Expected Outcome 1.2: Increased capacity of 25 countries’ officials and practitioners to develop and implement projects and policies to advance the energy efficiency of lighting, appliances, and equipment.**

Training based on the content developed in output 1.1.1 and the tools developed in Output 1.1.2 will be organized at the regional level (e.g. Africa, Asia, and Latin America). Trainees from neighbouring countries would be invited to participate as a group in one regional location, rather than conducting separate sessions in each country. At least 25 countries will participate.

The aim for the policy maker training is for participants to be equipped to relay insights and materials back to their governments that make a compelling case for pursuing the U4E Integrated Policy Approach. The policy makers will be asked to help identify which practitioner training package(s) are of interest (e.g. lighting, refrigeration and air conditioners, electric motors, and/or transformers), and to identify a candidate practitioner(s) to attend the training. The aim for the practitioners’ training is to equip experts affiliated with trade schools, unions, industry associations or other such organizations to enhance the curriculum they use to teach practitioners in their field.

The training on the U4E integrated policy approach will focus on the elements and methodology to implement the approach, and will include information on data collection methodologies, components’ approach analysis, funding sources, policy frameworks and program design, strategy for implementation, and a series of case studies.

The policymaker training will occur over 3-4 days with a general structure of the following:

- Day 1-2: In-depth introduction to the U4E Integrated Policy Approach
- Day 3: Product specific breakout session (lighting, cooling and equipment)
- Day 4: Wrap and field trip to nearby site of interest (demonstration site, testing laboratory, manufacturer, etc)

After the completion of the training, follow-up conference calls/webinars will occur as needed with at least the expectation that they will occur 3 months after, 6 months after and 1 year after. The calls will be used to gauge the impact of the training, support in areas of difficulty and explore opportunities to enhance the content in the future.

Outputs	Activities
1.2.1 Multi-day training for policy makers in 3 regions for at least 25 countries to introduce the U4E Integrated Policy Approach	1.2.1.1 Initial consultations with countries to understand interest in receiving U4E support
	1.2.1.2 Planning of training to policy makers from energy-efficiency policy experts on in-depth steps to developing the integrated policy approach (MEPS, supporting policies, MVE, Environmental Sound Management, and financial mechanisms).
	1.2.1.3 Conduct training #1 to policy makers and technical professionals from energy-efficiency policy experts on in-depth steps to developing the U4E integrated policy approach (MEPS, supporting policies, MVE, Environmental Sound Management, and financial mechanisms) -Africa
	1.2.1.3 Conduct training #2 to policy makers and technical professionals from energy-efficiency policy experts on in-depth steps to developing the U4E integrated policy approach (MEPS, supporting policies, MVE, Environmental Sound Management, and financial mechanisms) – Asia
	1.2.1.3 Conduct training #3 to policy makers and technical professionals from energy-efficiency policy experts on in-depth steps to developing the U4E integrated policy approach (MEPS, supporting policies, MVE, Environmental Sound Management, and financial mechanisms) – Latin America
	1.2.1.4 Follow-up support (in-person or over the phone) with country officials on progress to implementing the action plan at the national level.

After the policymaker and practitioner trainings are conducted in a region, a remote or in-person follow-up session will be arranged to gauge the impact of the training and explore opportunities to enhance the content in the future. U4E will seek partnerships with organizations that are active in the training areas (e.g. AHRI, IES, ASHRAE, etc.) to leverage existing resources and approaches.

Technical training to enforce the development of energy efficiency policies, projects, and strategies will be also provided to distinct stakeholders. The training will be provided to particular stakeholders on specific elements of the integrated approach (such as procurement development, waste management, testing laboratory standards) to enable them to developing policies framework adapted to their country needs. The training will be between 3-4 days.

Each training is linked to the resources and training packages that will be developed in in the activity 1.1.1.2/3 and/or previously developed under the en.lighten initiative. United for Efficiency will further consult with each of the countries to determine which training will be delivered. Training will be conducted at the regional level and/or internationally recognized training centres. Not all trainings will be delivered for all countries. See Annex P for a list of type of training that will be offered to countries and carried out.

Follow-up support will be provided to each country representative over the phone. The purpose of the follow-up calls will be to:

- Understand difficulties and/or additional barriers encountered in implementing the training;
- Identify areas where additional funding resources are required for implementation
- Track progress and lessons learned of the training.

Outputs	Activities
1.2.2 Multi-day technical train-the-trainer for practitioners on how to apply a relevant elements of the U4E Integrated Policy Approach in their field/sector.	1.2.2.1 Initial consultations with countries to understand interest in receiving U4E support
	1.2.2.2 Planning of training for particular stakeholders to support the enforcement/development of energy efficiency policies, projects and strategies.
	1.2.2.3 Conduct of technical training #1 for particular stakeholders to support the enforcement/development of energy efficiency policies, projects and strategies.
	1.2.2.4 Conduct of technical training #2 for particular stakeholders to support the enforcement/development of energy efficiency policies, projects and strategies.
	1.2.2.5 Conduct of technical training #3 for particular stakeholders to support the enforcement/development of energy efficiency policies, projects and strategies.
	1.2.2.6 Conduct individual conference calls with each representative to help support with any issues, to track progress and to understand additional needs/barriers.

➤ **Component 2: Increasing the ambition of the Global Partnership on Efficient Appliances and Equipment**

Through Component 2 of the Global Leapfrogging Project, there will be increased number of governments committing to advance their markets to energy-efficient appliances and equipment. The project will achieve commitment (official communication) of four (4) regions (comprehensive of at least 75 countries). This is a significant increase over the 30 countries that are expected to join the GEF SEforALL Global Project (Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment – UN Environment GEF ID #5831).

To achieve and maintain the commitment of at least 75 countries the Global Leapfrogging Project will use the resources and tools developed under SEforALL Global Project (GEF ID #5831), such as the country-by-country assessments and best practice policy guides. The Global Leapfrogging Project will also be carrying-on the global campaign from the preparatory SEforALL Global Project. The current project will also host regional workshops to gain political commitment from governments to transform their markets, while also encouraging increased regional harmonization.

A country or region will be counted as a partner when it completes one of the following:

- Signing of the U4E Country Partnership Form committing the country to take action to improve the efficiency of lighting, appliances and equipment
 - Official communication (letter, press release, etc) that they will take action on energy efficient lighting, appliances and/or equipment
 - Development of national/regional project (GEF, GCF, etc) with U4E on energy efficient lighting, appliances and/or equipment.
- ***Expected Outcome 2.1: Countries commit to advancing energy efficiency of lighting, appliances, and equipment.***

The project will host side events and workshops alongside major environmental and energy events to ensure that energy efficiency of lighting, appliances, and equipment stays at the top of the agenda in order to receive commitment for national decisions makers to advance their markets. Typical events include UNFCCC Conference of the Parties, energy ministerial meetings and energy/environment conferences.

Outputs	Activities
2.1.1. Completed outreach to 75 countries and/or regions.	2.1.1.1 Review and update the communication strategy of the SEforALL Global Project (#5831) for the current phase of United for Efficiency.
	2.1.1.1 Review and update the partnership strategy of the SEforALL Global Project (#5831) for the current phase of United for Efficiency.
	2.1.1.2 Holding of at least six (6) events alongside major environmental and energy events to disseminate resources created under the SEforALL Global Project (#5831) including the Country Savings Assessments and the Policy Guidebooks.
	2.1.1.3 Continuous management of the United for Efficiency website and social media to engage with target audiences and to ensure the latest news and resources (from United for Efficiency and its partners) are disseminated to country partners and other partners.

- ***Expected Outcome 2.2: Regional harmonization of standards***

Regional workshops will be organized, hosted, and conducted in each selected region and bring together each country’s ministry of energy, ministry of environment, and standard authority to launch the report. Each workshop will launch the

regional status reports that were developed in Activity 1.1.4.2 with effort to gain political commitment from governments to transition their markets to energy efficient products and form agreement within the region to harmonize policies and standards. The workshops will provide the opportunity for increased coordination across projects with best practice policies and for countries to provide lessons learned on the existing policies and projects.

The following sub-regions have been prioritized to regional harmonization:

- West Africa
- Southern Africa
- Southeast Asia
- Central America

The regional harmonization events will occur during 2018-2019.

Outputs	Activities
2.2.1 At least 4 regional programs/projects for policy framework development on energy-efficient products designed.	2.2.1.1 Planning for four regional events to launch the Regional Status Report and the harmonization process.
	2.2.1.2 Hosting of event #1 to launch the Regional Status Report and the harmonization process.
	2.2.1.3 Hosting of event #2 to launch the Regional Status Report and the harmonization process.
	2.2.1.4 Hosting of event #3 to launch the Regional Status Report and the harmonization process.
	2.2.1.4 Hosting of event #4 to launch the Regional Status Report and the harmonization process.
	2.2.1.5 Follow-up consultations with regional bodies and/or national governments to track progress and lessons learned of the regional harmonization

4) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing

The “Global Leapfrogging Project” aims to remove barriers preventing the review, revision and implementation of regulatory framework for energy-efficient products. The previous “SEforALL Global Project” brought together a coalition of private and public sector players to create these best practice policy options to convince governments to participate in policy review. The “Global Leapfrogging Project” will strengthen this public-private partnership connecting national stakeholders with the “SEforALL Global project” members.

The incremental cost reasoning is described below:

Lifecycle costs of the products targeted under the project recover their higher capital costs during their useful life, and therefore generate both financial and energy savings. Under perfect market conditions these technologies should have been adopted by the market. However, because of the barriers stated in the project market transformation has been absent or slower than should have been the case. To speed up market up take of energy efficiency technologies in the project product categories, the project will undertake a number of barrier removal activities as described. In this project the incremental costs cover all those activities to remove the identified barriers. Under this definition even some of the co-financed activities could also be considered a incremental as well, since they to contribute to barrier removal. The project does build on a sustainable development baseline, which will vary between countries, but includes countries’

capacities to enforce their boards and laws, conduct compliance tests; and revise their legislation to accommodate integrated policies approaches to energy efficient products. The project incremental activities are described below.

➤ **U4E partnership to bring appliance and equipment efficiency on top of the global agenda**

The U4E partnership, composed by multi-stakeholders (country representatives, manufacturers, and technical experts) and established under the ‘SEforALL Global Project’ has built the consensus among partners on best practice recommendations for energy efficiency lighting, appliances, and equipment and represents the Centre of Excellence of the U4E initiative. Through this new project the Centre of Excellence will be assisting the countries and will be continuing promoting energy efficiency, building up new synergies to involve new partners and local manufacturers to accelerate the market transformation.

➤ **Global support to countries to develop effective and integrated energy efficiency policy frameworks**

The U4E website will facilitate countries’ access to the best available information and tools and will collect and report success stories (i.e. develop detailed case studies and include them into the training programmes to illustrate the topics covered with real cases).

The Virtual Centre of Excellence will assist countries responding to common questions related to policies, baseline, assumptions and assessments review and they will also support countries to address technical issues, identify best practice for national policy development and use the available tools. For example, the Virtual Centre of Excellence could review draft energy efficiency standards for country.

Furthermore the Centre of Excellence will continue engaging partners and experts who have the experience and expertise to support countries in their efforts to transform their markets and deploy energy efficient appliances and equipment. Based on the needs and requirements of the country partners during consultations, the virtual Centre of Excellence will especially focus to the following areas: monitoring, verification and enforcement, financial mechanisms/access to finance, communication campaigns/tools for the different stakeholders (end users, manufacturers and distributors/retailers), data and information on the technologies (costs and origins/availability), and environmentally sound management (especially the disposal and handling of products containing hazardous substances).

➤ **Regional harmonization to accelerate the market transformation to energy-efficient products**

The “Global Leapfrogging Project aims at increasing the market share of higher efficient products in developing countries and emerging economies through harmonisation of test methods and energy efficiency standards, and adoption of common minimum energy performance standards. Toward this goal, regional workshops will be hosted in each region to bring together each country’s ministry of energy, ministry of environment, and standards authority. The workshops will gain political commitment from governments to transition their markets to energy efficient products and also within the region to harmonize policies and standards. The workshops will provide the opportunity for increased networking between partners and countries and coordination across projects with best practice policies and for countries to provide lessons learned on the existing policies and projects. Furthermore, the U4E experts will support at least 4 regions to develop roadmaps and strategy to establish policy harmonisation.

5) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCE/SCCF)

The GHG estimates for the project have been based off the U4E Country Savings Assessments, which were developed under the SEforALL Global Project. The country assessments assume that policies are implemented in 2020 using globally benchmarked MEPS in 2014. The savings are projected out on a yearly basis till 2030. Global Leapfrogging Project allocates the following amount of the U4E Country Savings Assessments:

- **Country prioritization:** As is shown in Annex J-2, only certain countries have been included in Global Leapfrogging Project savings estimates. These countries are the expected countries the project intends to work with under each activity and have been prioritized based on their national ambition, GHG savings potential and total savings potential. The list of countries is indicative and may change during project implementation.
- **Number of products:** the project assumes that two products are included for each of the countries unless they have been prioritized differently (e.g. Child Project countries with just one product). The prioritization has been based off initial commitments from the countries/regions, however should be seen as indicative and may change during project implementation.
- **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.
- **Impact of Global Leapfrogging Project:** An allocation of the total savings is provided to each of the outcomes of the project. This allocation percent has been based off experiences working with other countries and the total funding that is required for a full market transformation in a country. Below table and text for additional detail on the allocation for each outcome.

Project Components/ Programs	Project Outcomes	Allocation (%)	GHG reduction (tCO₂) 2020-2030
1. Support partner countries to develop and implement energy efficiency policies framework	1.1: Countries and regions have the guidance to successfully implement market transformation projects.	4%	8,714,000
	1.2: Increased capacity of 25 countries' officials to develop and implement projects and policies to advance energy efficiency of lighting, appliances and equipment.	4%	8,714,000
2. Increasing the ambition of the Global Partnership on Efficient Appliances and Equipment	2.1: Countries commit to advancing energy efficiency of lighting, appliances, and equipment.	2%	2,564,000
	2.2: Regional harmonization of standards	5%	10,652,000
Total:			30,644,000

Benefits under Component 1:

The support provided to partner countries that committed to shift their markets to efficient appliances will enable partner countries to achieve this goal with their own efforts or other resources. The activities of the Component 1 will provide tools (training packages, regional status report, etc.) to support countries in their market transformation and also provide training for 25 countries. While these activities contribute greatly to the market transformation, there still requires additional support to result in the full market transformation. Due to this only countries with on-going/forthcoming projects on energy-efficient products will be prioritized to receive the training. Based on experiences in other countries, it is estimated that Outcomes 1.1 and 1.2 will contribute **8%** of the total potential savings for each country.

Benefits under Component 2:

The support provided under Component 2 provides increased outreach to countries from under Component 2 the project will extend the number of partner countries from 30 to 75. This activity is a significant stepping-stone in the transforming market as it build the high level political commitment for the market transformation. However, to not over state the impact and recognize the additional funding that is required for the market transformation – a **2%** allocation rate is provided Outcome 2.1.

In additional Component 2 will support harmonization in four regions to accelerate the adoption of common standards. The work provides the necessary starting commitment by bringing together countries to commit to developing regionally harmonized standards. The regional harmonization work also provides opportunities for sharing of experiences between countries that allow opportunities for countries to learn from the neighbours that have already taken action. This will be substantial achievement, however additional activities will still be required to result in full regional harmonization of policies. For these reasons **5%** has been allocated to Outcome 2.2.

In total Component 2 will claim **7%** of the total potential for the regions included.

6) Innovativeness, sustainability and potential for scaling up

The project provides an innovative approach of developing the guidance, resources, and tools that will be available to countries and regions in implementation. Indeed, the virtual Centre of Excellence, composed by multi-stakeholder experts, will assist all countries joining the U4E initiative. This avoids the duplication of the development of tools and resources at the national level. Building off the training packages developed at the global level, the project will ensure national and regional project teams utilize these resources by delivering regional and national level training. Furthermore, the project offers an innovative approach of working with multiple public and private sector partners to ensure views and experiences from all parties are properly taken into account.

In the SEforALL Global Project a virtual Centre of Excellence has been developed with multiple technical organizations and manufacturing partners. The partners will continue to be engaged under the Global Leapfrogging Project. By working together with partner organizations (particularly under the Taskforces) it has gained their commitment to utilize and reference the tools developed by the U4E. This sense of ownership by the partners will result in existing initiatives, organizations, GEF agencies and manufacturing continuing to promote and utilize the tools developed under the project. In addition the project inherently builds sustainability at the national and regional levels by providing training on the guidance and tools. All training packages, tools and resources will be available on the U4E beyond project completion.

U4E initiative will continue beyond the project at the global, national and regional level. It will serve as the global initiative to support countries and regions in their market transformation project beyond the project lifetime. Additional funding is being sought to provide U4E with a stable source of funding to actively staff the U4E secretariat and implement activities at the global level. Additional funding is sought at the national and regional level to fully implement activities. In some cases national funding has already been obtained, such as with the national projects under the Global Leapfrogging Program.

Finally, the project offers opportunity to scale up to other technologies beyond the five prioritized products. The project could expand to other technologies such as fans, electric water heaters, televisions, computers and data centres. The framework and approach that has been followed for the current products could be replicated for the other technologies.

A.2. CHILD PROJECT. If this is a child project under a program, describe how the components contribute to the overall program impact.

The below text describes how each components Global Leapfrogging Project contributes to the overall Global Leapfrogging Program impact.

Component 1 - Support to partner countries:

The component will provide the overall guidance and expertise for countries to successfully and permanently transform their markets to energy-efficient products. The resources and tools that will be created at the global level will ensure cost effectiveness of the overall program. The guidance and training that will be made available to the child projects will ensure that the national projects also implement the U4E integrated policy approach. Further the regional status reports will provide regional bodies and countries with the knowledge to promote their respective regional harmonization of policies promoting energy-efficient products.

Component 2 - Outreach on Efficient Appliances and Equipment:

Through Component 2, the project will increase the impact of the project beyond the national child projects and the non-child projects that will be supported. The project will increase the commitment to advance energy-efficient products to 75 countries. This is an increase from the current 30 countries that committed under the previous project (SEforALL Global Project). This commitment will result in countries taking action (policies, projects, strategies) and embracing the U4E integrated policy approach to accelerate the market transition to energy-efficient products and reduce their climate change impact. This component and the commitment gained is essential in keeping energy efficiency on the top of decision makers’ agenda.

A.3. STAKEHOLDERS. Identify key stakeholders and elaborate on how the key stakeholders engagement is incorporated in the preparation and implementation of the project. Do they include civil society organizations (yes /no)? and indigenous peoples (yes /no)?¹⁶

Stakeholder	Role
Government and national standards-setting bodies	Policymakers, officials and technical staff within government ministries will play a crucial role in the implementation of the proposed program. The Ministry of Industry and Energy will be the national project partner in each country. The Ministry of Ecology and Natural Resources will play a key role because climate mitigation activities as well as mercury control competencies rely on this body. Other ministries such as trade, commerce, finance, standards and quality control will participate in project oversight and implementation of market control activities. The national standards-setting body will also play a key role in the proposed project implementation.

¹⁶ As per the GEF-6 Corporate Results Framework in the GEF Programming Directions and GEF-6 Gender Core Indicators in the Gender Equality Action Plan, provide information on these specific indicators on stakeholders (including civil society organization and indigenous peoples) and gender.

Stakeholder	Role
Energy utilities	Electrical utilities and energy service providers have an incentive to encourage efficiency to lower capital costs for infrastructure. Regulated or state-owned utilities may have additional incentives. Utilities will provide key inputs to the program regarding patterns of electrical demand, by sector.
Testing laboratories and technical institutions	Test procedures are an important technical foundation for MEPS. Testing laboratories will take part in the process of developing standards and quality control measures.
Environmental advocates and consumer groups	Non-governmental organizations that advocate responsible energy policies will contribute their perspectives during the development of the national strategy for energy-efficient products. They will provide a balancing perspective to manufacturers with regard to the stringency of MEPS and MVE schemes. Input from civil society consumer groups can ensure that regulations do not require overly expensive or less functional lighting, appliance products and equipment.
Manufacturers, importers, distributors and retailers of lighting products, appliances and equipment	<p>Manufacturers, importers, distributors and retailers are directly affected by energy efficiency regulations. They have valuable information about production costs and market structures. MEPS necessarily impose some burdens on manufacturers and importers, but these can be acceptable as long as they affect all companies equally and also introduce new business opportunities. Domestic and international firms will provide their input. Equipment retailers will comment on the proposed program and its future implementation by characterizing the market and consumer response to product efficiency and pricing.</p> <p>In order to ensure industry readiness of local industry, the program offers support to local manufacturers and assembly companies to ensure they can produce high energy-efficient products in a sustainable manner.</p>

Summary table on contributions from U4E co-financing partners:

Sources of Co-financing	Name of Co-financier	Type of support by
Private Sector	Global Climate Partnership Fund (GCPF)	<ul style="list-style-type: none"> • Will continue providing loans in developing countries to promote the use of energy efficient appliances • Providing staff time for the adaptation and review of tools related to the initiative's 150 country assessment database. • Providing technical expertise, market data and insights in support of awareness, training and the initiative's 150 country assessment database. • Identifying and engaging potential partners.

Private Sector	International Copper Association (ICA)	<ul style="list-style-type: none"> • Representing U4E at global events such as SEforALL • Supporting and providing co-financing for the development of communication material and updating the U4E website • Supporting outreach at the national/regional levels for U4E (e.g Southeast Asia)
Private Sector	Philips Lighting BV	<ul style="list-style-type: none"> • Developing of training packages and tools on lighting products • Training for country officials on lighting products • Regional harmonization activities on lighting products (e.g. technical inputs to drafting reports and participating in regional events) • Providing market intelligence (e.g. data) on lighting products
Private Sector	Osram	<ul style="list-style-type: none"> • Developing of training packages and tools on lighting products • Training for country officials on lighting products • Regional harmonization activities on lighting products (e.g. technical inputs to drafting reports and participating in regional events) • Providing market intelligence (e.g. data) on lighting products
Private Sector	LEDVANCE	<ul style="list-style-type: none"> • Developing of training packages and tools on lighting products • Training for country officials on lighting products • Regional harmonization activities on lighting products (e.g. technical inputs to drafting reports and participating in regional events) • Providing market intelligence (e.g. data) on lighting products
Others	CLASP	<ul style="list-style-type: none"> • Expertise on best practice market transformations and by providing existing resources (e.g. guides and tools) to support project implementation. • Co-organizing events and training when relevant
Private Sector	National Lighting Test Center (NLTC, China)	<ul style="list-style-type: none"> • Technical expertise and training on developing and operating a lighting test laboratory • Supporting outreach to lighting manufacturers in China • Supporting the hosting of global forum on energy-efficient lighting
Private Sector	BSH Hausgeräte GmbH	<ul style="list-style-type: none"> • Developing of training packages and tools on refrigerators • Training for country officials on refrigerators • Regional harmonization activities on refrigerators (e.g. technical inputs to drafting reports and participating in regional events) • Providing market intelligence (e.g. data) on refrigerators

Others	Carbon Trust	<ul style="list-style-type: none"> • Developing of training packages and tools to support the development of financial investments and financial mechanisms for energy efficient products • Supporting countries of mutual interest in developing financial mechanisms for energy efficient
Private Sector	Mabe	<ul style="list-style-type: none"> • Developing of training packages and tools on refrigerators • Training for country officials on refrigerators • Regional harmonization activities on refrigerators (e.g. technical inputs to drafting reports and participating in regional events) • Providing market intelligence (e.g. data) on refrigerators • Supporting outreach activities for U4E in the Americas
Others	Copenhagen Centre of Energy Efficiency (C2E2)	<ul style="list-style-type: none"> • Supporting coordination between SEforALL Energy Efficiency Accelerators; • Supporting high-level outreach to decision makers in order to gain commitment for projects, strategies and projects promoting energy efficient products
Private Sector	ABB	<ul style="list-style-type: none"> • Developing of training packages and tools on electric motors and transformers • Training for country officials on electric motors and transformers • Regional harmonization activities on electric motors and transformers (e.g. technical inputs to drafting reports and participating in regional events) • Providing market intelligence (e.g. data) on electric motors and transformers
Others	IEA-4E – Solid State Lighting Annex	<ul style="list-style-type: none"> • Developing of training packages and tools on lighting products • Training for country officials on lighting products • Providing market intelligence (e.g. data) on lighting products
GEF Agency	UNDP	<ul style="list-style-type: none"> • Providing lessons learned and best practices from UNDP national projects. • Supporting highlevel outreach on energy efficient lighting, appliances and equipment.
Private Sector	Arcelik A.S.	<ul style="list-style-type: none"> • Developing of training packages and tools on refrigerators • Training for country officials on refrigerators • Regional harmonization activities on refrigerators (e.g. technical inputs to drafting reports and participating in regional events) • Providing market intelligence (e.g. data) on refrigerators

GEF Agency	UN Environment	<ul style="list-style-type: none"> • Providing high-level outreach on the initiative through senior UN Environment representatives • Providing staff time of senior UN staff to gain the commitment of global manufacturers to join the partnership
Private Sector	Electrolux	<ul style="list-style-type: none"> • Developing of training packages and tools on refrigerators • Training for country officials on refrigerators • Regional harmonization activities on refrigerators (e.g. technical inputs to drafting reports and participating in regional events) • Providing market intelligence (e.g. data) on refrigerators
Others	IIEC	<ul style="list-style-type: none"> • Developing of training packages and tools on lighting, appliances and equipment • Training for country officials on energy-efficient lighting, appliances and equipment • Regional harmonization activities on energy-efficient lighting, appliances and equipment • (e.g. technical inputs to drafting reports and participating in regional events)
Others	IPEEC	<ul style="list-style-type: none"> • Performing outreach to the Group of 20 (G20) economies to take a leadership role in transforming global markets to energy-efficient products
Others	GIZ	<ul style="list-style-type: none"> • Developing of training packages and tools on refrigerators and air conditioners • Training for country officials on refrigerators and air conditioners • Regional harmonization activities on refrigerators and air conditioners (e.g. technical inputs to drafting reports and participating in regional events) • Providing market intelligence (e.g. data) and modeling tools on refrigerators and air conditioners.
Others	Energy Efficiency Services Limited	<ul style="list-style-type: none"> • Developing of training packages and tools for financial mechanisms on energy-efficient lighting products • Training for country officials develop financial mechanisms on energy efficient lighting, appliances and equipment
Private Sector	Neonlite	<ul style="list-style-type: none"> • Developing of training packages and tools on lighting products • Training for country officials on lighting products • Regional harmonization activities on lighting products (e.g. technical inputs to drafting reports and participating in regional events) • Providing market intelligence (e.g. data) on lighting products

Private Sector	Whirlpool Corporation	<ul style="list-style-type: none"> • Developing of training packages and tools on refrigerators • Training for country officials on refrigerators • Regional harmonization activities on refrigerators (e.g. technical inputs to drafting reports and participating in regional events) • Providing market intelligence (e.g. data) on refrigerators
Others	Topten	<ul style="list-style-type: none"> • Developing of training packages and tools lighting, appliances and equipment in particular communication campaigns and labeling • Training for country officials on refrigerators
Others	BASE – Basel Agency for Sustainable Energy	<ul style="list-style-type: none"> • Developing of training packages and tools to support the development of financial investments and financial mechanisms for energy efficient products • Supporting countries of mutual interest in developing financial mechanisms for energy efficient

A.4. *GENDER EQUALITY AND WOMEN'S EMPOWERMENT.* Did the project conduct a gender analysis during project preparation (yes /no)?; did the project incorporate a gender responsive project results framework, including sex-disaggregated indicators (yes /no)?; and what is the share of women and men direct beneficiaries (women %, men %)? ¹⁷

During the project preparation and implementation, consultation has been carried out with all stakeholders and special consideration has been given to gender, allowing for equal inputs from both men and women. The view, experiences, and interests of women and men will be sought and taken into account during the program and child projects. The child projects will undertake consultations with organizations working on climate change and gender equality to analyze expected roles and responsibilities of men and women in the development of the project outputs. Through these consultations, the countries will include a section on gender consideration in their Implementation Plans.

Efforts will also be made to have acceptable gender representation in project management structures (committees, institutional frameworks) and capacity building actions (trainings, workshops) under this project. Institutions to be consulted on gender issues at national level will include, but not limited to: Ministries in charge of gender, the gender focal point for the Ministry of Energy, civil society organizations working in the fields of gender and climate change as well as research institutions and development partners working on gender issues.

The Global Leapfrogging Project will consider that climate change effects have a major impact on women as they represent the majority of world's poor. Indeed, women in most developing countries experience energy poverty differently and more severely than men do. Women are often associated with household activities and are largely responsible for household and community energy provision in many developing countries.

¹⁷ Same as previous footnote.

Furthermore, the Global Leapfrogging Project will encourage countries making gender-sensitive energy efficiency policies promoting awareness campaign of different energy needs, gender-mainstreaming approach, increase of women's participation in the energy sector, advocacy for gender-sensitivity in energy policymaking process, and financial mechanisms to empower women in gaining access to credit.

Gender Action Plan

Task	Gender design features/activities
Cross-cutting strategies	<ul style="list-style-type: none"> • Equal training opportunities and transfer of skills will be available for men and women. • Efforts will be made so all relevant training materials, technology and methodology are gender sensitive (e.g avoiding gender stereo-types and using appropriate illustrations). • Where appropriate, all project recording and reporting will be disaggregated by gender. • Impacts measurement to include an aspect to measure gender equality (in ownership, needs, access to resources). • Gender equality will be promoted during all project's recruitment of personnel/consultants. All advertised positions will be equally opened to both genders and the text on ToRs will be carefully checked to avoid any gender stereo-types.
1.1: Countries and regions have the guidance and training to successfully implement market transformation projects.	<ul style="list-style-type: none"> • Where appropriate, guidance material and training packages must be gender sensitive • Data collected for the U4E Country Savings Assessments should be disaggregated by gender when appropriate and when available
1.2: Increased capacity of 25 countries' officials to develop and implement projects and policies to advance energy efficiency of lighting, appliances and equipment.	<ul style="list-style-type: none"> • Equal training opportunities and transfer of skills will be available for men and women
2.1: Countries commit to advancing energy efficiency of lighting, appliances, and equipment.	<ul style="list-style-type: none"> • Representation of both men and women will be promoted in all capacity building workshops and trainings, as speakers on panels and among invitees/participants.
2.2: Regional harmonization of standards	<ul style="list-style-type: none"> • Representation of both men and women will be promoted at regional harmonization events

A.5. **RISK.** Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation (table format acceptable):

Risk Description	Risk level	Mitigation measure
Lack of engagement of regional and/or national manufacturers of appliances, equipment, and lighting	Medium	<ul style="list-style-type: none"> - Engage with regional and national manufacturers to ensure their readiness; - Persuade actively leading manufacturers of the benefits of partnering with U4E, by explaining the experiences gained by other partners where concrete action has been taken by countries, increasing markets of efficient products.
Policies might be recommended but not implemented	Medium	<ul style="list-style-type: none"> - Engage leading policy development bodies at global, regional and national levels; - Engage the Sustainable Energy for All initiative and its CEO, link the program to the UN Climate Summit process, the World Economic Forum and involve the UN Environment Executive Director to generate the necessary political buy-in at national, regional and global levels; - The UNDP offices will gain the support and commitment of government officials and ministries; - Involve the UN Environment Regional Offices for advice and contacts for the implementation of program activities; - Provide technical assistance to overcome other institutional barriers (e.g. a lack of resources and skills to implement and enforce MVE); - Ensure that the strategy identifies sources of on-going funding, including government budgets, public-private partnerships, and international donor and investor support (through grant, non-grant mechanisms, NAMAs, or other means).
Weak government support, which leads to non-adoption or ineffective enforcement or policies and regulations.	Medium	<ul style="list-style-type: none"> - Incorporate necessary interventions (e.g. events to gain high level political commitment) for the formulation of the policies on energy-efficient products, including the accompanying implementing rules and regulations; - Effectively communicate to national/regional government policymakers about the benefits to be gained from appliance energy efficiency policy; - Utilize UNDP country offices and World Bank to mobilize the support and commitment of government officials and ministries; - Launch national and regional projects to obtain government support and transform effectively the markets.

<p>Low-level participation from the private sector actors including manufacturers and distributors.</p>	<p>Low</p>	<ul style="list-style-type: none"> - Involve the private sector key players from the project design stage; - Disseminate latest information on the program’s developments and events through appropriate channels; - Identify needs and demands through continuous dialogue; - Involve the UN Environment Executive Director to obtain participation and progress from companies; - The SEforALL and the UN Climate Change Summit processes will facilitate the political consensus needed to promote the transition to efficient products; - Effectively communicate to manufacturers (global and national) and distributors about the benefits and economic opportunities to be gained from appliance energy efficiency policy.
<p>Delayed implementation of activities that are baselines for specific incremental activities of the proposed program</p>	<p>Low</p>	<ul style="list-style-type: none"> - During the proposed program inception meeting the precise role of each partner and their responsibilities will be established; - During the global inception meeting, a realistic schedule and plan will be established and agreed among responsible agencies and program partners.
<p>Hazardous substances (mercury, PCBs, refrigerants, etc) in existing and/or new products are not properly handled during production, lifetime and end of life.</p>	<p>Medium</p>	<ul style="list-style-type: none"> - U4E has developed an Integrated Policy Approach for each of the focus products during the SE4ALL Project that describes best practices on handling of hazardous substances. - Additional training packages and training will be carried out for both policymakers and practitioners on proper handling substances (e.g. mercury in CFLs) - Each national project includes a component to address environmentally sound management on the hazardous substances.

A.6. INSTITUTIONAL ARRANGEMENT AND COORDINATION. Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

- **Institutional Arrangements** (refer to Annex H for further information)

Project Steering Committee (PSC)

Composition: UN Environment (secretariat), GEF, UNDP, DBSA, ICA, CLASP, NRDC, SEforALL Secretariat, World Bank, GIZ, up to five partners (1 per product group selected among themselves), and 2 country representatives. One representative per organization will participate in the PSC.

Role: The PSC will meet annually to assess progress with project implementation, provide strategic advice on upcoming activities, help identify additional funding opportunities, and facilitate coordination and communication among the partners. The PSC will be chaired by a supporting partner or a country.

Executive Project Steering Committee (E-PSC)

Composition: UN Environment (Energy Unit), UN Environment (Climate Mitigation Unit), GEF Secretariat, UNDP and 2 country representatives. The country representatives will be nominated from the national child project countries under the Global Leapfrogging Program.

Role: The E-PSC will meet once a year following the PSC to review and approve the yearly workplan and budget of the project. The E-PSC will be chaired by a supporting partner or a country.

Project Management Team (PMT)

Composition: The UN Environment (Project Manager in the Energy Unit) leads the PMT, which also includes UNDP, ICA, CLASP, NRDC and Global Efficient Lighting Centre (GELC).

Role: The PMT will meet at least twice annually and communicate on a more regular basis through email and conference calls. The PMT will prepare an annual programme of work that is informed by PSC input, provide guidance and strategy recommendations to implement the project, and help with members facilitating resource mobilization and outreach to new prospective partners.

U4E Coordination Team

Composition: The UN Environment Project Manager (in the Energy Unit) leads the U4E Coordination Team, which also includes two UN Environment Project Officers (a project manager, a technical expert a partnership advisor).

Role: The U4E Coordination Team will oversee the daily operations of the initiative under the guidance of the PMT and PSC. The Coordination Team will coordinate global communication efforts with support from ICA, including the global leadership and action campaign and other global energy and climate events. Furthermore, the U4E Coordination Team will perform global outreach (sharing lessons, best practices and achievements) with inputs from product and country leads, and ensure the development of common methodologies and guidance to governments, based on good practices and lessons learned from other countries and regions. The U4E Coordination Team will receive country requests and ensure an appropriate response by the partners (who together comprise the U4E virtual Centre of Excellence), maintain relationships with existing partners and recruit new partners, and collect, vet and transmit reporting to the GEF.

U4E Working Groups

Composition: The UN Environment Coordination Team members will lead the individual Product Working Group and will be composed of U4E partners, including manufacturers and like-minded initiatives.

Role: The Working Groups will be formed to keep partners regularly up to date on the projects' activities (global, regional and national) and to receive technical guidance and input for the project. Working Groups will have a monthly conference call and meet in-person as is necessary and/or opportunities arise (e.g. alongside other events or training). The Product Working Groups will be divided by product into lighting (all sectors), cooling (refrigerators and air conditioners) and equipment (electric motors and distribution transformers) and cross-cutting topics such and financing.

National Child Projects – Country Consultation Meeting

Composition: Global Leapfrogging child projects include, Costa Rica, Kazakhstan, Sudan, Myanmar, Indonesia, South Africa, Tunisia and Chile. Additionally Turkey and China will also be considered as Child Projects as they have submitted independent national projects that are closely aligned with the Global Leapfrogging Program.

Role: The national child project is at various stages of development, which will also includes its own institutional arrangements. A yearly Country Consultation Meeting (regional or global) will occur and organized by the U4E Coordination Team in order to ensure close collaboration between the global project and the national projects. Travel costs for the meeting will come the budgets of the national child projects.

The UN Environment – Climate Mitigation Unit, acting as the GEF Implementing Agency (IA), will be responsible for the project's oversight. The main roles of the IA are as follows:

- Ensure timely disbursement/sub-allotment to executing agency, based on agreed legal document and in accordance with UN Environment and GEF fiduciary standards;

- Follow-up with Executing Agency for progress, equipment, financial and audit reports;
- Provide consistent and regular oversight on project execution and conduct project supervisory missions as per Supervision Plans and in doing so ensures that all UN Environment and GEF criteria, rules and regulations are adhered to by project partners;
- Technically assess and oversee quality of project outputs, products and deliverables – including formal publications;
- Provide non-objection to main TORs and subcontracts issued by the project, including selection of Project Manager or equivalent;
- Attend and facilitate inception workshops, field visits where relevant, and selected steering committee meetings;
- Assess project risks, and monitor and enforce a risk management plan;
- Regularly monitor project progress and performance and rates progress towards meeting project objectives, project execution progress, quality of project monitoring and evaluation, and risk;
- Monitor reporting by project executing partners and provides prompt feedback on the contents of the report;
- Promptly informs management of any significant risks or project problems and takes action and follows up on decisions made;
- Apply adaptive management principles to the supervision of the project;
- Review of reporting, checking for consistency between execution activities and expenditures, ensuring that it respects GEF rules;
- Clearance of cash requests, and authorization of disbursements once reporting found to be complete;
- Approve budget revision, certify fund availability and transfer funds;
- Ensure that GEF and UN Environment quality standards are applied consistently to all projects, including branding and safeguards;
- Certify project operational completion;
- Link the project partners to any events organised by GEF and UN Environment to disseminate information on project results and lessons;
- Manage relations with GEF.

The UN Environment – Energy Unit, through the United for Efficiency (U4E) team, has been chosen as the Executing Agency and will be accountable for:

- Ensuring technical execution according to the execution plan laid out in the project document;
- Ensuring technical quality of products, outputs and deliverables;
- Ensuring compilation and submission of progress, financial and audit reporting to IA;
- Submission of budget revisions to IA for approval;
- Addressing and rectifying any issues or inconsistencies raised by the IA;
- Bringing issues raised by or associated with clients to the IA for resolution;
- Facilitating Steering Committees and other oversight bodies of the project;
- Day to day oversight of project execution;
- Submitting all technical reports and completion reports to IA (realized outputs, inventories, verification of co-finance, terminal reporting, etc.)
- Properly achieving of the objectives of the Project;
- Monitoring and evaluation of the project outputs and outcomes;
- Effective use of both international and national resources allocated to it;
- Timely availability of financing to support project execution;
- Proper coordination among all project stakeholders; in particular national parties;
- Timely submission of all project reports, including work plans and financial reports.

The United for Efficiency (U4E) team (which is hosted within the UN Environment – Energy Unit) has been chosen to be the project’s Executing Agency for the following reasons:

- The GEF funded global Leapfrogging project is a global project not tied to a specific country or region and therefore needs an Executing Agency that can cover all countries without bias or favour, and be able to bring to bear cumulative and growing experience to countries through its support.
- The Executing Agency for this project must have the power to convene the private sector, country governments, research institutes and laboratories in developing and executing best practice guidance.
- The UN Secretary General’s Sustainable Energy for All (SEforALL) initiative has appointed UN Environment to lead on its Lighting and Appliances Accelerators. This GEF funded global Leapfrogging project constitutes the means through these two accelerators are to be driven and implemented.
- Since 2010 the UN Environment U4E team has led the internally executed project the GEF en.lighten initiative and the Sustainable for All (both GEF funded projects); including support to the development of efficient lighting policies in over 30 countries; obtaining high-level commitment from 66 countries worldwide to put in place standards and policies phasing-out inefficient lighting by 2016;
- The U4E team has successfully established a Centre of Excellence on lighting, appliances and equipment and achieved consensus policy recommendations in the five prioritized product categories.
- The participation of private sector partners constitutes a key requirement for this project GEF funded global Leapfrogging to be successful. The legitimacy and convening role of UN Environment through the U4E team is highly valued by private sector partners and is a key driver for companies to join the project.
- The GEF requires GEF Agencies that implement and execute the same project to maintain a ‘fire-wall’ between their oversight or ‘implementation’ function and their project ‘execution’ function. The program and finance functions for this project will be carried out by different units within UN Environment. The U4E team which is executing the project is centered in Paris in the Energy Unit and will receive financial services and back-stopping from the broader UN Environment energy team. The Climate Mitigation Unit led from Nairobi has separate, independent program and finance staff that will supervise and report to GEF on the project.

▪ **Coordination with on-going and past GEF projects**

U4E aims to include future GEF projects on energy-efficient lighting, appliances, and equipment as child projects under this Global Leapfrogging Project in order to ensure best use of GEF resources, increased collaboration and increased harmonization of through best practice recommendations. However, the Global Leapfrogging Project will support on-going GEF projects in the field of energy efficiency of lighting, appliances, and equipment. Country officials in the project countries will have access to the technical how to guides, the virtual Centre of Excellence, and the training. Experiences and lessons learned will be documented (for example on the U4E website) to support future countries in their project development and implementation.

Some projects that could benefit from this collaboration include (non-exhaustive list):

- UN Environment’s Delivering the Transition to Energy-Efficient Lighting in Residential, Commercial, Industrial, and Outdoor Sectors project in Pakistan;
- UNDP’s Low Carbon Development Path Promoting Energy-Efficient Lighting and Solar Photovoltaic Technologies in Dominican Republic;
- UNDP’s Enabling Solid State Lighting Market Transformation Promotion of Light Emitting Diode Lighting in China;
- UN Environment’s Delivering the Transition to Energy-Efficient Lighting in Bolivia;
- UN Environment’s Lighting Market Transformation in Peru;
- UN Environment’s Cape Verde Appliances & Building Energy Efficiency Project (CABEEP);
- UN Environment’s Delivering the Transition to Energy-Efficient Lighting Project in Chile;

- UNDP’s Local Development and Promotion of LED Technologies for Advanced General Lighting Project in Vietnam;
- UNDP’s Improving the Energy Efficiency of Lighting and Building Appliances in Egypt;
- UNDP’s Promoting Energy-Efficient Motors in Small and Medium Sized Enterprises (SMEs) in Turkey.

In addition, the Program will also take lessons learned from past or soon to be completed projects in order to incorporate their experience and lessons learned, such as:

- UNDP’s Promoting Energy-Efficient Room Air Conditioners (PEERAC) Project in China (2010-2014);
- UNDP’s Barrier Removal to the Cost-Effective Development and Implementation of Energy Standards and Labelling Project (BRESL) in Bangladesh, China, Indonesia, Pakistan, Thailand, and Vietnam (2009-2014);
- UNDP’s Market Transformation of Energy-Efficient Appliances in Turkey (2010-2014);
- UN Environment / Basel Convention Regional Centre’s Demonstration of a Regional Approach to Environmentally Sound Management of PCB Liquid Wastes and Transformers and Capacitors Containing PCBs in fourteen African countries (2010-2014);
- The World Bank’s Efficient Lighting and Appliances Project in Mexico (2010 – 2015).

Coordination with other energy efficiency activities:

The project also seeks to collaborate and learn from other on going beyond the GEF. These projects can provide the project with innovative ideas, useful tools/guidance, and lessons learned. A few of the projects has already made linkages with include:

- CTCN’s Technical Assistance to support the accreditation of JSMO Energy Efficiency Lighting Laboratory in Jordan;
- CTCN’s Technical Assistance for capacity building to gain expertise in efficient lighting systems (Tunisia);
- CTCN’s Technical Assistance for developing a NAMA to leapfrog to advanced energy-efficient lighting technologies (Dominican Republic);
- CCAC proposal, within the Household Initiative: Off Grid Lighting Initiative - Reducing Black Carbon Emissions by Transitioning to Clean and Sustainable Lighting (Nigeria).
- ASEAN Shine, to increase the market share of higher efficient air-conditioners and lighting systems in ASEAN through harmonisation of test methods and energy efficiency standards.

A.7. *BENEFITS*. Describe the socioeconomic benefits to be delivered by the project at the national and local levels. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

The project will create the supporting infrastructure, environment, and political will to allow countries and regions to successfully transition to energy-efficient products. The strategies and recommendations that will be developed within the project include consideration of socioeconomic benefits. These policies will provide economic opportunities through electricity savings, while also providing co-benefits for the environment, human health, and gender.

➤ ***Economic benefits:***

The policies and strategies that will be catalysed by the project will ultimately deliver remarkable economic benefits for citizens, end users, the private sector, utilities and governments. High-efficiency appliances will provide end-users savings on the total lifecycle costs of the product through reduced electricity use, allowing for purchasing power for improved standard of living. For instance currently, in Mexico an efficient reversible split-room air conditioner could save consumers 110 US\$ in reduced electricity bills per annum, which equates to over 1,320 US\$ over the lifetime of

the product¹⁸. Further, the end-users are empowered through increased visibility in the quality and efficiency of the product through energy-efficiency labelling.

Local manufacturers stand to benefit by increasingly stringent energy efficiency standards and strategies by producing higher-efficient products that meet the need of local markets and also the possibility to enter new markets that have existing energy efficiency standards, such as in OECD countries. The project will also provide economic benefits by promoting regional harmonisation of standards. This will reduce costs of doing business for manufacturers that otherwise would need to comply with different standards in each country. Further, the benefits will be provided across the economy, as businesses will be able to produce goods more efficiently due to improved technologies, such as electric motors. Lastly, governments stand to benefit from increased energy efficient in the economy will allows for reduced imports of fuel sources or in the case of fossil-fuel-rich economies, the ability to export a greater share of resources.

Economic benefits for a given economy include reducing or postponing the need to develop new generating capacities, reducing blackouts, and by increasing energy security. The high frequency of blackouts in developing countries increases costs for business through either frequent downtimes or the need to have an electricity backup supply. Through the policies and strategies that are advocated within this project, it will allow for reduced electricity-consuming devices such as room air conditioners, motors, and lighting products, all of which are used at peak-load demand. By reducing the peak load, it will not only reduce the occurrence of blackouts but it will also reduce the use peak-load generation, which is often the most expensive.

➤ ***Environmental benefits:***

Beyond the greenhouse gas emission reductions that will be delivered through increased energy efficiency, the project offers further global and local environmental benefits. For each technology, the project will implement best practices in environmentally sound management, including best practices for manufacturing, materials, and spent products.

- **Refrigerators and room air conditioners:** In addition to the indirect GHG reduction, a reduction in direct emissions will be achieved as markets move away from conventional refrigerants such as R22 and R410A to low global warming potential refrigerants and natural refrigerants. The Project will work closely with UN Environment's OzonAction Team in the development of Refrigerant Management Plans, standards and actions combining the objectives of eliminating ozone depletion with reducing GHG emissions. The project will also reduce direct GHG emissions of old RACs by increasing capacities and policies of safe disposal of HFC refrigerants at end-of-life and bans on imports of RAC's with HFCs.
- **Transformers:** Eliminating old transformers containing polychlorinated biphenyls (PCBs) and ensuring environmentally sound disposal of the PCBs is still needed in many developing countries. The project will ensure in training is provided such that PCBs and any other toxic materials can be appropriately handled and disposed of in accordance with the Stockholm Convention on Persistent Organic Pollutants.
- **Lighting:** Old technology that is phased out and some efficient and advanced lighting technologies may contain hazardous substances. Thus the en.lighten initiative's integrated policy approach includes environmentally sound management principles and addresses specific manufacturing, handling, operation and end-of-life issues. Guidance will be developed in line with global international agreements for the reduction and safe management of hazardous waste, such as the Basel Convention on the Control of Trans-boundary Movement of Hazardous Waste and the Minamata Convention on Mercury. The project will continue to assist countries to plan collection and recycling programmes to ensure that mercury from spent lamps is not released into the environment and that lighting products classified as electronic waste are properly collected and recycled.

¹⁸ Electricity bill savings for Mexico were calculated at a rate of 0.088822 USD/kWh (IEA 2010) and lifetime of 12 years. Source of room air conditioner savings: "Estimate of Cost-Effective Potential for Minimum Efficiency Performance Standards in 13 Major World Economies – Energy Savings, Environmental, and Financial Impacts", LBNL/CLASP, July 2012.

➤ ***Social and gender benefits:***

Women are key stakeholders for the development of industry, energy, environmental resources and climate change mitigation. Gender aspects are taken as a key issue in stakeholder the activities of the project. Gender mainstreaming will be integrated in all stages of the project cycle, including design of interventions, executions, monitoring and evaluation. References to gender will be consistent throughout the project approach, the activities, indicators, and budget. Women with expertise in relevant topic areas will be recruited to join project, contribute to private sector engagement, make presentations at high-level events and participate in all other project activities.

While there is little analysis available on the role of men and women in lighting, appliance and equipment industries, the project will encourage countries to include this in their national projects. For example in the upcoming CTCN Regional Project in Southern Africa, data collection will include disaggregated gender data on the purchase and use of lighting and appliances. The project will breakdown data by gender whenever feasible.

A.8. **KNOWLEDGE MANAGEMENT.** Elaborate on the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives (e.g. participate in trainings, conferences, stakeholder exchanges, virtual networks, project twinning) and plans for the project to assess and document in a user-friendly form (e.g. lessons learned briefs, engaging websites, guidebooks based on experience) and share these experiences and expertise (e.g. participate in community of practices, organize seminars, trainings and conferences) with relevant stakeholders.

The project seeks to fill the knowledge management gap that remains in energy efficiency of appliances and equipment. Country policymakers are often overwhelmed with a large amount of information (e.g. guides, toolkits, tools, initiatives). The project will help countries sort their way through this information by providing the best available resource given the circumstances of the country/region. It will develop some new resources (publications, training packages and tools) within the project, however the emphasis is more greatly on compiling and selecting the best resources from other existing organizations and experiences of past/on-going projects.

The project will build on the consensus and partners that have already been brought together under the UN Environment -GEF global project “Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment”.

The specific knowledge management objectives are to make available increased knowledge content, leverage on and increase the existing connectivity between partners and other relevant stakeholders, and to leverage the expertise of people across the project. Various instruments will be used and developed so as to reach these three objectives.

At the program level, an institutional structure including a coordination mechanisms and mechanism for monitoring and evaluation will be put in place. As the lead agency UN Environment will

➤ **Collaboration with similar initiatives/projects:**

Other relevant projects and initiatives will be learnt from so as to improve and to avoid duplication of work. The project has established strong partnerships and communication channels with initiatives such as SEforALL and its energy efficiency accelerators as well the Clean Energy Ministerial hosted by the IEA. The initiative will also continue engagement with the numerous initiatives in the field of energy efficiency to ensure activities are harmonized and collaboration is encouraged. These initiatives and technical institutions have been readily engaged under the SEforALL Global Project’s Expert Taskforces. A short description of a few partners’ contribution follows:

- CLASP provided CLASP's S&L database, which provides free access to status of policies worldwide, recommendations, technical documents, and data to identify best practice recommendations for policy makers. CLASP will continue supporting U4E maintaining and updating CLASP's S&L database which provides free access to status of policies worldwide, providing manuals for government officials responsible for developing, implementing, enforcing, monitoring, and maintaining EE S&L programs, air conditioners test laboratory inventory and benchmarks, and air conditioners degradations study;
- ICA provided recommendations, technical documents, and data to identify best practice recommendations for policy makers. ICA will continue supporting U4E providing training packages and tools to support countries and regions in the transition to energy-efficient products, training for countries and officials to develop and implement projects and policies to advance energy-efficient products and will contribute to the regional harmonization activities (regional report, regional events, etc.) for energy-efficient products;
- GIZ provided data for the country assessments development, recommendations, technical documents, and data to identify best practice recommendations for policy makers. GIZ will continue supporting U4E providing methodologies, assessments, policy guides, training modules, and contributing to virtual training activities (webinars, e-learning);
- Clean Energy Ministerial's Global Lighting Challenge and Advanced Cooling Challenge have collaborated with U4E in raising awareness on the benefits of both energy efficient lighting and air conditioners. The initiatives have collaborated in outreach to countries, alignment on data and collaboration on the development of guides and resources.
- SE4All Accelerator platforms have as the objective for 2030 a doubling of the global rate of improvement in energy efficiency. The U4E initiative contributes to the Global Energy Efficiency Accelerator Platform by driving action and commitments by national leaders at the country/region, or sector level to accelerate the market transition to energy-efficient lighting, appliances, and equipment.

➤ **U4E website:**

All experiences and expertise will be shared with relevant stakeholders. The main instrument for this is the U4E website. The user-friendly guides and reports will be available on its resources section that will catalogue publications, case studies, tools and U4E Country Savings Assessment. The project will also explore the use of social networks and other community tools will be used for partners' discussion forum to allow stakeholders to exchange good practices, lessons learned, and experiences amongst peers.

B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT

B.1 CONSISTENCY WITH NATIONAL PRIORITIES. Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions such as NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.:

This program and child projects are designed to complement and strengthen the existing national processes and other ongoing and planned projects and programmes on energy efficiency of appliance and equipment without duplication. Child project activities to be carried out by participating countries will be in line with national development priorities (Second National Communication to UNFCCC) and will help inform and guide other relevant initiatives including those put in place or planned to tackle climate change at different levels including regional, national, sectorial, and local levels.

U4E is also part of a global push to improve energy efficiency led by the UN Secretary-General and the President of the World Bank called the Sustainable Energy for All (SEforALL) initiative. SEforALL mobilizes action on renewable energy, energy efficiency and energy access.

U4E broadly adheres to the UNDAF programme cycle: analysis, planning, monitoring and evaluation. By identifying best tools and resources available to country partners, designing roadmaps and strategies to establish policy harmonisation, and implementing the integrated policy approach, U4E will take into account the UNDAF guidelines and mandatory steps for harmonized programming cycle.

- **Costa Rica:** The UNDAF outlines “Environmental sustainability and risk management” as one of its five focal areas for the period 2013-2017.
- **Chile:** The UNDAF also outlines “Environmental sustainability and risk management” as one of its four cooperation areas for the period 2015-2018.
- **Indonesia:** The United Nations Partnership for Development Framework (UNPDF) outlines “Environmental Sustainability and Enhanced Resilience to Shocks” as one of its four outcomes for the period 2016-2020.
- **South Africa:** The UNDAF outlines "Environmentally sustainable development" as one of its four Focus Areas of UN collaboration in South Africa for the period 2013-2017.
- **Sudan:** The UNDAF outlines "Poverty reduction, inclusive growth and sustainable livelihoods" as one of its four pillars for the period 2013-2016.
- **Tunisia:** The UNDAF outlines "Sustainable, inclusive and resilient economic model" as one of its three outcomes for the period 2015-2019.

Within the Paris Climate Agreement all countries committed to keeping the future temperature increase below two degrees Celsius. Adopting energy efficiency policies are a key strategy to meeting Paris Agreement goals as was recognized by the 165 parties that included energy savings and emissions reductions through efficiency as part of their NDCs. The commitments emphasize the importance of building capacities and speeding up the implementation of energy efficiency policies worldwide. Below are a few examples of the NDC statements from child projects:

- **Costa Rica:** The NDC states the “The increase in energy efficiency in residential and industrial consumption will result in a reduced electrical demand from these sectors.”
- **Kazakhstan:** The NDC states “modernisation of key infrastructure and production technologies based on energy-efficient technologies”
- **Chile:** The NDC states the "The goal is for 45% of all the electric generation capacity installed in the country between 2014 and 2025 to be generated from this cleaner sources".
- **Myanmar:** The NDC states the "Energy efficiency industrial processes to realise a 20% electricity saving potential by 2030 of the total forecast electricity consumption."

- **Indonesia:** The NDC states the "Efficiency in final energy consumption to contribute to the commitment to reducing unconditionally 26% of its greenhouse gases against the business as usual scenario by the year 2020."
- **South Africa:** The NDC states "Some technologies that could help South Africa to further reduce emissions that have been identified include: Energy-efficient lighting; variable speed drives and efficient motors; energy-efficient appliances"
- **Sudan:** The NDC states "Replacement of incandescent lamps by CFL and LED lamps in residential sector; Establishment of the labeling system for electrical appliances."
- **Tunisia:** The NDC states "Around 20 energy efficiency actions have been included in the calculation of avoidable emissions, covering the entire industrial, building, transport and agricultural sectors."

The national child project CEO Endorsement Documents include additional detail on the national priorities.

Further, there has been a global call for action. Under the UN Secretary-General's SEforALL initiative identified lighting, appliances and equipment as top priority themes to achieve the goal of doubling the global rate of improvement in energy efficiency, through the "SEforALL Accelerators". As part of the SEforALL Accelerator Platform, UN Environment, UNDP, the International Copper Association (ICA), CLASP, the Natural Resources Defense Council (NRDC) and the GEF, launched the United for Efficiency initiative.

Additionally, under the GEF-6 Programming Directions, the GEF calls for a program to "promote quality, standards, policy development, and MRV for efficient appliances and equipment and green supply chains. Candidate technologies include lighting, air conditioning, refrigeration, motors, and building codes."

C. DESCRIBE THE BUDGETED M&E PLAN:

M&E activities and related costs are presented in the costed M&E Plan (Annex G) and are fully integrated in the overall project budget.

The project will comply with UN Environment standard monitoring, reporting and evaluation procedures. Reporting requirements and templates are an integral part of the legal instrument to be signed by the Executing Agency and the Implementing Agencies.

The project M&E plan is consistent with the GEF Monitoring and Evaluation policy. The Project Results Framework presented in Annex A includes SMART indicators for each expected outcome as well as end-of-project targets. These indicators along with the key deliverables and benchmarks included in Annex I will be the main tools for assessing project implementation progress and whether project results are being achieved. The means of verification to track the indicators are summarized in Annex A.

The M&E plan will be reviewed and revised as necessary during the project inception workshop to ensure project stakeholders understand their roles and responsibilities vis-à-vis project monitoring and evaluation. Indicators and their means of verification may also be fine-tuned at the inception workshop. General project monitoring is the responsibility of the Project Management Team (led by the U4E Project Manager) but other project partners will have responsibilities to collect specific information to track the indicators. It is the responsibility of the Project Manager to inform the UN Environment Climate Change Mitigation Unit (i.e. the GEF Implementing Agency) of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely fashion.

The project Steering Committee will receive periodic reports on progress and will make recommendations to the UN Environment Climate Change Mitigation Unit (CCM Unit) concerning the need to revise any aspects of the Results Framework or the M&E Plan. Project oversight to ensure that the project meets ADB, UN Environment and GEF policies and procedures is the responsibility of the UN Environment CCM Unit's Task Manager. The UN Environment CCM Unit's Task Manager will also review the quality of draft project outputs, provide feedback to the project partners, and establish peer review procedures to ensure adequate quality of scientific and technical outputs and publications.

Project supervision will take an adaptive management approach. The UN Environment CCM Unit's Task Manager will develop a project Supervision Plan at the inception of the project, which will be communicated to the project partners during the inception workshop. The emphasis of the Task Manager's supervision will be on outcome monitoring but without neglecting project financial management and implementation monitoring. Progress vis-à-vis delivering the agreed project global environmental benefits will be assessed with the Steering Committee at agreed intervals. Project risks and assumptions will be regularly monitored both by project partners and the UN Environment CCM Unit. Risk assessment and rating is an integral part of the PIR. The Project Manager will complete the PIR and the UN Environment CCM Unit's Task Manager will provide ratings. The quality of project monitoring and evaluation will also be reviewed and rated as part of the PIR. UN Environment CCM Unit's Task Manager will have the responsibility of verifying the PIR and submitting it to the GEF. Key financial parameters will be monitored quarterly to ensure cost-effective use of financial resources.

At project midpoint, either a Mid-term Evaluation (MTE) or Mid-term Review (MTR) will be undertaken since this is a FSP. At project midpoint, either a MTE or a MTR will be undertaken since this is a FSP. If the project is rated as being at risk, is of high strategic importance or if there are other strong reasons why an independent assessment at mid-point is necessary, the Evaluation Office will commission a Mid-Term Evaluation. If this is not the case, then the project team will commission a Mid-Term Review. Thus

A MTE/MTR will take place by January 2019 as indicated in the project milestones. The GEF budget allocated for the MTE is US\$ 46,000 (refer to annex F-1 and annex G). UN Environment CCM Unit will be responsible for managing

the MTR. The Project Manager and partners will actively participate in the process. The review will include all parameters recommended by the GEF for Terminal Evaluations and will verify information gathered through the GEF tracking tools, as relevant. The review will be carried out using a participatory approach whereby parties that may benefit or be affected by the project will be consulted. Such parties were identified during the stakeholder analysis (see above section A.3). The project Steering Committee will participate in the MTE/MTR and develop a management response to the evaluation recommendations along with an implementation plan. It is the responsibility of the UN Environment CCM Unit's Task Manager to monitor whether the agreed recommendations are being implemented.

An independent Terminal Evaluation (TE) will take place at the end of project implementation. The GEF budget allocated for the TE is US\$ 46,000 (refer to Annex F-1 and Annex G). UN Environment Evaluation Office (EOU) will be in charge of managing the TE process and will be responsible for liaising with the Task Manager. The Project Manager and partners will actively participate in the process. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes:

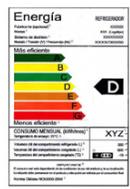
- (i) to provide evidence of results to meet accountability requirements, and
- (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UN Environment and executing partners.

The TE report will be sent to project stakeholders for comments. Formal comments on the report will be shared in an open and transparent manner. The project performance will be assessed against standard evaluation criteria. The final determination of project ratings will be made by the independent evaluator(s) when the report is finalized.

A review of the quality of the evaluation report will be done by UN Environment Evaluation Office and submitted along with the report to the GEF Evaluation Office not later than six months after the completion of the evaluation. The evaluation report will be publically disclosed and will be followed by a recommendation compliance process.

At the start of the project a monitoring framework will be put in place to ensure tracking of child project countries and partner countries progress to a market transformation. To do this the project will track the status of policies at baseline (using the U4E Country Assessments), at mid-term and at project finalization.

Monitoring Framework for National Child Projects under the Global Leapfrogging Program

Country	U4E Integrated Policy Approach	Baseline	Mid-term of project	Final of project
Chile (refrigerators)	Regulations and standards	<ul style="list-style-type: none"> Mandatory MEPS since 2014 		
	Supporting Policies	<ul style="list-style-type: none"> Mandatory comparative label since 2007. 		
	Finance	<ul style="list-style-type: none"> None 		
	MVE	<ul style="list-style-type: none"> Framework in place to complete MVE activities 		
	Environmental sustainability	<ul style="list-style-type: none"> Proposal submitted to parliament (2013) to Instruments for enhanced waste recovery and better environmental management (Extended Producer Responsibility to be further implemented) 		

Country	U4E Integrated Policy Approach	Baseline	Mid-term of project	Final of project
Costa Rica (refrigerators, air conditioners, lighting)	Regulations and standards	<ul style="list-style-type: none"> MEPS for ACs and refrigerators are in place. 		
	Supporting Policies	<ul style="list-style-type: none"> Comparative label in place for ACs and refrigerators 		
	Finance	<ul style="list-style-type: none"> None 		
	MVE	<ul style="list-style-type: none"> Conformity evaluation procedure in place. 		
	Environmental sustainability	<ul style="list-style-type: none"> None 		
Indonesia (lighting)	Regulations and standards	<ul style="list-style-type: none"> MEPS in place for CFLs. 		
	Supporting Policies	<ul style="list-style-type: none"> Mandatory comparative label since 2013. 		
	Finance	<ul style="list-style-type: none"> None 		
	MVE	<ul style="list-style-type: none"> None 		
	Environmental sustainability	<ul style="list-style-type: none"> None 		
Myanmar (lighting)	Regulations and standards	<ul style="list-style-type: none"> Action plan in place to develop MEPS 		
	Supporting Policies	<ul style="list-style-type: none"> Action plan in place to develop labeling 		
	Finance	<ul style="list-style-type: none"> None 		
	MVE	<ul style="list-style-type: none"> None 		
	Environmental sustainability	<ul style="list-style-type: none"> None 		
Myanmar (air conditioner)	Regulations and standards	<ul style="list-style-type: none"> Action plan in place to develop MEPS 		
	Supporting Policies	<ul style="list-style-type: none"> Action plan in place to develop labeling 		
	Finance	<ul style="list-style-type: none"> None 		
	MVE	<ul style="list-style-type: none"> None 		
	Environmental sustainability	<ul style="list-style-type: none"> None. 		
South Africa (LED lighting)	Regulations and standards	<ul style="list-style-type: none"> MEPS and test standard for CFLs (VC 9091 and incandescent lamps (VC 8043) are in place. No MEPS in place for LEDs 		
	Supporting Policies	<ul style="list-style-type: none"> Numerous distribution campaigns of efficient including over thirty million CFLs by Eskom Awareness raising campaign on efficient lighting by Eskom 		
	Finance	<ul style="list-style-type: none"> None 		
	MVE	<ul style="list-style-type: none"> None 		
	Environmental sustainability	<ul style="list-style-type: none"> None. 		
South Africa (distribution transformer)	Regulations and standards	<ul style="list-style-type: none"> None 		
	Supporting	<ul style="list-style-type: none"> None 		

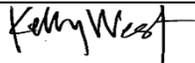
Country	U4E Integrated Policy Approach	Baseline	Mid-term of project	Final of project
	Policies			
	Finance	• None		
	MVE	• None		
	Environmental sustainability	• None		
Tunisia (lighting)	Regulations and standards	• National strategy in place to develop MEPS		
	Supporting Policies	• Distribution of four million efficient lamps (focus on LEDs) is planned over the coming years. • National strategy in place to develop labeling.		
	Finance	• None		
	MVE	• None		
	Environmental sustainability	• None		
Sudan (lighting)	Regulations and standards	• None		
	Supporting Policies	• None		
	Finance	• None		
	MVE	• None		
	Environmental sustainability	• None		
Sudan (air conditioners)	Regulations and standards	• None		
	Supporting Policies	• None		
	Finance	• None		
	MVE	• None		
	Environmental sustainability	• None		
Kazakhstan (refrigerators)	Regulations and standards	• None		
	Supporting Policies	• None		
	Finance	• None		
	MVE	• None		
	Environmental sustainability	• None		
Kazakhstan (distribution transformers)	Regulations and standards	• None		
	Supporting Policies	• None		
	Finance	• None		
	MVE	• None		
	Environmental	• None		

Country	U4E Integrated Policy Approach	Baseline	Mid-term of project	Final of project
	sustainability			
Kazakhstan (electric motors)	Regulations and standards	• None		
	Supporting Policies	• None		
	Finance	• None		
	MVE	• None		
	Environmental sustainability	• None		

PART III: CERTIFICATION BY GEF PARTNER AGENCY(IES)

GEF Agency(ies) certification

This request has been prepared in accordance with GEF policies¹⁹ and procedures and meets the GEF criteria for CEO endorsement under GEF-6.

Agency Coordinator, Agency Name	Signature	Date	Project Contact Person	Telephone	Email Address
Kelly West, Senior Programme Manager & Global Environment Facility Coordinator Corporate Services Division UN Environment		July 21, 2017	Ruth Coutto, Task Manager Climate Change Mitigation Unit UN Environment	+33144371634	Ruth.Coutto@unep.org

¹⁹ GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF

ANNEX A: PROJECT RESULTS FRAMEWORK

Project Objective	Objective level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks	UN Environment MTS reference*
To mitigate climate change by transforming national and regional markets to energy-efficient products.	<u>Indicator 1:</u> Number of countries with measurable market transformation in three energy efficient products.	<u>Baseline 1:</u> 0	<u>Target 1:</u> - 32 countries (by 2031) (16 countries from the 50 countries not directly supported by the project and 16 countries directly supported by the project)	- Country market assessments at the beginning of the project, country assessments at the end of the project and projected country assessments by 2031 showing market penetration/transformation of at least 3 energy efficient products by country	Countries will keep their commitments to meet their climate goals Companies continue their support to the project.	Climate Change subprogramme (123.1 Global Action on Energy Efficient Appliances and Equipment)

Project Outcome	Outcome Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks	MTS Expected Accomplishment
1.1. Countries and regions have successfully implemented market transformation projects.	<u>Indicator 1:</u> Number of countries with on-going market transformation projects with support from U4E	<u>Baseline 1:</u> 17 countries.	<u>Target 1:</u> 25 countries.	- Project tracking sheet on U4E projects	Policies are adopted but not fully implemented or enforced	Energy efficiency is improved and the use of renewable energy is increased in partner countries to help reduce greenhouse gas emissions as part of their low-emission development
1.2. Increased capacity of 25 countries' officials to develop and implement projects and policies to advance energy efficiency of lighting, appliances, and equipment.	<u>Indicator 1:</u> Number of countries officials who have attended U4E training, that have developed and implemented projects and policies to advance energy efficiency of lighting, appliances, and equipment	<u>Baseline 1:</u> 0	<u>Target 1:</u> 25	- Tracking sheet of countries with national projects - Follow up questionnaire with trainees - Training reports, agenda, training evaluations (efforts will be made to have gender disaggregated data where possible)	Country officials will have the funding necessary to successfully implement policies	Energy efficiency is improved and the use of renewable energy is increased in partner countries to help reduce greenhouse gas emissions as part of their low-emission development

Project Outcome	Outcome Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks	MTS Expected Accomplishment
<p>2.1. Countries commit to advancing energy efficiency of lighting, appliances, and equipment.</p>	<p><u>Indicator 1:</u> Number of countries that have committed to transform markets to energy-efficient products</p> <p>Note – A country will be counted by:</p> <ul style="list-style-type: none"> • Signing of the U4E Country Partnership Form • Official communication (letter, press release, etc) that they will take action on energy efficient lighting, appliances and/or equipment • Development of national/regional project (GEF, GCF, etc) with U4E on energy efficient lighting, appliances and/or equipment. 	<p><u>Baseline 1:</u> 30</p> <p><i>Additional baseline information:</i></p> <ul style="list-style-type: none"> - 27 countries have committed to the U4E “Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliance and equipment and Equipment” Initiative (30 expected by the end of the project). - Outreach campaign on U4E initiative and SEforALL platforms. - U4E resources, tools and assessments available on the U4E website. 	<p><u>Target 1:</u> Mid-term: 50 End of project: 75</p>	<ul style="list-style-type: none"> - U4E country partnership form (collected bi-annually) - U4E projects promoting energy-efficient products. (collected bi-annually) - Statements from ministries (energy, environment, industry, etc) or region bodies committing to work with U4E to accelerate market transformation. (collected bi-annually) - Website/social media statistics showing country participation? (collected bi-annually) - Log of U4E responses to partner country questions. (collected bi-annually) 	<p>Weak government support which leads to non-adoption or ineffective policies and regulations.</p>	<p>Energy efficiency is improved and the use of renewable energy is increased in partner countries to help reduce greenhouse gas emissions as part of their low-emission development</p>

Project Outcome	Outcome Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks	MTS Expected Accomplishment
2.2. Regional harmonization of standards	<u>Indicator 1:</u> Number of regions with endorsed roadmaps, action plans, or strategies for harmonization of standards for at least 1 of the U4E focus products (lighting, air conditioners, refrigerators, electric motors or transformers).	<u>Baseline 1:</u> 0 <i>Additional baseline information:</i> Regional harmonization completed on energy efficient lighting in the Pacific, Central America, West Africa, and Southeast Asia. In addition regional harmonization has been completed on air conditioners in Southeast Asia (ASEAN SHINE)	<u>Target 1:</u> 4	Regional harmonization strategy (collected bi-annually)	Regional harmonization of policies will be implemented at the national level	Energy efficiency is improved and the use of renewable energy is increased in partner countries to help reduce greenhouse gas emissions as part of their low-emission development

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Scientific and Technical Advisory Panel

The Scientific and Technical Advisory Panel, administered by UNEP, advises the Global Environment Facility
(Version 5)

STAP Scientific and Technical screening of the Project Identification Form (PIF)

Date of screening: September 26, 2015
Screener: Lev Neretin
Panel member validation by: Ralph E. Sims
Consultant(s):

I. PIF Information (*Copied from the PIF*)

FULL SIZE PROJECT GEF TRUST FUND

GEF PROJECT ID: 9083

PROJECT DURATION: 5.5

COUNTRIES: Global (Costa Rica, Kazakhstan, Sudan)

PROJECT TITLE: Leapfrogging Markets to High Efficiency Products (Appliances, including Lighting, and Electrical Equipment)(PROGRAM)

GEF AGENCIES: UN Environment and UNDP

OTHER EXECUTING PARTNERS: Ministry of Environment (MINEA), Costa Rica

Ministry of Investment and Development of the Republic of Kazakhstan

Ministry of Water Resources, Irrigation and Electricity “ The Electricity Regulatory Authority (Sudan)

GEF FOCAL AREA: Climate Change

II. STAP Advisory Response (*see table below for explanation*)

Based on this PIF screening, STAP’s advisory response to the GEF Secretariat and GEF Agency(ies):
Concur

III. Further guidance from STAP

1. This is an ambitious program aiming to include many countries over the longer term and with a wide range of co-financiers. The child projects have not been sighted so this review relates only to the PFD. Overall, the PFD lacks important information about prioritization of different proposed activities, particularly a country-specific menu of options that limits the scope of STAP's advice. Such an ambitious expansion of coverage from 30 to 100 countries in the program is questionable and has to be scrutinized during program preparation.

UN Environment Response:

- The menu of options included in the PFD is prioritized by each individual child project countries based on their national circumstances. U4E recommends the use of the U4E integrated policy approach including minimum energy performance standards, supporting policies (labeling and communication campaigns); monitoring, verification, and enforcement; environmentally sound management; and financial mechanisms.
- The project development phase team held a consultation meeting with Child Project countries in September 2016 to understand the common needs of countries. The following is a summary of the principle requests from child project countries and partner countries for U4E support:

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- Should facilitate countries' access to the best available information and tools.
- Should collect and report success stories i.e. develop detailed case studies and include them into the training programmes to illustrate the topics covered with real cases.
- Should continue engaging partners and experts who have the experience and expertise to support countries in their efforts to transform their markets and deploy energy efficient appliances and equipment.
- Should especially focus to the following areas: monitoring, verification and enforcement, financial mechanisms/access to finance, communication campaigns/tools for the different stakeholders (end users, manufacturers, distributors/retailers...), data and information on the technologies (costs, origins/availability...), and environmentally sound management (especially the disposal and handling of products containing hazardous substances). These areas of support have been reflected in the training (output 1.2.1 and 1.2.2) and the tools/training packages that will be developed (output 1.1.1 and 1.1.2). These were prioritized based on tools that will be useful for all countries and also based on cost to develop.
- The target number of countries sought has been reduced from 100 to 75 based on the recommendation of STAP in order to provide timely and high quality support to countries.

2. The program appears to be well thought through and links well with other GEF funded country projects on energy efficient appliances at various stages of completion. It is encouraging that lessons learned from the more advanced of these projects will be assessed as such knowledge management approaches are not always undertaken.

UN Environment Response: Noted. During project preparation, the project team has already made links with on-going projects (for example with UN Environment, UNDP, UNIDO) to incorporate lesson learned and best practices of these projects.

3. The flexibility of the program that enables a country to make choices over the products to be included based on varying national situations makes good sense. It is also commendable that disposal of hazardous wastes at the end of life of an appliance is acknowledged in the approach. Ideally the cost of managing hazardous wastes including refrigerants will be built into the purchase price of the product (e.g., through an extended producer responsibility) so that sufficient funding is then available to ensure environmental and human health safeguards are put in place. However, the effectiveness of this approach will depend strongly on the regulatory and policy frameworks available and may be limited in many developing countries that project intends to cover.

UN Environment Response: Noted. All projects that do contain products containing hazardous substances include environmentally sound management to ensure increase capacities are in place to properly handle the substances. The project makes linkages with the relevant convention (for example Minamata Convention, Stockholm Convention, and Montreal Protocol).

4. The definition of "high efficiency products" is not fully clarified in the PDF but it is assumed it does not include appliances such as cook stoves, kerosene lamps and solar water heaters. Water heating is mentioned specifically in section 9 but it is not clear if heaters were included under this heading, or only electric resistance element systems?

UN Environment Response:

- The term high efficiency is difficult to define at the global level as each country is different. Efficiency depends on country specific factors such as hours of use of the product, climate and electricity prices. Each project is encouraged to advance energy efficiency to the product that is most cost effective over the entire lifetime of the product.
- The project focuses on on-grid lighting, appliances and equipment. It does not include cook stoves, kerosene lamps and solar lamps.

- The project no longer includes water heaters with its focus products. With interest from countries and additional funding the project could expand to other products and the initiative could include water heaters in the future.

5. The mitigation of 558 Mt CO₂-eq is impressive but details of how this number was calculated are not provided. Since every country has a different emission factor for its power supply (kg CO₂/kWh generated) and a wide range of energy consuming products are involved, the calculation is complex so can only be taken as very indicative. In addition, the rebound effect resulting from many energy saving initiatives is not mentioned, so probably not included in the assessment. Project proponents are advised to follow the updated guidelines on GHG accounting released by the GEF recently (www.thegef.org/gef/node/11187).

UN Environment Response:

The GHG estimates have been recalculated and prepared using an updated methodology which is described in section A.1.5). Each Child Project calculates the savings based on the factors within the country, such as product scope, emission factor and rebound factor.

Regarding the rebound factor, the project includes recommendations to overcome this such as take back schemes of older products. For example to providing rebates for older and energy-efficient refrigerator when purchasing a new refrigerator. This helps to avoid the risk that the consumer will continue to utilize the older refrigerator even after the new one is purchased. U4E recommendations will also behavioral energy efficiency to avoid consumers from using products for longer periods of time or purchase more/larger products due to their energy efficiency gains.

6. MEPS work well, but will they be applied to imported products or only to those manufactured locally? To be effective they have to be applied to both groups, so any policies should be developed accordingly.

UN Environment Response: MEPS are applied to both imported and locally manufactured goods.

7. Fifteen countries (other than those with child projects) will receive funding support for training and capacity building. They will be selected by representatives of the SE4ALL Global Project but the criteria are not known. Perhaps this could be linked to the level of ambition of the INDCs of candidate countries?

UN Environment Response: Noted. The selection of the countries will be completed based on GHG mitigation potential, degree commitment made to energy efficiency in their NDC, and based on regional priority as the training will be conducted at the regional level

8. While STAP acknowledges the merit and importance of various activities on knowledge management mentioned in the project, further details about prioritization of different activities to have an impact such as training of trainers, awareness raising and etc. have to be thought through. In structuring knowledge management support, STAP recommends considering emerging GEF-wide lessons learned (<https://www.thegef.org/gef/node/11232>).

UN Environment Response: Noted. The GEF Wide lessons learned were taken into account in the drafting the project document.

9. STAP recommends considering further risks of the program. Some of mitigation measures listed in Section 5 (e.g., risks of policies not being implemented) have to be revised and focused on national and subnational level actions more than on the role of intergovernmental organizations to generate national benefits.

UN Environment Response: This project document is on the global aspects of the project. None the less, the risks have been reviewed to provide greater detail at the national level.

Scientific and Technical Advisory Panel

The Scientific and Technical Advisory Panel, administered by UNEP, advises the Global Environment Facility (Version 5)

STAP Scientific and Technical screening of the Project Identification Form (PIF)

Date of screening: May 07, 2016
Screener: Thomas Hammond
Panel member validation by: Ralph E. Sims
Consultant(s):

I. PIF Information (Copied from the PIF)

FULL SIZE PROJECT **GEF TRUST FUND**

GEF PROJECT ID: 9436

PROJECT DURATION: 5.5

COUNTRIES: Global (Chile, Indonesia, Myanmar, Tunisia, South Africa)

PROJECT TITLE: Leapfrogging Markets to High Efficiency Products

(Appliances, including Lighting, and Electrical Equipment)

(PFD Resubmission of #9083)

GEF AGENCIES: UNEP, DBSA and UNDP

OTHER EXECUTING PARTNERS:

GEF FOCAL AREA: Climate Change

II. STAP Advisory Response (see table below for explanation)

Based on this PIF screening, STAP's advisory response to the GEF Secretariat and GEF Agency(ies):

Concur

III. Further guidance from STAP

1. The project aim is to increase the uptake of more efficient lighting and appliances in a number of countries by market transformation and building on an earlier UNEP SE4All project. Substantial private sector support is evident. This is a well formulated project proposal with few comments needed.

UN Environment Response: Noted.

2. Gaining success and harmonization by targeting nine specific countries and a wide range of others should prove to be a beneficial approach. Training of trainers is a key component. National and non-national child projects are planned. However, it is not clear how the city level child projects (assuming that is what is meant here by "non-national") will be selected? Will there be only one per nation? Discussion on the non-national child projects does not appear in section 9 "so it is not exactly clear what is intended for this initiative. Or perhaps the term "non-national" here implies global as in "Global child project" as used on page

UN Environment Response: The term "non-national child project" was to refer to 15 partner countries that will receive in-region training, however do not have a GEF national project (child project). The wording has been updated to "15 additional partner projects".

2. If so, then it is certainly confusing for the reader not to stick to using the same terminology throughout the proposal.

UN Environment Response: Noted. Terms and wording has been defined at the start and now consistent throughout.

3. The MEPS approach has been well tested in many countries and is sound as is labeling but educating the public as GEF6 CEO Endorsement /Approval Template-

is proposed is key. Not only the public but more important are retail sales staff who frequently turn over so continual updating is required. Surveys elsewhere have shown it to be a weak link in the process when the retailers fail to understand the reason for the labels.

UN Environment Response: Noted. This topic has been raised in the Expert Taskforces under the SEforALL Global Project and included in the policy recommendation to countries. It will be in supporting policies alongside labels and consumer campaigns.

4. It is not easy to assess GHG emission reductions in a project like this as there are wide variations and uncertainties. Hence the wide range of 69-150 Mt CO₂ is understandable. Taking refrigerators, airconditioners and transformers as examples is OK but of course, a very simplified approach. It is assumed different emission factors were used for electricity grids in each of the participating countries. But are all the appliances in the project assumed to be electrical? What about LPG stoves or water heaters for example? And domestic cook stoves? Are these all included? More robust calculations should be provided for child projects. The revised GHG manual and guidelines could be considered: <https://www.thegef.org/gef/ghg-accounting>.

UN Environment Response: The GHG estimates have been recalculated and prepared using an updated methodology, which is described in section A.1.5). The national projects conduct a more detailed analysis that takes into account the specific products included in the national project, emission factor and local circumstances (weather, behavioral differences, etc). The project focuses on on-grid lighting, appliances and equipment. LPG stoves and water heaters are not part of the focus of the project.

5. Due to the complexity, consideration should be given to the Programme Steering Committee meeting more regularly than the proposed once a year at least in the initial stages.

UN Environment Response: Agreed. The number of meetings of the project steering committee has been increased to 6.



GEF-6 GEF SECRETARIAT REVIEW FOR PROGRAMMATIC FRAMEWORK DOCUMENT* THE GEF/LDCF/SCCF TRUST FUNDS

GEF ID:	9436		
Country/Region:	Global (Chile, Costa Rica, Indonesia, Kazakhstan, Myanmar, Sudan, Tunisia, South Africa)		
Program Title:	Leapfrogging Markets to High Efficiency Products (Appliances, including Lighting, and Electrical Equipment) (Resubmission of #9083)		
GEF Agency:	UNEP, DBSA and UNDP	GEF Agency Project ID:	
Type of Trust Fund:	GEF Trust Fund	GEF Focal Area (s):	Climate Change
GEF-6 Focal Area/ LDCF/SCCF Objective (s):	CCM-1 Program 1;		
Anticipated Financing PPG:		Program Grant:	\$30,362,753
Co-financing:	\$149,941,000	Total Program Cost:	\$180,303,753
PIF Approval:		Council Approval/Expected:	
Program Manager:	David Elrie Rodgers	Agency Contact Person:	

Review Criteria	Questions	Secretariat Comments	Agency Response
Program Consistency	1. Is the program aligned with the relevant GEF strategic objectives and results framework? ¹	DER, March 21, 2016. Yes. This program is a re-submission of PFD #9083 which has been approved by Council. The program is fully aligned with GEF-6 focal area objectives. The PFD is being re-submitted to add additional child projects.	

¹ For BD projects: has the project explicitly articulated which Aichi Target(s) the project will help achieve and are SMART indicators identified, that will be used to track the project's contribution toward achieving the Aichi Target(s)?

	<p>2. Is the description of the baseline scenario reliable, and based on sound data and assumptions? Are the activities that will be financed using GEF/LDCF/SCCF funding based on incremental/ additional reasoning?</p>	<p>DER, March 21, 2016. Yes. This program is a re-submission of PFD #9083 which has been approved by Council. The program is fully aligned with GEF-6 focal area objectives. The PFD is being re-submitted to add additional child projects. The following new child projects are being submitted: Chile; Indonesia; Myanmar; Tunisia; and South Africa</p>	
<p>Program Design</p>	<p>3. Is the program framework (Table B) sound and sufficiently clear and appropriate to achieve program objectives and the GEBs?</p>	<p>DER, March 21, 2016. This program is a re-submission of PFD #9083 which has been approved by Council. Table B reflects the inclusion of additional child projects.</p> <p>Please address the following comments:</p> <p>1) Please clarify if any of the project components have changed since the submission of the first PFD, and if so, please explain.</p> <p>2) Based on the large number of child projects, please provide a one-page summary table those shows each child project, including the global project; the responsible agency; the funding amounts; and a very brief summary of the top priorities for the child project, including which appliances or technologies will be the focus.</p> <p>3) For Indonesia, please justify why two agencies will be implementing the project. Please describe the division of labor and responsibilities of the UNDP and UNEP in the child project.</p> <p>4) For South Africa, please justify why two agencies will be implementing the project. Please more fully describe the division of labor and responsibilities of</p>	<p>1. The components have remained the same.</p> <p>2. Please see Annex I below for our response to this comment.</p> <p>3. The project was submitted with two GEF agencies due to the complementary strengths of both agencies. UNEP, with its en.lighten initiative, has strong technical capacities and experience in implementing national projects to develop the policy framework for energy efficient lighting. While UNDP has the experience and country presence in Indonesia to work with local industry and development of demonstration projects and financial mechanisms. Therefore it has been</p>

		<p>the UNDP and DBSA in the child project. The GEB estimate on page 19 appears to be consistent with the first PFD submission, which only included 3 child projects. Please clarify if the in the PFD should be updated as the GHG figure matches the figure on page 18 for all eight child projects.</p> <p>6) Please indicate if PPGs will be requested for the child projects and if those requests will come before or after June 2016</p>	<p>agreed that UNDP will implement Component 1 (Support to local industry) and 2 (High efficiency lighting technology penetration), while UNEP will implement Component 2 (policy framework). UNDP will be the lead agency and receive the PPG.</p> <p>4. The project was submitted with two GEF agencies due to the complementary strengths of both agencies. UNDP and DBSA will be jointly implementing the project so that South Africa benefits from the complementary strengths of both institutions:</p> <ul style="list-style-type: none"> • UNDP's proven experience with supporting countries to establish Energy Efficiency policies, including its experience in South Africa for the implementation of the GEF-financed project "Market transformation through energy efficiency standards and labeling of appliances in South Africa". UNDP is therefore best positioned to lead the implementation of the policy components of the project (Components 1, 2, 3 and 5) building on the experiences/lessons-learned from previous energy efficiency projects. • DBSA's proven experience with establishing and managing financial mechanisms (including South Africa's Green Fund) and implementing investment projects.

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			<p>DBSA is therefore uniquely positioned to lead the development of a financial mechanism and support to local industry (Component 4).</p> <p>5. The CO2 emissions were already updated for the child project, previously they were 1,530,245 tons with 3 child projects and now they are 10,158,095 tons with 8 child projects. The text in table incorrectly stated “only 3 child country projects” this has now been updated to “only 8 child country projects”.</p> <p>6. PPG requests will be submitted to all 5 child projects before June 2016.</p>
	4. Are socio-economic aspects, including relevant gender elements, indigenous people, and CSOs considered?	DER, March 21, 2016. Yes.	
	5. Does the program take into account potential major risks, including the consequences of climate change, and describes sufficient risk response measures? (e.g., measures to enhance climate resilience)	DER, March 21, 2016. Yes.	
	6. If there is a non-grant instrument in the program, is the GEF Agency(ies) capable of managing it?	DER, March 21, 2016. NA	

7. Is the program coordinated with other related initiatives and national/regional plans in the country or in the region?	DER, March 21, 2016. Yes. Please ensure that child projects are developed in coordination with countries INDCs.	
8. Is the program implementation/ execution arrangement adequate?	DER, March 21, 2016. As there are many agencies involved in this program, please explicate the responsibilities for submission of PPGs, CEO endorsements, tracking tools, PIRs, and other GEF required reports.	Please see Annex II below for our response to this comment.
9. Does the program include a budgeted M&E Plan that monitors and measures results with indicators and targets?	DER, March 21, 2016. Yes.	
10. Does the program have description of knowledge management plan?	DER, March 21, 2016. Yes.	

Resource Availability	11. Is the proposed Grant (including the Agency fee) within the resources available from (mark all that apply):		
	<input type="checkbox"/> the STAR allocation? <input type="checkbox"/> the focal area allocation?	<p>DER, March 21, 2016. Yes. This program is a re-submission of PFD #9083 which has been approved by Council. The program is fully aligned with GEF-6 focal area objectives. The PFD is being re-submitted to add additional child projects. The following new child projects are being submitted: Chile; Indonesia; Myanmar; Tunisia; and South Africa.</p> <p>STAR Allocation and CCM allocation for the five new child projects is sufficient to cover the amount requested.</p> <p>DER, March 21, 2016. Yes. This program is a re-submission of PFD #9083 which</p>	

		<p>has been approved by Council. The program is fully aligned with GEF-6 focal area objectives. The PFD is being re-submitted to add additional child projects. The following new child projects are being submitted: Chile; Indonesia; Myanmar, Tunisia; and South Africa.</p>	
		<p>STAR Allocation and CCM allocation for the five new child projects is sufficient to cover the amount requested: Chile has \$6.4 million CCM STAR allocation remaining; the requested child project is within that amount.</p> <p>Indonesia has \$14 million CCM STAR allocation remaining; the requested child project is within that amount.</p> <p>Myanmar has \$14.9 million CCM STAR allocation remaining; the requested child project is within that amount.</p> <p>Tunisia has \$2.6 million CCM STAR allocation remaining; the requested child project is within that amount and will consume all remaining CCM resources.</p> <p>South Africa has \$12.7 million CCM STAR allocation remaining; the requested child project is within that amount, leaving a balance of approximately \$1 million.</p>	
	<p><input type="checkbox"/> the LDCF under the principle of equitable access?</p>	<p>NA</p>	

	<input type="checkbox"/> the SCCF (Adaptation or Technology Transfer)?	NA	
	<input type="checkbox"/> focal area set-aside?	NA	
Secretariat Recommendation			
PFD Clearance	Is the PFD recommended for clearance to include in the work program?	DER, March 21, 2016. not at this time. Please address the comments in boxes 3 and 8.	
Review Date (s)	Review*	March 21, 2016	
	Additional Review (as necessary)		
	Additional Review (as necessary)		

* This is the first time the Program Manager provides full comments for the program. Subsequent follow-up reviews should be recorded. For specific comments for each section, please insert a date after comments.

Annex I - Response to Comment on box 3:

Child Projects under the Leapfrogging markets to high efficiency products (appliances, including lighting, and electrical equipment)

Country (GEF agency)	Product(s) of focus	Project Cost (US\$)	Top priorities
Global (UNEP)	Lighting, appliances and equipment	3,100,000	<ul style="list-style-type: none"> Development of tools and resources to support country officials in implementing projects on energy efficient appliances and equipment. Providing training to 10 child project countries and 15 non-child project countries. Holding of outreach events in order to increase the number of countries and companies committing to advance energy efficient
Costa Rica (UNEP)	Lighting, air conditioners and refrigerators	2,000,000	<ul style="list-style-type: none"> Demonstration projects with energy efficient appliances in public institutions. Training and information program for market actors on the country's obligations to procure efficient appliances. Establishment of a revolving loan fund for the financing of large-scale replacement programs in the public sector.
Sudan (UNDP)	Lighting and air conditioners	1,770,000	<ul style="list-style-type: none"> Development of a national strategy to advance energy efficiency as part of the National Energy Efficiency Action plan (NEEAP) Development of the policy framework with minimum energy performance standards (MEPS); monitoring, verification, and enforcement (MVE) system; supporting policies; and environmentally sound management.

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Kazakhstan (UNDP)	Domestic appliances (except lighting)	3,500,000	<ul style="list-style-type: none"> Development of the policy framework with minimum energy performance standards (MEPS); monitoring, verification, and enforcement (MVE) system; supporting policies; and environmentally sound management. Boosting demand for energy efficient appliances and equipment
Myanmar (UNEP)	Lighting and appliances	2,223,578	<ul style="list-style-type: none"> Development of the policy framework with minimum energy performance standards (MEPS); monitoring, verification, and enforcement (MVE) system; supporting policies; and environmentally sound management.
Indonesia (UNEP, UNDP)	Lighting	3,895,873	<ul style="list-style-type: none"> Support to local lighting industry to improve the efficiency of lamps and ballasts Development of the policy framework with minimum energy performance standards (MEPS); monitoring, verification, and enforcement (MVE) system; supporting policies; and environmentally sound management. High efficiency lighting technology penetration with the development of financial mechanisms and distribution campaigns.
South Africa (UNDP, DBSA)	LED lighting and distribution transformers	10,000,000	<ul style="list-style-type: none"> Development of a national strategy to advance energy efficiency Development of the policy framework with minimum energy performance standards (MEPS); monitoring, verification, and enforcement (MVE) system; supporting policies; and environmentally sound management.
Tunisia (UNEP)	Lighting	2,500,000	<ul style="list-style-type: none"> Development of the policy framework with minimum energy performance standards (MEPS); monitoring, verification, and enforcement (MVE) system; supporting policies; and environmentally sound management.
Chile (UNEP)	Refrigerators	1,473,762	<ul style="list-style-type: none"> Development of the policy framework with updated minimum energy performance standards (MEPS); monitoring, verification, and enforcement (MVE) system; supporting policies; and environmentally sound management.

Annex II – Response to comment on box 8:

As there are many agencies involved in this program, please explicate the responsibilities for submission of PPGs, CEO endorsements, tracking tools, PIRs, and other GEF required reports.

PPGs	Each child project agency will submit their own PPG requests independently of the lead agency. This precedent was set by UNDP at the request of the GEF Secretariat.
CEO endorsements	Each child project agency will submit their own CEO endorsement documents to the GEF. However, the Lead agency will discuss the programme monitoring framework, programme tracking tool and the institutional arrangements to ensure: (a) consistency in reporting against the programme tracking tool and programme monitoring framework; and (b) coordination or technical input to the child projects from the different agencies.
PIRs,	Each child project agency will prepare and submit directly to the GEF, its own Project Implementation Review every year.
tracking tools,	<ul style="list-style-type: none"> Programme tracking tool: the lead agency will develop and submit the baseline for the programme monitoring framework and programme tracking tool at the program commitment deadline.

	<ul style="list-style-type: none"> • Project tracking tools: each child project agencies will be responsible for developing and submitting progress reports on, their own tracking tools, as per the GEF guidelines.
Other GEF required reports.	<ul style="list-style-type: none"> • Reports from each child project will also contribute to the programme level results and impacts. Each child project agency will report to the lead programme agency: programme tracking tool and programme monitoring framework, at the following points: (a) at CEO endorsement, (b) at midterm and (c) at project completion. • The Program Lead Agency will consolidate and send to the GEF Secretariat a report (a) at program baseline when all child projects are CEO endorsed/approved (i.e. program commitment deadline), (b) at midterm on progress toward program outcomes, and (c) at program completion on progress towards the programme indicators.

Comments and Responses at GEF Council – October 2015

U.S.

1. *What is the rationale for pursuing this project as a Programmatic Approach, rather than as a single global project?*

Response: Markets for the appliances that will be targeted are increasingly global, with production/manufacturing concentrated in a few countries and then traded to the rest of the world. As such, there is a need for policy harmonization and consistency across countries and this is much easier achieved in a programmatic approach than in a country by country series of not connected national level projects. The programmatic approach proposes the U4E integrated policy approach to meet individual countries' policy needs and priorities. U4E integrated policy approaches (minimum standards, MVE, supporting policies, and environmentally sound management) have been demonstrated to permanently transition markets to energy efficient products while addressing environmental concerns. The programmatic approach allows for the use of a coherent and consistent integrated approach, providing greater likelihood of a true market transformation success and increased harmonization between countries. Further, child projects under the programmatic approach allow for the best practices to be implemented in the country, such as developing/agreeing to minimum energy performance standards, increasing market surveillance capacities, and/or implementing demonstration projects for energy efficient products.

Countries are at varying levels in developing policies that advance energy efficiency of lighting, appliances and equipment. Some countries do have minimum energy performance standards in place and will be complete a project to enhance those standards and ensure their compliance. Additionally, countries have different priorities in terms of products, with some having larger savings potential for lighting while other countries might prioritize air conditioners due to the savings in their country. The programmatic approach accommodates this as it develops common resources with global funding, such as step-by-step guides on advancing markets to energy efficient products and supporting country officials with training. The child projects allow countries to utilize their STAR allocation under the framework of the programmatic approach yet still crafting the child project to meet the individual countries needs. The child projects are customized to meet the needs of policy development and product prioritization of each country.

2. *In addition to the three countries with child projects included in the proposal, we see that an additional fifteen countries may be receiving funding for capacity building through the SEforALL program. Which countries will be funded? How will countries be selected?*

Response: The criteria to receive this support will be based on the country being a partner to initiative, commitment to advance energy efficiency is shown through national communications; funding for project implementation is available (for example GEF projects not falling under the programmatic approach, and other sources of funding, including domestic funding, Germany's International Climate Initiative, European Commission); regional diversity of countries supported. These prioritization of countries are currently be reviewed under GEF5 Project 5831: "Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment".

3. *We note that there may be a plan to expand this program to include significantly more countries (as many as 100).*

Response: There is within the global child project an anticipated light touch support for up to 75 countries, However, the number of child projects that may be added to the programmatic approach is much smaller. Currently, additional child projects are being considered in roughly 5-8 countries. These child projects would be proposed within a revised PFD which would be presented to Council for consideration.

- a. *What is the commitment deadline for additional child projects?*

Response: April 2019 (for submission of full CEO endorsement documents).

- b. *Will the Council have the opportunity to review a revised project framework document with more details for child projects and country participation prior to GEF CEO Endorsement of new child projects?*

Response: All child projects, including the three currently in the PFD and any future child projects added with Council approval of a revised PFD, would be submitted for CEO endorsement no later than the commitment deadline of April 2019.

4. *Will countries be able to revise their support of the Program after review of the final PFD document?*

Response: Countries will work with agencies during the project design period to reflect any changes in project scope in the CEO endorsement request. Revisions to the PFD would be for the purpose of adding child projects; therefore Countries will have ample opportunity to ensure the project designs align country priorities with the PFD objectives.

Germany

Germany welcomes the program proposal in support of a global approach to introducing high-efficiency appliances and electrical products. The ambitious proposal builds on an existing GEF program (SEEforALL) and will make a significant contribution to GHG reductions, as well as market transformation, if risks are well-managed and implementation is well-coordinated across a broad spectrum of stakeholders. Germany requests that the following requirements are taken into account during the design of the final project proposal:

General response: All comments will be taken into account during the project development and will be incorporated into the final project proposal.

With regard to Menu Option 4: Supporting policies for the market transformation to energy efficient products. For this menu option, it is written that “campaigns may include working with retailers to train staff to help and advise consumers.” A perhaps more efficient alternative would be to make sure that appliance manufacturers have the capacity to provide trainings to their distributors/retailers rather than the program attempting to train personnel at points of sale.

Response: Thanks for this good suggestion. This is a better approach offering longer-term sustainability and the project can use best practices from the manufacturing partners to the project (OSRAM, Philips, BSH, Mabe, etc). This suggestion will be integrated into project design.

With regard to demonstration projects: such projects should make energy and monetary savings public knowledge, with for example a digital meter (or low-tech alternative) in the lobby of the targeted ministry building, which compares costs and energy usage between efficient and inefficient systems. The program also intends to enable local manufacturers to produce energy-efficient appliances. It would be helpful to include information as to what extent patent-holders elsewhere may impede this objective, and to what extent lesser-efficient technologies are to be utilized because of high costs for super-efficient technologies?

Response: We have not yet encountered patent issues blocking the way for energy efficient products, contrarily it is often more expensive material or design that makes the product more expensive. For example, using more efficient material (such as copper) and/or using more insulation in refrigerators. Patent issues and clear measures to transparently and effectively present energy and financial savings will be fully integrated during

project development. In regards to the lower efficient technologies being used instead of higher cost super-efficient technologies: the project will support countries to make the transition based on their national circumstances. For example, minimum energy performance standards (MEPS) could be put in place to remove the lower performing products (for example inefficient incandescent lamps) from the market to shift to higher efficient (for example CFLs), and also promoting awareness/demand for highly efficient products (for example LEDs) through demonstration or distribution campaigns of highly efficient products.

Regarding gender: during the consultations with end-users, it should be determined if priorities for efficient appliances differ across the gender spectrum in order to pinpoint the priorities at the family-level vs. at a business or institutional level.

Response: Thanks for this good suggestion. This will be integrated into project design.

The benefits section needs clarifications for greater coherence as it is not clear from the outset that the higher emission reduction numbers include the SEEforALL Project's emission reductions.

Response: The savings presented are only for this project. Further clarification will be given during the project design.

A further point of confusion is related to the pie chart on page 14, which does not depict "total potential CO₂ Savings" as it is labelled, but rather shows the share of CO₂ savings that will come from the Leapfrogging (34%) vs. the SEE4ALL (66%) Programs. The chart should be labelled accordingly. When one gets to the chart on page 15, then the percent allocations are switched, with 33% of the CO₂ reductions attributed to SEEforALL and 67% attributed to the Leapfrogging Program, which creates more confusion when compared with the previous pie chart. The section could generally benefit from more coherent language, as it is difficult to follow.

Response: Comment well noted. The pie chart should have Leapfrogging 33% and SEforALL as 67%. This will be fixed and further clarity on this will be integrated in the final proposal.

A general consideration: experience with switching consumers from, for example, cheap disposable batteries to long-life, rechargeable batteries has shown that in order to have a successful transition, the consumer needs to see the benefit of making the switch, both in terms of money saved and a superior product. Getting consumers hooked on the energy-efficient appliances will require not only innovative financing to overcome higher upfront costs but also clarity that the product is the better choice in the long-run. Communication, training and outreach are, therefore, as crucial as having the product itself available.

Response: Agreed. This is an excellent point in relation to consumer's confidence. It should be noted that consumer confidence also relates to the actual real life performance of a product compared to what is written on the packaging. Monitoring, verification, and enforcement (MVE), which is included in the project of standards and energy performance claims, is also needed to ensure that consumer confidence in energy efficient. For example, without MEPS and MVE, it is likely that poor performing LEDs will enter the market, which will result in consumers not believing in the energy and lifetime claims on the packaging. With a strong MVE regime, it will ensure that products meet defined criteria (energy efficiency, lifetime, and a defined performance such as amount light provided) and consumers will have strong confidence in the claims on the package. Communication, training and outreach will also be strengthened in the project design.



**GEF-6 GEF SECRETARIAT REVIEW FOR FULL-SIZED/MEDIUM-SIZED PROJECTS
THE GEF/LDCF/SCCF TRUST FUND**

GEF ID:	9337		
Country/Region:	Global		
Project Title:	Global Project to leapfrog markets to energy efficient lighting, appliances and equipment		
GEF Agency:	UNEP	GEF Agency Project ID:	
Type of Trust Fund:	GEF Trust Fund	GEF Focal Area (s):	Climate Change
GEF-6 Focal Area/ LDCF/SCCF Objective (s):	CCM-1 Program 1;		
Anticipated Financing PPG:	\$60,000	Project Grant:	\$3,100,000
Co-financing:	\$18,677,000	Total Project Cost:	\$21,837,000
PIF Approval:		Council Approval/Expected:	
CEO Endorsement/Approval		Expected Project Start Date:	
Program Manager:	David Elrie Rodgers	Agency Contact Person:	Ruth Coutto,

PIF Review			
Review Criteria	Questions	Secretariat Comment	Agency Response
Project Consistency	1. Is the project aligned with the relevant GEF strategic objectives and results framework? ¹		
	2. Is the project consistent with the recipient country's national strategies and plans or reports and assessments under relevant conventions?		
Project Design	3. Does the PIF sufficiently indicate the drivers ² of global environmental degradation, issues of sustainability, market transformation, scaling, and		

¹ For BD projects: has the project explicitly articulated which Aichi Target(s) the project will help achieve and are SMART indicators identified, that will be used to track the project's contribution toward achieving the Aichi Target(s)?

² Need not apply to LDCF/SCCF projects.

PIF Review			
Review Criteria	Questions	Secretariat Comment	Agency Response
	innovation?		
	4. Is the project designed with sound incremental reasoning?		
	5. Are the components in Table B sound and sufficiently clear and appropriate to achieve project objectives and the GEBs?		
	6. Are socio-economic aspects, including relevant gender elements, indigenous people, and CSOs considered?		
Availability of Resources	7. Is the proposed Grant (including the Agency fee) within the resources available from (mark all that apply):		
	· The STAR allocation?		
	· The focal area allocation?		
	· The LDCF under the principle of equitable access		
	· The SCCF (Adaptation or Technology Transfer)?		
	· Focal area set-aside?		
Recommendations	8. Is the PIF being recommended for clearance and PPG (if additional amount beyond the norm) justified?	DER, November 6, 2015. The Parent program (#9083) was approved at the October Council meeting. The PPG request of \$60,000 is within the norms for this project size. The program manager recommends CEO PPG Approval.	
Review Date	Review	November 06, 2015	
	Additional Review (as necessary)		
	Additional Review (as necessary)		

CEO endorsement Review			
Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
Project Design and Financing	1. If there are any changes from that presented in the PIF, have justifications been provided?	DER, May 10, 2017. The changes were documented and justified. The project is more focused, aiming for 75 countries instead of 100 countries. However, in some parts of the document 70 countries are listed; in other parts 75 countries are listed. Please clarify. DER, July 7, 2017. Comment cleared.	UNEP response July 6 2017: The correct amount is 75 countries. This has been updated throughout the document.
	2. Is the project structure/ design appropriate to achieve the expected outcomes and outputs?	DER, May 10, 2017. Please address the following comments: a) The executing agencies are not clearly identified in Part I, Project Information. Please clarify. b) The removal of training from outcome 1.1 is a little confusing as output 1.1.1 includes five training packages. Please clarify	UNEP response July 6 2017: a) The United Nations Environment Programme (UN Environment) is the project's Implementing Agency and its Executing Agency. The project will be executed by the United for Efficiency (U4E) Centre of Excellence. This virtual Centre of Excellence is hosted by UN Environment and will execute this project in cooperation with several partners, as described in Annex H. b) 'Training' was removed from the wording of Outcome 1.1 since this outcome will only deliver training materials – and not trainings per se. However, the training materials developed under Outcome 1.1 will be used in training and capacity building activities that will be conducted under Outcome 1.2.

CEO endorsement Review			
Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
		<p>DER, July 7, 2017.</p> <p>a) Thank you for the description which is clearly described in the response to the review sheet and shown in Annex H, pages 87-88. The description should be supplemented with a short justification that documents the rationale for choosing unit of the implementing agency to serve as the executing agency</p> <p>b) Comment cleared</p>	<p>UNEP response July 17 2017:</p> <p>a) The explanation below has been inserted in the CEO endorsement document in two locations, on page 45 and on pages 97-98 The UN Environment United for Efficiency (U4E) team (hosted within the UN Environment - Energy Unit) has been chosen to be the project's Executing Agency for the following reasons: The GEF funded global Leapfrogging project is a global project not tied to a specific country or region and therefore needs an Executing Agency that can cover all countries without bias or favor, and be able to bring to bear cumulative and growing experience to countries through its support. The Executing Agency for this project must have the power to convene the private sector, country governments, research institutes and laboratories in developing and executing best practice guidance. The UN Secretary General's Sustainable Energy for All (SEforALL) initiative has appointed UN Environment to lead on its Lighting and Appliances Accelerators. This GEF funded global Leap-frogging project constitutes the means through these two accelerators are to be driven and implemented. Since 2010 the UN Environment U4E team has led the internally executed project the GEF en.lighten initiative and the Sustainable for All (both GEF funded projects); including support to the development of efficient lighting policies in over 30 countries; obtaining high-level commitment from</p>

CEO endorsement Review			
Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
			<p>66 countries worldwide to put in place standards & policies phasing-out inefficient lighting by 2016;</p> <p>The U4E team has successfully established a Centre of Excellence on lighting, appliances and equipment and achieved consensus policy recommendations in the five prioritized product categories.</p> <p>The participation of private sector partners constitutes a key requirement for this project GEF funded global Leapfrogging to be successful. The legitimacy and convening role of UN Environment through the U4E team is highly valued by private sector partners and is a key driver for companies to join the project.</p> <p>The GEF requires GEF Agencies that implement and execute the same project to maintain a ‘fire-wall’ between their oversight or ‘implementation’ function and their project ‘execution’ function. The program and finance functions for this project will be carried out by different units within UN Environment. The U4E team which is executing the project is centered in Paris in the Energy Unit and will receive financial services and back-stopping from the broader UN Environment energy team. The Climate Mitigation Unit led from Nairobi has separate, independent program and finance staff that will supervise and report to GEF on the project.</p>
	3. Is the financing adequate and does the project demonstrate a cost-effective approach to meet the project objective?	DER, May 10, 2017. Yes.	

CEO endorsement Review			
Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
	4. Does the project take into account potential major risks, including the consequences of climate change, and describes sufficient risk response measures? (e.g., measures to enhance climate resilience)		
	5. Is co-financing confirmed and evidence provided?	<p>DER, May 10, 2017. Yes. The co-financing letters are not yet complete. Please update and re-submit. Also, please clarify the estimated amount for the Global Climate Partnership Fund.</p> <p>DER, July 7, 2017. Comment cleared.</p>	<p>UNEP response July 6 2017:</p> <p>We have reviewed the CEO Endorsement document and the co-finance letters (which are provided in a separate file). The amounts match and are correct. We believe that some confusion related to co-finance may have been caused by the following:</p> <ul style="list-style-type: none"> · BSH co-finance letter states a commitment of €600,000, which converts to \$636,000 using an exchange rate of .94339 EUR/USD (explanatory footnote added to Table C of the CEO Endorsement Document). · NRDC's co-finance letter states a commitment of \$25,000 per year over 3 years, thus resulting in the \$75,000 mentioned in table C (explanatory footnote added to Table C of the CEO Endorsement Document). <p>The Global Climate Partnership Fund has already provided \$9 million in loans for energy efficient appliances in developing and emerging markets based on the U4E Country Savings Assessments as a baseline. They will continue to make these loans under the Global Leapfrogging Project at a level equal or possibly greater than \$9 million, as reflected in the co-financing letter.</p>

CEO endorsement Review

Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
	6. Are relevant tracking tools completed?	<p>DER, May 10, 2017. the tracking tool has been provided. However, the CO2 numbers provided to not include all the numbers noted in Table E, corporate scorecard. Please align the tool and the Table. We request one number in Table E, not a range. Ranges can be described in the document and noted in the Tracking tool. Then put in Table E the recommended number for the scorecard. In this case, 52 million tons CO2e seems appropriate for the scorecard Table E.</p> <p>DER, July 7, 2017. Comment cleared.</p>	<p>UNEP response July 6 2017:</p> <p>We have aligned the numbers mentioned in both the scorecard (Table E) and the tracking tool (Annex J-1). We have decided to remove the range from all parts of the CEO Endorsement document, keeping the targeted GHG savings to one single number. The newly calculated amount of direct GHG emissions reductions is 30,644,000 tons of CO_{2eq}. Further explanations on these calculations may be found in subsection “A.1.5) <i>Global environmental benefits (GEF TF) and/or adaptation benefits (LDCF/SCCF)</i>” of the CEO Endorsement Document.</p>
	7. <i>Only for Non-Grant Instrument:</i> Has a reflow calendar been presented?	NA	
	8. Is the project coordinated with other related initiatives and national/regional plans in the country or in the region?	DER, May 10, 2017. Yes.	
	9. Does the project include a budgeted M&E Plan that monitors and measures results with indicators and targets?	DER, May 10, 2017. Yes.	
	10. Does the project have descriptions of a knowledge management plan?	DER, May 10, 2017. Yes.	

CEO endorsement Review			
Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
Agency Responses	11. Has the Agency adequately responded to comments at the PIF ³ stage from:		
	· GEFSEC	DER, May 10, 2017. Yes.	
	· STAP	DER, May 10, 2017. Yes. The project design is responsive to the STAP comments.	
	· GEF Council	DER, May 10, 2017. Yes the project design is responsive to USA and German council comments as noted in Annex B.	
	· Convention Secretariat		
Recommendation	12. Is CEO endorsement recommended?	DER, May 10, 2017. Not at this time. Please address the comments in boxes 1, 2, 5, and 6. DER, July 7, 2017. Not at this time. Please address the comment in box 2.	UNEP response July 17 2017: Please refer to our answer in box 2 above.
Review Date	Review	May 10, 2017	
	Additional Review (as necessary)	July 07, 2017	
	Additional Review (as necessary)		

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS²⁰

A. Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: US\$ 60,000			
<i>Project Preparation Activities Implemented</i>	<i>GEF/LDCF/SCCF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
Consultants	20,000	24,150.74	0
Travel on official business	7,500	4,788.45	0
Meetings/conferences	32,500	28,769.73	0
Total	60,000	57,708.92 ²¹	0

²⁰ If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities. Agencies should also report closing of PPG to Trustee in its Quarterly Report.

²¹ The remaining PPG budget \$2,291.08 will be spent during project inception.

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF Trust Funds or to your Agency (and/or revolving fund that will be set up)

Not applicable.

ANNEX E: CONSULTANTS TO BE HIRED FOR THE PROJECT USING GEF RESOURCES

<i>Position Titles</i>	<i>\$/ Person Week*</i>	<i>Estimated Person Weeks**</i>	<i>Tasks To Be Performed</i>
For Project Management			
International			
Technical & knowledge management consultant	2,000	75	Supporting the coordination of the Centre of Excellence activities, technical support to countries, assistance on designing tools, informational resources and training packages, assistance to the Coordination Team for the activities implementation.
Justification for travel, if any: travel expenses to attend side events or meetings with stakeholders to promote the project and the U4E partnership			
For Technical Assistance			
International			
Technical and policy lighting consultant	2,000	52	Technical assistance to countries involved in lighting projects, organization and conduction of technical training, preparation of tools and resources related to energy-efficient lighting products
Communication and gender expert	1,500	47	Ensuring gender is properly considered throughout the project, management of the U4E website, manage the website, ensuring that the resources and news articles are properly mapped, be in charge of the press relations, implement social media campaigns, posting event/workshop press releases, and quarterly e-newsletters.
Justification for travel, if any: travel expenses for the technical and policy lighting consultant to provide technical assistance and conduct training			

ANNEX F-1: DETAILED GEF BUDGET

Refer to table attached separately.

ANNEX F-2: DETAILED COFINANCE BUDGET

Refer to table attached separately.

ANNEX G: M&E BUDGET AND WORK PLAN

M&E Activity	Description	Responsible Parties	Timeframe	Indicative budget (USD)
Inception Workshop (IW) and Report	Report prepared immediately following the IW; it includes: - Detailed Work Plan for the 1 st year, and overview of Annual Work Plan for subsequent years. - Detailed budget for the 1 st year, and overview of the overall budget for subsequent years, divided per component and budget lines. - Detailed narrative of roles of the PMT, the PSC, the U4E Coordination Team, etc.: institutional responsibilities, coordinating actions and feedback mechanisms - Detailed Procurement and M&E Plans	<u>Execution:</u> Project Manager <u>Support:</u> CLASP, ICA, GELC, NRDC, UNDP Task Manager	Immediately following, within 2 months of project start-up	GEF: US\$ 0 Co-fin: US\$ 10,000
Half-yearly progress report	Part of UN Environment procedures for project monitoring. - Analyzes project performance over the reporting period UN Environment; - Describes constraints experienced in the progress towards results and the reasons. - Describes Work Plan for the next period in an Annex and the detailed budget divided per component and budget lines	<u>Execution:</u> Project Manager <u>Support:</u>	Two (2) half-yearly progress reports for any given year - As at June 30 and Dec. 31 - Submit by July 31 and Jan. 31 latest	GEF: US\$ 0 Co-fin: US\$10,000
Half-yearly expenditure reports	Detailed expenditure reports (in Excel), with explanations and justification of any change for each budget line	<u>Execution:</u> Project Manager Project team FMO <u>Support:</u> FMO	Two (2) half-yearly expenditure reports for any given year - As at Dec. 31, and June 30 - Submit by Jan. 31, and July 31 Final expenditure Report 60 days after project completion	GEF: US\$ 0 Co-fin: US\$ 10,000
Technical and thematic Reports; Communication of lessons learnt	Technical and thematic periodic reports could also be prepared to focus on specific issues or areas of activity covered by the project,	<u>Execution:</u> Project Manager <u>Support:</u> Project consultants CLASP, ICA, GELC, NRDC,	As necessary for the thematic reports	GEF: US\$ Co-fin: US\$ 15,000

M&E Activity	Description	Responsible Parties	Timeframe	Indicative budget (USD)
		UNDP		
Project Implementation Review (PIR)	Analyzes project performance over the reporting period UN Environment. Describes constraints experienced in the progress towards results and the reasons. Draws lessons and makes clear recommendations for future orientation in addressing the key problems in the lack of progress. The PIR is discussed at PSC meetings.	<u>Execution:</u> Project Manager Task Manager <u>Support:</u> FMOs CLASP, ICA, GELC, NRDC, UNDP	Yearly - As at June 30 - Submit by 31 July latest	GEF: US\$ 0 Co-fin: US\$ 15,000
Co-financing Report	Report on co-financing (cash and/or in-kind) fulfilled contributions from all project partners that provided co-finance letters.	<u>Execution:</u> Project Manager <u>Support:</u> Co-financing partners FMOs	Yearly - As at June 30 - Submit by 31 July latest	GEF: US\$ 0 Co-fin: US\$ 10,000
Medium-Term Evaluation / Medium-Term Review (MTE/MTR)	The purpose of the Mid-Term Evaluation (MTE) or Mid-Term Review (MTR) is to provide an independent assessment of project performance at mid-term, to analyze whether the project is on track, what problems and challenges the project is encountering, and which corrective actions are required so that the project can achieve its intended outcomes by project completion in the most efficient and sustainable way. In addition, it will verify information gathered through the GEF tracking tools. Since for short duration projects, PIR can serve as the project MTR, the need of a MTE or MTR for this project will be assessed by the Task Manager according to the progress of the project.	<u>Execution:</u> Independent evaluator(s) (if MTE) <i>or</i> Project Manager Task Manager (if MTR) <u>Support:</u> UN Environment EO Project Manager FMOs Project partners	At mid-point of project implementation upon Task Manager's request (Expected January 2019)	GEF: US\$ 46,000 Co-fin: US\$ 0

M&E Activity	Description	Responsible Parties	Timeframe	Indicative budget (USD)
Final Report	The project team will draft and submit a Project Final Report, with other docs (such as last PIR), at least two weeks before the PSC meeting for their review and comments; this meeting decides whether any action is needed to achieve the sustainability of project results; and draws lessons to be captured into other projects; Comprehensive report summarizing all activities, achievements, lessons learned, objectives met or not achieved structures and systems implemented, etc. Lays out recommendations for any further steps that may need to be taken to ensure the sustainability and replication of project activities.	<u>Execution:</u> Project Manager <u>Support:</u> CLASP, ICA, GELC, NRDC, UNDP	Final report no later than three (3) months after the technical completion date	GEF: US\$ 0 Co-fin: US\$ 10,000
Terminal Evaluation	Further review the topics covered in the mid-term evaluation. Looks at the impacts and sustainability of the results, including the contribution to capacity development and the achievement of global environmental goals.	<u>Execution:</u> Independent evaluator(s) <u>Support:</u> UN Environment EO Project Manager Task Manager	Can be initiated within six (6) months prior to the project's technical completion date	GEF: US\$ 46,000 Co-fin: US\$ 0
Audits	Financial audits	<u>Execution:</u> UN Environment audit <u>Support:</u> Project Manager Project tem FMO	Annually - As at 31 Dec. - Submit by June 30 latest	GEF: US\$ 0 Co-fin: US\$ 10,000
Publication of Lessons Learnt and other project publications	Lessons learned and other project documents are published for the benefit of on-going and future projects	<u>Execution:</u> Project Manager <u>Support:</u> Project consultants	Annually, part of half-yearly progress reports and Final Report	GEF: US\$ 0 Co-fin: US\$ 30,000
TOTAL M&E COST				GEF: US\$ 92,000 Co-fin: US\$ 120,000

ANNEX H: PROJECT IMPLEMENTATION ARRANGEMENTS

SUMMARY

The implementation arrangements of the Global Leapfrogging Project (GEF ID 9337) builds on those of the SEforALL Global Project (Full name: “Establishing the Foundations of a Partnership to Accelerate the Global Market Transformation for Efficient Appliances and Equipment”, GEF ID 5831) foundations to implement the U4E Integrated Policy Approach and successful public-private-partnership model.

Through the Global Partnership, assistance will be provided to national governments for the design and implementation of national/regional projects to accelerate the market transformation to efficient appliances and equipment.

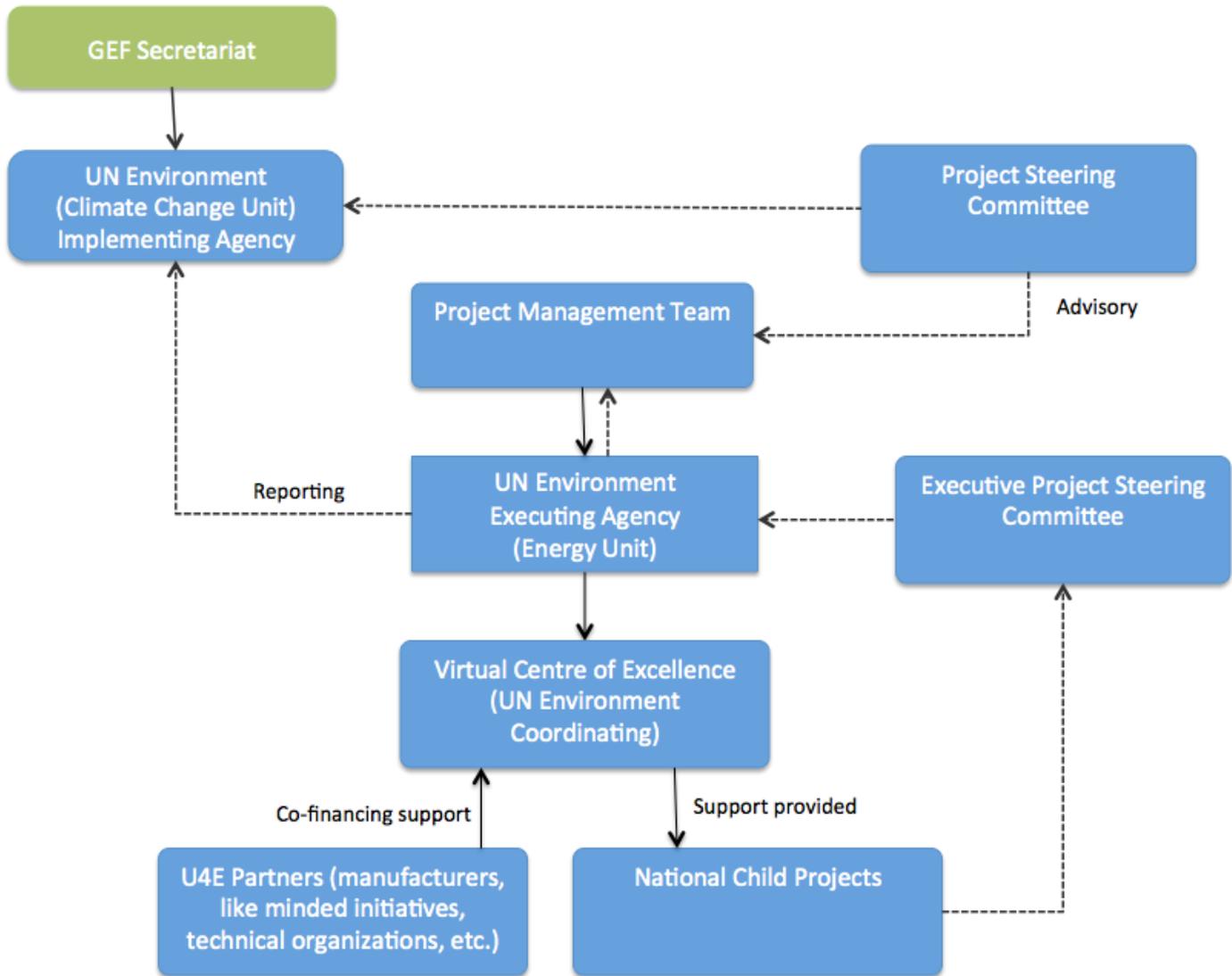
A project governance structure will ensure that decision-making, management and implementation arrangements are appropriate and operate effectively. The governance structure will consist of the aforementioned PSC, PMT and a virtual Centre of Excellence. Their respective functions are outlined below.

PROJECT GOVERNANCE STRUCTURE

Body	Composition	Role	Frequency of meetings
Project Steering Committee (PSC)	UN Environment, GEF, UNDP, DBSA, ICA, CLASP, NRDC, SEforALL Secretariat, World Bank, GIZ, up to five partners (1 per product group selected among themselves), and 2 country representatives. One representative per organization.	<ul style="list-style-type: none"> • Provide overall guidance on the strategic orientation of U4E; • Advise on the annual programme of work; • Examine progress on implementation of the programme of work; • Advise on resource mobilization by suggesting/providing high-level contacts to possible funding sources. 	2 times/year (1 likely to be virtual meeting)
Executive Project Steering Committee	UN Environment (Energy Unit), UN Environment (Climate Mitigation Unit), GEF Secretariat, UNDP and 2 country representatives.	<ul style="list-style-type: none"> • Review/approve project annual workplan and budget 	Annual
Project Management Team (PMT)	UN Environment (Energy Unit) serves as the Chair, which also includes UNDP, ICA, CLASP, NRDC and Global Efficient Lighting Centre (GELC)	<ul style="list-style-type: none"> • Prepare annual programme of work (based on guidance from PSC); • Provide guidance and strategy recommendations to implement the project; • Help facilitate resource mobilization and outreach to new prospective partners. 	2 times/year and as need arises
Virtual Centre of Excellence	<u>U4E (UN Environment) Coordination Team</u> Lead by the Project Manager (in the UN	<u>U4E (UN Environment) Coordination Team</u> <ul style="list-style-type: none"> • Oversee the daily operations of the initiative under the guidance of the PMT and PSC. 	Daily

	<p>Environment –Energy Unit), and includes two UN Environment Project Officers (a technical policy expert and a partnership advisor) and several consultants with complementary regional and functional expertise</p>	<ul style="list-style-type: none"> • Coordinate global communication efforts with the support from ICA, including the global leadership and action campaign, and leading the promotion of the project through the SEforALL platform and other global energy and climate events; • Perform global outreach (sharing lessons, best practices and achievements) with inputs from product and country leads; • Ensure the development of common methodologies and guidance to governments, and coordinate their implementation through sharing of good practices and lessons learned from other countries/regions; • Receive country requests and coordinate the response by the virtual Centre of Excellence; • Maintain relationships with current partners and help recruit new partners; • Collect, vet and transmit reports to the GEF; • Facilitate and organize PMT and PSC activities. 	
	<p><u>Working Groups</u></p> <p>Each working group is facilitated by UN Environment’s (Energy Unit) U4E Coordination Team, and is comprised of U4E partners:</p> <ul style="list-style-type: none"> • Lighting • Refrigerators and Air Conditioners • Motors • Transformers 	<p><u>Working Groups</u></p> <ul style="list-style-type: none"> • Respond to technical questions from policymakers; • Review country and regional assessments, strategies, policies, etc; • Develop training packages; • Help conduct policymaker and practitioner training, and lend additional in-country support where practicable; • Identify experts for participation in U4E events and activities; • Identify and/or help recruit additional partners; • Help develop funding proposals for national and regional projects; • Disseminate success stories, key findings, and programmatic information about U4E; • Contribute content for the U4E Coordination Team’s reporting to the GEF. 	<p>Monthly by phone and more frequently by email</p>

ORGANIGRAM EXECUTING ARRANGEMENT



Rationale for selecting the Executing Agency:

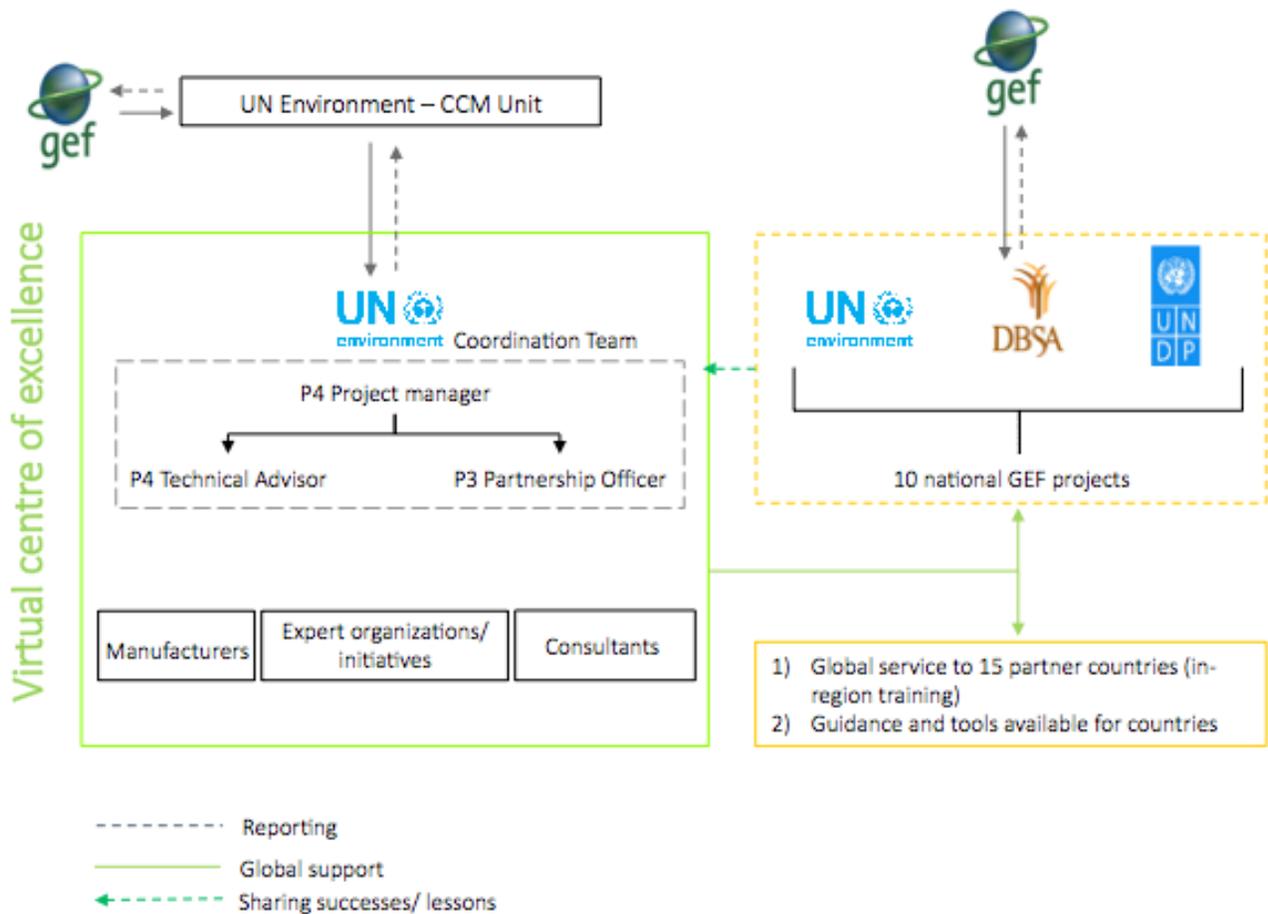
The UN Environment United for Efficiency (U4E) team (hosted within the UN Environment – Energy Unit) has been chosen to be the project’s Executing Agency for the following reasons:

- The GEF funded global Leapfrogging project is a global project not tied to a specific country or region and therefore needs an Executing Agency that can cover all countries without bias or favour, and be able to bring to bear cumulative and growing experience to countries through its support.
- The Executing Agency for this project must have the power to convene the private sector, country governments, research institutes and laboratories in developing and executing best practice guidance.
- The UN Secretary General’s Sustainable Energy for All (SEforALL) initiative has appointed UN Environment to lead on its Lighting and Appliances Accelerators. This GEF funded global Leapfrogging project constitutes the means through these two accelerators are to be driven and implemented.
- Since 2010 the UN Environment U4E team has led the internally executed project the GEF en.lighten initiative and the Sustainable for All (both GEF funded projects); including support to the development of efficient

lighting policies in over 30 countries; obtaining high-level commitment from 66 countries worldwide to put in place standards and policies phasing-out inefficient lighting by 2016;

- The U4E team has successfully established a Centre of Excellence on lighting, appliances and equipment and achieved consensus policy recommendations in the five prioritized product categories.
- The participation of private sector partners constitutes a key requirement for this project GEF funded global Leapfrogging to be successful. The legitimacy and convening role of UN Environment through the U4E team is highly valued by private sector partners and is a key driver for companies to join the project.
- The GEF requires GEF Agencies that implement and execute the same project to maintain a ‘fire-wall’ between their oversight or ‘implementation’ function and their project ‘execution’ function. The program and finance functions for this project will be carried out by different units within UN Environment. The U4E team which is executing the project is centered in Paris in the Energy Unit and will receive financial services and back-stopping from the broader UN Environment energy team. The Climate Mitigation Unit led from Nairobi has separate, independent program and finance staff that will supervise and report to GEF on the project.

ORGANIGRAM U4E Structure



ANNEX I: PROJECT WORKPLAN AND DELIVERABLES

Refer to table attached separately.

ANNEX J-1: TRACKING TOOL FOR GEF-6 CCM PROJECTS

Refer to Excel document attached separately.

ANNEX J-2: ESTIMATES OF DIRECT AND INDIRECT GREENHOUSE GAS EMISSION REDUCTION

Country prioritization table (impact allocation per outcome):

Region / Main Category	Country	Allocation per Outcome			Total allocation	Products Considered
		1.1 & 1.2	2.1	2.2		
SADC	Angola			5%	5%	Lighting & Refrigerators
	Botswana	8%		5%	13%	
	Congo			5%	5%	
	Lesotho			5%	5%	
	Malawi			5%	5%	
	Mauritius			5%	5%	
	Mozambique			5%	5%	
	Namibia	8%		5%	13%	
	South Africa	8%		5%	13%	
	Swaziland			5%	5%	
	Tanzania	8%		5%	13%	
	Zambia	8%		5%	13%	
	Zimbabwe	8%		5%	13%	
ASEAN	Indonesia	8%		5%	13%	Lighting & Motors
	Malaysia		2%	5%	7%	
	Philippines	8%	2%	5%	15%	
	Singapore		2%	5%	7%	
	Thailand	8%	2%	5%	15%	
	Brunei		2%	5%	7%	
	Myanmar	8%	2%	5%	15%	
	Cambodia	8%		5%	13%	
	Lao		2%	5%	7%	
	Viet Nam	8%	2%	5%	15%	
Pacific Island Countries	Fiji		2%	5%	7%	lighting & Air conditioners
	Kiribati		2%	5%	7%	
	Micronesia		2%	5%	7%	
	Marshall Islands		2%	5%	7%	
	Papua New Guinea		2%	5%	7%	
	Samoa		2%	5%	7%	
	Solomon Islands		2%	5%	7%	
	Tonga		2%	5%	7%	
	Vanuatu		2%	5%	7%	
	Cook Islands		2%		2%	
	Nauru		2%		2%	
	Niue		2%		2%	
	Palau		2%		2%	
Tuvalu		2%		2%		
Central America	Belize		2%	5%	7%	Air conditioners, Refrigerators
	Colombia	8%	2%	5%	15%	
	Costa Rica	8%		5%	13%	
	Dominican Republic	8%		5%	13%	
	El Salvador	8%		5%	13%	
	Guatemala		2%	5%	7%	
	Honduras	8%		5%	13%	
	Mexico	8%	2%	5%	15%	
	Nicaragua			5%	5%	
	Panama	8%		5%	13%	

Region/Main Category	Country	Allocation per Outcome			Total allocation	Products considered
		1.1	2.1	2.2		
ECOWAS	Benin		2%		2%	Refrigerators & Air Conditioners
	Burkina Faso		2%		2%	
	Cape Verde		2%		2%	
	Côte d'Ivoire		2%		2%	
	Gambia		2%		2%	
	Ghana		2%		2%	
	Guinea		2%		2%	
	Guinea-Bissau		2%		2%	
	Liberia		2%		2%	
	Mali		2%		2%	
	Niger		2%		2%	
	Nigeria				0%	
	Senegal		2%		2%	
	Sierra Leone				0%	
Togo			2%	2%		
Other Child Projects	Kazakhstan	8%			8%	Refrigerators, motors & transformers
	Sudan	8%			8%	Lighting and air conditioning
	Tunisia	8%			8%	Lighting
	Chile	8%			8%	Refrigerators
	Turkey	8%			8%	Motors
Additional Countries	Morocco		2%		2%	Refrigerators, Air Conditioners
	Jordan		2%		2%	Refrigerators, Air Conditioners
	Bolivia		2%		2%	Refrigerators, Air Conditioners
	Pakistan		2%		2%	Refrigerators, Air Conditioners
	Argentina		2%		2%	Lighting
	Albania		2%		2%	Refrigerators, Air Conditioners
	Nepal				0%	Lighting

Included under the SEforALL Global Project

ANNEX K: OFP ENDORSEMENT LETTER

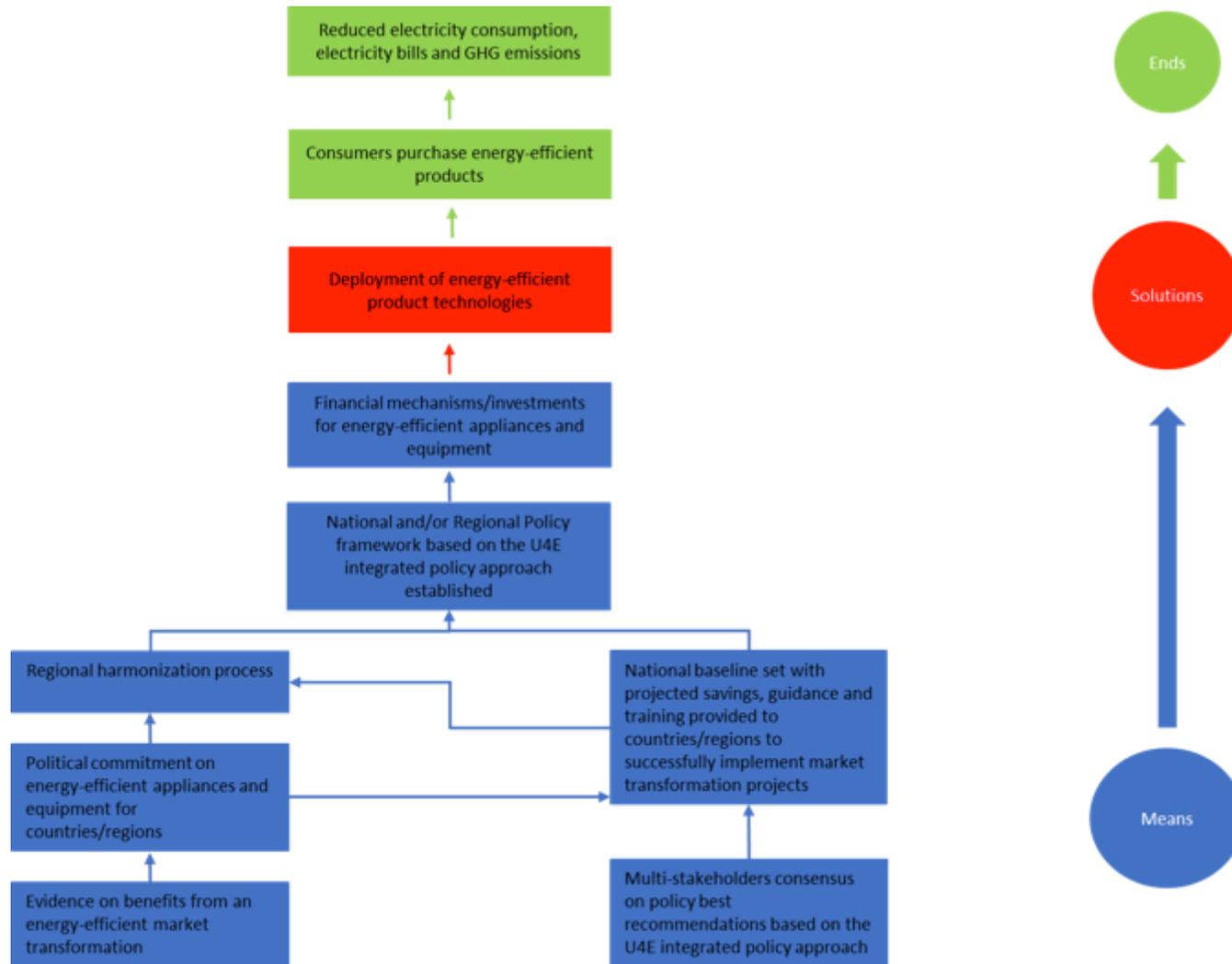
Not applicable.

ANNEX L: CO-FINANCING COMMITMENT LETTERS FROM PROJECT PARTNERS

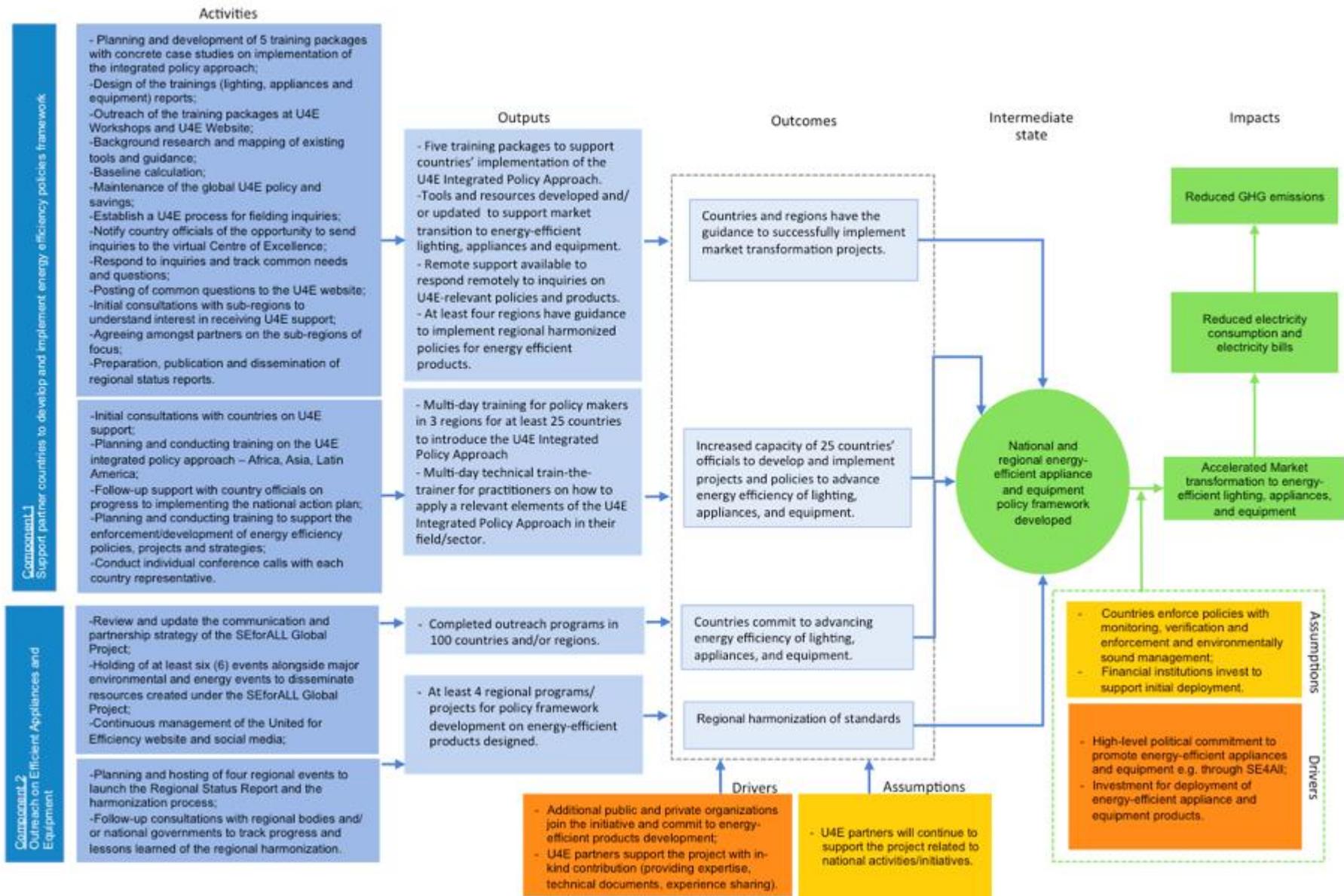
Co-finance letters are attached separately due to their size. Please note that an exchange rate of 0.94339 EUR/USD was used when necessary.

ANNEX M: PROBLEM TREE AND THEORY OF CHANGE

Problem Tree



THEORY OF CHANGE



ANNEX N: ENVIRONMENTAL AND SOCIAL SAFEGUARDS CHECKLIST

Project Title:	Global Project to leapfrog markets to energy efficient lighting, appliances and equipment		
GEF project ID and UN Environment ID/IMIS Number	9083 01357	Version of checklist	1
Project status (preparation, implementation, MTE/MTR, TE)	Preparation	Date of this version:	16 March 2017
Checklist prepared by (Name, Title, and Institution)	Patrick Blake		

In completing the checklist both short- and long-term impact shall be considered.

Section A: Project location:

If negative impact is identified or anticipated the Comment/Explanation field needs to include: Project stage for addressing the issue; Responsibility for addressing the issue; Budget implications, and other comments.

	<i>Yes/No/N.A.</i>	<i>Comment/explanation</i>
- Is the project area in or close to -		
- densely populated area	<i>N.A.</i>	
- cultural heritage site	<i>N.A.</i>	
- protected area	<i>N.A.</i>	
- wetland	<i>N.A.</i>	
- mangrove	<i>N.A.</i>	
- estuarine	<i>N.A.</i>	
- buffer zone of protected area	<i>N.A.</i>	
- special area for protection of biodiversity	<i>N.A.</i>	
- Will project require temporary or permanent support facilities?	<i>N.A.</i>	
<i>If the project is anticipated to impact any of the above areas an Environmental Survey will be needed to determine if the project is in conflict with the protection of the area or if it will cause significant disturbance to the area.</i>		

Section B: Environmental impacts, i.e.

If negative impact is identified or anticipated the Comment/Explanation field needs to include: Project stage for addressing the issue; Responsibility for addressing the issue; Budget implications, and other comments.

	<i>Yes/No/N.A.</i>	<i>Comment/explanation</i>
- Are ecosystems related to project fragile or degraded?	<i>N.A.</i>	
- Will project cause any loss of precious ecology, ecological, and economic functions due to construction of infrastructure?	No	
- Will project cause impairment of ecological opportunities?	No	
- Will project cause increase in peak and flood flows? (including from temporary or permanent waste waters)	No	
- Will project cause air, soil or water pollution?	No	
- Will project cause soil erosion and siltation?	No	

	<i>Yes/No/N.A.</i>	<i>Comment/explanation</i>
- Will project cause increased waste production?	Yes	In some cases the project may result in increased waste production (e.g. giveaways/rebates of energy-efficient products). However as is noted in section A.7 the project will minimize environmental impact of this by included the environmentally sound management aspect of the integrated policy approach. For example the project will encourage countries to properly handle refrigerants in used refrigerators/ACs and to use low global warming potential refrigerants going forward.
- Will project cause Hazardous Waste production?	No	The project includes strategies for the environmentally sound management of products, which includes the proper handling of all products during manufacturing, installation, and disposal. <ul style="list-style-type: none"> - The project includes measures for environmentally sound management of existing distribution transformers, of which some contain PCBs. - In addition to reducing the level of mercury in lighting products it promotes mercury dosing techniques, which will avoid contamination of workers in the manufacturing of lighting products. - The project includes measures for environmentally sound management, including safe handling of refrigerants in the manufacture of refrigerators and room air conditioners.
- Will project cause threat to local ecosystems due to invasive species?	No	
- Will project cause Greenhouse Gas Emissions?	No	The project will actually reduce GHG emissions.
- Other environmental issues, e.g. noise and traffic	No	
<i>Only if it can be carefully justified that any negative impact from the project can be avoided or mitigated satisfactorily both in the short and long-term, can the project go ahead.</i>		

Section C: Social impacts

If negative impact is identified or anticipated the Comment/Explanation field needs to include: Project stage for addressing the issue; Responsibility for addressing the issue; Budget implications, and other comments.

	<i>Yes/No/N.A.</i>	<i>Comment/explanation</i>
- Does the project respect internationally proclaimed human rights including dignity, cultural property and uniqueness and rights of indigenous people?	Yes	
- Are property rights on resources such as land tenure recognized by the existing laws in affected countries?	N.A.	
- Will the project cause social problems and conflicts related to land tenure and access to resources?	No	
- Does the project incorporate measures to allow affected stakeholders' information and consultation?	Yes	
- Will the project affect the state of the targeted country's (-ies') institutional context?	No	
- Will the project cause change to beneficial uses of land or resources? (incl. loss of downstream beneficial uses (water supply or fisheries)?	No	

	<i>Yes/No/N.A.</i>	<i>Comment/explanation</i>
- Will the project cause technology or land use modification that may change present social and economic activities?	Yes	Energy-efficient refrigerators, room air conditioners, electric motors, transformers, and lighting technologies have a higher initial cost but save money over the life of the products. Supporting policies, such as financial mechanisms will be implemented to reduce the impact of the higher upfront costs.
- Will the project cause dislocation or involuntary resettlement of people?	No	
- Will the project cause uncontrolled in-migration (short- and long-term) with opening of roads to areas and possible overloading of social infrastructure?	No	
- Will the project cause increased local or regional unemployment?	No	Contrariwise the project will promote the deployment of energy-efficient technologies. It is expected that this will encourage the creation of testing and manufacturing capacities for efficient technology production in the country and also greater capacities to export products as well.
- Does the project include measures to avoid forced or child labour?	N.A.	
- Does the project include measures to ensure a safe and healthy working environment for workers employed as part of the project?	Yes	<p>The project includes strategies for the environmentally sound management of products, which includes the proper handling of all products during manufacturing, installation, and disposal.</p> <p>- In addition to reducing the level of mercury in lighting products it promotes mercury-dosing techniques which will avoid contamination of workers in the manufacturing of lighting products.</p> <p>- The project includes measures for environmentally sound management of existing transformers, of which some contain PCBs.</p> <p>- The project includes measures for environmentally sound management, including safe handling of refrigerants in the manufacture and disposal of refrigerators and room air conditioners.</p>
- Will the project cause impairment of recreational opportunities?	No	
- Will the project cause impairment of indigenous people's livelihoods or belief systems?	No	
- Will the project cause disproportionate impact to women or other disadvantaged or vulnerable groups?	No	The project will consider impact on Gender (refer to section A.4 of the CEO endorsement document).
- Will the project involve and or be complicit in the alteration, damage or removal of any critical cultural heritage?	No	
- Does the project include measures to avoid corruption?	No	
<i>Only if it can be carefully justified that any negative impact from the project can be avoided or mitigated satisfactorily both in the short and long-term, can the project go ahead.</i>		

Section D: Other considerations

If negative impact is identified or anticipated the Comment/Explanation field needs to include: Project stage for addressing the issue; Responsibility for addressing the issue; Budget implications, and other comments.

	<i>Yes/No/N.A.</i>	<i>Comment/explanation</i>
- Does national regulation in affected country (-ies) require EIA and/or ESIA for this type of activity?	No	
- Is there national capacity to ensure a sound implementation of EIA and/or SIA requirements present in affected country (-ies)?	No	
- Is the project addressing issues, which are already addressed by other alternative approaches and projects?	No	As is referenced in Section II, this project builds upon the previous UN Environment – GEF SE4ALL project that developed the fundamental tools and resources. This current project (Global Leapfrogging Project), gains the commitment of additional countries and provides increased in-country support to accelerate the global market transformation.
- Will the project components generate or contribute to cumulative or long-term environmental or social impacts?	Yes	Environmental conditions should be improved by this project while the project will also allow for a higher-efficient economy allowing for increased investment opportunities.
- Is it possible to isolate the impact from this project to monitor E&S impact?	Yes	The project can measure the impact by estimating the increased implementation of policies and strategies promoting energy efficient appliances, equipment, and lighting.

ANNEX O: ACRONYMS AND ABBREVIATIONS

10 YFP	The 10 Year Framework of Programmes on Sustainable Consumption and Production
ASEAN	Association of Southeast Asian Nations
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
CSO	Civil Society Organizations
CTCN	Climate Technology Centre & Network
DBSA	Development Bank of Southern Africa
DTU	Danish Technical University
EES&L	Energy Efficiency Standards and Labelling
ECOWAS	Economic Community of West African States
EER	Energy Efficiency Ratio
EOU	Evaluation and Oversight Unit in UN Environment
ESM	Environmentally Sound Management
FIRM	Facilitating Implementation and Readiness for Mitigation
GEF	Global Environment Facility
GHG	Greenhouse gas
GLA	Global Lighting Association
GWP	Global Warming Potential
HEPS	Higher Efficiency Performance Standards
HFC	Hydrofluorocarbons (coolant)
IADB	Inter-American Development Bank (IADB)
ICA	International Copper Association
IEC	International Electrotechnical Commission
IMIS	Integrated Management Information System
IPEEC	International Partnership for Energy Efficiency Cooperation
LBNL	Lawrence Berkeley National Laboratory
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 (OLADE)
PCB	Polychlorinated biphenyl
PIF	Project identification Form
PIR	Project Implementation Review
PMC	Project Management Cost

PMT	Project Management Team
PPP	Public-Private Partnership
RAC	Room Air Conditioner (also referred to as AC)
REDD	Reducing Emissions from Deforestation and Forest Degradation
SBCI	Sustainable Building and Climate Initiative
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)
SPP	Sustainable Public Procurement
STAP	Scientific and Technical Advisory Panel
TA	Grant Type
TF	Trust Fund
TNA	Technology Need Assessment
ToR	Terms of Reference
U4E	United for Efficiency
UN	United Nations
UNDP	United Nations development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change

ANNEX P: ADDITIONAL TECHNICAL TRAINING FOR TRAINERS TO BE PROVIDED AT NATIONAL LEVEL FOR PRIORITIZED PRODUCTS

<p>1.2.2 Technical training for trainers provided to procurement officials from public institutions/organizations. (3 days)</p>	<p>Activity b.1: Provide training to procurement and environmental management officials from public institutions/organizations on sustainable procurement on energy efficiency: (a) Planning and needs assessment of a procurement; (b) Requirements definition and planning; (c) Monitoring, control and evaluation; (d) Maintenance costs; (e) Case studies.</p>
<p>1.2.4 Technical training for trainers provided to waste compliance units, authorized waste handlers and suppliers; and procurement and environmental management officials. (3 days)</p>	<p>Activity b.3: Provide training to waste compliance units, authorized waste handlers as well as efficient appliance and equipment providers and energy efficiency service providers from energy and environmental management experts on legislation related to special waste integrated management and existing best practices: (a) International, regional, and national policies; (b) Legal instruments on waste management; (c) Development of a sectoral strategy; (d) Implementation guidance; (e) Case studies.</p> <p>Activity b.4: Provide training to procurement and environmental management officials from energy and environmental management experts on legislation and methodology related to special waste integrated management and correlated existing best practices: (a) Guidance document on handling of harmful substances such as mercury, HFCs and PCBs; (b) Prevention and minimization and environmentally sound management of hazardous wastes; (c) Environmentally sound technologies and low-waste production; (d) Treat, recycle, reuse and dispose of wastes at the source of generation and regulatory mechanisms; (e) Case studies.</p>
<p>1.2.5 Technical training for trainers provided to policy makers and relevant stakeholders from existing and accredited laboratories. (3 days)</p>	<p>Activity b.5 Provide training to technical professionals in energy-efficient appliance and equipment sector, laboratory employees, and manufacturers from existing and accredited laboratories on Monitoring, Verification, and Enforcement process: (a) Mapping of existing accredited testing laboratories (online resources); (b) Information on financing (initial cost + operation) of national capacities such as laboratories and collection and recycling service organization (CRSO); (a) MVE definition and criteria; (b) Rationale and performance indicators; (c) Case studies.</p>
<p>1.2.6 Technical training for selected trainers to support the enforcement of energy efficient policies, projects and strategies. (3 days)</p>	<p>Activity b.6 Provide training for particular stakeholders to support the enforcement/development of energy efficiency policies, projects and strategies (c) Procurement officials in public institutions; (d) Waste compliance units, authorized waste handlers and suppliers; and environmental management officials; (e) Officials from testing laboratory officials of lighting, appliances and equipment.</p>

ANNEX Q: RESOURCES ALREADY DEVELOPED UNDER U4E-EN.LIGHTEN

Toolkits and Guide:

1. Achieving the Global Transition to Energy Efficient Lighting Toolkit. (English, Arabic, French, Russian, Spanish)
2. The Rapid Transition to Energy Efficient Lighting: An Integrated Policy Approach (English, French, Spanish, Arabic, Russian)
3. Green Paper - Policy Options to Accelerate the Global Transition to Advanced Lighting
4. Guidebook for the Development of a Nationally Appropriate Mitigation Action on Efficient Lighting.
5. Developing a National or Regional Efficient Lighting Strategy
6. Developing Minimum Energy Performance Standards for Lighting Products: Guidance Note for Policymakers

Monitoring, Verification, and Enforcement for Energy Efficient Lighting:

1. Developing Lighting Product Registration Systems
2. Efficient Lighting Market Baselines and Assessment
3. Enforcing Efficient Lighting Regulations
4. Good Practices for Photometric Laboratories
5. Performance Testing of Lighting Products
6. Product Selection and Procurement for Lamp Performance Testing

Off-grid Lighting:

1. Developing Effective Off-Grid Lighting Policy – Guidance Note for Governments in Africa (English and French)
2. Light and Livelihood - A Bright Outlook for Employment (English and French)
3. Lifting the Darkness - Effects of Fuel Subsidies (English and French)
4. Light for Life - Health and Safety Impacts of Fuel-Based Lighting (English and French)
5. Off-Grid Lighting Policy Framework
6. Report on the Off-grid Lighting Status for Southeast Asia and the Pacific

LED Street Lighting:

1. LED Street Lighting (English and French)

Technical Reports:

1. Lamp Sampling in Cambodia, Indonesia, Lao PDR, the Philippines, Thailand and Vietnam

2. Southeast Asia Compact Fluorescent Lamp Performance and Mercury Testing and Analysis Report
3. Southeast Asia Light Emitting Diode Lamp Performance Testing and Analysis Report
4. Inter-laboratory Comparison Testing of Light Emitting Diode (LED) Lamps
5. Global Compact Fluorescent Lamp Check Test Results and Analysis Report

Regional Reports on Energy Efficient Lighting:

1. Policy Status Report on Lighting MVE in Southeast Asia
2. Regional Report - South Asia
3. Regional Report - South East Asia
4. Regional Report - Latin America and the Caribbean (English and Spanish)
5. Regional Report - Middle East and North Africa
6. Regional Report - Sub-Saharan Africa

U4E Policy Guides

1. Fundamental Policy Guide
2. Energy Efficient Lighting
3. Energy Efficient and Climate Friendly Refrigerators
4. Energy Efficient and Climate Friendly Air Conditioners
5. Energy Efficient Electric Motors
6. Energy Efficient Transformers

ANNEX R: SUGGESTED TABLE OF CONTENTS FOR REGIONAL STATUS REPORTS

Acronyms and Abbreviations

Executive Summary

1 - Introduction

2 - Making the case

2.1 - Benefits of the transition to efficient lighting, appliances and equipment in the region

2.2 - Current situation and gap analysis

2.3 - Goals of the Efficient Product Strategy

2.4 - Methodology used for development of the strategy

2.4.1 - The integrated policy approach

2.4.2 - Participatory process for strategy development

3 - Implementing the Strategy

3.1 - Minimum energy performance standards

3.1.1 - Existing legal framework

3.1.2 - Matrix of strategy implementation for minimum energy performance standards

3.1.3 - Indicators for evaluation of progress

3.2 - Supporting policies and mechanisms

3.2.1 - Existing legal framework

3.2.2 - Matrix of strategy implementation for supporting policies and mechanisms

3.2.3 - Indicators for evaluation of progress

3.3 - Environmentally sound management

3.3.1 - Existing legal framework

3.3.2 - Matrix of strategy implementation for environmentally sound management

3.3.3 - Indicators for evaluation of progress

3.4 - Monitoring, verification and enforcement

3.4.1 - Existing legal framework

3.4.2 - Matrix of strategy implementation for monitoring, verification and enforcement

3.4.3 - Indicators for evaluation of progress

3.5 - Financial mechanisms

3.5.1 - Existing legal framework

3.5.2 - Matrix of strategy implementation for financial mechanisms

3.5.3 - Indicator for evaluation of progress

4 - Financial Schemes

4.1 - National contribution

4.2 - Potential funders

5 - Next Steps

6 - Conclusion and Future Plans for Efficient Lighting Annexes

ANNEX S: TABLE OF CONTENT

<u>PART I: PROJECT INFORMATION</u>	<u>1</u>
<u>PART II: PROJECT JUSTIFICATION</u>	<u>5</u>
A.0. Describe any changes in alignment with the project design with the original Concept Note	10
A.1. Project Description	11
1) Global environmental and/or adaptation problems, root causes and barriers that need to be addressed	11
2) Baseline scenario and any associated baseline projects	13
3) Proposed alternative scenario, GEF focal area strategies, with an objective, description of expected outcomes and outputs, and activities of the project	22
4) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF and co-financing	30
5) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)	31
6) Innovativeness, sustainability and potential for scaling up	33
A.2. Child project	34
A.3. Stakeholders	34
A.4. Gender Equality and Women’s Empowerment	39
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