Terminal Evaluation of the UN Environment/GEF Project "Scaling up the Sustainable Energy for All Building Efficiency Accelerator" (2016—2017), GEF ID 9329

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Figure 2, @UN Environment/Kathryn M. Conway: BEA at 2018 SEforAll, Lisbon, Portugal. UN Environment Evaluation Mission (2018).

Figure 7, ICLEI South Asia: Akshay Urja/Rajkot SMART Energy Lab Website Launch, Rajkot, India (2017).

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UN Environment/GEF “Scaling up the SEforAll Building Efficiency Accelerator”
GEF Project ID 9329
10/18

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ABOUT THE EVALUATION

Joint Evaluation: No

Report Language(s): English.

Evaluation Type: Terminal Evaluation

Brief Description: This report is a terminal evaluation of the UN Environment/GEF project, "Scaling up the SEforAll Building Efficiency Accelerator" that was implemented between 2016 and 2017. The project's overall development goal was to support market transformation efforts around the world to demonstrate the power of public-private engagement to double the rate of energy efficiency improvements in buildings by 2030 and quantify the corresponding decrease in greenhouse gas emissions. The evaluation sought to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UN Environment, the GEF and the relevant agencies of the sub-national entities participating in the project.

Key words: Accelerator Platform; BEA; building codes; Building Efficiency Accelerator; building sector; buildings; carbon dioxide; cities; climate change mitigation; CO_2; energy; energy efficiency; GEF; GEF project; GHG; greenhouse gas emissions; market transformation; project evaluation; public-private partnership; retrofits; SEforAll; Sustainable Energy for All; terminal evaluation; The Global Environment Facility.

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LIST OF ABBREVIATIONS AND ACRONYMS

ACEEE	American Council for an Energy Efficient Economy
BEA	Building Efficiency Accelerator
COP	UNFCCC Conference of the Parties
CO_2	carbon dioxide
GHG	greenhouse gas
INDC	Intended Nationally Determined Contribution
NAMA	Nationally Appropriate Mitigation Action
NDC	Nationally Determined Contribution
ProDoc	The BEA Project Document, endorsed by the GEF's CEO
SEforAll	Sustainable Energy for All
The GEF	The Global Environment Facility
ToC	Theory of Change
UN	United Nations
UN Environment	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WRI	World Resources Institute

PROJECT IDENTIFICATION TABLE

Table 1: Project summary

GEF Project ID:	9329	**Project Type:**	Medium-Size
Implementing Agency:	UN Environment	**Executing Agency:**	World Resources Institute
Sub-programme:	Climate Change Mitigation	**Expected Accomplishment(s):**	MTS 2014-2017: CC-EA (b)[1]
UN Environment approval date:	14 April 2016	**Programme of Work Output:**	POW Output 3[2]
GEF approval date:	4 February 2016	**Actual start date:**	14 April 2016
GEF Operational Programme:	6	**GEF Focal Area:**	Climate Change
		GEF Strategic Priority:	CCM-1 Program 2
***Expected* start date:**	n/a	**Actual start date:**	14 April 2016
***Planned* completion date:**	31 October 2017	**Actual completion date[3]:**	31 December 2017
***Planned* project budget at approval:**	USD 10,268,347	**Actual total expenditures reported as of 30 June 2018:**	USD 1,964,644
GEF grant allocation:	USD 2,000,000	**GEF grant expenditures reported as of 30 June 2018:**	USD1,964,644
Project Preparation Grant – GEF financing:	n/a	**Project Preparation Grant – co-financing**	n/a
Expected Medium-Size Project co-financing:	USD 8,268,347	**Secured Medium-Size Project co-financing:**	USD 7,220,093 (realized) USD 148,866 (leveraged)
First disbursement:	10 June 2016	**Date of financial closure:**	n/a
No. of revisions:	2	**Date of last revision:**	22 December 2017
No. of Steering Committee meetings[4]:	5	**Dates of Steering Committee meetings:**	Last: 13 June 2018 / First: 4 May 2016
Mid-term Evaluation (planned date):	n/a	**Mid-term Evaluation (actual date):**	n/a
Terminal Review (planned date):	n/a	**Terminal Review (actual date):**	16 April 2018[5]
Coverage - Countries:	Deep dive cities in Colombia, India, Mexico, Serbia, Turkey and Vietnam	**Coverage - Region:**	Global

[1] Expected Accomplishment (b): "Energy efficiency is improved and the use of renewable energy is increased in partner countries to help reduce greenhouse gas emissions and other pollutants as part of their low emission pathways."
[2] Output 3: "Tools and approaches designed and piloted in countries to develop mitigation plans, policies, measures, and low emission development strategies, and spur sector investment and innovation within and across selected sectors."
[3] Technical completion date.
[4] As of 25 September 2018.
[5] Start date of evaluation.

GEF Project ID:	9329	**Project Type:**	Medium-Size
Implementing Agency:	UN Environment	**Executing Agency:**	World Resources Institute
Dates of previous project phases:	n/a	**Status of future project phases:**	A medium-size GEF project, "The SEforAll Building Accelerator: Expanding Local Action and Driving National Change," commenced in August 2018

I. EXECUTIVE SUMMARY

The Project

1. This report presents the Terminal Evaluation of UN Environment/Global Environment Facility global project, "Scaling up the SEforALL Building Efficiency Accelerator." UN Environment's Climate Mitigation Unit, Energy and Climate Branch within the Economy Division (Paris, France) implemented the project and World Resources Institute (Washington, DC, USA) executed the project. This medium-size project began in April 2016 and concluded in December 2017.
2. The Global Environment Facility provided a grant of USD 2,000,000 matched by USD 8,268,347 of in-kind contributions from 20 key partners, for a total of USD 10,268,347.
3. The goal of the Building Efficiency Accelerator is to, "support market transformation efforts around the world to demonstrate the power of public-private engagement to double the rate of energy efficiency improvements in buildings by 2030 and quantify the corresponding decrease in GHG emissions." The Project Document estimated that the Building Efficiency Accelerator project's efforts would mitigate 3,821,252 tCO_2eq during the project and for 15 subsequent years, contributing to the GEF's target of 750 million tCO_2eq to be mitigated.
4. The Building Efficiency Accelerator is part of the Sustainable Energy for All Accelerator Platform. The Building Efficiency Accelerator's impact contributes to the attainment of Sustainable Development Goal 7, which calls for universal access to sustainable energy by 2030; and, to the 2015 Paris Climate Agreement to reduce greenhouse gas emissions, to limit global climate warming to 2°C. The Building Efficiency Accelerator project coordinated its efforts most closely with the District Energy for Cities Accelerator. Both of these accelerators' projects took the innovative approach of intervening at the city-level rather than at the national level, to accelerate market transformation.
5. As a public-private partnership network, the Building Efficiency Accelerator project engaged 30 cities worldwide, each of which—through a stakeholder-driven process—committed to adopt one energy efficiency building policy measure, implement one energy efficiency building project and track and report the city's results to an international registry. Six of the cities engaged intensively on a "deep dive" basis.
6. This evaluation report details the Building Efficiency Accelerator project's Theory of Change, activities, outputs and direct outcomes. It provides a stakeholder analysis and examples of achievements. The following conclusions, lessons and recommendations are discussed in detail in the final section of the report.

Conclusions

7. Conclusion 1—In a short period of time, the project leveraged extensive support and engagement from a wide stakeholder base, demonstrating the collaborative power of public-private partnership at the city level. It also secured funding for another medium-size UN Environment/GEF project, a Phase 2 of the Building

Efficiency Accelerator. In Phase 1, the cities and the key partners benefited from increased knowledge of building sector market conditions and urban stakeholder needs.

8. Conclusion 2—The public-private partnership helped increase the capacities of the deep dive cities; in turn, these cities and others accelerated their building efficiency policy and project actions. Potentially, 12 cities will reach the intermediate state of being able to measure, verify and benefit from their buildings' CO_2 emissions reductions and energy savings at three to four years from their project launch dates.

9. Conclusion 3—The project demonstrated effective leadership. Over a period of 21 months a large group consisting of: the UN Environment Task Manager; World Resources Institute Project Directors and Managers and their colleagues; members of the Steering Committee and the many liaisons and representatives participating in the thematic resource work groups, training sessions, workshops and webinars, all worked together effectively. In less than two years, they created an adaptive implementation structure that interfaced with the representatives of the 30 cities and their stakeholders to exchange knowledge and experiences and to create a responsive network that served international, regional and city-level needs. Via its strength in human resources, the Building Efficiency Accelerator project successfully demonstrated "the power of public-private engagement" to increase the rate of energy efficiency improvements in buildings and creation and adoption of building policies.

10. Conclusion 4—The Building Efficiency Accelerator project selected and developed expertise and resources that were appropriate and supportive. The many global and national members of the Building Efficiency Accelerator project's public-private partnership shared their world-class knowledge, tools and experience directly with peers at the local level. Together, this partnership has laid a strong foundation for enhancing the capacities of the participating cities, so that they can design and adopt appropriate energy efficiency policies and practices in the buildings sector, some doing so for the first time, directly as a result of their participating in the accelerator.

Evaluation Results

11. The evaluation results are summarized in Table 2. In fulfilment of the Theory of Change at Evaluation, the Building Efficiency Accelerator project delivered the outputs and achieved all of the direct project outcomes that were originally planned. Assessing against the evaluation criteria, the project performed highly satisfactory for most.

Table 2 Summary of Evaluation Results

Criterion	Rating	paragraph
Strategic Relevance	Highly satisfactory	VI.A
1. Alignment to MTS and POW	Highly satisfactory	114
2. Alignment to UN Environment /Donor/GEF strategic priorities	Highly satisfactory	115
3. Relevance: regional, sub-regional & national environmental priorities	Highly satisfactory	116
4. Complementarity with existing interventions	Highly satisfactory	119

Criterion	Rating	paragraph
Quality of Project Design	Satisfactory	VI.B
Nature of External Context	Highly Favourable	VI.C
Effectiveness	Highly satisfactory	VI.D
1. Achievement of outputs	Highly satisfactory	126
2. Achievement of direct outcomes	Highly satisfactory	131
3. Likelihood of impact	Highly likely	131
Financial Management	Highly satisfactory	VI.E
1. Completeness of project financial information	Highly satisfactory	VI.E
2. Communication between finance and project management staff	Highly satisfactory	VI.E
Efficiency	Satisfactory	VI.F
Monitoring and Reporting	Satisfactory	VI.G
1. Monitoring design and budgeting	Satisfactory	154
2. Monitoring of project implementation	Satisfactory	160
3. Project reporting	Satisfactory	164
Sustainability	Highly Likely	VI.H
1. Socio-political sustainability	Highly likely	176
2. Financial sustainability	Highly likely	179
3. Institutional sustainability	Highly likely	181
Factors Affecting Performance	Highly satisfactory	
1. Preparation and readiness	Highly satisfactory	157
2. Quality of project management and supervision	Highly satisfactory	150
3. Stakeholders participation and cooperation	Highly satisfactory	152
4. Responsiveness to human rights and gender equity	Moderately satisfactory	165
5. Country ownership and driven-ness	Highly satisfactory	133
6. Communication and public awareness	Highly satisfactory	185
Overall Project Rating	**Highly satisfactory**	

Lessons Learned

12. Lesson 1. World Resources Institute found that cities needed to assess and identify specific policies and projects before they could examine any specific financial barriers to progress. Furthermore, "cities need standardized finance approaches to scale pilots to programs. While cities can often use local funds for pilot projects, there is a significant barrier to finding sustainable finance approaches to address project pipelines."

13. Lesson 2. The Building Efficiency Accelerator project's global-to-local public-private partnership strategy succeeded in supporting at least 87% of the cities to reach Stage 1; these cities made commitments in Stage 0 and then progressed to assess, prioritize and select energy efficiency building policies and/or to demonstrate and draw closer to implementing energy efficiency in buildings. Private sector and civil society contributors played important roles as facilitators, technical experts and peer advisors.

14. Lesson 3. Although most cities made significant progress when supported by the Building Efficiency Accelerator project's international partnership, World Resources

Institute identified a barrier to local support for energy efficiency in buildings policies and projects that was common to many of the cities: "High-level global platforms and national engagement are necessary to create political linkages and spur a building efficiency movement."

15. Lesson 4. Working very closely with cities in the Building Efficiency Accelerator project Phase 1 showed that cities' buildings markets are embedded in national markets but at the same time have complex, very local roots. In 2017, the City Advisory Panel met and commented on these two aspects and made recommendations to the Steering Committee for improved communications and other actions.

16. Lesson 5. The Building Efficiency Accelerator project scheduled many events at or around the time of the SEforAll Forums, where other accelerators were also presenting and having meetings. Scheduling meetings in coordination with SEforAll events enabled more project participants, stakeholders and potential stakeholders to meet in person, learn about the project's activities and to contribute to the project's on-site meetings; this was economical and ecologically-responsible time and travel management.

17. For example, The City of Belgrade was the only city that engaged at the deep dive level in two accelerators, the Building Efficiency Accelerator and District Energy for Cities initiative. Belgrade's enhanced capabilities via these accelerators led to many accomplishments, including: *Guidelines for Renovating Belgrad*e; *Law on Housing and Maintenance of Buildings*; a demonstration project to completely renovate the energy and efficiency of one elementary school, which was funded by the city government and is expected to reduce energy consumption by more than 50% and have significant social impact. Belgrade's testimony of the value of participating in both accelerators points to the potential for replication and scale-up that could be realized with other cities. This experience and the lessons learned are documented in the publication, *Aligning District Energy and Building Energy Efficiency (Belgrade): A View on Strategic Integrations* (Bean et al., 2018).

18. Lesson 6. The evaluator found that World Resources Institute made a good effort to staff the project equitably and successfully recruited many women professionals for events, webinars and other activities. Likewise, UN Environment staff and consultants included women in leadership and facilitation roles. However, no specific targets were set for representation by gender, geography or indigenous peoples and the project's reporting did not reflect such concerns sufficiently.

19. Lesson 7. World Resources Institute attributes success to cities articulating clear responsibilities, accountability and ambitious goals. The cities that identified global and local responsibilities among the city and partnership members benefited from the fastest delivery of technical resources; they advanced furthest through the Building Efficiency Accelerator project's stages of progress.

20. Lesson 8. World Resources Institute identified three points of leverage that are critical and need further investment to enable the Building Efficiency Accelerator project to scale up and hasten its impact. First, support for regional leadership and city liaison staffing would increase the "pace of action in the network (non-deep-dive) cities" they serve. Second, the Building Efficiency Accelerator project team should increase its efforts to connect and intensify the transfer of knowledge and experience between

technical and city partners. Third, increased staff support would enable more "regular gathering of structured, in-person input from city partners."

21. Lesson 9. "While partners include public sector, private sector, and civil society, some key gaps remain. On the private sector side, the partnership would benefit from additional engagement from energy service companies, developers, design and construction firms, and real estate companies. In terms of the public sector, the Building Efficiency Accelerator project could benefit from additional engagement from national and state/provincial governments. And for civil society, the partnership could better engage local grassroots organizations in addition to technical organizations." (WRI 2018 Lessons Learned report, p 5)

22. Lesson 10. The Building Efficiency Accelerator project's partners responded admirably by sharing a multitude of existing and newly developed professional resources. In turn, these were well-organized and made available online by World Resources Institute and the Copenhagen Centre on Energy Efficiency. Audience data for a series of 20 webinars showed far more webinar audience members connecting from developed countries in the northern hemisphere than from the southern hemisphere. Likewise, a survey of partners conducted by WRI in September to October 2017 found uneven geographic participation in project activities from respondents: fewer who worked in Sub-Saharan Africa, Middle East/North Africa, Brazil, East Asia and South Asia participated than did those who worked in Southeast Asia, North America and Latin America.

Recommendations

23. Recommendation 1. *World Resources Institute, working with the city liaisons should* facilitate plans for staged sequences of appropriate interventions, with "gates" and city-specific indicators of how their markets are performing. These models should anticipate a timeline with milestones and reporting deadlines through 2030 (not just through Phase 2 of the Building Efficiency Accelerator project), to capture the full impact of the Building Efficiency Accelerator project's Phases 1 and 2.

24. Recommendation 2. Given that the Theory of Change required reconstruction (to include an intermediate state) to accommodate the longer horizon for city market transformations, the BEA Phase 2 Steering Committee and thematic work groups should re-examine the BEA project Phase 2 timeframe, scope and expectations for each city's activities, especially since the overall project objective, "to reduce GHG emissions by supporting market transformations that will enable a doubling of the rate of energy efficiency improvements in buildings by 2030," has not changed and therefore the BEA project Phase 2 activities must become even more focused and intensive from 2018 through 2019. The Theory of Change may also need reconstruction at the outset of Phase 2, to incorporate the addition of national-level policy efforts for energy efficient buildings.

25. Recommendation 3. *The Finance and Funding Working Group* should immediately explore and recommend that the *Steering Committee* pursue longer-term funding to sustain, manage and govern the Building Efficiency Accelerator project network when the Phase 2 GEF grant ends. Full-size GEF proposals could be initiated through the *national GEF Focal Points,* and could include private sector and municipal government co-financers. *UN Environment, in cooperation with SEforAll*, should also consider "bundling" efforts inspired by the project as Green Climate Fund climate change mitigation proposals.

26. Recommendation 4. *The Steering Committee* should more actively recruit new partners and draw upon experts from the existing partner organizations who can rapidly identify appropriate actions and enabling capacities that have been proven to accelerate the market transformation toward more efficient buildings.

27. Recommendation 5. *The Steering Committee* should consider recruiting additional "aspirational" cities from regions, countries or states that have accelerated their mitigation efforts in the building sector and that also have pertinent market ties to the Building Efficiency Accelerator project cities.

28. Recommendation 6. *The Steering Committee* should consider seeking volunteers, contacting experts and recommending an appropriate party within the partnership to develop and consistently apply a guideline and a template for integrating constructive project activities regarding gender, geographic diversity and any indigenous groups that should be encouraged to participate in the project as stakeholders.

29. Recommendation 7. *The project executing agency* should consider recruiting international and local electric utilities and more nationally-based developers to assist with: financial analyses of local building retrofit and new construction projects; estimating the incremental costs of energy efficiency improvements and their potential benefits and payback periods; and, the Building Efficiency Accelerator project Phase 2 outreach to building owners and operators. Via ministerial contacts, nationally-based utilities and government agencies responsible for housing and urban planning also could be recruited as stakeholders to address issues of off-grid housing and plans for increasing access to electricity, especially in nations where these issues affect a significant percent of the population.

30. Recommendation 8. When planning future market transformation project proposals *the UN Environment Climate Change Mitigation Unit* could: initiate a review of all of its prior, ongoing and planned market transformation projects to provide guidance on best practices for projects to new projects and summarize the lessons learned; note the status of actions taken on any prior project recommendations; compare emissions reductions attributable to the projects; and, celebrate and publicize all of these public-private partnerships and their contributions.

31. For Phase 2, *the UN Environment Task Manager could work with the Energy Branch to request that the executing agency* strategically and systematically invite prior participants of all of the UN Environment Climate Change Mitigation, GEF-funded, energy and environment market transformation projects to consider joining the Building Efficiency Accelerator project. Internal to UN Environment, *the Task Manager (or a representative of the Energy Branch)* should advocate for a systematic, continuous liaison role dedicated to nurturing a network of these national and regional market transformation contacts through 2030, to further support and track their contributions toward the goals of SEforAll, Sustainable Development Goal 7 and the Paris Agreement.

Recommendation 9. *The Building Efficiency Project Phase 2 project managers* should task the appropriate staff or consultants with creating a plan to increase awareness of the project, to garner local and national support and to attract more cities to participate. Also, *the Building Efficiency Accelerator communications team* could repeat the webinar series, targeting audiences in areas that previously had low audience engagement. The webinars could be hosted by *local partner members and/or by experts speaking local languages,* and, should be scheduled during peak work hours for those time zones.

II. INTRODUCTION

32. This document is the Final Report for the Terminal Evaluation of the UN Environment/Global Environment Facility (GEF) global project, "Scaling up the SEforALL Building Efficiency Accelerator" (BEA project). The project builds on lessons learned from a "pilot" deep dive city project with Mexico City and a public-private partnership during 2014[6].

33. UN Environment's Climate Mitigation Unit, Energy and Climate Branch within the Economy Division acted as the GEF Implementing Agency for the BEA project. It is global in scope.

34. This terminal evaluation is limited to Phase 1 (activities through 31 December 2017); and, it is required per the GEF grant. The Draft Terminal Evaluation includes key information about the structure and budget of the project; briefly describes and analyses the project's stakeholder groups; reconstructs a theory of change; assesses progress made against the targets set in the logical framework in the Project Document (ProDoc); offers ratings of performance against the UN Environment Office of Evaluation's criteria; and, presents conclusions, lessons learned and recommendations.

35. UN Environment's Project Review Committee approved the project documentation for submission to the GEF on 18 December 2015, subject to the incorporation of comments. The GEF CEO and Chairperson, Naoko Ishii, signed the GEF letter of approval on 4 February 2016.

36. The BEA project fits within GEF 6, Climate Change Mitigation Focal Area 1, "Promote Innovation, Technology transfer and Supportive Policies and Strategies," Program 2, "Develop and demonstrate innovative policy packages and market initiatives to foster a new range of mitigation actions." Furthermore, the BEA project will advance GEF corporate result 4, "Support to transformational shifts towards a low-emission and resilient development path." The GEF defines its transformational interventions as, "engagements that help achieve deep, systemic, and sustainable change with large-scale impact in an area of global environmental concern" (GEF Independent Evaluation Office, 2018, p vii).

37. The BEA project contributes to the UN Environment Medium-Term Strategy of 2014-2017, Climate Change Expected Accomplishment (b), "Energy efficiency is improved and the use of renewable energy is increased in partner countries to help reduce greenhouse gas emissions and other pollutants as part of their low emission development pathways." The project's outputs align with UN Environment's Output 3, "Tools and approaches designed and piloted in countries to develop mitigation plans, policies, measures and low emission development strategies and spur sector investment and innovation within and across selected sectors." The innovation of the

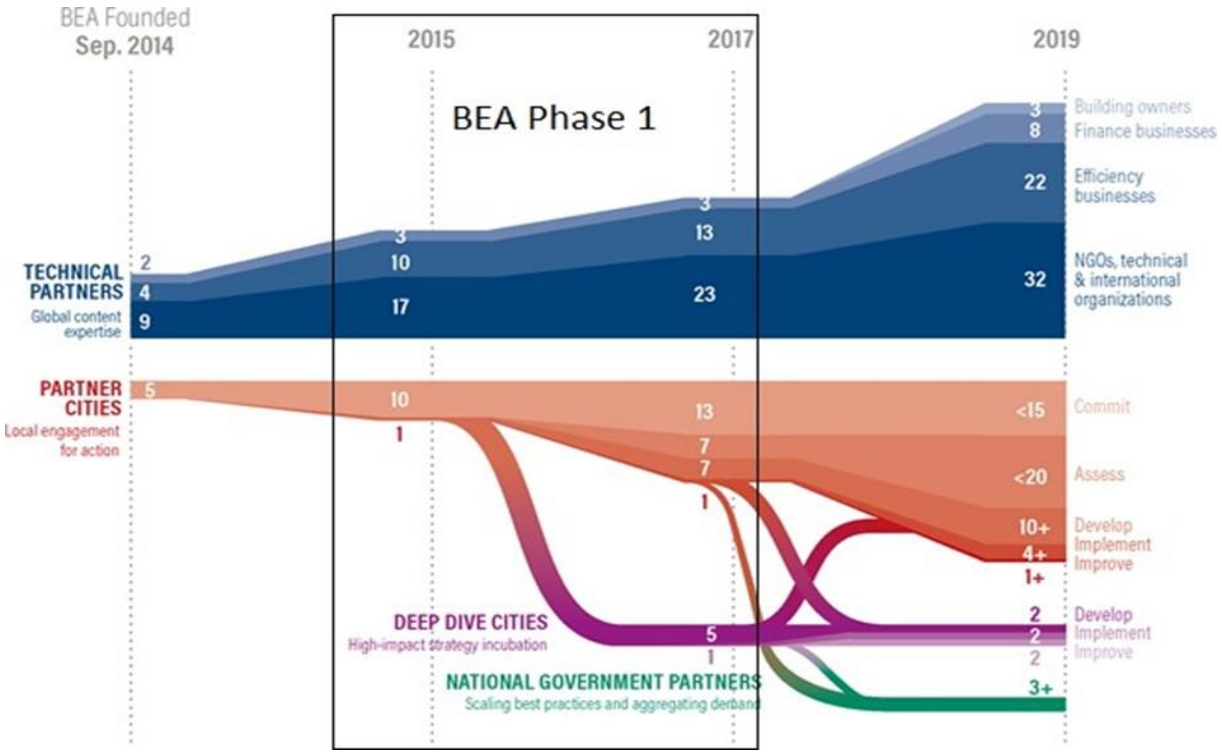
[6] In September 2014 the government of Mexico City committed to mitigation actions based on energy efficiency, implementing a building energy code and retrofitting public buildings. A workshop was held in March 2015, followed by publication of an action plan with "4 workgroups chaired by Mexico City government staff and an SE4All partner, project managed by WRI/CTS EMBARQ." (WRI Ross Center for Sustainable Cities. 2016. IEA Energy Efficiency Training week presentation, p 11.) This effort and its nascent partnership were incorporated into the BEA project Phase 1.

BEA project is to partner primarily at the city and state level rather than at the national level.

38. The BEA is one of SEforAll's energy efficiency accelerators[7]. Like the other SEforAll accelerators, BEA's success will contribute to achieving Sustainable Development Goal 7, which calls for universal access to sustainable energy by 2030, and, to the 2015 Paris Climate Agreement to reduce GHG emissions, to limit global climate warming to 2°C.

39. UN Environment, 15 technical partners and five partner cities had begun to collaborate prior to the formal start of the GEF-funded BEA project, which began in April 2016 and concluded in December 2017 (21 months). The project is shown as "BEA Phase 1," in the middle of the estimated growth curves that are illustrated in Figure 1 (WRI, 2018, BEA Lessons Learned Report, p 4, draft v6). Although the BEA project had only one phase, the entire project is referred to as "Phase 1." Subsequently "Phase 2," GEF medium-size project 9947, "The SEforAll Building Efficiency Accelerator: Expanding Local Action and Driving National Change," was approved on 13 June 2018 and commenced in August 2018[8].

Figure 1 Actual and projected growth of partnership engagements, 2014 to 2019



[7] According to SEforAll, its accelerators, "... gather Partners to accelerate action where walking together may have a galvanizing effect. Accelerators may focus on new business models, specific policy questions, market segment, population or new issues where the attention has been lacking. They are focused on delivery. Until now, accelerators were focused mainly on Energy Efficiency, including Building Efficiency, District Energy Services, Lighting, Appliances and Equipment, Industry, and Vehicle Fuel Efficiency" (https://www.seforall.org/partnership/accelerators/energy-efficiency-accelerators). SEforAll launched the People-Centered Accelerator in April 2017 (https://www.seforall.org/connecting-partners/accelerators/people-centered-accelerator).

[8] The GEF, summary page: https://www.thegef.org/project/seforall-building-efficiency-accelerator-bea-expanding-local-action-and-driving-national. The GEF Trust Fund grant for this 18-month medium-sized project of USD 2,000,000 is combined with BEA project (Phase 2) partners' co-financing of USD 6,116,648 for a total project cost of USD 8,116,648.

40. When approved by the GEF, the BEA project had secured commitments for in-kind co-financing from 20 key partners[9] (Table 3.) The BEA project also welcomed contributions of expertise (such as webinar panellists) from additional businesses and organizations[10].

Table 3 Key partners, their roles and their co-financing commitment

Name	Sector*	Role(s)**	In-kind co-financing (USD)
Buildings Performance Institute (BPIE)	CS	Share best practices via webinars, trainings and publications; provide policy advice.	$300,000
Business Council for Sustainable Energy (BCSE)	CS	Support Components 1 and 2; trainings, publications and workshops.	$118,636
C40 Cities Climate Leadership Group (C40)	CS	Provide technical expertise and market insights from two networks of cities.	$36,000
Copenhagen Centre on Energy Efficiency, UN Environment-DTU Partnership	CS	Support for knowledge management and coordination with other Accelerators.	$500,000
Danfoss	PS	Outreach and recruitment of cities, workshops in cities and webinars	$45,400
Global Buildings Performance Network (GBPN)	CS	Provide policy and technical support on benchmarking energy efficiency in buildings	$135,080
Global Green Growth Forum (3GF)	CS	Host public-private partnership meetings and annual conferences	$150,000
ICLEI-Local Governments for Sustainability / World Secretariat	CS	PSC; support and proprietary tools for outreach, deep dive and network activities for cities. Leads regional coordination and recruiting; co-leads technical working group on Procurement.	$1,974,810
EDGE Program, International Finance Corporation (IFC)	IO	PSC; EDGE IT, coordination and webinars	$542,000
Ingersoll Rand	PS	Support BEA stakeholder activities, including working groups and events	$311,100
Investor Confidence Project	CS	Develop efficient buildings financing tools and deliver training and advice to BEA network; Leads technical working group on finance	$425,000
Johnson Controls	PS	PSC; Support via Institute for Building Efficiency tools, training and stakeholder activities; Leads regional coordination of Eastern Europe	$500,000

[9] ProDoc, Annex L, "Co-financing Letters." Note that Section C, the Co-financing table in the ProDoc (pp 4-5) did not include WRI although Annex L did include WRI's letter of co-financing; and, the Co-Financing table included Global Buildings Performance Network (GBPN) but GBPN's letter was not included in Annex L.

[10] In this evaluation, lists of "partners" do not include cities or other sub-national organizations; they are referred to as, "cities," or, "participating cities." "Key partners" include the GEF, UN Environment and WRI. Additional organizations or individuals that contributed expertise or other resources but did not sign letters of in-kind contribution also are referred to as "partners."

Name	Sector*	Role(s)**	In-kind co-financing (USD)
Clean Energy Solutions Center, National Renewable Energy Laboratory (NREL)	CS	Support partnership development, technical assistance, technical resources and trainings.	$85,000
TECNALIA	CS	Support deep dive and network cities and contribute technical expertise and publications; Leads technical working group on retrofits	$978,775
UN Foundation	CS	PSC; Support performance measurement, workshops and knowledge management activities	$39,946
UN Environment	IO	PSC; Implementing Agency; provide technical assistance via tools, workshops and trainings; co-leads technical working group on Procurement; BEA GEF project implementing agency; leads deep engagement with Belgrade	$81,000
US Green Building Council (USGBC)	CS	Provide policy, action plan and tracking resources via tools, workshops and webinars	$300,000
World Business Council for Sustainable Development (WBCSD)	CS	PSC; provide technical expertise on energy efficiency certification and market insights on projects and policies in cities worldwide	$300,000
World Green Building Council (WGBC)	CS	PSC; provide technical expertise and market insights from Green Building Council partners in five global regions	$200,600
World Resources Institute (WRI)	CS	PSC; Executing Agency; provide technical expertise and market insights; provide and maintain building efficiency tools	$1,245,000
* Sectors: civil society (CS); international organization (IO); private sector (PS)			
** Roles: BEA project steering committee (PSC)			

41. The GEF Trust Fund provided support for this medium-size project, ID 9329, via a grant of USD 2,000,000 which the World Resources Institute and UN Environment paired with in-kind and cash co-financing from partners of USD 8,268,347, for a total BEA project budget of USD 10,268,347.

42. Due to the size and short length of the project, which was originally approved for 18 months and later granted a three-month, no cost extension, no midterm evaluation or other evaluations were required by the GEF or UN Environment.

43. In compliance with the UN Environment Evaluation Policy and the UN Environment Programme Manual, the Terminal Evaluation is undertaken to assess project performance (in terms of relevance, effectiveness and efficiency), and, to determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among project partners.

44. The evaluation identifies project learning that is relevant to future projects. These "Lessons Learned" could help formulate and implement further phases of this project

and related, new projects. This terminal evaluation may inform future UN Environment proposals, projects or programs in the building sector, particularly those that rely on many collaborating organizations and cities that aspire to reduce their greenhouse gas (GHG) emissions.

45. The key audience for the findings of the terminal evaluation includes but is not limited to: UN Environment Evaluation Office; UN Environment (the Implementing Agency) project team members and their respective units; the GEF; Sustainable Energy for All (Secretariat); World Resources Institute (the Executing Agency) project staff; and, BEA project partners (participating cities and governments; civil society organizations; private sector entities; and, all their respective liaisons).

III. EVALUATION METHODS

46. The evaluator followed a participatory approach, keeping the Evaluation Manager and BEA project team members informed and consulted throughout the evaluation. Qualitative evaluation methods were used to determine project achievements against the expected outputs, outcomes and impacts. The evaluation did not necessitate quantitative analyses beyond simple tallies and calculated percentages.

47. The terminal evaluation findings are based on four modes of inquiry: desk evaluation of documents; in-person interviews conducted during one mission; telephone interviews and discussions; and, reconstruction of a Theory of Change for the BEA project.

48. Desk evaluation of available project documents included: plans, reports, budgets, committee meetings, published papers and workshop and meeting presentations; agendas and lists of contacts and workshop attendees; and, project websites and online tools. (Annex I includes the documents consulted.)

49. Where possible, the evaluator cross-checked the accuracy and completeness of relevant project information with any available and pertinent public sources, such as the websites of partners and UNFCCC sites with published Nationally Determined Contributions (NDCs) and Nationally Appropriate Mitigation Actions (NAMAs).

50. A valuable addition to BEA project documents is the "Lessons Learned" final project report from WRI, which includes the results of survey conducted in late 2017. This BEA survey was an activity of the project's Component 4, Monitoring and Evaluation. WRI also provided the evaluator with the data compilation from this survey's respondents. (All survey responses were anonymous.)

51. In-person interviews were possible because the timing of the evaluation coincided with the 2018 SEforAll Forum, held 2 to 3 May in Lisbon, Portugal. With the support of the UN Environment Evaluation Office, the evaluator arranged and conducted one mission to

Figure 2 Panel discussion during the BEA/District Energy Initiative session at the 2018 Sustainable Energy for All Forum in Lisbon, Portugal

attend the BEA session at the 2018 SEforAll Forum (Figure 2)[11] and to observe a BEA Partners Meeting. Annex II includes the mission itinerary.

52. The mission was an opportunity for the evaluator to meet with BEA project team members, city representatives and partners, including representatives of other SEforAll accelerators. The evaluator conducted in-person interviews during the mission, in advance of which she emailed customized questions for the interviewees to consider.

53. Telephone interviews with UN Evaluation and WRI project team members were conducted by the evaluator during April, May, July and August 2018.

54. To facilitate efficient interviews, the evaluator sent each interviewee several questions drawn from the Evaluation Framework in the Inception Report. The evaluator took detailed notes during interviews but combined responses from peers (BEA project team members, cities and partners) to maintain the confidentiality of individuals. She also welcomed interviewees' follow-up thoughts, via email.

55. Regarding the inclusiveness of the BEA project, the evaluator examined progress reports and other documents related to publications, webinars, training sessions and events. With the cooperation of the Copenhagen Centre on Energy Efficiency, the evaluator examined the knowledge management website and, where quantitative data was made available by the Centre, the evaluator compiled lists with factors such as gender and geography. WRI also provided some tabulations regarding gender and geography for participants in working groups, events and other project-related functions[12]. Where feasible in any of the research conducted for the evaluation, she calculated percentages of totals for any factor related to geography, gender or indigenous peoples. She also offered an open question on these factors during in-person and telephone interviews, to learn more about efforts to diversify the project and partner teams, the audiences for the BEA project and the issues covered in trainings and publications.

56. The Theory of Change was reconstructed by the evaluator, based on narrative in the BEA Project Document, an initial diagram developed during the proposal process for the BEA project and on the evaluator's discussions with the BEA project team (WRI project managers, UN Environment Task Manager and UN Environment Office of Evaluation's Evaluation Manager). The evaluator used the reconstructed Theory of Change at Evaluation as a point of reference for organizing and assessing the evidence of progress made by the BEA project, and for developing a context for this report's findings, conclusions, lessons learned and recommendations.

57. The evaluator focused on the criteria provided by UN Environment Office of Evaluation in the Terms of Reference for this terminal evaluation and in the Office's published guides and templates. All evaluation criteria are rated on a six-point scale[13].

58. The Evaluation Office assessed the quality of the first draft of the final report (Annex XII). The UN Evaluation Task Manager, WRI Project Manager and project stakeholders

[11] Panel co-chairs (Clay Nessler, Johnson Controls, *far left*; and Julia Panzer, Danfoss, *far right*) and presenters (*left to right*, Joao Castanheira, ENGIE Portugal, Lisbon; Snježana Glumac, City of Belgrade; Maria del Pilar Restrepo Mesa, Metropolitan Area of the Aburrá Valley; and, Cristina Gamboa, Colombia Green Building Council).

[12] The tabulations were not provided by WRI until the final report review phase, in mid-October 2018. They are not presented in this report in tables, but were considered and acknowledged in the body of the report and in the ratings.

[13] Evaluation criteria are rated across a 6-point scale: Highly Unsatisfactory (HS); Unsatisfactory (U); Moderately Unsatisfactory (MS); Moderately Satisfactory (MS); Satisfactory (S) and Highly Satisfactory (HS). For the Likelihood of Impact and Sustainability the word 'satisfactory' is replaced with 'likely' (L) and for the Nature of the External Context the word 'satisfactory' is replaced with 'favourable' (F)

were invited to review a summary of the second draft of the final report, with a focus on conclusions, recommendations and lessons learned The evaluator incorporated most suggested improvements in a second draft; any comments not fully accepted and incorporated by the evaluator into this published final report are noted in Table 20, Annex IX.

IV. THE PROJECT

A. Context

59. The BEA project tackles the significant emission of greenhouse gases (GHGs) resulting from urban buildings worldwide and the slow rate of improvement in energy efficiency in the buildings sector. The stated goal is, "to support market transformation efforts around the world to demonstrate the power of public-private engagement to double the rate of energy efficiency improvements in buildings by 2030 and quantify the corresponding decrease in GHG emissions" (ProDoc, pg. 21). The BEA project is estimated to mitigate 3,821,252 tCO_2eq from 2016 and the 15 subsequent years, contributing to the GEF's target of 750 million tCO_2eq to be mitigated (*ibid.,* pg. 6).

60. The Project Document noted that buildings are responsible for approximately 25% of global energy demand and nearly 33% of GHG emissions (*ibid.,* pg. 9). According to International Energy Agency estimates, buildings and building construction in 2015 were responsible for 30% of final energy consumption, 55% of global electricity demand and 40% of direct and indirect CO_2 emissions (IEA 2017). Growth in the buildings sector continues: IEA estimates annual increase of building floorspace, by 3%; and, buildings-related energy use (+1%), electricity use (+2.5%) and global CO_2 emissions (+~1%).

61. The International Energy Agency (2017) further estimates that, "final energy intensity per unit of floor area ... has only fallen by 1.3% per year." This small gain in efficiency is not sufficient to offset the buildings sector growth trends; thus, greater and faster building efficiency gains are the goal for the BEA project.

62. The Project Document (pg 1) states that the BEA project objective is to, "Reduce greenhouse gas emissions by supporting market transformations that will enable a doubling of the rate of energy efficiency improvements in buildings by 2030, by linking global market experience with local policy action and capacity building." The BEA Project Document did not define "market transformation" *per se*, so the evaluator suggests using the definition offered by the American Council for an Energy Efficient Economy (ACEEE) on its website: "the strategic process of intervening in a market to create lasting change in market behaviour by removing identified barriers or exploiting opportunities to accelerate the adoption of all cost-effective energy efficiency as a matter of standard practice."[14]

63. The strategic approach the BEA project takes is to bring together—in a SEforAll Accelerator—policy makers and experts, city governments, private sector energy efficiency players and civil society organizations who would cooperate to speed up the rate of adoption of efficient building technologies and practices and to expand the number of cities and buildings that reduce energy demands and increase efficiency.

64. From 2015 through 2017 BEA included 30 "cities" that signed participation agreements[15]. These were urban jurisdictions that included: cities (nine of which were national capitals); metropolitan regions or counties; and, several states, from 18

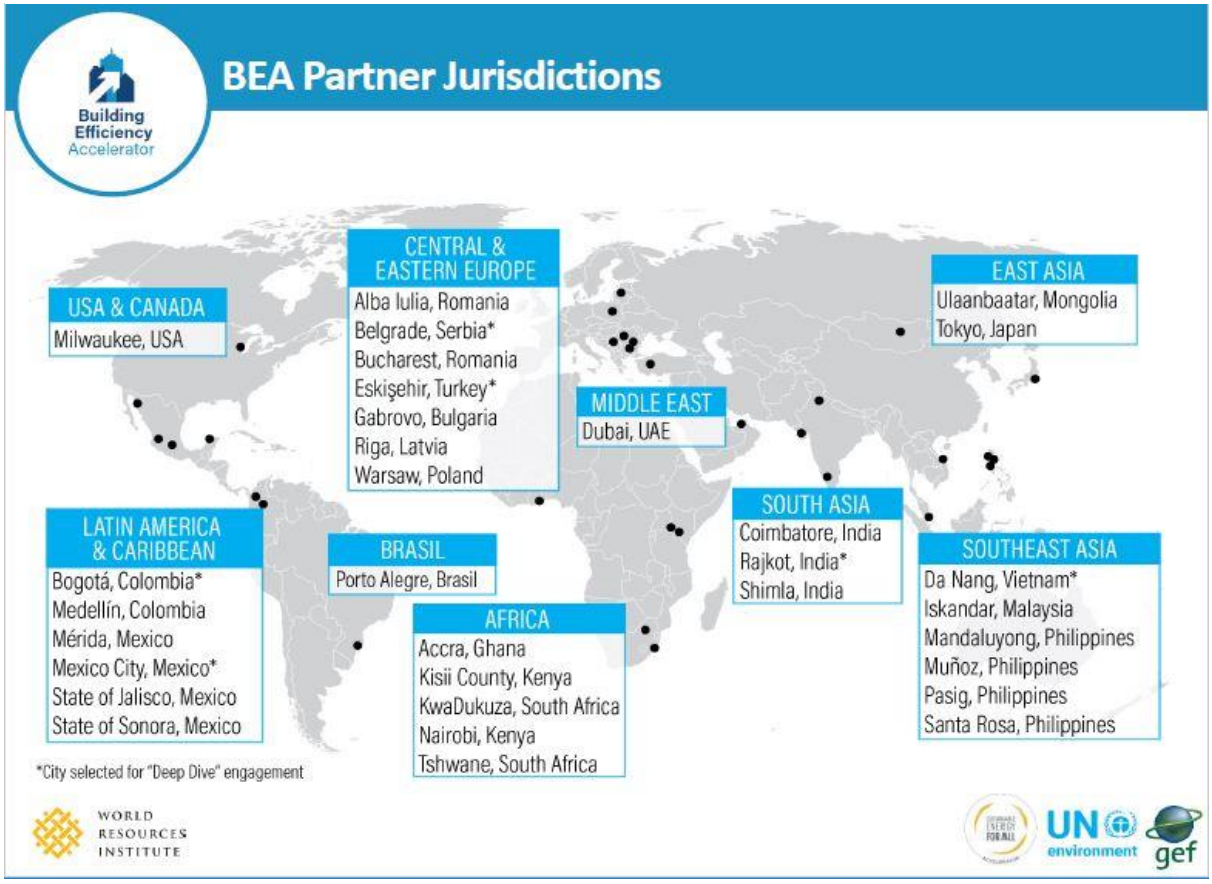
[14] The ACEEE definition of market transformation reflects the most commonly accepted source for market transformation economic models, Everett Roger's influential book, Diffusion of Innovations, first published in 1962 and most recently updated in the 5th edition, 2003.

[15] A template for the BEA Partnership agreement with cities ("jurisdictions") was included in the text for Component 2 in the Project Document, pages 16-17.

countries in Africa, Asia, Europe, the Middle East and the Americas. Figure 3 maps the BEA cities and Table 4 lists the cities (WRI, Lessons Learned, 2018).

65. Several of the participating cities were "inspiring" by virtue of their existing energy efficiency building efforts; these included Dubai, Tokyo and Warsaw. Most of the cities were "aspiring" to increase their capacity to accelerate energy efficiency building efforts.

Figure 3 Locations of BEA Phase 1 project cities



66. Through a competitive process, the BEA project Steering Committee selected six cities for intensive support, mainly via a dedicated staff person who coordinated a facilitated decision-making process and customized expert advice. These cities were named as "deep dive" cities. UN Environment and WRI had been working with Mexico City in a pilot project since 2014, prior to the launch of the BEA project. In addition to Mexico City, Milwaukee, USA and Warsaw, Poland were the earliest city participants, both joining in 2014. Any city that committed to the BEA project could access all of the BEA project's public resources and participate in outreach activities. Initially (and in the Project Document) the non-deep-dive cities were called, "light touch" cities, but with input from stakeholders, WRI updated the name to, "network" cities, to more appropriately reflect their collaborative roles in the project[16].

[16] Personal communication with evaluator by WRI staff confirmed that "light touch" was not a marketable term (from the perspectives of some of the partners) to use in the BEA project. For an example of how "network cities" was used, WRI provided examples of "network cities" in project documents, such as, "BEA City Advisory Panel: Criteria for Selection and 2017 Recommendations," (meeting handout,

Table 4 List of BEA project cities, by country

Country	City or State
Brazil	Porto Alegre
Colombia	Aburrá Valley Region and Medellín; Bogotá*
India	Coimbatore; Rajkot Municipal Corporation*; Shimla Municipal Corporation
Japan	Tokyo
Kenya	Kisii County; Nairobi City County
Latvia	Riga Municipal Agency
Malaysia	Iskandar
Mexico	Jalisco State; Mérida; Mexico City*; Sonora State
Mongolia	Ulaanbaatar
Philippines	Mandaluyong City; Pasig; Santa Rosa; Science City of Muñoz
Poland	Warsaw
Romania	City of Alba Iulia; District 3 of Bucharest
Serbia	Belgrade*
South Africa	KwaDukuza; Tshwane
Turkey	Eskişehir*
United Arab Emirates	Dubai
United States of America	Milwaukee
Vietnam	Da Nang City*

* Deep dive cities

67. According to UN DESA, "In 2016, an estimated 54.5% of the world's population lived in urban settlements. By 2030, urban areas are projected to house 60% of people globally and one in every three people will live in cities with at least half a million inhabitants." The total of recent population estimates of the BEA cities is approximately 70.5 million people[17], slightly less than one percent of the current estimated global population[18]. The size of BEA cities ranges widely, from the relatively small City of Alba Iulia, population 65,500, to Tokyo, the 6th largest global city, population 13.6 million. Approximately one-third of the BEA cities have populations greater than two million; one-third between one and two million; and, one-third less than one-million.

January 2017). UN Environment, however, notes that "light touch" is still used in the Phase 2 Project Document (personal communication with evaluator, September 2018).

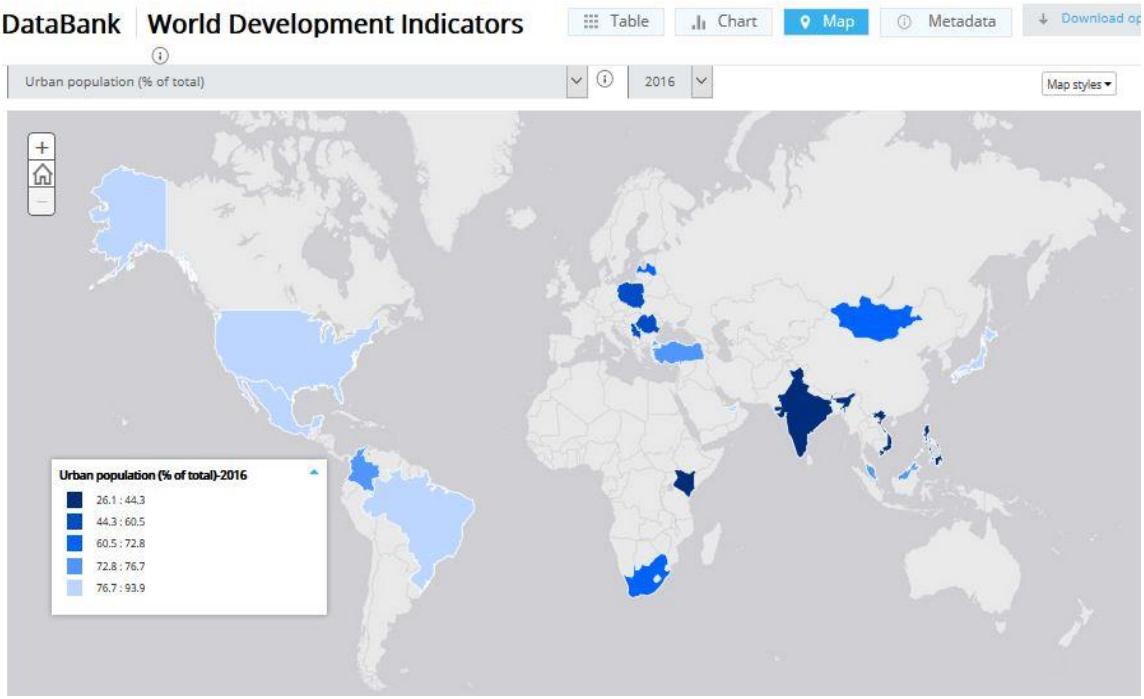
[17] Based on estimates of city populations, from 2011 to the present; retrieved by the evaluator from multiple online sources as of 18 June 2018.

[18] UN DESA, 17 June 2017, "World Population Prospects: The 2017 Revision." Accessed 26 June 2018, https://www.un.org/development/desa/publications/world-population-prospects-the-2017-revision.html.

68. For global context, and to illustrate further some characteristics that are relevant to the energy efficiency efforts of the BEA project cities, the evaluator presents three maps[19].

69. Figure 4 shows urban populations as a percent of total national populations. Notably, the cities in the Americas are in countries with lower percentages of urban populations versus total populations.

Figure 4 Urban populations as a percent of total national populations (2016) for countries in which BEA project cities are located

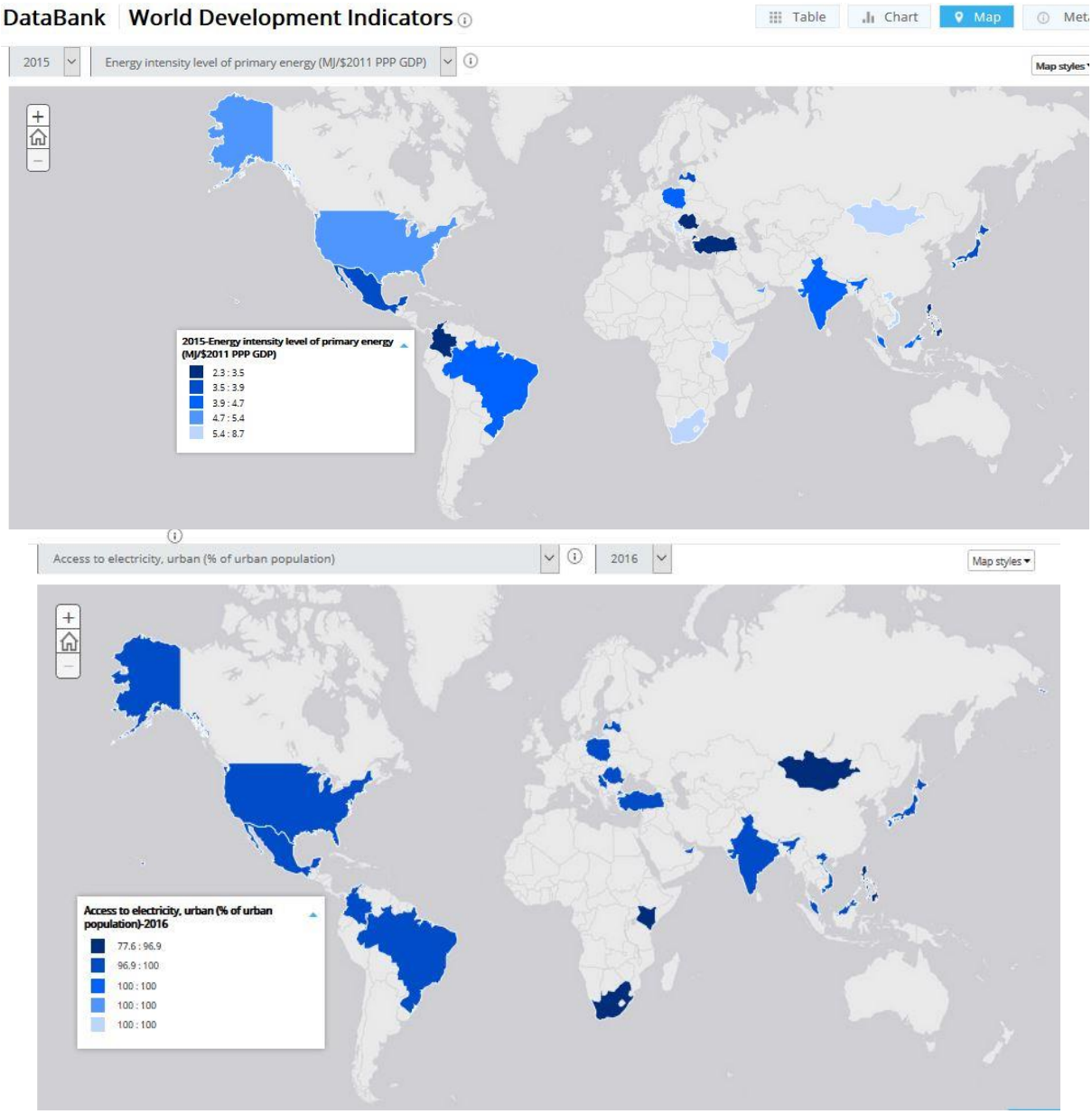


[19] The evaluator constructed the maps in Figure 4 to Figure 6 with the World Bank Databank mapping tool, using standardized indicators and the most recent and complete annual datasets.

70. Figure 5 shows the percent of urban populations that have access to electricity. Improving access to electricity is an aim of Sustainable Development Goal 7 and SEforAll, but not the BEA project.

71. Figure 6 shows national energy intensity, the standardized global indicator used by SEforAll that is most closely related to energy efficiency (for which there is no global tracking standard)[20]. The evaluator notes that low energy intensity is related to low urban access to electricity, in several countries (Kenya, Mongolia, South Africa and Vietnam).

Figure 6 Energy intensity level of primary energy (2015) for countries in which BEA cities are located



[20] Energy intensity indicator, as defined by World Bank Databank: Energy intensity level of primary energy (MJ/$2011 PPP GDP). Source: World Bank, Sustainable Energy for All (SE4ALL) database from the SE4ALL Global Tracking Framework led jointly by the World Bank, International Energy Agency, and the Energy Sector Management Assistance Program.

B. Objectives and components

72. As noted above (para. 62), the project's objective was to: '"reduce greenhouse gas emissions by supporting market transformations that will enable a doubling of the rate of energy efficiency improvements in buildings by 2030, by linking global market experience with local policy action and capacity building."

73. The evaluator notes that the results for the project objective will support the Accelerator Platform of Sustainable Energy for All, which incorporates the BEA project's mitigation target of 3,821,252 tCO_2 (15 years post-project technical completion). The results will also be applied to the GEF's corporate results replenishment target for a development path of transformational shifts towards low emissions and resiliency[21].

74. The Project Results Framework (ProDoc Annex A) adhered to the simple structure of the four components that the GEF approved for the project:

    Component 1. Partnership expansion: Global and local partnerships of businesses, non-governmental organizations and local governments scaled up to transform local efficiency markets

    Component 2. Technical assistance and capacity building for efficiency actions in cities ("light touch," changed to, "network cities," for communications with Partners, during implementation)

    Component 3. Place-based market transformation partnerships for policy and project implementation ("Deep dives") (changed to, "deep dive cities")

    Component 4. Monitoring and evaluation

75. Table 8 describes project outputs and Table 9 describes project direct outcomes.

76. The outcomes of each component referred to the UN Environment Medium Term Strategy, with its Expected Accomplishment for Low Emissions Growth. The BEA project outcome indicators and baselines were simple and clearly stated. The targets and monitoring milestones were clear and feasible to use for a GEF Medium Size project. No assumptions were included in the framework, but the risks noted were relevant to the political and administrative status of cities within their respective countries.

77. At a higher level, the project objective refers to the UN Environment Medium Term Strategy for Climate Change, 2014—2017. The project objective (with its indicators, baseline, targets and monitoring milestones) is more closely related to an Intermediate State in the Reconstructed Theory of Change at Evaluation (pg. 29) than it is to the BEA project Phase 1 outcomes. For example, it has a 15-year monitoring horizon, post-project technical completion. Phase 1 of the BEA project will only go so far as to begin establishing the means of verification

[21] As per the Project Document, Section E, p 6.

with a project monitoring system that utilizes standard GHG protocol standards.

C. Stakeholders

78. The two main groups of stakeholders[22] are participating cities; and, partners (including the executing and implementing agencies). The partners are further categorized as, private sector organizations; civil society organizations (albeit some that represent private sector entities); and, international institutions. Table 3 lists and briefly describes the 20 key partners that made in-kind co-financing commitments for Phase 1[23]. By sector, 50% are civil society, 10% are international organizations and 40% are private entities.

79. Additional partners making leadership contributions included: Colombia Green Building Council (CCCS)—leading deep engagement with Bogotá; Da Nang Climate Change Coordination Office—leading deep engagement with Da Nang; ICLEI East Asia—coordination of East Asia; ICLEI South Asia—leading engagement with Rajkot, and, coordination of South Asia; ICLEI Southeast Asia—coordination of Southeast Asia; and, Pacific Northwest National Laboratory (PNNL)—leads technical working group on building codes.

80. Rajkot, for example, is a deep dive city that has incorporated and responded to many stakeholders' input for its green building incentive policy. Figure 7 shows city officials and participants celebrating the launch of an energy efficiency information website (ICLEI South Asia, 2017).

81. Altogether, more than 40 organizations in 2016-2017 partnered to contributed their expertise and support to the BEA project in Phase 1, including: 100 Resilient Cities; Accenture; Alliance to Save Energy; Alstom; Architecture 2030;

Figure 7 Stakeholders participate in Rajkot Municipal Corporation's "Akshay Urja/Rajkot SMART Energy Lab Website Launch," in September 2017

[22] Evaluation Office of UN Environment identifies stakeholders broadly as all those who are affected by, or who could affect (positively or negatively) the project's results. At a disaggregated level key groups should be identified, such as: implementing partners; government officials and duty bearers (e.g. national focal points, coordinators); civil society leaders (e.g. associations and networks) and beneficiaries (e.g. households, tradespeople, disadvantaged groups, members of civil society etc). UN Environment recognizes the nine major groups as defined in Agenda 21: Business and Industries, Children and Youth, Farmers, Indigenous People and their Communities, Local Authorities, NGO's, the Scientific and Technological Community, Women, Workers and Trade Unions.

[23] Lists of contributors compiled from the Project Document and from Steering Committee Meeting Reports.

China Energy Conservation and Environmental Protection Group; DEXMA; Econoler; International Energy Agency; Lawrence Berkeley National Laboratory; Natural Resources Defense Council; Partnering for the Global Goals 2030; The Carbon Trust; Philips; Saint-Gobain; Schneider Electric; UN Development Program; and, World Bank Group—ESMAP.

82. Stakeholder target groups identified in the Project Document include: "sub-national" actors such as city and state government authorities; private sector manufacturers and distributors of energy efficient technologies; construction firms; civil society organizations (many of which represent building sector professionals and business interests); Green Building Councils; financial institutions; research institutions, including federal laboratories; and, international organizations such as multilateral development banks and international energy organizations.

83. Table 5 considers the stakeholder groups' relative influence on the BEA project, their roles in designing and implementing the project and any changes evident in their behavior as the project was implemented.

Table 5 Stakeholder analysis

Stakeholders, by type	Power exerted over results, implementation and level of interest in the BEA project	Role, if any, in project design	Roles as BEA project implementers	Changes in behaviour or capacity during BEA project implementation
Type A: High power / high interest = Key player				
Participating "deep dive" cities	These six cities were the focus of much of the effort and attention of the project team; they accomplished significant project actions and were influential examples for the light touch cities.	Several, particularly Mexico City, had prior experiences with the BEA project team and helped to inspire the BEA project. A large part of the budget supported grants that for a dedicated BEA liaison in each city to coordinate project actions.	The deep dive cities took on the role of showcase and pilot project leaders.	As a deep dive city in both BEA project and District Energy for Cities Initiative, Belgrade's representative stated that Belgrade, "has a great wish to continue activities on both projects in future in order to provide security of energy supply and to become a replication model for many similar cities." (Glumac 2018)
Private Sector Partners	Participated in Project Steering Committee and Working Groups. Highly motivated to: share experiences and market insights; promote energy efficient products and services; and, to understand and enter new markets. Of note was Johnson Control's strong leadership role.	Cooperated and made specific commitments during project design, implementation and proposal planning for Phase 2.	Shared existing knowledge materials and created new publications and tools; co-facilitated working groups; served as liaisons with cities; provided experts for outreach, webinars and trainings.	Increased understanding and responsiveness to city-level needs, gaps and strengths in the building sector; gained competitive intelligence regarding city/state plans for new growth and policies; increased their organizations' awareness of international climate change mitigation actions and resources.
Steering Committee members[24]	Highest non-administrative level of decision-making power for the BEA project.	Some Phase 1 Steering Committee members contributed to the Phase 1 design, especially UN Environment.	Made strategic decisions, monitored high-level progress, advocated for the network, and represented the BEA project at events.	Changes were recommended and implemented during Phase 1, for example, creation of a City Advisory Panel which expressed local issues to the BEA project.

[24] The composition of the nine-member Steering Committee in Phase 1 was 18% women and 82% men; by sector, the membership was 37% civil society, 45% international organizations and 18% private sector.

Stakeholders, by type	Power exerted over results, implementation and level of interest in the BEA project	Role, if any, in project design	Roles as BEA project implementers	Changes in behaviour or capacity during BEA project implementation
Type B: High power/ low interest over the project = Project aimed to meet their needs				
Planners, developers and construction managers of large projects	Identified as an audience target that is are not presently motivated or enabled to take effective steps to use energy efficiency in buildings to reduce GHG emissions.	Not directly represented, but their issues and concerns were conveyed by members of Green Building Councils that participated in the BEA project.	At individual city level, early adopters and advocates in Green Building Councils were recruited to help implement demonstration projects.	In-person workshops and webinars helped to increase capacity to specify and install high efficiency measures in new and retrofit buildings.
Type C: Low power/ high interest over the project = Project showed consideration				
Participating "light touch" (network) cities	These cities were motivated to sign a participation agreement and pledge to commit an action but were not supported directly with a BEA project grant or dedicated liaison.	The needs of the light touch cities were considered as the BEA project team developed and delivered outreach, knowledge management, publications and training resources.	Some of these cities were inspirational by virtue of their prior and ongoing efforts to innovate and regulate energy efficiency measures on a large scale. (Tokyo is an example.)	15 cities that had participated in training sessions and webinars followed through with proposals to participate as deep dive cities in Phase 2.
International institutions and civil society partners	The BEA project team members from WRI and its associated WRI Ross Center for Sustainable Cities (civil society) and UN Environment (international institution) shaped the BEA project and its delivery. They sustained a high level of power and interest throughout Phase 1. Other organizations, especially key partners on the Steering Committee, showed high interest and dedication, in keeping with the nature and mission of their institutions. Many of the key partners are involved in either SEforAll and/or the Global Alliance for Buildings and Construction. Their in-kind contributions to BEA support these commitments, too.	UN Environment and WRI were essential for organizing the efficient and balanced engagement of all participants; they were responsible for financial accountability to donors. Other institutions and civil society partners were crucial contributors of technical expertise, advice and co-facilitation.	These stakeholders gained experience with sub-national intervention strategies. Organizations such as green building councils, ICLEI and other groups with local affiliates were especially helpful in engaging local stakeholders for BEA events.	With a better understanding of the market needs and dynamics of 30 cities in 18 countries, and confidence in using a public-private network to access international resources, most of the key partners will continue with the BEA project in its phase 2, and, they will attract more of their affiliates and peers to join the project.

Stakeholders, by type	Power exerted over results, implementation and level of interest in the BEA project	Role, if any, in project design	Roles as BEA project implementers	Changes in behaviour or capacity during BEA project implementation
Type D: Low power / low interest over the project = Least important. *(Note that stakeholder Type D's power and interests will increase in importance in Phase 2.)*				
Building owners and occupants, commercial, retail, residential, etc.	Represented through civil society organizations, at their own city level. As an intermediate state (Phase 2), these stakeholders will directly benefit from energy savings and quality of life improvements.	Needs were considered in planning the project. Example: Members of national Green Building Councils; Government building managers and occupants.	Cooperation is essential for installing, operating and maintaining technology. Will need access to technology and best practices via transformed markets. These efforts will be supported by energy efficiency policies	Better understand the benefits of energy efficiency and are more motivated to require, specify, procure or use energy efficient technologies and practices. Can access BEA online webinars and tools to learn more about financing and locally appropriate efficiency measures.

84. Disaggregation of stakeholder groups: No analysis of stakeholders' gender, geography or indigenous peoples' representation was reported by the BEA project. While researching evidence for the evaluation, the evaluator had very limited data to assess regarding gender and nationality of BEA participants. No data was available on indigenous peoples. No overall project summary was available of efforts that the BEA team (WRI and UN Environment) had made to track and meet the commitments made in the Project Document, "Gender Equality and Women's Empowerment" (ProDoc Section A.4). The Project Document set out affirmative activities and noted that the BEA project would utilize the "gender and energy" resources of partners National Renewable Energy Laboratory (ProDoc p 26) and World Bank Group/ESMAP (ProDoc p 30). Furthermore, the Project Document stated:

    - "The budgetary allocation to 'technical experts' will include the [WRI] gender advisor's staff time as needed to advise on the aforementioned webinars, data collection, and breakout sessions, as well as to liaise (sic) with gender-related programs at our partner organizations" (p 32).
    - "For education, the intersection of energy efficiency and gender will be the core topic of at least one webinar in the BEA global webinar series" and also, a background note on "global best practice, current trends and approaches for gender sensitive planning" (p 33).
    - "The project will be supportive of WRI's Gender Initiative" (p 33).

85. WRI informed the evaluator that its gender advisor spent only a few days effort on the BEA project, at project initiation. The evaluator's search on the keyword "gender" on the main topic pages of the WRI BEA project website yielded no results. Likewise, her search on the keyword "gender" on the knowledge management site, using the filters "2015 to 2018" (publishing year) and "buildings" (sector), yielded no results.

86. During the final review of this draft final report, however, WRI did provide a tabulation of gender and geography of participants in the technical working groups, city representatives of cities, technical experts and some project events.

D. Project implementation structure and partners

87. The BEA project was implemented by UN Environment's Climate Mitigation Unit. The World Resources Institute (WRI) served as the Executing Partner. Per WRI's request, the UN Environment Cities Unit[25] provided technical assistance to WRI (for components 2 and 3, in regards to sustainable procurement and activities with the City of Belgrade) and was paid 10% of the GEF grant funds.

88. Most management responsibilities, including any sub-agreements, were assumed by the Executing Agency, WRI. The day-to-day execution of the global BEA project was carried out by a Project Team formed by a Project Director, a Project Manager, a Technical Advisor and a Project Coordinator, located at WRI headquarters in Washington, DC. WRI also managed staff in its regional offices, coordinated the partner in-kind contributions and oversaw a substantial agreement for a knowledge management system with Copenhagen Centre on Energy Efficiency.

89. The BEA Steering Committee was composed of nine representatives from UN Environment, ICLEI—Local Governments for Sustainability, World Green Building Council, World Bank Group ESMAP, Johnson Controls, GEF Sustainable Cities Integrated Approach Pilot, WRI, participating cities and GEF Secretariat. The Steering Committee convened four times, "to make strategic decisions, monitor high-level progress, advocate for the network, and represent the BEA project at events, in service of the partnership's goals"[26]. The BEA Steering Committee arbitrated and validated procedures, including the selection of cities for deep dive status.

90. The BEA project evolved in 18 months (21 months, with extension) to offer many collaborative decision-making, leadership and knowledge-sharing opportunities, including a City Advisory Panel and Thematic Work Groups. A City Working Group was formed in each deep dive city, each co-led by a stakeholder and city staff member–to facilitate expert capacity-building for city actions and policies.

91. The City Advisory Panel met in April 2017 in New York City, to "receive direct feedback from BEA partner cities on the BEA's successes, challenges, and areas for improvement; and, provide a forum for peer-to-peer exchange among BEA cities." The City Advisory Panel members represented diverse cities (Bogotá, Eskişehir, Mérida, Mexico City, Rajkot, Santa Rosa, Tshwane and Warsaw). The issues raised by the City Advisory Panel were discussed at the last Phase 1 Steering Committee meeting. Options for improved representation of cities were recommended by the Phase 1 Steering committee to the Phase 2 Steering Committee for implementation.

92. Six thematic work groups formed to focus on: finance, retrofits, codes, voluntary/ above code programs, tracking progress and procurement. Each work group was led by a global partner organization, with participating members following a collaboratively

[25] Formerly the Cities and Lifestyles Unit.

[26] Four Steering Committee meetings for Phase 1 were conducted: 4 May (Washington DC) and 13 November, 2016 (Marrakesh); 4 April (New York) and 13 November, 2017 (Bonn). The evaluator also reviewed summary information on Phase 1 that was prepared for the first Phase 2 meeting, held remotely on 18 July 2018 (WRI, Steering Committee Report, July 2018).

designed work plan to provide technical assistance to BEA project participants. Each work group created a resource list for their thematic area; these were incorporated into the knowledge management system by the Copenhagen Centre on Energy Efficiency (UN Environment PIR 2017 p 3). A coordinating group shared information and suggestions amongst cities working on similar themes and activities. Overall, WRI tabulations showed that the six groups were comprised of 44 members, 30% of whom were women. All but two of the members were from Canada, Europe or USA.

93. The Steering Committee serves a term of two years. By late 2017, the project managers anticipated changes to the Steering Committee in Phase 2 that would reflect new key partners and the BEA's broader scope of engagement at the national level.

E. Changes in design during implementation

94. One no-cost extension of three months was requested by UN Environment and approved by the GEF. No formal revisions were made to the BEA Project. No additional grant funding was secured.

95. In the second Steering Committee meeting (November 2016), members decided to: offer "observer seats" to SEforAll and the GEF (shown in Figure 11 as "advisory"); and, create a City Advisory Panel. Between the second and third Steering Committee meetings, a Communications Task Force was convened to implement communication recommendations from the Steering Committee.

F. Project financing

96. The BEA Project (Phase 1) was a medium-sized GEF project for which UN Environment received a grant of USD 2,000,000. The World Resources Institute and UN Environment also secured co-financing from private sector and civil society partners of USD 8,268,347.

97. Table 6 shows that the total planned budget was 10,268,347, for four components plus project management costs,

Table 6 Budgeted cost at design, and, expenditures, by components (from ProDoc)

Project Outcomes, by Component	Planned (in USD)	
	GEF Project financing	Co-financing
1.1 Public-private engagement in the BEA expands and provides proof-of-concept that these innovative platforms can produce market shifts toward more efficient buildings at a subnational and local level as policy leaders implement new policy, projects and tracking approaches in commitment to Sustainable Energy for All.	$219,669	$1,176,861
2.1 Capacity of 30 cities to define and pursue actions to advance building efficiency is enhanced.	$321,626	$2,993,037
3.1 Six deep dive cities define and advance policy action in a rapid acceleration including 1) a 6-month intensive multi-stakeholder engagement process and 2) direct staffing and coordination support by local partners to move to policy and project prep/implementation. 3.2. Light touch cities request to be considered for deep dive engagement as part of a Phase 2 of the BEA project.	$1,222,539	$3,069,134

4.1 Improved energy management practices at city and building scales; documentation of and communication about measurement, tracking processes, and results.	$127,140	$849,065
Project Management Costs	$109,026	$180,250
Total Planned	$2,000,000	$8,268,347

98. Table 7 shows the partners' co-financing: the total planned co-financing for the BEA project was USD 10,268,000 (inclusive of USD 2,000,000 cash grant from GEF) and the actual co-financing was USD 9,220,093 (inclusive of USD 2,000,000 cash grant from GEF). The BEA project planned for USD 8,268,347 of in-kind co-financing but had USD 7,220,093 of actual in-kind co-financing, which was USD 1,048,254 less than planned.

Table 7 Co-financing for the GEF-UN Environment BEA project

Co-financing (Type / Source)	**UN Environment Own Financing (USD 1,000)**		**Government (USD 1,000)**		**Other* (USD 1,000)**		**Total (USD 1,000)**		**Total Disbursed (USD 1,000)**
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	
Grants	-	-	-	-	2,000	2,000	2,000	2,000	2,000
Loans	-	-	-	-	-	-	-	-	-
Credits	-	-	-	-	-	-	-	-	-
Equity investments	-	-	-	-	-	-	-	-	-
In-kind support	-	-	-	-	-	-	-	-	-
Other (*)	-	-	-	-	8,268	7,220	8,268	7,220	7,220
Totals					10,268	9,220	10,268	9,220	9,220

* This refers to contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, civil society organizations, the private sector and beneficiaries.

Source files for co-financing information: "2017 - BEA - WRI - Co-finance report (rev 1)_signed" and "2018 - BEA - WRI - Co-finance report_signed", each respectively signed by WRI project manager on 4 September 2018 and WRI Global Financial Official on 13 September 2018.

V. THEORY OF CHANGE

99. Reconstructed Theory of Change at Evaluation: In the Project Document, the Theory of Change was mentioned in Section A.1.6, "innovativeness, sustainability and potential for scaling up" (p 22).

> "The BEA is testing an innovative approach to accelerating policy. The theory of change recognizes that two levels of alignment are critical if cities are to succeed:
>
> 1) Removing barriers to help align markets and policy goals, and
>
> 2) Leveraging and supporting ambitious national initiatives including bringing funding from national governments to city action alignment with national priorities, funding and support. Through the public-private engagement, the project will help market function more effectively and encourage private investment.
>
> The pilot efforts in the first phase will serve as a proof of concept that will allow for the project strategy to be refined and adjusted to systematically assist with efficiency adoption in cities."

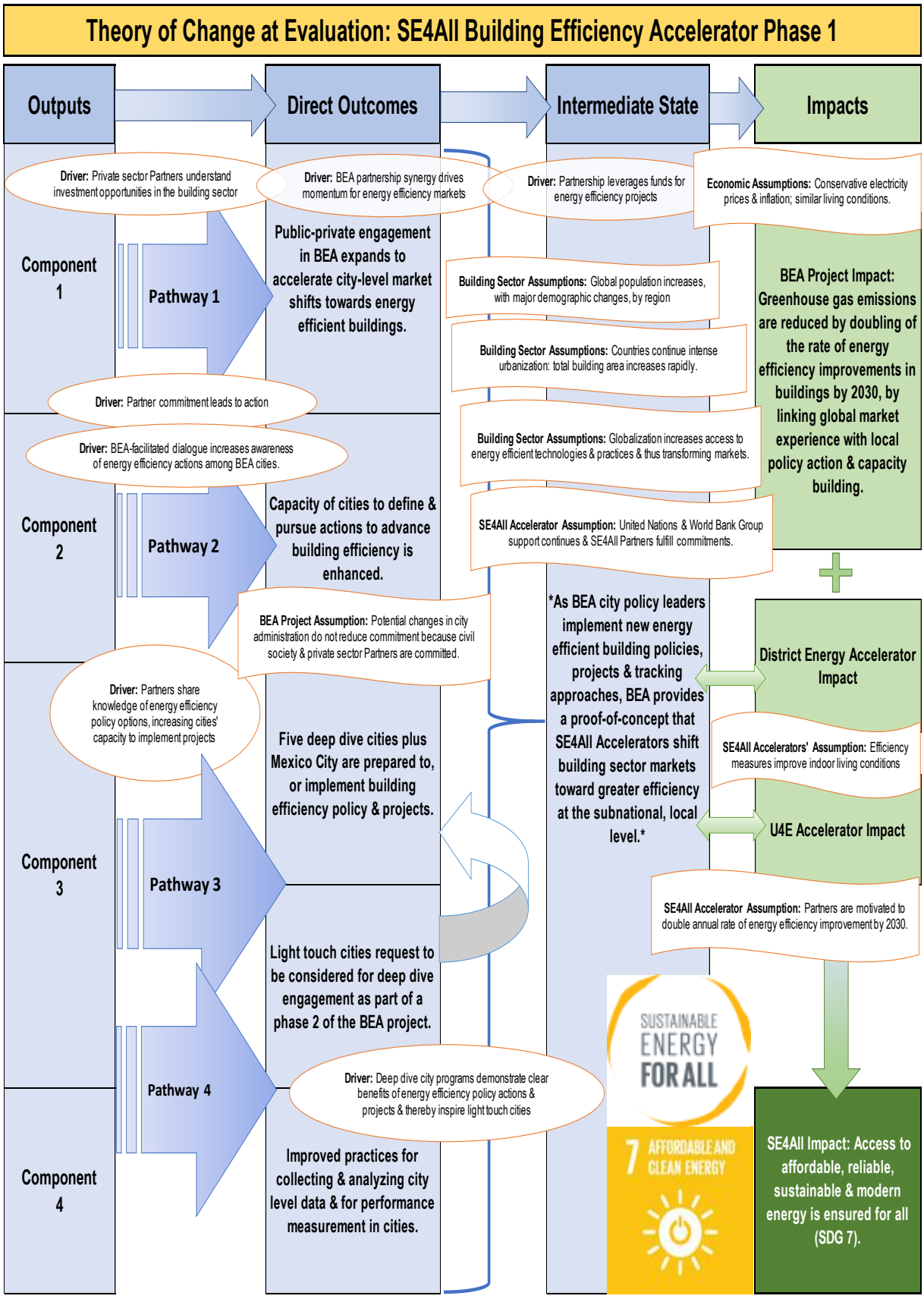
100. The evaluator interprets "levels of alignment" as being linked to time and the progress of the project: Item 1 above is at the direct project outcome level because it summarizes what the project intends to achieve in its Phase 1 (initially, 18 months duration). However, the evaluator views Item 2 as needing more than 18 months to accomplish, and as possibly having a greater scope than does Phase 1 (national-level and city-level). Therefore, she interprets it as an Intermediate State and reconstructs it in the Theory of Change at Evaluation, as explained below.

101. Using text excerpted or summarized from the Project Document, its annexed Project Results Framework and a preliminary Theory of Change diagram that was prepared in 2015 for UN Environment internal use prior to the launch of the BEA project, the evaluator reconstructed the Theory of Change at Evaluation and created a corresponding diagram (Figure 11). For context within the Sustainable Development Goals, the evaluator indicates impacts from other SEforAll Accelerators that are most closely associated with the BEA project. The Theory of Change at Evaluation was presented by the evaluator and agreed upon in June 2018 by the implementing and executing agencies.

102. The sources for each element of the reconstructed Theory of Change, excerpts of the project outputs, project outcome statements and outcome indicators, (including the reconstructed outcome statements for Output 1.1) are included in Annex I.

103. Causal Pathways in the Theory of Change: Pathway 1 corresponds to Component 1, which focused on creating and expanding the network of participating cities and Partners, with the intent of achieving the goal (para. 59) of bringing the power of partnerships to bear upon transforming the local efficiency markets in each city. The evidence that demonstrated that the BEA project expanded the network include: summaries of city-specific stakeholder dialogues (ProDoc Output 1.1.1); achieving outreach to 50 cities, of which 30 joined BEA, along with 30 Partners (1.1.2); the summary of city commitments presented at COP 21 (1.1.3); and, a report of lessons learned (1.1.4).

Figure 8 Theory of Change at Evaluation, 2018



104. Two drivers carried the BEA project network effort forward: 1) private sector partners understood and acted on investment opportunities in the building sector; and, 2) cities that made energy efficiency buildings commitments acted on them. The direct outcome of Pathway 1 was an expanded public-private engagement that has begun to shift some of the city markets toward a greater rate of energy efficiency gains.

105. Pathway 2 corresponds to Component 2, which developed technical assistance and enhanced capacity for energy efficiency actions in "light touch" cities (more consistently referred to during Phase 1 as "network cities," and which included all participating cities). The outputs supporting this component were: city-specific assessment reports that summarized building efficiency policies and programs (2.1.1); training and planning assistance delivered to subnational governments (2.1.2); an online knowledge management system for BEA project publications, webinars, training and peer-to-peer learning and sharing (2.1.3); and, an announcement of the scaling up of the BEA project (2.1.4).

106. Two drivers enabled progress along the second pathway:

    1) BEA project-facilitated dialogues increased awareness of energy efficiency actions amongst the cities; and,

    2) easy-to-access knowledge about energy efficiency policy options helped expand capacity amongst professionals and decision-makers in each participating city. The partners also expanded awareness of the BEA project via their organization's communications and outreach efforts, including in-person presentations at international events, blogs highlighting BEA cities and their actions, and publications. For example, WRI highlighted the unique environments, challenges and energy efficiency strategies suitable for local buildings in Belgrade, Da Nang City, Eskişehir and Tshwane, in a blog entry, "Improving Building Efficiency: A Tale of 4 Cities" (Layke, et al., 2016). The direct outcome of Pathway 2 is that cities became more capable of defining actions that were feasible to take to enhance energy efficiency in buildings.

107. Pathway 3 corresponds to Component 3, which focused on the core of the BEA project: engagement with six deep dive cities. Five outputs were intensively supported by the project team and partners, who worked directly with stakeholders in each city to: compile market research (3.1.1); facilitate a working group in each city that identified and developed plans for the city's actions (3.1.2); provide a staff person who daily supported the city's activities (3.1.3); assist each city working group to provide recommendations to officials and the public (3.1.4); and, support each city to draft and/or adopt policies and take actions within the project timeframe of 18-21 months (3.1.5). The BEA project team and key stakeholders made a risk-mitigation assumption that any potential changes in city government administration would not reduce the city's commitment due to the ongoing leverage and public commitments of civil society and private sector Partners.

108. In Pathway 3 a sixth output brought together evidence of the success of subnational public-private partnerships for buildings energy efficiency in a proposal for Phase 2 (3.2.1). This output and the driver of "inspiration" from the deep dive cities' and Partner examples also led to the direct outcome of "light touch" cities applying to be considered for deep dive city status in Phase 2. Fifteen cities (from 11 countries) submitted applications for deep dive status in Phase 2 (WRI, July 2018). Altogether,

the six outputs of Pathway 3 converged on a major direct outcome of the BEA project: prior to Phase 2, the six Phase 2 deep dive cities were ready and at least one began implementing building efficiency policies and projects.

109. Pathway 4 corresponds to Component 4, crosscutting capacity-building of monitoring and evaluation for the network of BEA cities. Three outputs were: guidance offered by Partner experts on monitoring and reporting both city-scale and building-scale energy performance (4.1.1); quantitative impact projections for the policies and projects that were considered by the cities (4.1.2); and, a project impact evaluation conducted by an independent third party, to strengthen the case for the proposed Phase 2 of the BEA (4.1.3). The direct outcome associated with Pathway 4 is improved practices for collecting and analysing city level data and for performance measurement in cities.

110. The four pathways and their direct outcomes are all considered in this terminal evaluation. The achievement of the intermediate state is not included in the evaluation, although signs of the intermediate state emerging are considered in the assessment of the likelihood of impact. However, since the BEA project Phase 2 has been awarded a GEF grant for the proposed work, the evaluator highlights three assumptions and two drivers that underlie and push BEA participants toward the intermediate state, bridging Phases 1 and 2. In the Project Document, Phase 1 includes three building sector assumptions:

    1) Global population will continue to grow, with major demographic changes unique to each region;

    2) Countries will continue intense urbanization and total building area will increase rapidly; and,

    3) The trend to globalization will continue in the private sector, increasing access to disruptive, energy efficient technologies and practices and thus transforming markets.

111. The Project Document and the evaluator's interviews pointed out two strong drivers that contributed to Phase 1 and should continue to drive Phase 2:

    1) The triad of BEA partners (cities + private sector + civil society) has a dynamic synergy that increases momentum toward energy efficient market transformation; and,

    2) Sub-national public-private partnership can help leverage funding for energy efficiency buildings projects.

112. By the end of Phase 1 the BEA project intermediate state came into sight, especially for the deep dive cities: "As BEA city policy leaders implement new energy efficient building policies, projects and tracking approaches, BEA provides a proof-of-concept that SEforAll Accelerators can shift building sector markets toward greater efficiency at the subnational, local level." (ProDoc; Figure 8)

113. With the combined efforts of Phases 1 and 2, the BEA project aims for the impact, "Greenhouse gas emissions are reduced by doubling of the rate of energy efficiency improvements in buildings by 2030, by linking global market experience with local policy action and capacity building." The BEA is not a standalone project; it is one of the accelerators in the SEforAll Global Efficiency Accelerator Platform and as such its impact is tied to the SEforAll goals.

VI. TERMINAL EVALUATION FINDINGS

A. Strategic Relevance

114. Alignment to MTS and POW: The BEA project contributes primarily to the energy efficiency aspect of the UN Environment Medium-Term Strategy of 2014-2017, Climate Change Expected Accomplishment (b), "Energy efficiency is improved and the use of renewable energy is increased in partner countries to help reduce greenhouse gas emissions and other pollutants as part of their low emission development pathways." Focusing mainly on electricity demand from urban buildings, the only greenhouse gas being tracked for this project is CO_2.

115. The project's outputs align with UN Environment's Output 3, "Tools and approaches designed and piloted in countries to develop mitigation plans, policies, measures and low emission development strategies and spur sector investment and innovation within and across selected sectors." The innovation of the BEA project is to partner primarily at the city and state level rather than at the national level. Participating cities use the tools provided by BEA to prepare prospectuses for funding, to document anticipated and realized emissions reductions and to report progress to internationally recognized entities.

116. BEA is clearly relevant to the strategy of the United Nations: it is one of several SEforAll accelerators launched at the Climate Summit in 2015, via [what was then named] the United Nations Secretary-General's Sustainable Energy for All initiative. Like the other accelerators, BEA's success is contributing to achieving Sustainable Development Goal 7, which calls for universal access to sustainable energy by 2030; and, to the 2015 Paris Climate Agreement to reduce GHG emissions, to limit global climate warming to 2°C. Of the 18 countries in which the 30 BEA project cities are located, all are party to the Paris Agreement; and, all but Turkey have ratified the Paris Agreement[27]. Twelve of the 18 countries submitted NDCs that reference energy conservation or energy efficiency; four published one or energy conservation or energy-efficiency themed NAMAs. (Annex IV gives examples of some relevant NDCs and NAMAs.) The BEA project is a valuable resource and accelerator for these countries' mitigation actions, and, it aims to inspire the other countries to take similarly accelerated actions.

117. Alignment to donor's strategic priorities: The BEA project fits within GEF 6, Climate Change Mitigation Focal Area 1, "Promote Innovation, Technology transfer and Supportive Policies and Strategies," Program 2, "Develop and demonstrate innovative policy packages and market initiatives to foster a new range of mitigation actions." Furthermore, by providing proof of concept that cities are eager and able to participate effectively in global-level public-private partnership networks for climate change mitigation efforts, the BEA project Phase 1 advanced GEF corporate result 4, "Support to transformational shifts towards a low-emission and resilient development path." The GEF defines its transformational interventions as, "engagements that help achieve deep, systemic, and sustainable change with large-scale impact in an area of global environmental concern" (GEF Independent Evaluation Office, 2018, p vii). The BEA project Phase 1 engaged with cities that together represent one percent of the global population; by demonstrating their accelerated policy-making and project planning,

[27] The USA has announced that it will leave the Paris Agreement: "UNFCCC Statement on the US Decision to Withdraw from Paris Agreement." Accessed August 2018: https://unfccc.int/news/unfccc-statement-on-the-us-decision-to-withdraw-from-paris-agreement

they offer a path toward scaling up by inspiring other cities to follow their inspiring models.

118. Relevance to regional, sub-regional and national environmental priorities: Six of the countries with BEA cities rank in the top third of the Regulatory Indicators for Sustainable Energy (RISE) scoring[28], nine are in the middle third and one is in the lowest third. The BEA project is relevant because it can enhance the capacity of any of these countries to achieve greater efficiency in urban buildings, a main source of GHG emissions. Twelve of the countries with BEA cities have precedents for voluntary or mandatory building or energy efficiency codes and standards. The BEA project aims to accelerate the rate at which energy efficiency is implemented in buildings, by influencing greater numbers and area of buildings to become energy efficient, faster. In these twelve countries, BEA cities may spur other cities to implement national codes and standards, adopt voluntary measures, issue executive orders, or intervene via other local means to reach or exceed national standards.

119. Complementarity with existing interventions: As a UN Environment/GEF project and one of the pioneering accelerators in the SEforAll Accelerator Platform, the BEA project has an inherent complementarity with UN Environment's and the GEF's prior interventions at the national level. The BEA project also has the potential to encourage countries to participate in more SEforAll accelerators, to apply for funding for new GEF support for national or city projects, and, to collaborate with other cities in their countries or regions, or, to partner with other cities and with the private sector and civil society, for follow-on and scaling up projects.

Rating for Strategic Relevance: Highly satisfactory

B. Quality of Project Design

120. At inception, the evaluator found that the core aspects of the project design were highly satisfactory; these included: Strategic Relevance; Logical Framework and Monitoring; Governance and Supervision Arrangements; Partnerships; Financial Planning / Budgeting; and, Efficiency. The project design was innovative in its subnational public-private partnership approach to and its intent to collaborate with diverse urban environments in many regions of the world. The intended results and causality underlying the logical framework were described satisfactorily; they were further developed as the project launched and the Steering Committee began its work.

121. In the project design the overall budget and item line amounts were accurately presented in the Project Document (Sections A and B, pp 1-4). The budget was appropriate for a GEF medium size project. The in-kind support of Partners, matching the GEF grant 4:1, was critical for the success of the project. The evaluator noted that allocation of USD 100,000 to USD 200,000 for each of six Deep Dive cities was similar to allocations made for several of the sub-projects ("pilots") in the en.lighten initiative, a UN Environment-GEF project that preceded the SEforAll Accelerators. In the BEA Project Document the highest percentage of cash finance was allocated to staff costs for Deep Dive cities (Component 3) and for Project Management, while the highest percentages of in-kind co-finance were allocated to partnerships, technical assistance

[28] http://rise.worldbank.org/scoring-system

and local market transformation efforts (Components 1, 2 and 4). The greatest overall percentages of financing are dedicated to Components 2 and 3.

122. Minor weaknesses noted by the evaluator in the initial project design[29] were related to risk identification, and, stakeholder analysis vis-a-vis gender and indigenous peoples. However, project design for gender analysis was addressed in more detail after UN Environment's Project Review Committee comments and the final proposal for the BEA project (Phase 1) was approved by the GEF.

Rating for Project Design: Satisfactory

C. Nature of the external context

123. The BEA Project Document (A.5, p 34) noted one external context concern, the likelihood of change in national governments. This risk was mitigated initially via the deep dive city selection criteria that were applied for "political will," specifically, "the jurisdiction's chief executive must have a term that will last without new elections through at least the end of the deep dive funding, or be an appointed position with an undefined term," and, the degree of, " indications of commitment, capacity and interest of the local jurisdiction's staff to support and enable new building efficiency actions, including previous efficiency assessments or actions."

124. Later, during implementation, the project team found that working with three types of partners in each city (local government, civil society and private sector)—each with their vested but somewhat different interests in building energy efficiency and the environment—reduced risks and brought stability and continuity to most of the cities' BEA efforts[30] (Table 18 and Table 19 in Annex VIII).

125. In some jurisdictions, the external context is a positive force that accelerates energy efficiency, as it has been so far in the European Union (para. 168).

Rating for Nature of the external context: Highly favourable

D. Effectiveness

Achievement of Outputs

126. The project team was well-prepared and ready to start implementation as soon as the project was approved because several partner cities (Mexico City, and Warsaw) and many partnership relationships had been established by UN Environment and WRI. Some cities and the key partners had made commitments and were also ready for the project launch.

127. The key partners had capacity to deliver on their commitments. In interviews with the evaluators, partner representatives noted that in Phase 2 they would like to contribute

[29] Described by the evaluator in the Inception Report for this Terminal Evaluation, paragraph 26, page 9: "More thorough risk analysis, for example, could have addressed the energy efficiency opportunities in post-disaster zones..." "Although gender was addressed generally after UN Environment's Project Review Committee PRC comments, prior to the proposal submission to the GEF, the details are delegated to Partners to further analyze and implement."

[30] Personal communications with evaluator (in-person and via telephone), May to June, 2018.

more in-kind support and that they would like to have more requests routed to them from the participating cities. They also encouraged greater use of the existing resources that they had developed for BEA project Phase 1.

128. Delivery of all BEA project outputs were timely, given the extra three months requested and approved for Phase 1 completion. According to the BEA project's regular reporting and as evidenced by the results posted online on the BEA website and on the knowledge management system, outputs were created with a great deal of stakeholder and partner input, ensuring good responsiveness to local needs.

129. Table 8 lists the outputs from the Project Document and gives examples of each output. The evaluator examined many (but not all) of the outputs and found them to be of consistently high quality, technically accurate and clearly presented, with both relevant local examples and with "aspirational" examples from other cities globally. The large number of outputs created in just 21 months highlights the effectiveness of UN Environment's supervision and WRI's management and encouragement of the many partners' contributions as "key actors." Their contributions included perspectives, case studies and tools from the private sector, civil society and international organizations. In turn, the BEA project-related activities engaged in by cities (especially deep dive cities) also clearly shows that the BEA project helped enhance their capacities and led to accelerated progress toward their policy and project commitments.

Table 8 Examples of project outputs

Element of the Theory of Change at Evaluation	**Expected Project Outputs** (per the Project Document)	**Examples of Outputs**
Component 1	1.1.1 Dialogue summaries capturing input to subnational governments to address five major market barriers and support policy action. Participants include: supply side partners (technology and service providers, and financial institutions), demand side building owners and managers, and policy makers. 1.1.2 Regional diversity and best practice development: the BEA reaches 50 cities, signs up 30 cities and 30 leading companies/ organizations (5 key companies and 5 leading organizations each region). Cities who join commit to: implement policy, project, and track action. All partners expected to participate quarterly in BEA activities. 1.1.3 Local action summarized in support of the INDC[31] and climate	1.1.1 "In 2016, 23 cities in 17 countries worked with local stakeholders and the global BEA project to formulate building efficiency policies, demonstration projects and tracking approaches." (WRI, April 2017, Project Investment Opportunities in BEA Partner Cities) 1.1.2 At least 40 partners, including key companies and leading organizations representing global and regional interests joined or supported the BEA partnership. 1.1.3 As of September 2017, UN Environment reported 25% progress on this output (PIR 2017). 1.1.4 WRI presented "Lessons Learned" in May 2018 at the BEA partners meeting in Lisbon, Portugal.

[31] Prior to COP-21, countries registered Intended Nationally Determined Contributions; post-COP21, countries registered Nationally Determined Contributions. In July 2018, the evaluator cross-checked the BEA Project progress reports with the participating cities' NDCs in the UNFCCC NDC Registry (interim), at http://www4.unfccc.int/ndcregistry/Pages/Home.aspx, for evidence of building energy efficiency contributions.

Element of the Theory of Change at Evaluation	Expected Project Outputs (per the Project Document)	Examples of Outputs
	commitments made at COP 21 delivered to the Global Buildings and Construction Alliance. 1.1.4 Documentation of project results/lessons-learned produced and disseminated in cooperation with the BEA partners and Buildings Alliance.	
Notes on achievements, Component 1	Table 10 lists partners and their respective in-kind assistance offered to BEA project cities to enhance local capacities.	
Component 2	2.1.1 Prioritization and assessment report of city level building efficiency policy and programs based on review of existing market information for each city. Supplement existing material as needed using partner tools/assessments. 2.1.2. Training and planning support provided to subnational governments by BEA partners/stakeholders: multi-stakeholder input on policy opportunity assessments and prioritizations; measurement and tracking methods; procurement strategy "checklist" and gap analysis; and, global best practice in policy, strategy and case studies. 2.1.3 Knowledge management, regular high-value content sharing and communications across the network, and peer- to-peer learning. These will include webinars every 2-3 months, featuring the work of BEA partners. 2.1.4 Announcement on light touch and partner scale up in Spring 2016.	2.1.1 Reports were prepared for each deep dive city and some network cities. Market feedback results for Bogotá, Dubai and Porto Alegre are available online (BEA City map). 2.1.2 Events and activities for training, planning and technical support included regional BEA events: Southeast Asia regional workshop (Singapore); Habitat III training (Quito); Philippines workshop (Manila); BEA East Asia Launch (Beijing); Africa regional BEA launch (Nairobi); Central and Eastern Europe Energy Efficiency Forum convening (Bulgaria); Central and Eastern Europe regional workshop (Belgrade); and, Latin America regional training (Mexico City). 2.1.3 Knowledge management system established and maintained by Copenhagen Centre on Energy Efficiency (a SEforAll hub) to assist the target audience in accessing resources developed and published by the BEA project and its partners, including: publications; recordings of 20 webinars; and, tools. WRI sent regular newsletters to over 270 recipients. 2.1.4 Global events at which the BEA project made announcements of city commitments and/or offered training and workshops included: BEA consultation (New York); SEforAll Forum Finance Training and Partners; Global Green Growth Forum; COP 21 (Paris, 2015), COP 22 (Marrakesh, 2016) and COP 23 (Bonn, 2017); 2017 Sustainable Energy for All Forum (New York); and, 8th Clean Energy Ministerial (Beijing, 2017). (UN Environment PIRs 2016, 2017)
Notes on achievements, Component 2	Annex V describes the knowledge management system for the BEA project and contains webinar and online access details and analyses. Feedback loops were established in BEA project-wide activities: in-person discussions at workshops, trainings and meetings; public comments on market analyses, subsequently posted online; and, a satisfaction survey conducted by WRI in late 2017.	
Component 3	3.1.1. Market specific research compiled in support of policy and project development.	3.1.1 Seven BEA partner cities conducted local stakeholder surveys for their action prioritizations. All deep dive cities solicited local stakeholder feedback through in-person workshops to help

Element of the Theory of Change at Evaluation	Expected Project Outputs (per the Project Document)	Examples of Outputs
	3.1.2 In a six-month intensive multi-stakeholder engagement process, working groups in each city agree on their activities, select co- leaders and provide efficiency vision and action ideas. Groups are comprised of key stakeholders and market actors. 3.1.3 Direct staffing and coordination support by local partners drives policy and project preparation and implementation. 3.1.4 Recommendations from working groups are provided to officials and released publicly. 3.1.5 Policies and actions are drafted or adopted and projects are identified and implementation is planned or underway within 18 months. 3.2.1 Proposal for Phase 2 developed and prepared for funder review based on successful Phase 1 policy and market impacts.	prioritize building efficiency actions. Several cities performed energy baseline analyses for specific buildings[32]. 3.1.2 and 3.1.4 The six deep dive cities engaged key stakeholders in working groups that first assessed and then selected at least one building energy efficiency policy and one project to implement. 3.1.3 The BEA project and its partners supported dedicated staff in the six deep dive cities. 3.1.5 Table 17 in Annex VI lists the city-defined policies and projects, as of October 2017 (the most recent comprehensive update). 3.2.1 BEA developed a proposal for Phase 2 that was submitted by UN Environment and approved (in June 2018) by the GEF. Phase 2, "The SEforAll Building Efficiency Accelerator (BEA): Expanding Local Action and Driving National Change" commences in August 2018.
Notes on achievements, Component 3	Appendix K, UNEP GEF PIR Fiscal Year 18 forecasts an impact summary, 2018 to 2030, of the policy and project actions taken by the six deep dive cities. These cities will benefit from cumulative energy consumption reductions of nearly 19 million MWh; cumulative GHG emissions reductions of 8330 $ktCO_2eq$; and, cumulative cost savings of USD one billion. This forecast exceeds the original estimates for the entire Phase 1 of the BEA project.	
Component 4	4.1.1 Guidance for cities: a) monitoring and reporting city-scale energy performance. b) tracking building-scale energy performance. 4.1.2 Impact projections for policies and projects quantified by participating cities 4.1.3 Project impact evaluation undertaken by independent review at month 15 of the BEA project as part of potential Phase 2 preparation.	4.1.1a "Deep dive cities collaborated with technical experts to use the GHG Protocol for Cities to track the impacts of their selected policy and project actions" (WRI 2018, Lessons Learned, p 8). The BEA project provided reporting templates to participating cities[33]. 4.1.1b and 4.1.2 For the metropolitan area of the Aburra Valley, Colombia, BEA project participants cooperated to analyze the economic viability of energy efficiency in buildings and created guides for implementing sustainable construction practices, including minimizing and managing waste in a "circular economy" model[34] (Mesa, 2018). 4.1.2 Each deep dive city, with assistance from BEA partners, prepared a report quantifying the potential benefits and costs of developing policies and projects. 4.1.3 The Partner Survey (27 September - 16 October 2017) garnered 46 responses, (11% business, 38% [city] government, 52% civil society and international

[32] WRI. 2017. City Advisory Panel – April 4, 2017, Meeting Summary, p 2.
[33] Templates included: Investor Data Sheets; Energy Efficiency Programme Data; Energy Efficiency Project Data; and, Tracking Progress: BEA Municipality Goals, Indicators and Methods.
[34] Mesa, Maria del Pilar Restrepo. Implementing sustainable construction policy in the Aburra Valley and BEA Program. Presentation, 3 May 2018, SEforAll, Lisbon.

Element of the Theory of Change at Evaluation	Expected Project Outputs (per the Project Document)	Examples of Outputs
		organization) from individuals who participated frequently (daily, 13%; weekly, 24%; monthly, 31%; quarterly, 27%; or, annually, 4%) in BEA activities (partnership calls, global/regional events, webinars, research, working groups and policy/project development).
Notes on achievements, Component 4	The resource collection materials compiled by the working group on Tracking Progress are pointed to by the BEA project website and they are maintained by the knowledge management system.	

Achievement of Direct Outcomes

130. The project management, the participating cities and the project partnership delivered in a consistent and highly effective manner against the project results framework, to the level of the project outcomes.

131. Table 9 lists direct outcomes and their respective indicators and targets (per the Project Document's Annex A), giving examples of direct outcomes achieved by the BEA project. The table also notes drivers and assumptions and how those aspects manifested during Phase 1.

Table 9 Direct outcomes

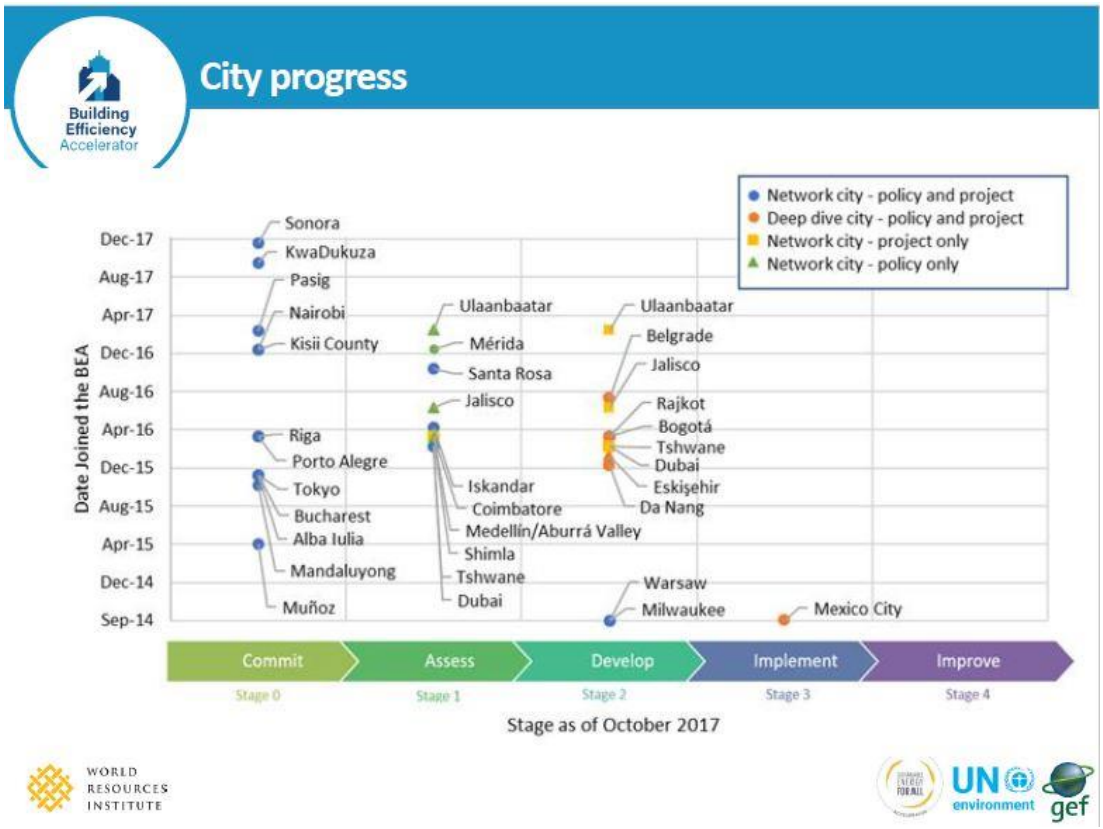
Element of the Theory of Change at Evaluation	Project Direct Outcome Statements (per the Project Document)	Direct Outcomes Achieved	Indicators and Targets for the Direct Outcomes (per the Project Document, Annex A)
Pathway 1 / Component 1	Public-private engagement in BEA expands to accelerate city-level market shifts towards energy efficient buildings	Organizations that signed up and committed to the BEA by 31 December 2017 included: 30 cities (or states); 26 civil society organizations; 10 private businesses; and, 4 international bodies. All regions were covered by the companies and organizations that signed up.	Indicator: Number of cities, civil society organizations and private businesses signed up to the accelerator. Targets: 30 cities commit to join BEA and agree to: implement an energy efficiency policy; develop a building project; and, track and report progress. 30 civil society organizations and businesses agree to: develop a building project; and, track and report progress.

Element of the Theory of Change at Evaluation	**Project Direct Outcome Statements** (per the Project Document)	**Direct Outcomes Achieved**	**Indicators and Targets for the Direct Outcomes** (per the Project Document, Annex A)
			All regions are covered by the companies and organizations that sign up.
Notes on results, assumptions and drivers	Table 3 lists "key actor" partners that invested substantial in-kind support, one of the Pathway 1 drivers. The second driver—cities that made commitments act upon them—is demonstrated particularly by the progress of deep dive cities, as shown in Annex VII.		
Pathway 2 / Component 2	Capacity of cities to define and pursue actions to advance building efficiency is enhanced.	24 cities defined 24 policies and 21 projects during Phase 1 (6 deep dive cities plus 18 light touch cities; or, 80% of cities). For example, City of Bogotá, Colombia, is integrating a new local building energy performance code, created with BEA support, into the city's master plan. Bogotá will build homes for 2.7 million city residents anticipated by 2050, reducing GHG emissions from energy consumption by 31% (0.5 mt CO_2/year) from the business as usual scenario[35].	Indicator: Number of cities that define or pursue at least one new policy or project related to building efficiency during the 18-month period. Target: In 30% of the 30 committed cites (10 light touch cities), at least one new policy or new project related to building efficiency is defined or pursued during the 18-month project period.
Notes on results, assumptions and drivers	Annex VI lists the Phase 1 cities' defined policies and projects, updated as of July 2018. Out of a total of 30 cities, the yield for policies is 80% and for projects is 70%, impressive considering that at least 20% of the cities joined in 2017, and thus had a year or less to act. This acceleration is attributable to the drivers of BEA-facilitated dialogues (city and regional) and increased access to best case practices via the network.		
Pathway 3 / Component 3	Five "deep dive" cities + Mexico City are prepared to, or implement building efficiency policy and projects "Light touch" cities request to be considered for deep dive engagement as part of a Phase 2 of the BEA project	100% of the six deep dive cities each completed a multi-stakeholder process and (in April 2017) presented project and policy work plans and financial prospectuses to attract support. Cities committed to energy efficiency projects for 14 municipal buildings, 11 of which will be retrofitted and three newly constructed; and 27 private buildings, 14 of which will be retrofitted and 11 newly constructed[36]. Phase 2 requests: 15 cities applied for deep dive city status and support (11 light touch plus four deep dive cities).	Indicator: Number of policies or projects prepared or implemented related to building efficiency by deep dive cities. Target: In 100% of deep dive cities, at least one new policy or project related to building efficiency is prepared or implemented via a working group process. Indicator: Number of light touch cities requesting to be part of Phase 2 deep dive engagement Target: 15 requests from light touch cities.
Notes on results,	Annex VII includes summary slides of progress for the deep dive cities, prepared for presentation at the Building Efficiency and District Energy Accelerators session at the 2018		

[35] UNEP GEF PIR Fiscal Year 17 (1 July 2016 to 30 June 2017).
[36] WRI. 2017. City Advisory Panel – April 4, 2017, presentation, p 13.

Element of the Theory of Change at Evaluation	**Project Direct Outcome Statements** (per the Project Document)	**Direct Outcomes Achieved**	**Indicators and Targets for the Direct Outcomes** (per the Project Document, Annex A)
assumptions and drivers	Sustainable Energy for All Forum (Figure 15, Figure 16 and Figure 17). The assumption made for this pathway has held true: any changes in cities' administrations did not reduce the cities' BEA project energy efficiency commitments.		
Pathway 4 / Component 4	Improved practices for collecting and analyzing city level data and for performance measurement in cities	Six deep dive cities reported to BEA that they planned and began to set up building energy efficiency performance monitoring systems. Thirteen cities from nine countries are reporting to the carbon™ Climate Registry (including four deep dive and nine light touch cities) (Annex IV)	Indicator: Number of cities with building wide or city performance monitoring systems in place Target: In six deep dive cities, one or more new or improved performance monitoring system (at the city or building scale and which includes building efficiency indicators) is adopted and reported to BEA. Indicator: Number of cities reporting to ICLEI carbon*n*™ Climate Registry with data and project actions defined for building efficiency Target: Six deep dive cities report one or more project actions for buildings in the ICLEI Carbon*n* Climate Registry.
Notes on results, assumptions and drivers	Tracking systems were planned and were in the initial phases of being set up and implemented in each city, as a direct outcome of the BEA project. Deep dive cities Belgrade and Eskişehir are not reporting to the carbon*n*™ Climate Registry.		

Figure 9 BEA city status: progress from October to July 2018



132. Each of the 30 participating BEA cities pledged to identify, develop and implement at least one energy efficiency in buildings policy and one energy efficient building project (new or retrofit). Figure 9 shows that cities joined the BEA project prior to and throughout Phase 1 and thus their individual timelines had different starting dates. By the end of Phase 1, Mexico City (one of the first to join) advanced furthest, to Stage 3, implementation of a policy and a project. An additional 11 cities advanced to Stage 2, identifying and developing their policies and/or projects. Together, these 12 cities (40%) at Stage 3 and Stage 2 are on track to begin delivering emissions reductions (during Phase 2) that would be attributable to BEA project Phase 1. Fourteen (47%) of the cities were in Stage 1, assessing their potential policies or projects[37]. The remaining four cities (13%), some of which joined the BEA project most recently (late 2017), were in Stage 0, having made commitments.

133. Regarding country ownership and driven-ness, while Phase 2 will take the BEA project to the national level, in Phase 1, the deep dive cities exhibited very strong ownership and driven-ness, the latter enhanced by the efforts of a dedicated BEA-funded staff person in each city. The direct outcomes of Phase 1 (particularly those related to

[37] The evaluator notes that Figure 9 includes information from the first Phase 2 Steering Committee meeting report, prepared by WRI as of July 2018, because no definitive update was available for calendar date ending of Phase 1, which was 31 December 2017. Thus, the summary of city progress on policies and projects is accurate as of the start of Phase 2, which commences in August 2018.

Theory of Change Pathway 3, deep-dive cities) should lead to the intermediate state and will likely lead to the first BEA-attributable impacts during Phase 2.

Table 10 Examples of in-kind assistance provided by key partners to enhance local capacities, by city, 2016 to 2017

Cities	Partners	In-kind Assistance to Enhance Local Capacities
BEA network cities, worldwide	Green Building Councils (GBCs): Consejo Colombiano de Construcción Sostenible (Colombia GBC); Emirates GBC; Indian GBC; Kenya GBC; Philippines GBC; Poland GBC; South Africa GBC; US GBC; and, World GBC.	Technical assistance to support development of policies and projects
Mexico City	Carbon Trust, Johnson Controls, WRI and Tecnalia	Technical assistance to support retrofit projects
Medellín, Mexico City and Mérida	Colombia GBC, World GBC, the Investor Confidence Project, C40, WRI, and Tecnalia	Technical assistance on municipal retrofit finance
Rajkot, Shimla, Coimbatore Tshwane, Nairobi, Kisii County, Mandaluyong, Pasig, Santa Rosa and Ulaanbaatar	ICLEI	Assistance with stakeholder engagement, policy and project design
Alba Iulia, Bucharest, Riga, and Warsaw	Johnson Controls	
Eskişehir	WRI Turkey and Danfoss	
City of Danang	100 Resilient Cities, WRI and IFC	
Belgrade	UN Environment	Assistance with stakeholder engagement, policy and project design and coordinating BEA project efforts with District Energy Accelerator efforts
	Johnson Controls, Copenhagen Centre for Energy Efficiency and Danfoss	Assistance with technical aspects of building renovations
	Tecnalia	Assistance in applying for funding for projects
(UNEP. 2017. FY 2017 PIR, Appendix VIII: BEA Technical Assistance Provided.)		

Achievement of Likelihood of Impact

134. The drivers for Pathways 1, 2 and 3 that will support a transition from outputs to direct outcomes are in place, as are the drivers from the direct outcomes to the intermediate state (Figure 8 Theory of Change at Evaluation, 2018). The assumption (shown in a banner) holds for the change process for Pathway 3, from outputs to direct outcomes for deep dive cities. All direct outcomes have been fully achieved: the network is robust and expanded, cities have enhanced capabilities to pursue energy efficiency in buildings, the deep dive cities are ready and beginning to implement policies and projects, Phase 2 is funded and launching with deep engagement from the Phase 1 network cities, and, cities are prepared and beginning to collect, analyse, track and report building energy performance data.

135. Phase 1 cities joined the BEA project successively from 2014 through 2017, so direct outcomes are continually being achieved because each city moves at its own pace of market acceleration. The most advanced cities are implementing energy efficiency policies and projects, while others are still assessing the best options for policies and projects that could fulfil their project, partner and stakeholder commitments.

136. The drivers to support transition from direct outcomes to the intermediate state are in place: the triad of BEA public-private project partners has excellent synergy and very good retention of partners for Phase 2, amplified by additional driven-ness from new cities and new partners. The success of Phase 1 has led to the partnership's Phase 2 leveraged in-kind funding at a ratio of approximately 3:1 to funding from the GEF, compared to 4:1 for Phase 1.

137. The assumptions for the change process from direct outcomes to the intermediate state hold. These include: continued global population growth; increased urbanization and greater building floor space; and, globalization of access to energy efficient technologies from the private sector. As the BEA project transitions from Phase 1 to Phase 2, it is approaching and partially entering the intermediate state, where BEA city policy leaders are implementing new energy efficient building policies, projects and tracking approaches. BEA Phase 1 has begun to provide a proof of concept that SEforAll accelerators can shift building sector markets toward greater efficiency at the subnational level. Furthermore, in Phase 2, the BEA partnership intends to leverage greater efficiency at the national level, too.

138. The drivers to support the transition from the intermediate state to the BEA project impact (cumulative for Phase 1 and Phase 2) are in place and the assumptions for this transition appear to be holding as of mid-2018, although the drivers and assumptions should be re-affirmed during Phase 2, for the expected project impact from 2018 through 2030. Using the template provided by UN Evaluation, and considering all evidence examined, the evaluator concludes that the likelihood of positive impact from the BEA project is highly likely.

Rating for Effectiveness: **Highly satisfactory**

E. Financial Management

139. This section first addresses the completeness of the financial information presented in in Section E, Project Financing (Table 6 Budgeted cost at design, and, expenditures, by components (from ProDoc); and, Table 7 Co-financing for the GEF-UN Environment

BEA project). Second, this section addresses the quality and timeliness of finance communications between the implementing and executing agencies.

140. UN Environment's fiscal year begins 1 July, as does the GEF's. This project spanned 21 months across three fiscal years: 2016, 2017 and 2018.

141. Documents[38] available to the evaluator included:

- The BEA project's GEF CEO-approved budget, originally for April 2016 through September 2017; and, two revisions. According to UN Environment[39], the first budget revision reflected the amount allocated to the Cities Unit following WRI's request for technical support and made some adjustments in the distribution of funds across budget lines in WRI's share of the budget. The second budget revision reflected the transfer of some funds back from the Cities Unit to WRI; adjusted the distribution of funds across budget lines in WRI's share of the budget; re-programmed to 2018 some of the Cities Unit's funds to complete the final closing activities of its technical support to the BEA phase 1 project; and, re-programmed to 2018 US$ 30,000 for the BEA project's terminal evaluation.
- The first revision reconciled the GEF Activity-based budget with the UN Environment budget lines. The second revision (the final budget) reallocated some funds into the calendar year 2018, to accommodate the three-month, no-cost time extension approved by the GEF.
- Signed quarterly expenditure reports from UN Environment Cities Unit, Q2 2016 through Q2 2018, for technical support to WRI and the BEA project.
- Signed quarterly expenditure reports from WRI, Q2 2016 through Q2 2018, for execution of the BEA project.
- Signed co-finance reports from WRI, 18 April 2016 to 30 June 2017 and 1 July 2017 to 30 June 2018.
- Project implementation reports (PIRs), for FY 2016, FY 2017 and FY 2018.
- A signed final report from WRI, dated 5 September 2018.

142. Completeness of financial information: The financial reports for cash grant of USD 2,000,000) received from the GEF and expended for BEA project costs by WRI and UN Environment were complete and submitted on time by WRI. Likewise, the co-financing reports were complete; they were submitted by mid-September 2018.

143. The two revisions made to the initial BEA project budget were re-allocations of funds from one or more budget lines to other budget lines. One, for USD 185,937, was made to accommodate the technical backstopping provided to the BEA project by the UN Environment Cities and Lifestyles Unit, for its facilitation with the City of Belgrade and its leadership of the procurement work group. According to UN Environment[40], the second budget revision reflected the transfer of some funds back from the Cities Unit to WRI; made some adjustments in the distribution of funds across budget lines in WRI's share of the budget; re-programmed to 2018 USD 17,943 of the Cities Unit's

[38] Evaluators' disclaimer: The evaluator has no fiduciary duties regarding this terminal evaluation. This report does not constitute a financial review or a financial audit. Any statement by the evaluator regarding finances in this report is based solely on information provided by UN Environment and WRI, the implementing and executing agencies.
[39] Personal communication from UN Environment to evaluator, September 2018.
[40] *ibid.*

funds to complete the final closing activities of its technical support to the BEA phase 1 project; and, re-programmed the budget of USD 30,000 for the BEA project's terminal evaluation.

144. The co-financing (from key partners) budget, income and expenditures were reported by WRI and were complete. The budget lines were the same as the GEF grant budget lines; with sub-component details. For example, the sub-contract line was further detailed with lines for: WRI's satellite office; eight partnership building sub-contracts; six deep dive city engagements; and, monitoring and evaluation.

145. Communications regarding financial information: All financial reports were completed and made available to the evaluator by mid-September 2018. In some instances, reviews by UN Environment of reports submitted by WRI required revisions by WRI; both agencies cooperated throughout this quality review process[41]. Nonetheless, the evaluator found no significant delays nor difficulties regarding communications on finances.

Rating for Financial Management: Highly satisfactory

F. Efficiency

146. Implications of delays and no cost extensions: The no cost extension of Phase 1 enabled completion of outputs and achievement of outcomes. Although the extension contributed positively as a bridge between Phases 1 and 2, keeping the BEA network "alive" and ready to launch Phase 2, the extension decreased the efficiency of the project because staff costs and institutional overheads had to be covered by the implementing and executing agencies.

147. Quality of project management and supervision: The management performance of WRI, the executing agency, and the technical backstopping and supervision provided by UN Environment, the implementing agency, was well-coordinated; it led to an effective partnership that delivered significant technical, policy and communications capacity-building to the Phase 1 cities, worldwide. The management team from both agencies was structured in a way that responsibilities were clear and all team members kept the focus of the many stakeholders on achieving the BEA project's planned outcomes.

148. The project managers demonstrated adaptive management, listening to input and recommendations from the cities, the partners, the working groups and the Steering Committee. The management structure envisioned at the outset (Figure 10) developed into a working structure that was better suited to the needs of the project (Figure 11).

149. Very few changes were made to the original plan of work, but as needed, the management team adapted effectively and in a timely manner. For example, the Cities Unit project team members demonstrated adaptive management by coordinating the timing of BEA project activities with the District Energy in Cities

[41] Personal communications from WRI and from UN Environment with the evaluator in May, July, August and September 2018.

150. Initiative (a separate but related SEforAll accelerator). Although this resulted in a delay (closing joint activities in June 2018), the extra time allowed for comprehensive stakeholder input and the outcome of Belgrade expressing strong interest in continuing as a deep dive city (with specific objectives proposed) in the BEA project Phase 2 (UN Environment, July 2018).

Figure 10 Management structure envisioned in the Project Document

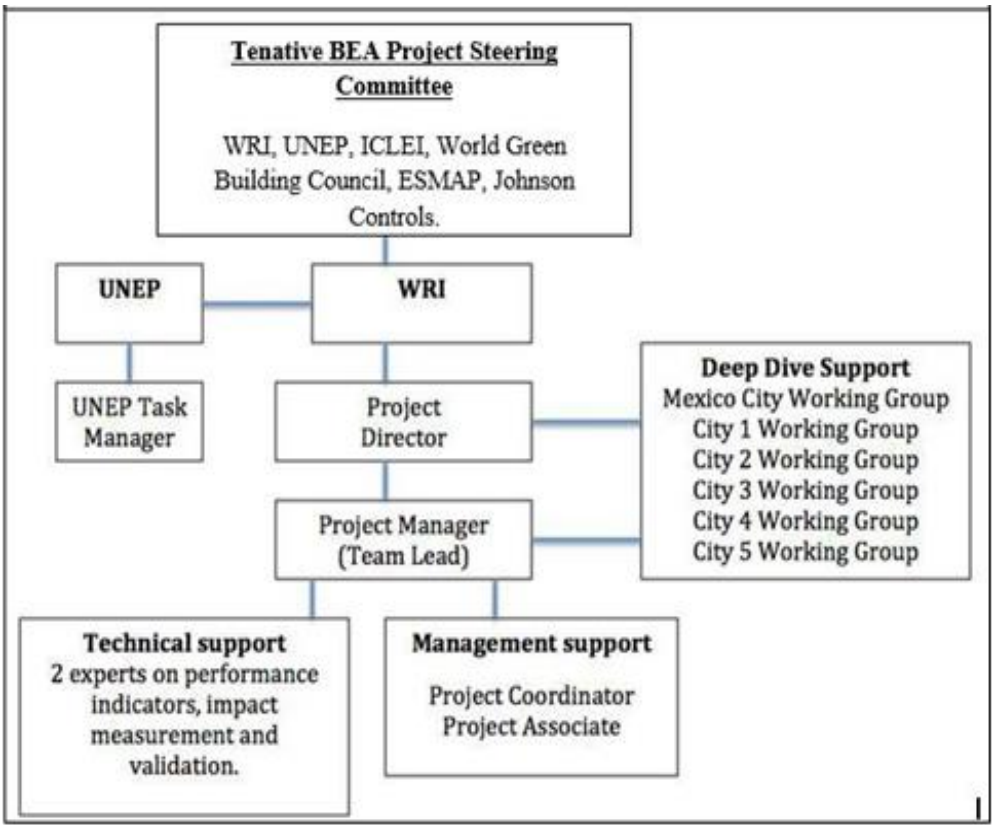
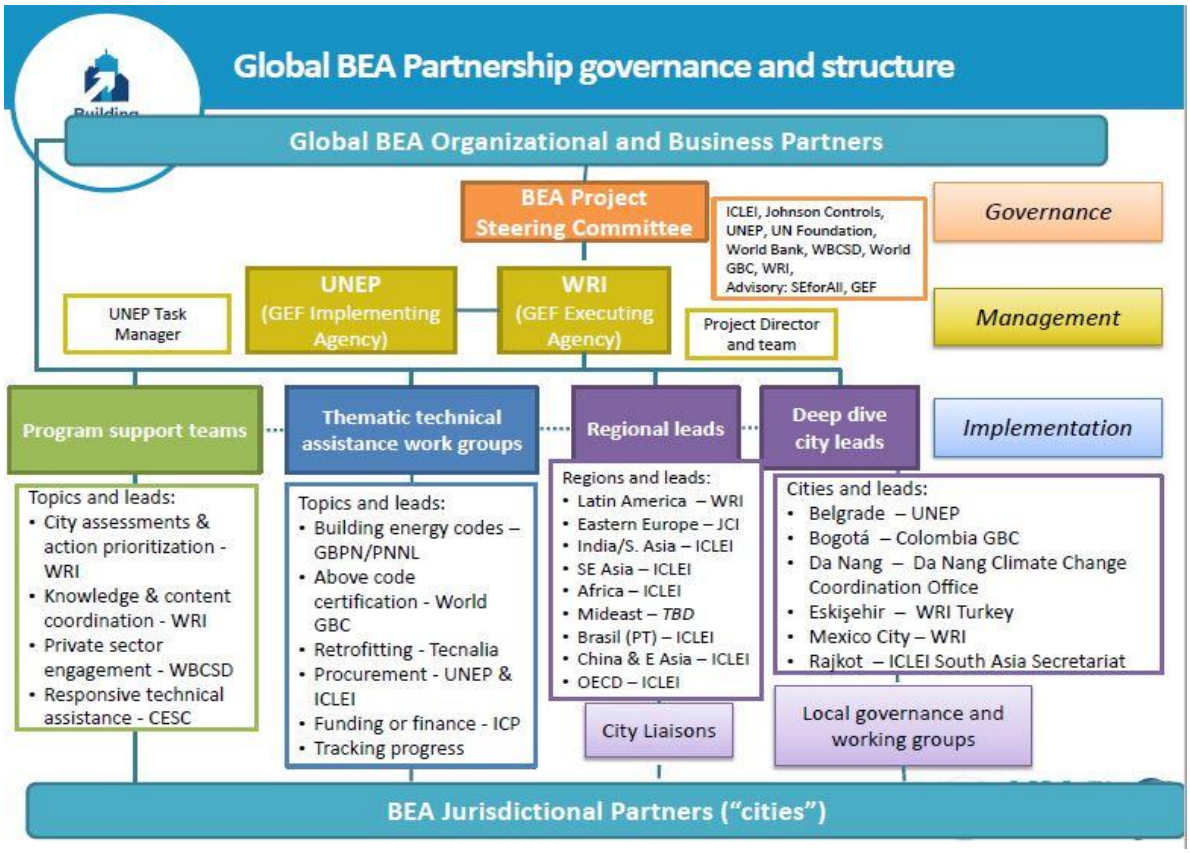


Figure 11 Implementation structure, November 2017



151. Time-saving measures and pre-existing relationships: UN Environment and WRI had expert staff and detailed plans and assignments of responsibilities in place prior to the BEA project launch. By choosing to partner with WRI, UN Environment immediately accessed a strong network of relationships via WRI's Ross Center for Sustainable Cities, which complimented its own strong network of national and city contacts. Together, the implementing and executing agencies had already built credible relationships worldwide and thus were able to quickly launch the project.

152. The multitude of stakeholders and the geographic diversity of the BEA project is impressive for a medium-sized GEF project. The project team members kept relationships well-organized and informed with frequent emails, teleconferencing and through a software collaboration/communication platform. Digital media enabled timely, efficient, economical and eco-friendly project operation on a global scale. The project minimized international travel impact on the budget and the environment by relying on full-time staff and partner contributions in each deep dive city.

153. According to tabulations by WRI, globally, over 200 experts (equal numbers of women and men) participated in the project, representing partner organizations, regions and cities. The number of experts from each region varied: Canada and USA 30%; Western Europe 28%; South and Southeast Asia 13%; and, South America and Caribbean 11%. Other regions were less well represented by experts.

Rating for Efficiency: Satisfactory

G. Monitoring and Reporting

154. Monitoring design and budgeting: The templates provided for reporting were clear and were used by the team members, project managers and the task manager to track the progress of the BEA project in detail on a regular basis, as follows. The allocated budget was sufficient for the reporting effort. Likewise, the allocated budget was sufficient for the terminal evaluation effort.

155. UN Environment Cities Unit submitted bi-annual progress reports (January to June; July to December) to WRI for UN Environment's technical assistance tasks to the City of Belgrade.

156. Cities used a survey tool provided by WRI to summarize their energy efficiency policy and buildings situations; the results were posted in an online database and map. Deep dive cities prepared kick-off meeting summaries and detailed work plans for their commitments.

157. WRI prepared an Inception Report. WRI submitted half-yearly (covering July to December) progress reports and annual progress reports (PIRs, covering January through December) to UN Environment.

158. WRI prepared agendas, project updates and summaries for the BEA project Steering Committee and for partner meetings, as needed. The updates included summaries from the six Working Groups. For example, the Tracking Progress group developed "resources to help BEA member cities track and report their progress against policy and project work plans and, where possible, their emissions savings" (WRI, July-December 2016 progress report).

159. The Task Manager and the Project Manager co-authored and submitted PIRs annually for the fiscal year July through June to the GEF.

160. Monitoring of project implementation: Reporting was clear, complete and submitted on a timely basis. The project managers used the original schedules and budgets to keep track of progress, by component, task, output and milestones. WRI also tracked progress in detail and provided updates to the Steering Committee members prior to and during the four Steering Committee meetings.

161. Cities prepared detailed budgets and timelines for their selected actions (policies and projects). The progress of the cities varied greatly. For example, by October 2017, all of the cities had made commitments (Stage 0), but 13 had not progressed further, the others were still assessing (Stage 1) and developing (Stage 2) their actions and only Mexico City had begun to implement (Stage 3) its actions. Also, the deep dive city action plans had durations of 14 to 22 months, with projected completion dates as late as September 2018.

162. Based on their tracking of progress on all components, the project managers did anticipate the need for more time for BEA project Phase 1 and so requested and received a no-cost extension of three months. This need was reported by WRI in its July to December 2016 progress report, with the reason given as, "... our subgrant disbursement and vetting of subgrant organizations, as well as the subsequent hiring of deep-dive technical staff, was delayed." UN Environment requested and was granted an extension of the project completion date to 31 December 2017. By June 2017, WRI reported that updated work plans were created to reflect the extension

and, "The project's implementation is on track and progress is generally in line with the new work plan – often even ahead of schedule."

163. By late 2017, the BEA project faced a gap in funding of uncertain duration until the Project Document could be completed and co-finance letters obtained by WRI. Between the end of the BEA project Phase 1 and the launch of Phase 2, both UN Environment and WRI continued to support the project activities (at a reduced effort) with their in-kind contributions[42].

164. Project reporting: Using the GEF Project Implementation Review (PIR) template, reporting for the fiscal years 2016, 2017 and 2018 was completed within prescribed time limits.

165. One weakness observed in the BEA project reporting is lack of detail and any focus on gender and indigenous people's issues. The 2016 PIR notes, "We are establishing tracking mechanisms for gender at events and trainings, and are gathering demographic data from across the partnership;" and the 2017 PIR notes, "We are developing a Lessons Learned report on BEA Phase I as noted in our project document which includes an analysis of gender and demographic participation in our events and trainings." The names of event participants are included in meeting summaries and regular reporting. From a tabulation for five events from 2016 to 2017, (provided by WRI) it appears that women were 40% to 70% of the participants at each event. Photos from BEA stakeholder events document the diversity of participants (Figure 12). However, WRI's "BEA Lessons Learned Report" (2018) lacks

Figure 12 BEA project participants at the 2017 SEforAll Forum in New York. (WRI).

any summary data on participants or mention of any project activities that would have attempted to address gender or indigenous peoples' issues, particularly as they might relate to urban environments, buildings, energy efficiency and Sustainable Development Goal 7[43].

[42] The GEF CEO endorsed the BEA project Phase 2 on 13 June 2018. Subsequently, the implementing and executing agencies executed a Project Cooperation Agreement, signed by UN Environment on 18 July 2018 and by WRI on 5 September 2018.

[43] The authors of, "Doing it right! Sustainable energy and indigenous peoples: A briefing paper by the Indigenous Peoples Major Group, with contributions from the Danish Institute for Human Rights," released in February 2018, state that, "Indigenous peoples comprise 15% of the world's extreme poor, while representing only 5% of the global population – and make up a staggering one third of the world's 900 million extremely poor rural people (IFAD 2018). Indigenous peoples are therefore a critical demographic that needs to be put at the centre of the global dialogue on energy if SDG 7 on ensuring access to affordable, reliable, sustainable and modern energy for all is to be

Rating for Monitoring and Reporting:	**Satisfactory**

H. Sustainability

166. Most of the cities have yet to realize the impact of BEA-related building efficiency policies and none of the cities have completed and commissioned their demonstration projects during Phase 1, so it is premature to try to quantify their impact or to consider their transformative influence in their respective local markets at the close of Phase 1. By the close of Phase 2, impacts should be evident.

167. Nonetheless, it is possible to evaluate the likelihood of sustainability (or persistence) of the direct outcomes of the BEA project, for example, new policies, commitments and increased capabilities. These will differ in each city, and likely will depend on national and regional market conditions, too. Market influences could include: regional and national climate change mitigation commitments and actions; energy, energy conservation and pro-energy efficiency policies; electric utility regulatory status and demand-side management programs; and, availability of energy efficiency building resources (professional, technical, material and financial).

168. An example of a regional market effort that is highly supportive of energy efficiency is the research, consensus building and policy-making efforts of the European Union, which will certainly influence the building sector markets in several of the BEA Phase 1 cities (Alba Iulia, Belgrade, Bucharest, Riga and Warsaw). The European Parliament, operating on the principle of, "Energy Efficiency First[44]," and gathering its legislative actions in the "Clean Energy for All Europeans package" [45]" aims to transform the regional buildings market[46]. The New Energy Performance in Buildings Directive[47] will have a direct impact on the BEA cities in the region because, "EU countries will have to transpose the new elements of the Directive into national law within 20 months. The new Directive has huge potential for efficiency gains in the EU building sector, the largest single energy consumer in Europe. It includes measures that will accelerate the rate of building renovation[48] towards more energy efficient systems and strengthen the energy performance of new buildings, making them smarter" (European Commission, 19 June 2018).

169. These European actions and legislation will support the persistence of any BEA-related policies and projects in the European Union. A positive spill-over effect may occur, too, in cities in countries aspiring to join the European Union. For example, for its BEA policy commitment, deep dive city Eskişehir is implementing a national mandate for building energy performance certificates, with incentives and assistance for buildings with "B" or greater level ratings; and, for its project commitment is implementing building

achieved. Despite this fact, indigenous peoples suffer invisibility when it comes to our understanding of energy access. There is little consistent and comparable disaggregated data available to provide a clear global picture of indigenous peoples' access to energy in contrast to non-indigenous populations. Even major reports from key initiatives aligned with SDG 7 either don't mention, or only superficially refer to, indigenous peoples and fail to examine their unique challenges as a distinct group with regards to energy access."

[44] http://europa.eu/rapid/press-release_STATEMENT-18-3997_en.htm

[45] https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/clean-energy-all-europeans

[46] https://ec.europa.eu/energy/en/topics/energy-efficiency/buildings

[47] https://eur-lex.europa.eu/legal-content/EN/TXT/?toc=OJ%3AL%3A2018%3A156%3ATOC&uri=uriserv%3AOJ.L_.2018.156.01.0075.01.ENG

[48] https://ec.europa.eu/energy/en/topics/energy-efficiency/buildings/financing-renovations

efficiency measures to achieve an "A" rating and certification in a new, public science center building that will be dedicated to energy education.

170. While it is beyond the scope of this evaluation to research all local, national and regional factors that might help forecast the sustainability of the 30 cities in the BEA project Phase 1, the evaluator created Table 16 to list market conditions and actions that could be used for tracking progress, as mentioned in the Project Document. Not all of these actions or conditions can be attributed to the BEA project; many are national and much broader in scope; some may have existed or been enacted prior to the BEA project's inception. The evaluator populated the table with direct evidence from the project and from internationally recognized, public resources. The supportive actions or conditions for sustainability and persistence of BEA project direct outcomes, per country, include:

    - The participation of at least one BEA project Phase 1 deep dive city (2016-2017, inclusive).
    - The application of at least one BEA Phase 1 project city to be considered for deep dive status in Phase 2.
    - One or more NDCs (or, formerly, INDCs), registered with UNFCCC, that include(s) energy conservation or energy efficiency mitigation actions.
    - One or more NAMAs (registered with UNFCCC) that focus on energy conservation or energy efficiency mitigation actions in buildings or housing.
    - A city that has registered with the ICLEI carbon*n*™ Climate Registry: its participation in BEA project and/or, one or more mitigation actions that focus on energy conservation or energy efficiency in buildings or housing,
    - A mandatory, voluntary or model national energy conservation, energy efficiency and/or building code (per lists compiled by IEA, IPEEEC, or, as noted by an interviewee and located by the evaluator on a public website).
    - One or more green building councils within the country (per WGBC listing, or, as noted by an interviewee and located by the evaluator on a public website).
    - Each country's energy efficiency (subscore) status assessed in RISE (para. 118), the scoring system created by the World Bank Group and SEforAll to measure progress toward achieving Sustainable Development Goal 7).

171. The results in Annex IV show that all 18 of the countries in which Phase 1 cities are located have at least two and as many as six of the above market conditions that should motivate action and sustain the BEA project energy efficiency measures. Also, with BEA project Phase 2 launching in August 2018, any participating Phase 1 city can continue to increase its likelihood of accelerating market change to lower emissions from buildings.

172. It would be valuable for the BEA project and each of the BEA cities to see how their market conditions compare with others and how they may have changed over time. Other than the cities' progression through the general stages defined by the BEA project, potentially useful benchmarking reports are published by ACEEE and by the World Bank Group, as follows.

173. ACEEE publishes a biennial report (most recently, *The 2018 International Energy Efficiency Scorecard*[49]) but it does not cover all of the countries in which BEA cities are located.

174. In 2017, The World Bank Group and SEforAll began a biennial assessment[50], *RISE*, which covers all but two of the countries (Latvia and Serbia) in which BEA has participating cities. Table 11 ranks in descending order the RISE results for the energy efficiency subscore for countries in which BEA cities are located.

175. The 16 nations with BEA cities scored by RISE range on energy efficiency range from 88 to 27 (out of a maximum possible energy efficiency score of 100): six (USA, Romania, Mexico, Vietnam, South Africa and Japan), placed in the top third of all countries worldwide; nine placed in the middle third, and one, Mongolia, placed in the lowest third. Overall, regarding energy efficiency, RISE found that, "Most countries are encouraging consumers to use electricity more efficiently, and are establishing basic structures to promote energy efficiency. Two of the highest scoring indicators—information provided to electricity consumers and electricity rate structures—are mediated by electric utilities. The two other indicators with the highest scores, national energy efficiency planning and energy efficiency entities, reflect actions that can be simple or sophisticated but are within the grasp of any functioning government (Ch. 3, Energy Efficiency, pp 95-97).

Table 11 RISE energy efficiency score, by country

Countries (in which BEA cities are located)*	World Bank Group RISE Energy Efficiency Score (max = 100)	
USA	88	top third
Romania**	86	
Mexico**	79	
Vietnam**	71	
South Africa	69	
Japan	68	
Turkey	65	middle third
UAE	63	
India**	60	
Poland	57	
Malaysia	52	
Brazil	51	
Colombia**	51	
Kenya	48	
Philippines	42	

[49] Castro-Alvarez, Fernando C. et al. 2018. The 2018 International Energy Efficiency Scorecard: Research Report 1801. Washington, DC: American Council for an Energy Efficient Economy. Accessed June 2018: https://aceee.org/research-report/i1801

[50] The report describes itself as a, "global scorecard with an exhaustive set of indicators that rank national policy and regulatory frameworks for sustainable energy. It offers a critical, objective overview of what is happening in 111 countries, allowing policymakers and investors to benchmark progress across countries through its databases that provide access to a treasure trove of primary policy and regulatory information at the national level" (p ii).

Mongolia	27	lowest third
*Latvia and Serbia** were not included in RISE report. **Country in which a deep dive city is located. Source: WBG, 2017		

176. Sociopolitical sustainability: Social or political factors that affect the continuation and further development of the BEA project direct outcomes include the level of ownership, interest and commitment among city governments and other stakeholders to pursue additional achievements beyond BEA Phase I. This was critical especially for the deep dive cities, where the greatest effort and funding was directed during Phase 1. The BEA project design and the Steering Committee's section criteria for deep dive cities addressed social factors, minimized political risk and led to a high level of ownership, interest and commitment from the six city governments and their key stakeholders.

177. In addition to geographic and climate diversity, key criteria used by the Steering Committee to select deep dive cities were: the city had "at least one organizational partner with existing presence or partnerships with the city"; was "located in a GEF-eligible country for a local partner to receive dedicated funding"; and, "the political term of the current chief executive had to endure for at least 2 years from May 2016." The deep dive cities each: "initiated work through a stakeholder engagement process; held a kick-off workshop; developed relevant working groups made up of diverse stakeholders to craft specific recommendations for how to move forward, and; [followed] a collaboratively-developed and city-approved work plan" (WRI 2018 Lessons Learned, p 8).

178. Individual capacity development efforts were enhanced because, "Each deep dive city had a lead local partner that hired a full-time BEA technical advisor to support the city's work and stakeholder outreach" (WRI, 2018, Lessons Learned). This facilitation strategy succeeded because timelines were established, milestones monitored, plans adapted and communication kept regular and lively amongst the local participants. Importantly, the lead local partner and dedicated local staff person also liaised regularly with the global WRI project staff.

179. Financial sustainability: The outlook for the financial sustainability of the direct outcomes related to Phase 1 depends on local and national factors, particularly for completion of building projects selected by each city. For those cities that have progressed beyond "Stage 0" and have secured or are in the process of securing project financing, it is highly likely that their efforts and emissions mitigation contributions will be sustained for decades forward. For cities that already have building energy efficiency code or policy support, or, have drafted codes and policies and are working locally or nationally to institutionalize the requirements, they similarly have a very high likelihood of sustainability. For cities still at "Stage 0," the prospects for sustainability of BEA project-related direct outcome contributions is less certain but could still be realized if the cities participate in Phase 2 or recommit to using the processes and tools of Phase 1 on an independent basis.

180. The prospects for attributing the intermediate state of market transformation to the BEA project, are considerably increased by the approval of Phase 2 by the GEF and the related efforts that will ensue. Sixteen of the 20 partners that committed to co-finance Phase 1 have committed to Phase 2 (a recommitment rate of 75%); they are joined by

nine new partners making in-kind co-finance commitments, for a total of 25 Phase 2 partners (125% the number of partners in Phase 1). Six of the Phase 2 Partners committed more than $400,000 each of in-kind contributions, two of which committed more than $1,000,000 each. The continuity of partners, attraction of new partners and magnitude of the Phase 2 commitments signifies the partners' confidence in the sustainability of the BEA project.

181. Institutional sustainability: The sustainability of project outcomes relating to energy, energy efficiency, energy conservation and climate change mitigation policies and laws will depend on each city's and its respective national institutional frameworks and governance. As shown in Annex IV, all of the countries in which BEA cities are located have some pre-existing conditions that support climate change mitigation action and/or energy efficiency.

182. The upfront commitment of each city as it joins the BEA project is an indicator of the local government's willingness to enter into agreements with international organizations and with transparency vis-a-vis public-private partnerships. The BEA project Phase 1 demonstrated that some cities can accelerate local energy efficiency and buildings policy and standards even if national policies are not yet in place to support transformations.

183. Throughout Phase 1, cities did honor their commitments and make progress toward developing policies that would create strong supporting conditions for their building sector's transformation to greater energy efficiency. By demonstrating the feasibility of efficient new buildings and energy efficient building retrofits that comply with new or more efficient building codes and standards, the BEA Phase 1 cities are sending a demand signal to the market. Encouragingly, many cities came forward with either renewed or new interest in making greater commitments as deep dive cities in Phase 2. This attests to their ownership and driven-ness, not just to the BEA project, but also to Sustainable Development Goals.

184. The BEA's strong international network and partnership of governments, private sector, civil society and international organizations adds opportunity, credibility and accountability that should lower risks and increase the value of the BEA project's contributions to cities' institutions. Continuation of the SEforAll accelerator platform also lends institutional sustainability.

185. City stakeholders participated in dialogues, webinars, training and workshops; they found new local resources and connected with peers in other cities to access the BEA project's resources (Annex V). For example, some cities created (for the first time) staff positions for energy efficiency, after learning about the effectiveness of this role in other cities. Some cities committed to public works projects, such as renovating government and public buildings. These decisions bode well for the institutional frameworks to sustain the BEA project's direct outcomes and for increased communication about the benefits of energy efficient buildings and climate change mitigation, locally, regionally and nationally.

Rating for Sustainability: **Highly likely**

VII. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

186. In fulfilment of the Theory of Change at Evaluation, the Building Efficiency Accelerator project delivered the outputs and achieved all of the direct project outcomes that were originally planned. Assessing against the evaluation criteria, the project performed highly satisfactory for most.

187. Conclusion 1—Leveraged project support. From a financial and partnership perspective (Components 1, 2 and 3), the BEA project was highly successful in leveraging a GEF medium-size project grant of two million US dollars to secure, organize and implement in-kind contributions valued at over 8.3 million US dollars from international partners in the private sector and civil society, for the purpose of garnering emission reduction commitments and enhancing the energy efficiency policy and project capabilities of 30 cities, representing approximately one percent of the world's population.

188. The BEA project proposal development effort for Phase 2 (per Component 4) was highly successful, garnering an additional medium-size project grant of two million US dollars and in-kind partner contributions valued at over 6.1 million US dollars. From phase 1 to phase 2 the BEA project retained 75% of its original partners; it also added new partners. Although this is a terminal evaluation, it actually marks a mid-point (or early point) in the BEA project, given the highly likely sustainability of the BEA project's donors and in-kind contributors, whose investments so far have seen high yields.

189. The partners—especially the key partners that made significant in-kind investments in the BEA project—also benefited from their participation. As noted in the Stakeholder Analysis (Table 5), they gained increased understanding of city-level needs, having helped to identify gaps and strengths in the building sector. They also increased their organizations' awareness of international climate change mitigation actions and resources. Some may have gained competitive intelligence regarding city/state plans for new growth and policies, which would be valuable for developing energy efficient technologies and services that would be responsive to urban needs.

190. Conclusion 2—Public-private partnership for rapid implementation. The BEA project performed highly satisfactorily in establishing a public-private partnership to assist six selected deep dive cities (each with a dedicated coordinator) and an additional 24 network cities to accelerate their energy efficiency efforts for buildings. This was a complex and ambitious undertaking because the 30 cities varied drastically in size and in their depth of experience with energy efficiency policy and practice in buildings. For example, Eskisehir, Turkey, and Bogotá, Colombia, reported to the BEA project Steering Committee that they did not have a focus on building efficiency prior to working with the BEA. This valuable testimony points to the future traceability of the impact of the BEA project for cities just embarking on energy efficiency efforts.

191. Other cities had considerable experience with energy efficiency market transformation programs for appliances and were able to apply this capacity—further enhanced with technical and policy support from their participation in the BEA project—to buildings. For example, UN Environment reported that for the first city to join (as a pilot project in 2014), the BEA project has, "contributed to Mexico City's 2016 revision of its Construction Code and addition of energy-efficiency technical norms for implementation. Mexico City previously did not include energy considerations in the

building code. These norms make the national building efficiency code implementable and enforceable locally in Mexico City, and will ultimately result in significant energy savings." Furthermore, "The city has recently adopted a revised Construction Code and included building efficiency regulations and Complementary Technical Norms (standards) which will enable the national building code to be implemented and enforced locally. Mexico City has also audited 4 public buildings and is engaging in procurement for energy-efficiency retrofit. Due to the success of this activity, Mexico City announced at the SEforALL Forum in April 2017 that it has set a Phase II goal of retrofitting 30% of the city's government buildings. 15 buildings will be audited with funds from the city's Environmental Public Fund. The city has also established an energy efficiency office within the city's Finance Ministry for the first time.

192. Eleven additional cities identified and are developing policies and projects. If these 11 cities plus Mexico City (40% of the Phase 1 participants) continue on the accelerated pathways that they articulated during Phase 1, then they should reach the intermediate state of being able to measure, verify and benefit from their buildings' energy efficiency CO_2 emissions reductions and energy savings at three to four years from their cities' BEA project launch date, which would occur by the end of the BEA project's Phase 2. This momentum would be consistent with the Theory of Change at Evaluation and would provide proof-of-concept of the effectiveness of market transformation interventions for other cities to follow. Given at least an equal amount of time (18 months) and partnership support for Phase 2, and with the continued participation and committed effort of the remaining 18 cities, all 30 of the Phase 1 cities could potentially begin implementing their chosen policies and projects by the end of Phase 2.

193. Conclusion 3—Effective leadership for urban transformation. The four pathways in the BEA project Theory of Change at Evaluation start from activities and outputs that would assist decision makers in cities, municipalities and urban states to accelerate their pace of adopting energy efficiency buildings policies and initiating energy efficiency projects that could be replicable and scaled up to more buildings. Achieving the direct outcomes depends on the motivation of and technical resources available to these key decision makers. While this Theory of Change shares some characteristics with appliance market transformation programs, it is fundamentally more focused on expert human resources and existing best practices than it is on technical and market-based data and consumer programs.

194. The evaluator recognizes that creating the BEA project's robust network for accelerated change required far more than market transformation's typical quantitative approaches (economic market analyses; supply and demand reviews; technical feasibility assessments; or, consumer awareness campaigns). For the BEA project team to have motivated decision makers and key stakeholders to accelerate and transform their policy development processes required inspiring, credible leadership from governments, international organizations, the private sector and civil society. The WRI Ross Center for Sustainable Cities articulates clearly some of these more qualitative aspects of market transformation in its call for "transformative" city projects:

195. "Transformative projects change the form and function of urban economies, environments and communities. They open our eyes to new possibilities by overcoming bottlenecks, leveraging investments, or offering new and scalable approaches to solving well-known problems. They impress hope and excitement. And

their impact extends beyond the initial site or intervention, catalyzing positive change throughout a neighbourhood or city" (WRI Ross Prize for Cities, 2018).

196. In less than two years, the UN Environment Task Manager and WRI Project Directors and Managers and their colleagues, the members of the Steering Committee and the many liaisons and representatives participating in the working groups, training sessions, workshops and webinars worked together, creating an adaptive implementation structure that was matched effectively with the representatives of the 30 cities and their stakeholders to exchange knowledge and experiences and to create a responsive network that served international, regional and city-level needs. Each city's team took responsibility for analysing their most appropriate and potentially greatest impact options for accelerating change and demonstrating benefits. Facilitating this tremendous diversity of discussions and planning processes required collaborative, highly distributed and adaptive management; also, compiling, sharing and summarizing these dispersed and diverse efforts required strong communication skills and structures. Via its strength in human resources, the BEA project successfully demonstrated "the power of public-private engagement" to accelerate energy efficiency improvements in buildings, as stated in its fundamental goal (ProDoc p 21).

197. Conclusion 4—Enhanced capacities and resources for accelerating policies and scaling up. Interviews with the UN Environment and WRI BEA project team, with partners and with city stakeholders revealed their positive visions and great dedication to improving the lives and the environment of the millions of people who reside and work in cities. The many global and national members of BEA's public-private partnership continue to share their world-class knowledge and experience directly with peers at the local level. Together, this partnership has laid a strong foundation for enhancing the capacities of the participating cities, so that they can design and adopt appropriate energy efficiency policies and practices in the buildings sector.

198. "Participation in the BEA is changing the local dialog and action on buildings in many partner cities. It is bringing focus and action to building efficiency for the first time in several cities. The BEA model is enabling local stakeholder engagement of the private sector on efficiency issues for the first time, and encouraging new collaboration between government agencies across sectors. International validation and recognition is *[sic]* an important value of BEA." (WRI. City Advisory Panel–April 4, 2017, Meeting Summary).

199. In Phase 1, UN Environment, WRI, participating cities and the BEA project partners demonstrated proof-of-concept that city-level public-private partnerships can accelerate energy efficiency changes in the building sector and thereby contribute to Sustainable Energy for All and Sustainable Development Goal 7. Near the end of Phase 1, the six deep dive cities, with technical assistance from the BEA project partners, assessed their success on greenhouse gas mitigation actions (Appendix K, PIR FY 2018). During Phase 2 of the project, the Phase 1 cities will serve as role models for other cities aiming to reduce CO_2 emissions via energy efficiency policies and projects in the building sector. As the number of participating cities entering the intermediate state increases, the "tracking progress" systems of the cities and of the BEA project will be tested and their ease of use and accuracy of recording will be essential for documenting the impact of both Phase 1 and Phase 2 of the BEA project.

200. In the Evaluator's Terms of Reference (Annex XI), the UN Evaluation Office posed four questions regarding the substantive contributions of the BEA project:

201. Question 1. To what extent, and how, is the project contributing to Sustainable Development Goal 7, "Ensure access to affordable, reliable, sustainable and modern energy for all" and to the INDCs and the NDCs of the countries where the deep dive cities are located?

Reply 1. SEforAll contributes to the 2030 Agenda for Sustainable Development, including Sustainable Development Goal 7 (SEforAll, 2016). The outcomes of BEA deep dive cities' actions align most strongly with SEforAll's second priority, "By 2030, double the global rate of improvement in energy efficiency." **Figure** 8, the Theory of Change at Evaluation, shows this pathway for the BEA project's efforts.

202. Insofar as some cities might consider and plan to address accessibility for underserved populations in their jurisdictions, for example, by including off-grid stakeholders, then BEA actions could also contribute to providing electricity in an efficient manner to newly constructed public housing and small business enterprises, thus contributing to SEforAll's first objective, "Ensure universal access to modern energy services."

203. By April 2017, BEA project stakeholders in the City Advisory Panel were grappling with how best to channel and increase BEA city contributions in this larger Sustainable Development Goal 7 context. They noted, "There is interest from some national government officials to use BEA city efforts as an example for other cities in their countries. Additionally, the global nature of BEA is improving national government engagement. There are potential economies of scale to expanding BEA efforts nationally or to other cities in the same country [51]" (WRI, 2017.)

204. Explicit connections and tracked contributions from BEA to SEforAll[52] and Sustainable Development Goal 7 will be developed in BEA Phase 2. With "energy intensity measured in terms of primary energy and GDP" chosen as the standardized indicator for the rate of energy efficiency growth, the BEA project Tracking Progress working group should continue to draw upon the expertise of ESMAP and the IEA and through them liaise with the UN Statistics Division (the custodian agencies for Sustainable Development Goal 7 reporting[53]).

205. In May 2018, when the SEforAll Forum was held in in Lisbon, Portugal, a contemporary news headline declared that, "The World is Not on Track to Achieve SDG 7, but Progress is Accelerating" (Jungcurt, 2018). At the same time, the BEA project's deep dive cities were preparing to quantify their contributions, which would ultimately support SDG 7. To place their contributions in context, Table 12 shows the most recently reported values for population, Gross Domestic Product and "energy efficiency" for each country in which a deep dive city participated in BEA Phase 1.

206. The CO_2 emissions mitigation contributions of the BEA project's deep dive cities are yet to be realized fully, but eventually they will accrue to their respective national contributions, thanks to the tracking systems being set up in each city, per BEA Phase 1, Component 4. Of the countries in which the deep dive cities are located, India, Mexico, Serbia and Vietnam registered INDCs or NDCs with UNFCCC prior to the launch of the BEA project. Neither Colombia nor Turkey has registered INDCs or NDCs.

[51] City Advisory Panel – April 4, 2017, Meeting Summary, p 2.
[52] The SE4All strategic framework (SE4All, 2016) makes brief but positive mention of accelerators.
[53] See the "Tracking SDG 7" website: https://trackingsdg7.esmap.org/

Table 12 Sustainable Development Goal 7 data for countries in which Phase 1 deep dive cities are located

Country	Population	GDP per capita	Energy Efficiency
Colombia	48,228,704	7,130	2.26
India	1,311,050,527	1,590	4.73
Mexico	127,017,224	9,710	3.74
Serbia	7,041,599	15,828	6.56
Turkey	78,665,830	9,950	2.95
Vietnam	91,703,800	1,980	5.94
*The Country Value given for "Energy Efficiency" is measured as MJ per US$ PPP 2011. As a reference, the global average for the annual rate of energy efficiency is 5.27. For an explanation of the methodology, see https://trackingsdg7.esmap.org/methodology. Data accessed July 2018 at: https://trackingsdg7.esmap.org. (*2018 SDG 7 Tracking Report*)			

207. India's INDC describes in detail and as its first priority the development of "a clean and efficient energy system" including energy efficiency in buildings plans and strategies for increasing energy access for all. Mexico's INDC mentions energy reform and gender equity with regard to the energy sector but does not mention energy efficiency. Serbia is harmonizing with the European Union and thus by reference would plan extensive energy efficiency in buildings interventions. Vietnam, like India, clearly and compelling outlines its clean energy and energy efficiency mitigation plans, with its second-highest priority stated as, "Improve effectiveness and efficiency of energy use; reducing energy consumption." For its policy commitment, Da Nang City chose to develop a building code directive to implement efficiency measures in large buildings and to increase transparency regarding building sector electricity demand; and, for its project, the city committed to implementing energy efficiency solutions for a hotel demonstration project, including an audit and selection of most appropriate technology measures.

208. WRI summarized city progress according to five milestone stages of action (zero to four). As of October 2017, of the 30 cities, only Mexico City had begun to implement its BEA plan. The above four countries have committed to mitigation paths that can incorporate future BEA project results, but they have not updated or filed new or second NDCs and thus the BEA project (launched in 2016) has not yet influenced their NDCs.

209. Question 2. To what extent, and how, are organizations participating in the Partnership promoting market shifts and encouraging innovations outside the Partnership?

210. Reply 2. Due to the short period of time since the BEA project Phase 1 cities have begun to finalize and implement their action plans, the evaluator suggests that evidence to answer this question is more likely to be available in Phase 2. Nonetheless, in Phase 1, the BEA project has begun to influence other cities and peer stakeholders. For example, BEA training in Nairobi is being referenced as a resource by Kenyan green

building councils that are cooperating in the UN Environment/GEF project, "Promoting Energy Efficiency in Building in East Africa"[54].

211. Opportunities for BEA outreach to increase its effectiveness in the building sector include: the real estate industry, investors, banks and other potential financial stakeholders that are crucial for supporting a faster market shift toward energy efficiency. This need, summarized as, "Development and financing of project pipelines, "was chosen as the top priority for the next two years by all groups of respondents to a BEA survey that was completed in October 2017 (WRI, PIR 2017, Appendix E). Also, as noted by the BEA Project Manager, "The BEA partnership continues working to engage with the real estate sector and property managers' organizations. Because these tend to be highly local organizations, these are more challenging partners to engage." (WRI PIR 2017, p 23)

212. Another outreach target for market transformation identified by BEA team members in Phase 1 is national government stakeholders. This need was well justified in a proposal in Phase 1 (Output 3.2.1) that has led to funding by the GEF and in-kind support from the BEA partnership for BEA Phase 2.

213. Question **3. How well is this intervention aligned with the overall SEforAll strategy up to 2030 including coordination with other Accelerators and Hubs?**

214. Reply 3. The SEforAll strategy, under the rubric of "Going Further, Faster – Together" was articulated in 2016 and celebrated at the 2018 Forum. The strategy has a very complex structure and a framework of results that continues to evolve. The BEA Phase 1 project contributions aligned highly satisfactorily with SEforAll. For example, one of SEforAll's three key actions is to "empower leaders to accelerate action," and two of SEforAll's priorities are to, "develop action oriented partnerships" and "measure success." The evaluator notes that BEA and SEforAll were "born" nearly at the same time, of public-private partnership ideas that were being discussed, developed and piloted by many parties (including UN Environment and the GEF and countries participating in UN Environment-GEF projects) during the decade prior to COP21. Thus, the alignment during BEA Phase 1 was mutual. If SEforAll accepts the observer seat that has been offered by the Steering Committee, then a continued alignment strategy could be articulated.

215. With coordination from UN Environment, BEA has consistently aligned with and made efforts to collaborate with the District Energy in Cities Initiative, also a SEforAll Accelerator. BEA's closest Hub relationship is with the Copenhagen Centre on Energy Efficiency, which supports the BEA knowledge management system. As SEforAll continues to evolve, it has signalled that the role of energy efficiency Accelerators and Hubs will be re-evaluated so that SEforAll can "use its brand and convening power to advocate for a sustainable energy transition" (SEforAll 2016, p 36).

216. BEA's stakeholders have signalled their strong need for assistance with financing; this is also a need recognized by SEforAll. "BEA cities would like additional assistance to mobilize investment and finance. Needs vary by city but include desire for funding for both project/program pre-development and implementation. Assistance with development of technical assessments, or resources to pay for them are needed. Other cities now need to be connected to capital investor to finance their project

[54] Evaluator's personal communication with the evaluation manager, August 2018, regarding UN Environment-GEF project ID 3788.

pipelines. The global partnership and local processes will help to differentiate and validate BEA city projects to some funders." (WRI. 2017. City Advisory Panel – April 4, 2017, Meeting Summary, p 2.)

217. SEforAll could help address financial barriers for the BEA cities network, if Phase 2 remains coordinated with SEforAll's framework for results.

218. Question **4. To what extent are participating cities satisfied with the quality of the Technical Assistance provided?**

219. Reply 4. Satisfaction with quality is assessed in several ways: with the number and frequency of users' access to resources; with survey responses; and, with comments from interviews.

220. Looking at the 30 cities' plans for policy and project actions, the large number and diversity of international partners invited to support technical aspects of each of these cities' these commitments is impressive and reflects the thorough local stakeholder decision-making activities. The BEA project management strategy of organizing the expertise of the partners into themes for which resources were developed and offered enabled cities to match their needs with BEA experts and tools, as shown in Figure 14.

221. Technical assistance offered by the partner network through the 20 webinars was of excellent quality, presented by a diversity of highly accomplished professionals. Webinar registration data reveals that the webinars were not accessed as frequently or by as many participants in the global south and in East Asia as they were by registrants in other regions (Annex V).

222. Table 13 shows prioritized responses from the results of a WRI survey that asked two questions of BEA partners about technical aspects of BEA support and resources[55]. These results indicate that all groups of respondents found the technical assistance to be successful, and, they view more, strengthened technical assistance as necessary for BEA Phase 2.

Table 13 Excerpted results from 2017 survey of BEA participants, regarding the success and need for improvement of BEA elements

Top 3 votes by partner type:		
NGO*/international	**Government****	**Business**
What elements of the BEA do you think have been most successful over the past 2+ years?		
1. Technical assistance to deep dive cities 2. Global partner network 3. Regional coordination and events	1. Global partner network 2. Regional coordination and events 3. Technical working groups	1. Global partner network 2. Regional coordination and events 3. Technical assistance to deep dive cities
What elements of the BEA do you think most need to be strengthened or improved for 2018-2019?		
1. Technical assistance to network cities 2. Technical working groups 3. Global partner network	1. Technical assistance to deep dive cities 2. Technical assistance to network cities	1. Technical assistance to deep dive cities 2. Technical assistance to network cities

[55] The survey was conducted by WRI to fulfill deliverable 4.1.3, per the workplan in the Project Document, Annex I (p 65): "Project impact evaluation undertaken by independent review at month 15 of the BEA project as part of potential phase 2 preparation." Responses to the survey were anonymous.

	3. Communications and global agenda	3. Other – Private-Sector Engagement
*Non-governmental organization (civil society) **City-level government entities Source: Survey conducted by WRI in September to October 2017. "With outreach to 208 individuals, the survey had a 22% response rate with two-thirds of respondents indicating they participated at least monthly with the partnership" (WRI 2018 Lessons Learned report, p 9).		

B. Summary of project findings and ratings

223. Table 14 provides a summary of the ratings and findings. Overall, the project performance is rated **Highly Satisfactory**.

Table 14 Summary of project findings and ratings

Criterion	Summary assessment	Rating
Strategic Relevance	The BEA Project Phase 1 is well-aligned with the strategies and programs of work of UN Environment, the GEF and the participating cities and their respective nations, as follows:	Highly satisfactory
5. Alignment to MTS and POW	MTS 2014-2017, Climate Change Expected Accomplishment (b), Output 3	Highly satisfactory
6. Alignment to UN Environment /Donor/GEF strategic priorities	GEF 6, Climate Change Mitigation Focal Area 1, Program 2 and corporate result 4 and UN SDG 7 and the Paris Agreement.	Highly satisfactory
7. Relevance to regional, sub-regional and national environmental priorities	All 30 participating cities/states reviewed and aligned their activities with relevant priorities	Highly satisfactory
8. Complementarity with existing interventions	The project complements and builds on prior UN-GEF projects and contributes to the efforts of the SEforAll Accelerator Platform	Highly satisfactory
Quality of Project Design	As assessed in the Inception Report, the quality of the project design was satisfactory; as it was implemented, management adapted the design in an effective manner.	Satisfactory
Nature of External Context	No negative external factors impinged on the project. Previously identified risks, such as political instability, were not problematic during Phase 1. With the support of local public-private partnerships, and the international endorsement of their actions, cities remain highly committed to enacting energy efficiency policies and implementing energy efficient building practices. In some regional markets, energy efficiency buildings policy conditions are highly favourable.	Highly Favourable
Effectiveness	Both the executing and implementing agencies were well-prepared, ready at launch, and focused highly effectively on the plan of work, coordinating and facilitating many parties to meet all targets in a timely and cost-effective manner.	Highly satisfactory
4. Achievement of outputs	All outputs were delivered, were of high quality and met the requirements as per the indicators.	Highly satisfactory

Criterion	Summary assessment	Rating
5. Achievement of direct outcomes	In just 21 months, the BEA project's direct outcomes were achieved, per the Theory of Change at Evaluation. The six deep dive cities made significant progress toward the intermediate state and most of the network cities advanced at least one stage closer to implementation of their initial commitments.	Highly satisfactory
6. Likelihood of impact	The likelihood of impact is high because the project secured donor and in-kind investments for Phase 2, with renewed support of the partnership and strong expression of interest from cities. Furthermore, the BEA partner network is growing, will function through 2019 and with focused planning could be sustained through 2030.	Highly likely
Financial Management	Financial management fulfilled the requirements of the donor and the implementing agency.	Highly satisfactory
3. Completeness of project financial information	All reports were complete.	Highly satisfactory
4. Communication between finance and project management staff	Communication was sufficient.	Highly satisfactory
Efficiency	The management team kept all stakeholders focused on agreed-upon objectives; the partnership built on existing expertise and resources to delivered capacity-building support to the 30 cities and their diverse stakeholders. However, an extension was required for all planned activities to be completed.	Satisfactory
Monitoring and Reporting	Project monitoring and reporting was complete, timely and complied with the requirements of the donor (GEF) and the Steering Committee.	Satisfactory
4. Monitoring design and budgeting	The project design and budget were followed diligently, with only a few minor changes needed.	Satisfactory
5. Monitoring of project implementation	The UN Environment Task Manager and the WRI Project Directors and Managers regularly monitored and supervised the project and the many participants' contributions. They conferred by telephone frequently and adjusted plans in a timely manner, according to changing circumstances. Progress against performance indicators was documented using a Tracking System.	Satisfactory
6. Project reporting	UN Environment Cities Unit and WRI each submitted bi-annual progress reports; UN Environment prepared and submitted PIRs to the GEF. WRI prepared timely and accurate updates, recommendations and meeting reports for the Steering Committee, with input from UN Environment. All project reporting was clear and accurate.	Satisfactory
Sustainability	The Phase 1 BEA project demonstrated a high likelihood of sustainability, secured support from The GEF and key in-kind contributors and has launched Phase 2. Fifteen Phase 1 cities have committed to and proposed to be considered as Phase 2 deep dive cities.	Highly likely
4. Socio-political sustainability	City governments (especially of the six deep dive cities) have increased capacity to follow through on their selected policy and building project actions.	Highly likely
5. Financial sustainability	The project itself and many of the cities increased their financial planning capacities for energy efficiency projects; many cities have prepared prospectuses for local, national and international investment. Financial support for Phase 2 is strong, too.	Highly likely

Criterion	Summary assessment	Rating
6. Institutional sustainability	The GEF, UN Environment and WRI each have a strong likelihood of sustainability; together with the public-private BEA partnership that has renewed support for Phase 2, and with the inclusion of the BEA in the SEforAll accelerator platform, the likelihood of the BEA persisting is high.	Highly likely
Factors Affecting Performance		Highly satisfactory
7. Preparation and readiness	Both UN Environment and WRI were well-prepared, staffed and ready to launch the BEA project upon receipt of the first disbursement from the GEF. Prior projects and relationships with cities and with well-established key in-kind contributors also enabled a fast start-up of this accelerator.	Highly satisfactory
8. Quality of project management and supervision	The BEA project team functioned collaboratively, making roles clear and delegating authority as appropriate, so that the project progressed rapidly and remained focused on the program of work. Considering the very large number of participants, both in the partner network and in the 30 cities that in turn engaged numerous local stakeholders, the evaluator commends the management and supervision of this 21-month, medium size project.	Highly satisfactory
9. Stakeholders participation and cooperation	Project stakeholders participated in city working groups, trainings, workshops, webinars, six project Working Groups, a City Advisory Panel and the project Steering Committee. The quality and enthusiasm of their contributions was evident from the documentation of these activities' kick-off workshops and consultations[56] and from interviews conducted by the evaluator.	Highly satisfactory
10. Responsiveness to human rights and gender equity	The UN Environment and WRI project teams were inclusive and made productive efforts to include women in leadership roles in the project. However, little disaggregated data was available for further assessments. This topic was under-represented in the BEA project's technical and policy resources. Nonetheless, many cities did consider human rights issues in selecting and developing building energy efficiency projects that would deliver social benefits[57].	Moderately satisfactory
11. Country ownership and driven-ness	The cities participating in the project were highly motivated to join an international project while making local commitments to mitigate climate change via rapid acceleration of energy efficiency in their building sectors. Many expressed the aspiration of becoming role models for other cities and for their respective nations.	Highly satisfactory
12. Communication and public awareness	Communication within the project was highly effective, utilizing an internal software platform; a knowledge management system (participating in the SEforAll knowledge hub platform) that was well-organized and made publicly available six collections of resources, including guides, reporting tools and 20 broadcast/recorded webinars.	Highly satisfactory
Overall Project Rating	The BEA project was exemplary in rapidly establishing a global, multi-stakeholder, public-private partnership aimed at energy efficiency capacity-building for city-level decision-makers.	Highly satisfactory

[56] Information on each city is presented on the "BEA Cities" web page: http://buildingefficiencyaccelerator.org/bea-cities

[57] This terminal evaluation focused on the BEA project *per se* and did not attempt to review or evaluate the selected actions of the 30 participating cities, other than to provide examples of outputs and direct outcomes.

C. Lessons learned

224. In the BEA partner meeting in May 2018, WRI presented key lessons learned during Phase 1. Subsequently, in the first Steering Committee meeting for Phase 2, WRI noted the unique activities undertaken in Phase 1, as follows:

- "Convening diverse stakeholders across the public and private sectors;
- Catalyzing locally-appropriate vision and action through local multi-stakeholder partnerships;
- Addressing the institutional barriers that delay city action on building efficiency;
- Creating linkages among diverse cities through global and regional networks, inspiring peer cities to take action; and,
- Demonstrating the on-the-ground possibilities of building energy efficiency within national markets" (WRI, 18 July 2018 SC report).

225. The evaluator concurs with and summarizes WRI's BEA project lessons learned and offers additional lessons learned that she gleaned from the BEA project evidence. Each lesson learned is related to one of the four conclusions.

Related to: Conclusion 1—Leveraged project support

226. Lesson 1. WRI found that cities needed to assess and identify specific policies and projects before they could examine any specific financial barriers to progress. Furthermore, "cities need standardized finance approaches to scale pilots to programs. While cities can often use local funds for pilot projects, there is a significant barrier to finding sustainable finance approaches to address project pipelines." Steering Committee members from Phase 1 noted that, "In Phase I, the BEA had too little money relative to its ambitions with respect to influence national policies via cities. Planning of the new phase will incorporate our awareness of the immense resources needed to effect change" (WRI, July 2018 SC meeting draft report).

Related to: Conclusion 2—Public-private partnership for rapid implementation

227. Lesson 2. The BEA project's global-to-local public-private partnership strategy succeeded in supporting at least 87% of the cities to reach Stage 1; these cities made commitments in Stage 0 and then progressed, to assess, prioritize and select energy efficiency building policies and/or to demonstrate and draw closer to implementing energy efficiency in buildings (BEA Lessons Learned Report, pp 9-10, draft v6). Private sector and civil society contributors played important roles as facilitators, technical experts and peer advisors. They also: provided knowledgeable access to the greater BEA partner network and resources; understood local market dynamics and the cities' building stocks and future growth prospects; and, communicated in local languages with the city working groups.

228. Lesson 3. Although most cities made significant progress when supported by the BEA project's international partnership, WRI identified a barrier to local support for energy efficiency in buildings policies and projects that was common to many of the cities: "High-level global platforms and national engagement are necessary to create political linkages and spur a building efficiency movement." This was especially important in light of potential

political changes. For example, the City Advisory Panel in 2017 cautioned that, "It is essential to understand and work with political timing. Local coordinators and global partners need to prepare for city administration shifts to enable continuity. This should include specific goals and priorities to be achieved in preparation as well as briefing and buy-in strategies for new administrations." (WRI, City Advisory Panel, 2017)

229. Lesson 4. Working very closely with cities in BEA Phase 1 showed that cities' buildings markets are embedded in national markets but at the same time have complex, very local roots. In 2017, the City Advisory Panel met and commented on these two aspects. They advised the project Steering Committee that they saw a need at the national level for the BEA project to, "better connect BEA activities and benefits to national goals, programs and policies (e.g. climate mitigation, smart cities, urban regeneration)." They also stated, "Cities can take some actions related to buildings, but others, especially energy sector regulation, require national government policy." The City Advisory Panel pointed out a specific local level need, for the BEA project to, "expand working relationships with local service providers, including through identifying who in the local market has the relevant building efficiency expertise and qualifications linked to common national standards," because "cities have limited ability to evaluate qualifications."

230. Lesson 5. The evaluator found evidence of the BEA project coordinating with other SEforAll accelerators. The BEA project scheduled many events at or around the time of the SEforAll Forums, where other accelerators were also presenting and having meetings. Scheduling meetings in coordination with SEforAll events enabled more BEA project participants, stakeholders and potential stakeholders to meet in person, learn about the BEA project's activities and to contribute to the BEA project's on-site meetings; this is economical and ecologically-responsible time and travel management.

231. The City of Belgrade was the only city that engaged at the deep dive level in two accelerators, BEA and District Energy for Cities. Belgrade's enhanced capabilities via these accelerators led to many accomplishments, including: Guidelines for Renovating Belgrade; Law on Housing and Maintenance of Buildings; a demonstration project to completely renovate the energy and efficiency of one elementary school, which was funded by the city government (for approximately 270,000 euro), will reduce energy consumption by more than 50% and have significant social impact (Glumac, 2018). Belgrade's testimony of the value of participating in both accelerators points to the potential for replication and scale-up that could be realized with other cities, if an analysis of opportunities confirms good matches with other accelerators and UN Environment/GEF projects.

Related to: Conclusion 3—Effective leadership for urban transformation

232. Lesson 6. The evaluator found that the WRI made a good effort to staff the project equitably and successfully recruited many women professionals for events, webinars and other activities. Likewise, UN Environment staff and consultants included women in leadership and facilitation roles. However, no

specific targets were set for representation by gender, geography or indigenous peoples and the project's reporting did not reflect such concerns sufficiently.

Related to: Conclusion 4—Enhanced capacities and resources for accelerating policies and scaling up

233. Lesson 7. WRI attributes success to cities articulating clear responsibilities, accountability and ambitious goals. The cities that identified global and local responsibilities among the city and partnership members benefited from the fastest delivery of technical resources; they advanced furthest through the BEA stages of progress. WRI concluded that, "Where there was less definition—including the role for business—the engagement and impact of that stakeholder set was lower. The overall ambition of a city's BEA project and policy goals also has a large impact on how much progress each city makes in a set period." Steering Committee members from Phase 1 advised the Phase 2 Steering Committee to, "incorporate the private sector much more and more strategically" (WRI, July 2018 SC meeting draft report).

234. Lesson 8. WRI identified three points of leverage that are critical and need further investment to enable the BEA project to scale up and hasten its impact. First, support for regional leadership and city liaison staffing would increase the "pace of action in the network (non-deep-dive) cities" they serve. Second, the BEA project team should increase its efforts to connect and intensify the transfer of knowledge and experience between technical and city partners. Third, increased staff support would enable more "regular gathering of structured, in-person input from city partners." (BEA Lessons Learned Report, pp 9-10, draft v6.)

235. Lesson 9. "While partners include public sector, private sector, and civil society, some key gaps remain. On the private sector side, the partnership would benefit from additional engagement from energy service companies, developers, design and construction firms, and real estate companies. In terms of the public sector, the BEA could benefit from additional engagement from national and state/provincial governments. And for civil society, the partnership could better engage local grassroots organizations in addition to technical organizations." (WRI 2018 Lessons Learned report, p 5)

236. Lesson 10. The BEA project's partners responded admirably by sharing a multitude of existing and newly developed professional resources. In turn, these were well-organized and made available online by WRI and the Copenhagen Centre on Energy Efficiency. For example, the BEA series of 20 webinars was comprehensive in its treatment of key topics[58] (Annex V). The webinars were replete with links to many experts, case studies, tools and published resources.

237. Examining the data compiled from audiences and their access to the webinar series, the BEA project has learned that the results of its global outreach was uneven, with far more webinar audience members connecting from developed countries in the northern hemisphere than from the southern hemisphere,

[58] The webinar topics were comprehensive, except for the topic of energy efficiency in buildings *vis-a-vis* gender, and, indigenous peoples.

especially from developing countries in Africa, South Asia and Southeast Asia. Likewise, the survey of partners conducted by WRI in September to October 2017 found uneven geographic participation in BEA activities from respondents: fewer who worked in Sub-Saharan Africa, Middle East/North Africa, Brazil, East Asia and South Asia participated than did those who worked in Southeast Asia, North America and Latin America.

D. Recommendations

238. Each recommendation is related to a conclusion. *Italic text* highlights the party that the evaluator suggests should be responsible for acting on each recommendation.

Related to: Conclusion 1 — Leveraged project support

239. Recommendation 1. BEA project's Phase 1 reveals the need for deeper analysis of what constitutes a "market" for buildings; any market likely extends well beyond the borders of any single city and requires a more comprehensive characterization of key players, materials/technology and market supply-and-demand dynamics for buildings. Depending upon the supply-and-demand models and scenarios, the evaluator recommends that *WRI, working with the city liaisons,* facilitate plans for staged sequences of appropriate market interventions for the building sector, with "gates" and city-specific indicators of how their markets are performing. These individual city models should anticipate a timeline with milestones and reporting deadlines through 2030 (not just through Phase 2), to capture the full impact of this accelerator.

240. Recommendation 2. Given that the Theory of Change required reconstruction (to include an intermediate state) to accommodate the longer horizon for city market transformations, *the BEA Phase 2 Steering Committee and thematic work groups* should re-examine the BEA project Phase 2 timeframe, scope and expectations for each city's activities, especially since the overall project objective, "to reduce GHG emissions by supporting market transformations that will enable a doubling of the rate of energy efficiency improvements in buildings by 2030," has not changed and therefore the BEA project Phase 2 activities must become even more focused and intensive from 2018 through 2019. The Theory of Change may also need reconstruction at the outset of Phase 2, to incorporate the addition of national-level policy efforts for energy efficient buildings.

241. As noted in Recommendation 1, *UN Environment and the Steering Committee should task WRI and the appropriate working group(s)* with creating a plan of action (2018 through 2030) with milestones and with reference to the cities' plans. This should include, post-Phase 2, options for exiting or for transitioning the governance and funding of BEA as an entity (not just a project). Such options should be coordinated with other SEforAll accelerators and SEforAll's long-term plan.

242. For tracking progress, *BEA project partners* could co-host two specific workshops and/or webinars. One could be presented with *SEforAll and the RISE co-authors* as panellists. This would respond directly to the Phase 1 Steering Committee's note of "the importance of the BEA partnership making use of and

promoting all relevant partnership tools, including those of WBCSD, the World Bank CURB tool, the Carbon-n Climate Registry, and more. It is important to ensure that tracking is not just theoretical methodologies, but linking these with tools" (WRI, 13 November 2017 Steering Committee meeting report, IV b ii).

243. A second workshop and/or webinar could follow up on the recommendation (above) regarding gender and indigenous peoples. This should be designed to fulfil the BEA project's Phase 1 and Phase 2 commitments regarding inclusivity. *Representatives of the UN Environment Gender and Safeguards Unit, the GEF, and the SEforAll People-Centered Accelerator* are prospective co-presenters who could highlight issues, targets and refer to reporting requirements and tracking templates[59].

244. Recommendation 3. To accelerate market transformation in the buildings sector (as originally described in the BEA project Phase 1 document) was very ambitious for an 18-month medium-size GEF project. UN Environment and project partners realize that market transformation intervention programs for energy efficient buildings are long-term endeavours that need longer-term and greater funding than can be provided by a GEF medium-size project. *The Finance and Funding Working Group* should immediately explore and recommend that *the Steering Committee and project managers* pursue longer-term funding to sustain, manage and govern the BEA network when the Phase 2 GEF grant ends. Given the length of time required to obtain such funding, proposals should be initiated immediately by cities. Where multiple BEA cities are located in one nation, and especially where these cities participate (or could participate) in more than one SEforAll accelerator, full-size GEF proposals could be initiated through the *national GEF Focal Points,* and could include private sector and municipal government co-financers. *UN Environment, in cooperation with SEforAll*, should also explore the suitability of "bundling" BEA project-inspired efforts for development as Green Climate Fund climate change mitigation proposals.

Related to: Conclusion 2— Public-private partnership for rapid implementation

245. Recommendation 4. To better assist the cities that have not progressed beyond Stage 0 (commitment to participate) or Stage 1 (assessment), *the BEA Steering Committee* should more actively recruit new partners and draw upon experts from existing partner organizations who can rapidly identify appropriate actions and enabling capacities that have been proven to accelerate the market transformation toward more efficient buildings. As in Phase 1, *BEA project managers* should create a plan to facilitate webinars, workshops and one-on-one consultations so that key stakeholders in each BEA city quickly adapt effective actions to their local needs and aspirations. BEA Phase 2 has gained valuable new partners (for example, NRDC, IEA Emerging Economies and IPEEC)

[59] The GEF policy states that agencies should, "demonstrate that they have in place the necessary policies, procedures and capabilities required to ensure that: a) Gender Analyses, socio-economic assessments or the equivalent are applied to inform Gender-responsive design, implementation, monitoring and evaluation, including budgeting and staffing, of Agency activities; b) Activities implemented by the Agency do not exacerbate existing gender-related inequalities and, where relevant, address Gender Gaps; c) Activities implemented by the Agency strive to provide equal opportunities for women and men to benefit; d) women and men are provided equal opportunities in terms of participation and decision-making throughout the identification, design, implementation, monitoring and evaluation of activities implemented by the Agency; and, e) collection of sex disaggregated data and information on gender, and the use of Gender-Sensitive Indicators, sex-disaggregated targets and results, as relevant, are regularly incorporated in monitoring, evaluation and reporting of Agency activities" (The GEF, 2018, Gender Policy, p 6).

that are very knowledgeable regarding development and quantitative evaluation of energy efficiency programs and public-private partnerships.

246. *The BEA Steering Committee* could approach ACEEE as a prospective partner, particularly for its insights on the results of the benchmarking tool developed for its biennial report, International Energy Efficiency Scorecard. The European Council on an Energy Efficient Economy could be a prospective partner, too, possibly offering guidance and market transformation resources to cities in Europe and in countries that adopt policies based on European energy efficiency policies, standards and directives. Both of these organizations offer extensive online collections of detailed market transformation case studies and evaluations that have been presented by global practitioners, including BEA project in-kind contributors, at their biennial summer studies and their sector-specific conferences.

Related to: Conclusion 3—Effective leadership for urban transformation

247. Recommendation 5. To scale up and intensify its efforts, the *BEA Steering Committee* should consider recruiting additional "aspirational" cities from regions, countries or states that have accelerated their mitigation efforts in the building sector and that also have pertinent market ties to BEA cities. A recent report from ACEEE ranks Germany, Italy, France, the UK and Japan as the most energy efficient countries, and, notes that some US states, such as California, have conducted very comprehensive and successful market transformation programs for energy efficiency in buildings. For example, *the BEA Steering Committee* could consider recruiting one or more cities from the State of California, USA, that also have ties to countries with BEA Phase 2 cities. California has years of intensive investment, energy regulation and public-private partnership programming that have enabled the state to meet its 2020 greenhouse gas emission reduction goal ahead of schedule (NYT, 2018). California also has strong market ties to Pacific Rim countries, especially those that are leaders in producing energy efficient technologies (including China, Japan and Malaysia).

248. Recommendation 6. The BEA project Phase 2 has an opportunity to investigate and be more responsive to human rights, geography and gender equity, specifically regarding building energy efficiency. The evaluator recommends that *the Steering Committee* consider seeking volunteers, contacting experts and recommending an appropriate party within the partnership to develop and consistently apply a guideline and a template for integrating constructive project activities regarding gender, geographic diversity[60], and any indigenous groups[61],[62], that should be encouraged to participate in BEA as stakeholders. Targets for diversity and inclusion should

[60] For example, examine whether amongst the BEA cities and partners there are opportunities for South-South Cooperation and the participation of Small Island Developing States and Least Developed Countries.

[61] Refer to UN DESA Division for Inclusive Social Development/Indigenous Peoples: https://www.un.org/development/desa/indigenouspeoples/about-us.html

[62] Refer to the UN HRBA portal, "The Human Rights Based Approach to Development Cooperation: Towards a Common Understanding Among UN Agencies" https://hrbaportal.org/the-human-rights-based-approach-to-development-cooperation-towards-a-common-understanding-among-un-agencies

be discussed, consistent with UN principles and with the principles or practices of partnership members and city/national representatives[63].

249. This recommendation is in line with recent findings of the GEF Secretariat's Independent Evaluation Office[64] and with the GEF's communications and recently published *Policy on Gender Equality*[65]. The GEF offers an online course in support of this new policy[66]. UN Habitat, UN Women and SEforAll's newly formed People-Centered Accelerator[67] or other SEforAll platforms or hubs might also offer support or resources for the BEA project's key stakeholders.

Related to: Conclusion 4—Enhanced capacities and resources for accelerating policies and scaling up

250. Recommendation 7. UN Environment traditionally has strong, direct lines of communication with all UN members' Ministries of Environment and Climate Change. However, the building sector is more conventionally accessed via Ministries of Commerce or Economy; electric utilities likely are accessed via Ministries or Departments of Energy; and, stakeholder input on human rights and gender issues as they relate to buildings may be accessed via other Ministries, especially those responsible for Public Housing and Urban Affairs. Thus, as learned during the en.lighten initiative, developing support for energy efficiency policies linked to climate change mitigation commitments requires cross-cutting contacts amongst all these ministries.

251. In keeping with stakeholder input for Phase 1, the evaluator suggests that the *BEA project executing agency* consider recruiting more international and local electric utilities and more nationally-based developers to assist in Phase 2 with: financial analyses of local building retrofit and new construction projects; estimating the incremental costs of energy efficiency improvements and their potential benefits and payback periods; and, BEA project Phase 2 outreach to building owners and operators. Via ministerial contacts, nationally-based utilities and government agencies responsible for housing and urban planning also could be recruited as stakeholders to address issues of off-grid housing and plans for increasing access to electricity, especially in nations where these issues affect a significant percent of the population (Figure 5).

252. Recommendation 8. To maximize the impact of the BEA Phase 2 project, the evaluator recommends that when planning future market transformation project proposals, *the UN Environment Climate Change Mitigation Unit* could: initiate a review of all of its prior, ongoing and planned market transformation

[63] One example of a transparent, public tracking of gender balance in consultative groups is the European Union's online template for, "Register of Commission expert groups and other similar entities," which makes transparent the number of members, their gender (female or male) and affiliation (member state authority or organization). Accessed July 2018: http://ec.europa.eu/transparency/regexpert/.

[64] The UN Secretariat's] "IEO's Evaluation of Gender Mainstreaming in the GEF, highlights, however, that progress has been modest in terms of the number and share of GEF projects that can be considered "gender mainstreamed" i.e. that assess the implications for women and men of any planned action. IEO's findings suggest insufficient attention to or reporting on gender analyses prior to CEO Endorsement/ Approval, and modest improvement in completed projects compared to the OPS baseline in terms of projects rated "gender aware". Analysis conducted by the Secretariat further reveals that the inclusion of gender sensitive indicators in project results frameworks remains highly variable across GEF projects, and that many projects still do not systematically report on activities, progress and results on gender equality in their mid-term reviews and terminal evaluations."

[65] The GEF Secretariat states that the Policy on Gender Equality takes effect in July 2018 and will apply to all GEF project reporting one year hence. Accessed August 2018: https://www.thegef.org/publications/gef-policy-series-gef-policy-gender-equality.

[66] The GEF: Open Online Course on Gender and Environment. Available at: https://unccelearn.org/.

[67] SE4All People-Centered Accelerator: https://www.seforall.org/partnership/accelerators/people-centered-accelerator

projects to provide guidance on best practices for projects to new projects and summarize the lessons learned; note the status of actions taken on any prior project recommendations; compare emissions reductions attributable to the projects; and, celebrate and publicize all of these public-private partnerships and their contributions.

253. For example, in Phase 1 the BEA project focused on building a network, but it may not have fully incorporated the ministerial contacts, countries and international networks of public-private partners from the sequence of UN Environment-GEF projects that enabled market transformation for energy efficient lighting and appliances:

en.lighten initiative -->United for Efficiency --> Global Leapfrogging

254. The underlying strategy for these precedent-setting projects (and tens of related country-level GEF-funded projects that they in turn inspired) is stakeholder-driven development of minimum efficiency performance standards (MEPS) that are harmonized regionally and, in some cases, internationally. These standards have long-lasting impact on the building sector and its related emissions.

255. In addition to ministerial level contacts, UN Environment and its partners identified and supported regional entities (including civil society organizations) that could facilitate participation and advanced policy cooperation of national representatives. This is a highly cost- and time-effective management strategy for accelerating adoption of energy efficiency policies. Working with regional entities to forge consensus ensures that market transformation for energy efficient appliances covers entire functional trading markets and endures beyond individual members' administrations. In the case of the en.lighten initiative, engaging 66 countries to phase out inefficient incandescent lamps could not have been achieved without the involvement of the Economic Community of West African States[68], Proyecto Mesoamérica[69] and the Pacific Community[70].

256. For Phase 2, the *UN Environment Task Manager* could work *with the Energy Branch* to request that the executing agency strategically and systematically invite prior participants of all of the UN Environment Climate Change Mitigation, GEF-funded, energy and environment market transformation projects to consider joining the Building Efficiency Accelerator project. Internal to UN Environment, *the Task Manager (or a representative of the Energy Branch)* could advocate for a systematic, continuous liaison role dedicated to nurturing a network of these national and regional market transformation contacts through 2030, to further support and track their contributions toward the goals of SEforAll, Sustainable Development Goals 7 and 11 and the Paris Agreement.

257. Recommendation 9. Some BEA cities have yet to reach the implementation stage, so *BEA project managers* should task the appropriate local staff or consultants with creating a plan to increase city awareness of the BEA project.

[68] ECOWAS (15 members): www.ecowas.int/
[69] El Proyecto de Integración y Desarrollo de Mesoamérica (PM) (10 members): http://www.proyectomesoamerica.org/
[70] SPC, now known as, Pacific Community (26 members): https://www.spc.int/

This plan should be designed with stakeholder audience segmentation in mind and should leverage the BEA argument for rapid transformation of buildings and increased use of policy and technical resources. This strategy was recommended by the City Advisory Panel in April 2017, which requested that BEA, "expand communication to local and global audiences about the BEA to improve recognition and buy-in in a shared vision, and to better help local partners to bring attention to their work. Bringing media attention, especially local media, will help this and keep the BEA on the agenda of local officials."

258. Also, *the BEA communications team* could consider repeating the webinar series, targeting audiences in areas that previously had low audience engagement. The webinars *could be hosted by local partner members and/or by experts speaking local languages,* and, should be scheduled during peak work hours for those time zones. The webinars introduce the valuable resource collections that are available in the knowledge management system. *The webinar hosts* should encourage greater use of the online discussion feature, where audience members and later visitors to the site can post comments, questions and discuss the webinar topics.

ANNEX I. KEY DOCUMENTS CONSULTED

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ANNEX II. MISSION ITINERARY

The evaluator conducted one three-day mission to Lisbon, Portugal, co-incident with the 2018 Sustainable Energy for All Forum:

3-4 May 2018: The evaluator conducted interviews (onsite at the SEforAll Forum venue in Lisbon) with BEA project team members and partners and attended the BEA project session, held in cooperation with the District Energy Accelerator.

5 May 2018: The evaluator attended the BEA project partners meeting, hosted at Electricity de Portugal headquarters in Lisbon, and, conducted interviews with BEA project partners.

ANNEX III. SOURCES FOR THE RECONSTRUCTED THEORY OF CHANGE

Table 15 Elements of the Reconstructed Theory of Change

Element of the Theory of Change	Project Outputs	Intermediate State and Project Outcome Statements	Indicators
Sources	ProDoc Part I, Section B; Part II, Section 1.3; Annex A: Project Results Framework. GEF Project Information Reports (PIRs).		
Project Objective ProDoc pp 1, 13 and 42		"Reduce GHG emissions by supporting market transformations that will enable a doubling of the rate of energy efficiency improvements in buildings by 2030, by linking global market experience with local policy action and capacity building."	"Tons of CO_2eq avoided by the project (direct and post-direct emissions reductions)"
Note on Project Objective	The evaluator notes that "CO_2" could replace "GHG" in the project outcome statement because it is the only GHG specified in the original indicator; also, it is the only GHG tracked in the GEF Project Information Reports.		
Component 1: Outputs ProDoc pp 1-2 and Outcome 1.1 ProDoc pp 1, 13, 42	1.1.1 Dialogue summaries capturing input to subnational governments to address 5 major market barriers and support policy action. Participants include: supply side partners (technology and service providers, and financial institutions), demand side building owners and managers, and policy makers. 1.1.2 Regional diversity and best practice development: the BEA reaches 50 cities, signs up 30 cities and 30 leading companies/ organizations (5 key companies and 5 leading organizations each region). Cities who join commit to: implement policy, project, and track action. All partners expected to participate quarterly in BEA activities. 1.1.3 Local action summarized in support of the INDCs and climate commitments made at COP 21 delivered to the Global Buildings and Construction Alliance.	Public-private engagement in BEA expands to accelerate city-level market shifts towards energy efficient buildings ***(direct project outcome)*** As BEA city policy leaders implement new energy efficient building policies, projects and tracking approaches, BEA provides a proof-of-concept that SEforAll accelerators can shift building sector markets toward greater efficiency at the subnational, local level. ***(intermediate state)***	Number of cities, non-governmental organizations and private businesses signed up to the accelerator

Element of the Theory of Change	Project Outputs	Intermediate State and Project Outcome Statements	Indicators
	1.1.4 Documentation of project results/lessons- learned produced and disseminated in cooperation with the BEA partners and Buildings Alliance.		
Reason for Change to Outcome 1.1	The original project outcome statement includes a direct project outcome and an intermediate state. The evaluator reconstructed the original as two statements to differentiate the timeframes and to put the direct project outcome first, before the intermediate state. The evaluator also finds that the second phrase, now an intermediate state, conveys the key concept of "market shift" mentioned as such and as "markets transformed" in the ProDoc. Because this concept is complex and requires time and many actions to achieve measurable impact, it deserves to be emphasized in the TOC diagram as an intermediate state. Figure 9 shows the relative progress of the cities toward achieving their selected policy and project outputs: As of October 2017, only Mexico City had progressed to the stage of implementation. Thus, it seemed unlikely to the evaluator that intermediate state of "market shifts" could be reached before 2018.		
Component 2: Outputs 2 ProDoc pp 2-3 and Outcome 2.1 ProDoc pp 2, 14, 42-43	2.1.1 Prioritization and assessment report of city level building efficiency policy and programs based on review of existing market information for each city. Supplement existing material as needed using partner tools/assessments. ▪ Training and planning support provided to subnational governments by BEA partners/stakeholders: Multi-stakeholder input on policy opportunity assessments and prioritizations • Measurement and tracking methods • Procurement strategy "checklist" and gap analysis provide global best practice in policy, strategy and case studies 2.1.3 Knowledge management, regular high-value content sharing and communications across the network, and peer- to-peer learning. These will include webinars every 2-3 months, featuring the work of BEA partners. 2.1.4 Announcement on light touch and partner scale up in Spring 2016.	Capacity of cities to define and pursue actions to advance building efficiency is enhanced."	Number of cities that define or pursue at least one new policy or project related to building efficiency during the 18-month period.
Component 3: Outputs 3.1 ProDoc pp 3-4 and Outcome 3.1 ProDoc pp 3, 17, 43	3.1.1. Market specific research compiled in support of policy and project development. 3.1.2 In a 6-month intensive multi-stakeholder engagement process, working groups in each city agree on their activities, select co-	Five "deep dive" cities plus Mexico City are prepared to, or implement building efficiency policy and projects	Number of policies or projects prepared or implemented related to building efficiency by deep dive cities

Element of the Theory of Change	Project Outputs	Intermediate State and Project Outcome Statements	Indicators
	leaders and provide efficiency vision and action ideas. Groups are comprised of key stakeholders and market actors. 3.1.3 Direct staffing and coordination support by local partners drives policy and project prep/implementation. 3.1.4. Recommendations from working groups are provided to officials and released publicly. 3.1.5 Policies and actions are drafted or adopted and projects are identified and implementation is planned or underway within 18 months.		
Component 3: Output 3.2 Page 4 and Outcome 3.2 Pages 3, [missing from 19], 43	3.2.1 Proposal for Phase 2 developed prepared for funder review based on successful phase 1 policy and market impacts.	"Light touch" cities request to be considered for deep dive engagement as part of a Phase 2 of the BEA project	Number of light touch cities requesting to be part of Phase 2 deep dive engagement
Note on Outcome 3.2	The Project Document, page 19, mis-classifies this outcome statement as an output.		
Outputs 4 ProDoc pp 4 and Outcome 4.1 ProDoc pp 4, 19, 43-44	4.1.1 Guidance for cities: a) monitoring and reporting city-scale energy performance. b) tracking building- scale energy performance. 4.1.2 Impact projections for policies and projects quantified by participating cities 4.1.3 Project impact evaluation undertaken by independent review at month 15 of the BEA project as part of potential Phase 2 preparation.	Improved practices for collecting and analyzing city level data and for performance measurement in cities	Number of cities with building wide or city performance monitoring systems in place. Number of cities reporting to ICLEI Carbon*n* Climate Registry with data and project actions defined for building efficiency

ANNEX IV. SUSTAINABILITY FOR BEA PROJECT DIRECT OUTCOMES

Table 16 Conditions and Actions Indicating Likelihood of BEA Project Sustainability, by Country

Countries in which BEA cities are located	**BEA: Deep Dive City** (1)	**Applied for Deep Dive City in Phase 2** (2)	**carbon*n*™ Climate Registry** (energy efficiency action or initiative, reporting entities) (3)	**(i)NDC** (that notes energy conservation or energy efficiency) (4)	**NAMA** (that includes energy efficiency) (5)	**National Building and/or Energy Code** (per GBPN, IEA and ACEEE) (6)	**World Bank Group RISE Energy Efficiency Score** (maximum 100) (7)	**ACEEE top 25 countries for buildings energy efficiency** (8)	**World Green Building Councils** (country has at least one member council) (9)
Brazil			BEA, Municipality of Porto Alegre	yes		Voluntary Code Mandatory finance: Energy Efficiency Obligation Programme	51	yes	yes
Colombia	Bogotá	Bogotá	BEA (and others), Capital District of Bogotá		2014 NS-127 - Colombia TOD		51	yes	yes
India	Rajkot	Nagpur	BEA (and others), Coimbatore City Municipal Corporation BEA (and others), Rajkot Municipal Corporation BEA, Shimla Municipal Corporation	yes		Model Code: New non-residential Efficiency mandate: Ujwal Bharat	60	yes	yes

Japan			BEA (and others), Tokyo Municipal Government (2002 regulation, ongoing)	yes		Mandatory and Voluntary: New residential, New non-residential, Existing residential, Existing non-residential	68	yes	yes
Kenya		Nairobi	KwaDukuza Local Municipality (& others)	yes			48	yes	yes
Latvia				yes		Mandatory: Existing non-residential, Existing residential, New non-residential, New residential		yes	yes
Malaysia		Iskandar				Mandatory: New non-residential	52	yes	yes
Mexico	Mexico City	Merida; Mexico City; Sonora State	BEA (and others), México City Government, Mexico		NS-112 - Urban NAMA (to prepare)	Model Code: New residential	79	yes	yes
					NS-108 - NAMA for New Residential Buildings (to implement)	Second Regulation of the Energy Transition Law			
					NS-111 - NAMA for Sustainable Housing Retrofit (to implement)	Mandatory: Energy Efficiency Roadmap (Energy Transition Law)			
					NS-170 - Low Emission Schools (to implement)				

					NS-166 - Renewable Energies and Energy Efficiency in the Private Sector (seeking support for prep)				
Mongolia		Ulaanbaatar			NS-242 - Nationally Appropriate Mitigation Actions in the Construction Sector in Mongolia (to prepare)		27		
Philippines		Pasig	Pasig City Government				42	yes	yes
		Santa Rosa	BEA, City of Santa Rosa, Laguna						
Poland			BEA, City of Warsaw	yes		M+V=Mandatory: Existing non-residential, Existing residential, New non-residential, New residential	57	yes	yes
Romania				yes		Mandatory: Existing non-residential, Existing residential, New non-residential, New residential	86		

Serbia	Belgrade (also District Energy)	Belgrade		yes	NR-49 - Construction of New Energy Efficient Buildings Based on Energy Efficiency Regulation in Serbia (to recognize)	Mandatory: Existing non-residential, Existing residential, New non-residential, New residential		yes	yes
South Africa		KwaDukuza; Tshwane	BEA (and others), Tshwane Metropolitan Municipality	yes		M+V=Voluntary Code: New residential, Existing residential	69	yes	yes
Turkey	Eskişehir	Eskişehir				Mandatory: New non-residential, New residential	65	yes	yes
UAE				yes			63	yes	yes
USA				yes		Model Code	88	yes	yes
Vietnam	Da Nang City	Da Nang City	Action: Da Nang Municipal People's Government	yes			71	yes	yes
Sources: 1	BEA project								
2	BEA project Steering Committee Reports								
3	http://carbonn.org/								
4	UNFCCC NDC Registry (interim): http://www4.unfccc.int/ndcregistry/Pages/Home.aspx								
5	UNFCCC NAMA Registry: http://www4.unfccc.int/sites/nama/SitePages/Home.aspx								
6	https://www.iea.org/beep and https://www.iea.org/policiesandmeasures/energyefficiency/								
7	http://rise.worldbank.org/scores								
8	http://aceee.org/research-report/i1801								
9	http://www.worldgbc.org/member-directory								

ANNEX V. KNOWLEDGE RESOURCES AND SNAPSHOT OF WEBINARS

Knowledge Resources

Information about the BEA project is publicly available on two websites, one maintained by WRI and one maintained as a knowledge management system by the Copenhagen Centre on Energy Efficiency. The BEA project's resources are introduced by WRI on the BEA project's dedicated website (http://buildingefficiencyaccelerator.org/), with a link to a page summarizing the available resources (http://buildingefficiencyaccelerator.org/resources/). The resources are divided into "collections" that correspond to the six BEA project working groups: Energy Codes; Incentives and Green Building Programs; Finance; Procurement; Retrofits; and. Tracking Progress. Additional links are available by password, for non-public resources for use by the BEA project partners and BEA cities.

The BEA's resources are planned, coordinated, developed and contributed by many project partners. The publicly available resources reside in a knowledge management system (http://kms.energyefficiencycentre.org/web-resource/building-efficiency-accelerator) that is designed and maintained by the Copenhagen Centre on Energy Efficiency (Figure 13. In addition to the thematic collections, they are organized by: Recorded Webinars (http://kms.energyefficiencycentre.org/node/1600); General Resources (http://kms.energyefficiencycentre.org/collection/building-efficiency-accelerator-general-resource-collection); and, Tools and Case Studies

Figure 13 Online access to the BEA project resources

(http://kms.energyefficiencycentre.org/collection/building-efficiency-accelerator-tools-and-case-studies-collection).

The sustainability of the BEA project information on the WRI site is likely because WRI has urban interests as one of its core business themes; it is also the host of the WRI Ross Center for Sustainable Cities. As a civil society organization, however, financing for updating the

BEA information would need to be identified post-Phase 2. Similarly, the sustainability of the BEA project information on the Copenhagen Centre on Energy Efficiency site is likely because this organization is designated as a SEforAll hub, offered substantial in-kind support to the BEA project and has other project relationships with UN Environment.

BEA Project Phase 1 Webinars

BEA project Phase 1 presented 20 webinars during Phase 1, as listed below. The evaluator also presents a snapshot analysis, including: gender of presenters; and, the audience registrants' self-declared geography and gender and their webinar interactions.

Webinar Topics, in ascending chronological order, April 2016—December 2017:

- Tools for Building Energy Efficiency: Resources for Policy and Project Implementation
- Considering Above Code Certification Policies for Your City
- Introduction to Sustainable Procurement Principles for Building Efficiency
- Tracking Implementation of Building Energy Codes and Certification
- Lessons from 18 months of BEA engagement in Mexico City
- Sustainable Procurement of Buildings: Project Design and Delivery Systems
- Renovating Buildings with Cost-Effective Reductions in Energy and Carbon Emissions – Findings from IEA EBC Annex 56
- Tools for Building Energy Efficiency: Resources for Policy and Project Progress Tracking
- Energy Efficiency Toolkit for Buildings: The Guide to Making the Business Case for Saving Energy in a Building Portfolio
- How to Get Your Building Energy Project Funded
- Creation of energy-efficient Buildings Renovation Action Plans for cities: guideline and application cases
- Introduction to EDGE Voluntary Certification and Discussion of Municipal Incentive Options
- BEA City Training Webinar: Using the BEA Tracking Progress Template
- Standards to Achieve City Sustainability
- Options for Incentivizing Voluntary, Above-code Construction
- Energy and Emissions: Mapping the Impacts
- Using Data to Measure Building Efficiency Policy Impacts
- How the Building Efficiency Accelerator can assist you in connecting with investors
- Reporting Results for Success
- Applying Sustainable Procurement to Achieve Greater Energy Performance in Building Retrofits

Snapshot Analysis of Data on Webinar Presenters and Audiences

Webinar Presenters

During the evaluation period (April 2016 through December 2017) the BEA project presented a total of 20 webinars, all hosted by Copenhagen Centre on Energy Efficiency. Each webinar was an average of 70 minutes and was presented once, in English. After the original webinar, the slides with audio recordings were posted as eLearning resources on the KMS.

A total of 56 individuals served as presenters, including one host and three to six speakers per webinar (25 women and 31 men: 45% and 55% of the total presenters, respectively). Six of the women presented more than once: one was a Copenhagen Centre on Energy Efficiency host and three were WRI team members. Six men presented more than once: one was a Copenhagen Centre on Energy Efficiency host and two were WRI team members.

By sector, 54% of the presenters were from civil society organizations, 18% from the private sector, 16% from governments and 13% from international organizations. Civil society and the government sector were represented nearly equally by women and men; however, significantly more men than women presented on behalf of international organizations and the private sector (6:1 and 7:3, respectively).

Webinar Audiences

According to summary data[71] provided by Copenhagen Centre on Energy Efficiency for the year 2017, BEA project webinars garnered a total of 1616 audience registrations, 40% of whom self-identified as female, 57% male and 3% not responding. By sector, registrants self-identified as business (24%), government (23%), non-governmental organization (23%) and other (30%). Geographically, registrants were routed to the website primarily from the Americas (38%), Europe (33%), and Asia (22%); fewer than 0.3% respectively were from Africa, East Asia/Pacific, Europe/Central Asia and Oceania, while 6.4% were from unidentified locations.

Ultimately, 614 individuals logged into a webinar for an attendance yield of 38% of registrants. On average, the webinar attendees demonstrated 36% attentiveness. The evaluator did not find any use of the online feedback feature for each webinar.

The web pages for the posted webinars were viewed (in "sessions") over 2000 times, with the webinar session visitor examining two pages on average. Session visitors connected[72] to the posted webinars primarily by direct means (71%), with fewer connecting via organic searches or referrals (14% and 12%, respectively). Less than four percent of session visitors were connected via social media or email.

The sessions data give more geographic specificity for these visitors, who were routed from more than 100 countries globally. Countries routing more than 100 sessions were USA[73], Spain and Mexico; Denmark, India, Germany, Canada, France, UK and Austria routed from 50 to 85 sessions each. Between 10 and 49 sessions were routed from each of 31 additional countries, while five to nine sessions were routed from each of another 20 countries. Fifty-five countries each routed four or fewer sessions.

71 Data for the webinar registration, visitors, attendance, sessions and page views provided courtesy of Copenhagen Centre on Energy Efficiency, host of the Knowledge Management System for the BEA project.

72 The means by which visitors arrive at the unique page [the Uniform Resource Locator (URL)] are described as: "Direct, "arriving by typing the URL directly into their browser or by clicking on the links from their bookmarks/favorites, untagged links within emails, or links from documents that do not include tracking variables (such as PDFs or Word documents); "Referral," arriving by clicking on links on other websites, including the BEA project pages and various search engines; "Organic search," arriving by means of an unpaid search engine link; and, "Social," arriving via social media links.

73 The number of sessions routed from the USA could skew high due to log-ins from the WRI project team members in the USA; likewise, the number of sessions logged in from Denmark may be high due to the frequency of log-ins from the host.

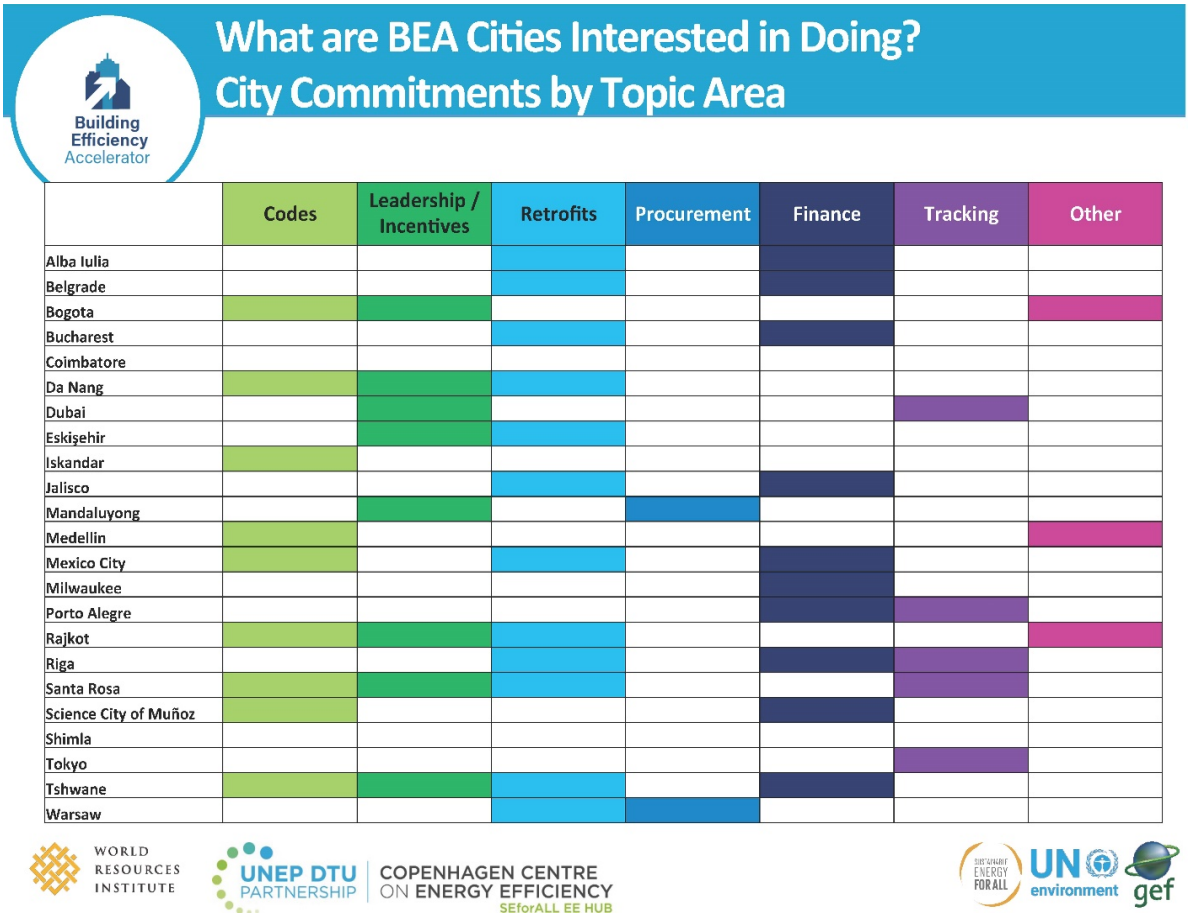
ANNEX VI. POLICIES AND PROJECTS DEFINED BY CITIES

Table 17 List of policies and projects defined by cities, as of October 2017

City (joined BEA in year) (deep dive cities in bold)	Policy	Project
Aburrá Valley Region and Municipality of Medellín, Colombia (2016)	Adopt a mandatory building energy code for all new public construction	Conduct retrofits in one or more municipal buildings
Alba Iulia, Romania (2015)	Align with investors for 2018 implementation of Smart City Pilot Project	Conduct retrofits in over 2000 apartments in 30 multi-apartment buildings
Belgrade, Serbia (2016)	Develop standard procedures for building retrofits, including consumption-based billing	Conduct an energy retrofit on one or more public buildings
Bogotá, Colombia (2016)	Integrate a national regulation for building construction into local plans	Apply best practice for new efficient buildings in a district scale regeneration project
Bucharest, Romania (2015)	Incorporate private investment into the city's sustainable development strategy	Retrofit schools and apartment buildings
Coimbatore, India (2016)		
Da Nang, Vietnam (2016)	Develop a directive to implement efficiency measures in large buildings	Implement energy efficiency solutions for a hotel demonstration project
Dubai, UAE (2016)	Adopt a policy for energy performance labeling of existing buildings	Benchmark the energy performance of 100 buildings
Eskişehir, Turkey (2016)	Implement a national mandate for energy performance certificates	Integrate building efficiency measures in a new public building
Iskandar, Malaysia (2016)	Incorporate building energy efficiency requirements in guidelines for two localities	Demonstrate the energy efficiency guidelines and incentives through pilot projects
Jalisco, Mexico (2016)	Establish annual EE project budget; implement an energy management plan for public buildings	Conduct energy retrofits / energy management programs in five public buildings
Kisii County, Kenya (2017)		
KwaDukuza, South Africa (2017)		
Mandaluyong, Philippines (2015)	Develop green building guidelines for new construction	
Mérida, Mexico (2017)	Adopt and implement a building energy code	Implement energy saving solutions in selected buildings and infrastructure
Mexico City, Mexico (2014)	Adopt and implement a building energy code	Retrofit four public buildings using audits and benchmarking tools
Milwaukee, USA (2014)	Further implementation of the Better Buildings Challenge program	Refine and use the city's ECO Building Design Guidelines on a pilot project
Nairobi, Kenya (2017)	*[Tentative]* Update draft green building guidelines including energy and water	*[Tentative]* Establish baseline energy consumption for selected building types
Pasig, Philippines (2017)	*Complete and approved the IRR of Green Building Ordinance of Pasig City.	*Apply the Green Building Standards for all government buildings with at least 5,000 sqm Gross Floor Area.

City (joined BEA in year) (deep dive cities in bold)	Policy	Project
Porto Alegre, Brazil (2016)	Launch a municipal fund for efficiency and renewable investment	Benchmark municipal and school buildings to prioritize for investment
Rajkot, India (2016)	Develop a Technical Guidebook on measures for building efficiency	Retrofit one or more existing municipal buildings
Riga, Latvia (2016)	Introduce benchmarking or an energy reduction target for buildings	Introduce a municipal revolving fund for multi-apartment renovations
Santa Rosa, Philippines (2016)	Adopt a mandatory green building code	Launch a Green Building City Challenge for new and existing buildings
Science City of Muñoz, Philippines (2015)	Adopt a building energy code to apply to all new construction	Introduce the building energy code to stakeholders to prepare for implementation
Shimla, India (2016)		
Sonora, Mexico (2017)		
Tokyo, Japan (2015)	Transfer a carbon reporting program to other municipalities in the region	
Tshwane, South Africa (2016)	Implement the green buildings by-law including codes and incentives (tbc)	Retrofit 2-4 municipal buildings including efficiency and rooftop solar deployment
Ulaanbaatar, Mongolia (2017)	Develop standardized procedures for residential building retrofits	Develop a model preparation project for residential buildings in Bayangol district
Warsaw, Poland (2014)	Develop, adopt and implement Warsaw Housing Standard	Develop and construct model district implementing Warsaw Housing Standard
Sources: GEF-6 Request for Project Endorsement/Approval; GEF Project ID 9947, pp 19-21; *additional updates from October 2017, as shown in the WRI draft report from the first Phase 2 Steering Committee Meeting, July 2018.		

Figure 14 Graphical representation of the distribution of city commitments, by topic area (Petrichenko, 2017)



ANNEX VII. PROGRESS BY DEEP DIVE CITIES

WRI presented summaries of progress by each deep dive city in May 2018 at the Partners Working Group meeting in Lisbon, Portugal.

Figure 15 Progress: Belgrade, Serbia and Bogota, Colombia

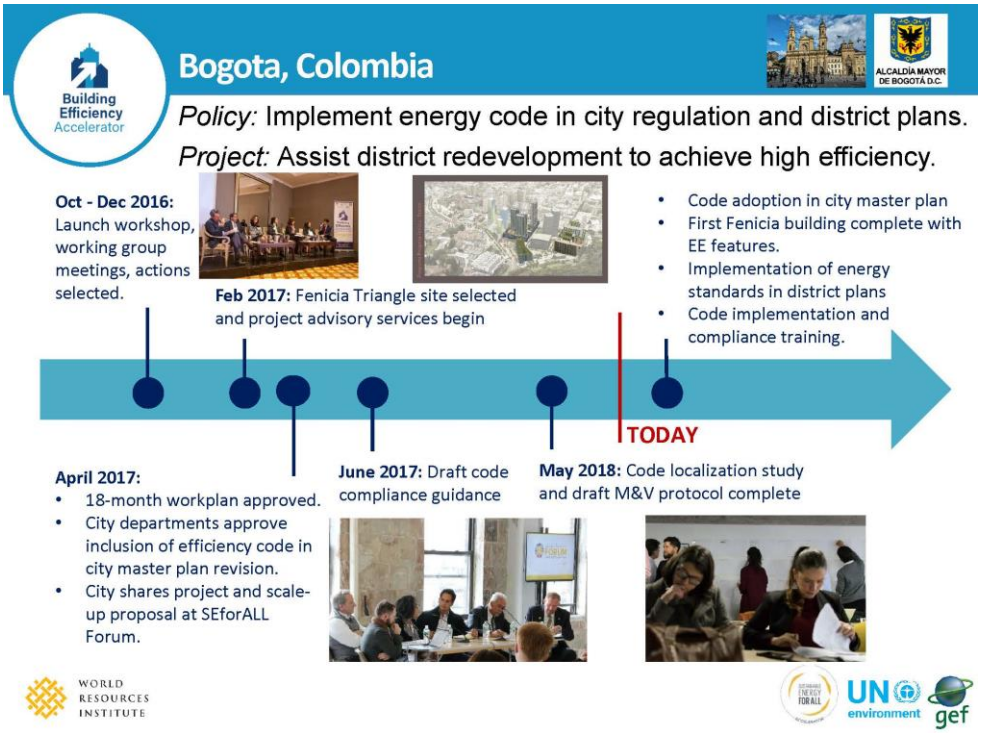
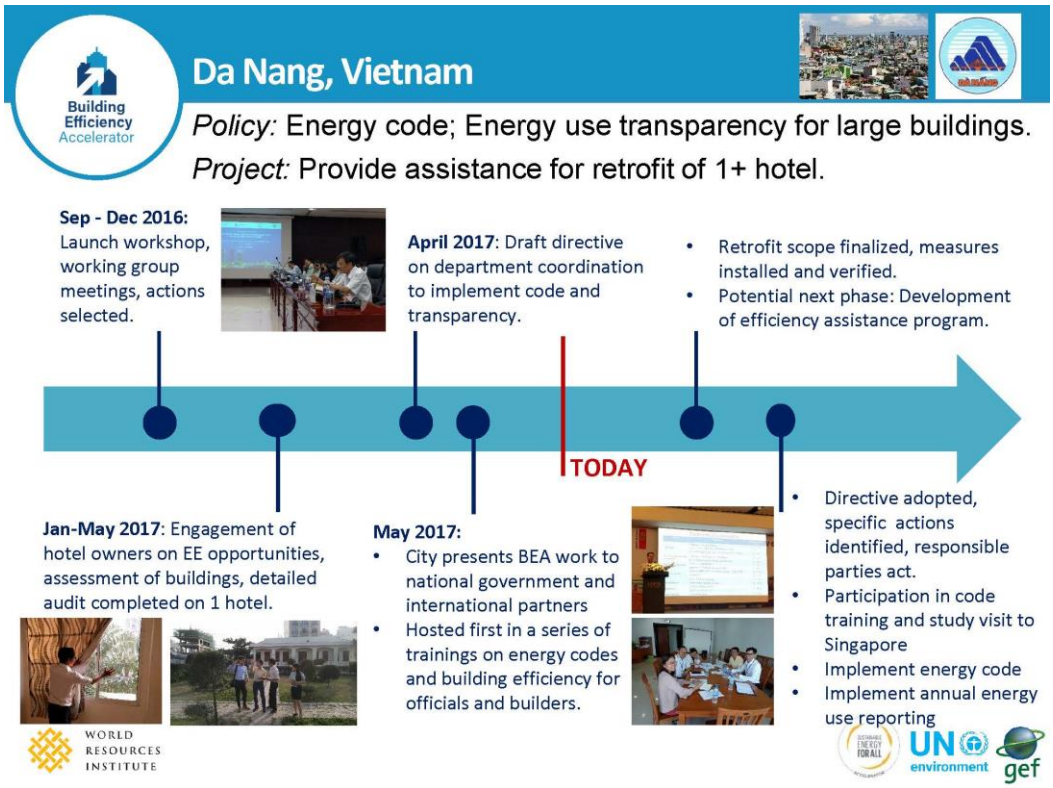


Figure 16 Progress: Da Nang City, Vietnam and Eskisehir, Turkey



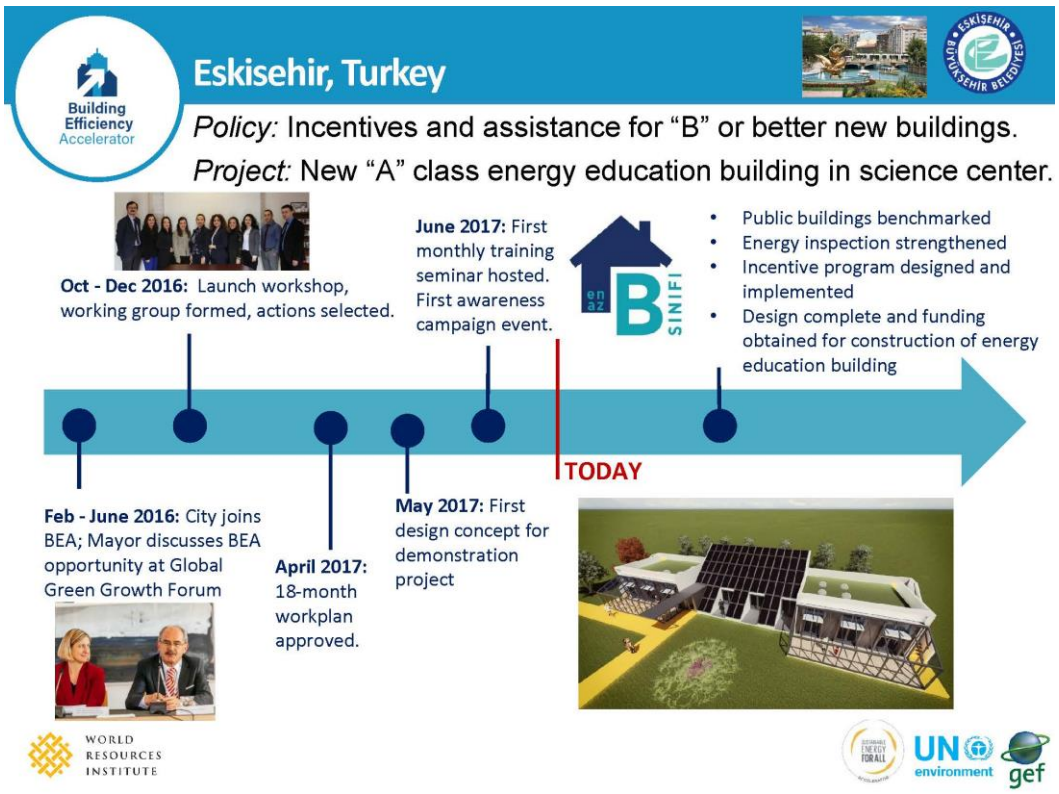
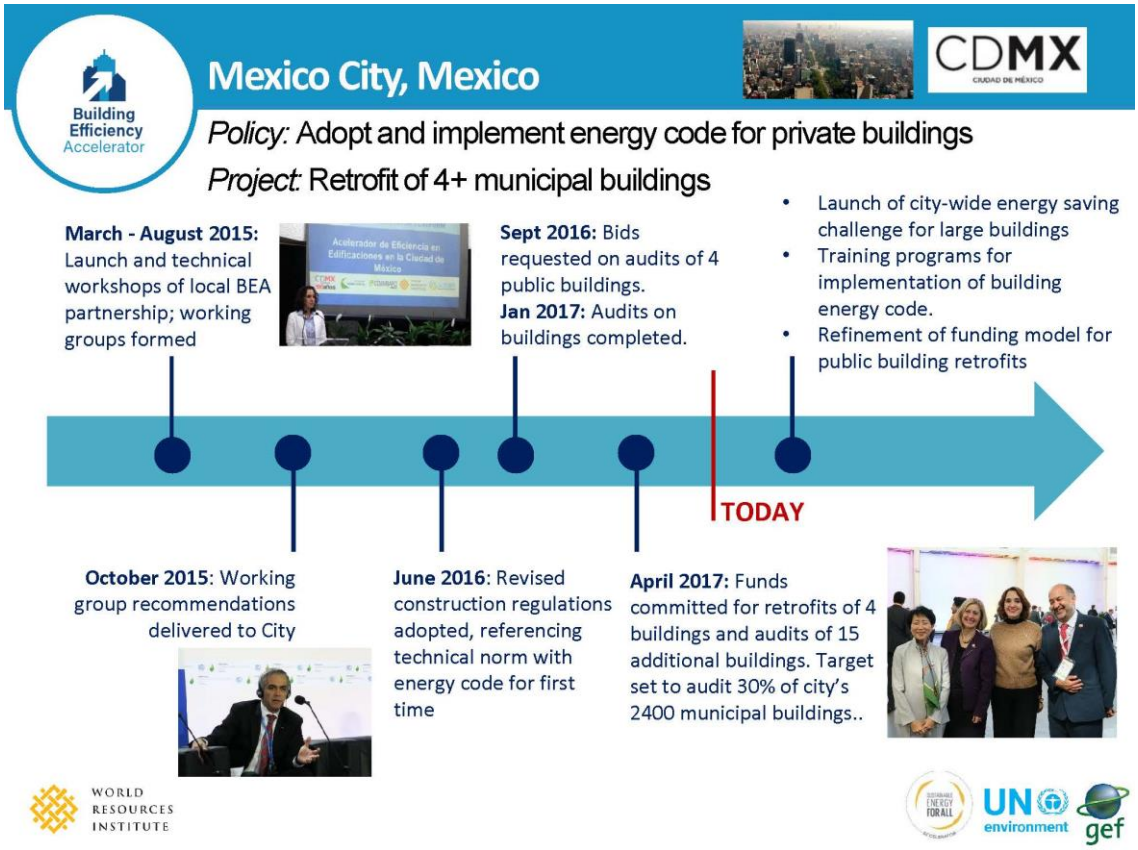
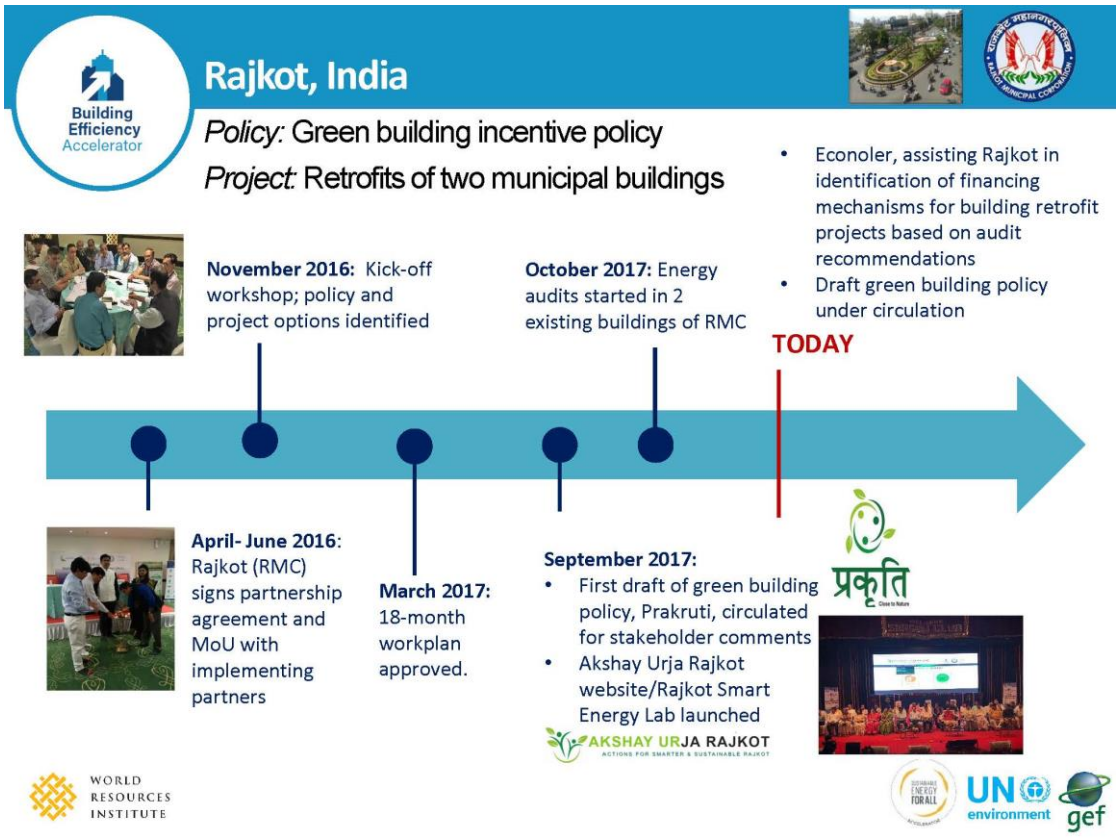


Figure 17 Progress: Mexico City, Mexico and: Rajkot, India





ANNEX VIII. INTERNAL AND EXTERNAL RISKS

Table 18 Internal Risks: Evaluator's Comments on selected ratings and notes made by project and task managers, by fiscal year

Project Manager Rating / Notes	Task Manager Rating / Notes	Evaluator Comments
FY 2016		
Project Management, Structure: Medium risk "Large partnership can lead to some lack of clarity between partners as to roles. WRI staff plays a coordinating role to reduce this issue."	*Structure: Medium risk*	Risk was fully mitigated during the course of Phase 1. Phase 2 plans include more private sector engagement
Project Management, Financial and Reporting: Low risk	*Financial and Reporting: Low risk* "The Executing Agency's financial reports are submitted in a timely manner and are complete."	Executing Agency is performing well on finances and reporting.
How potential social or environmental negative effects are monitored: "With a focus on building efficiency and associated greenhouse gas emissions from energy use, it is inevitable that our work will impact new construction or retrofit activity which could have social and environmental impacts. We have included a thematic work area of Sustainable Public Procurement to ensure that the projects resulting from the Accelerator are implemented and managed as efficiently as they are planned. In addition, we are encouraging and assisting cities to have stakeholder-driven processes, and by including stakeholders that are primarily focused on social and environmental impacts, these should be avoided in partnership projects."		The stakeholder engagement in this project spans 30 cities and many international partners. The level of engagement overall is high. Social and environmental impacts should be evaluated when the intermediate state is achieved (in Phase 2, or later).
2017		
Workflow: Medium risk "A project extension has been requested and granted to allow our subgrantees and deep-dive cities, which experienced moderate delays beginning work, extra time to complete their work plans. At this time, they are all progressing on target given the new timetable and work plan."	*Workflow: Low risk* "... the Executing Agency has requested for a project extension, shifting the technical completion date from 31 October 2017 to 31 December 2017. An updated work plan has been developed to reflect this extension. The project's implementation is on track and progress is generally in line with the new work plan – often even ahead of schedule."	The communication between agencies is clear; the management is adapting well to a 3-month extension. Also, the gap in funding between Phase 1 and Phase 2 may have allowed even more progress by cities. This gap was covered by the management of WRI and UN Environment through their in-kind contributions.
Co-finance: Low risk "Some partners' co-finance has shifted (either higher or lower) based on the roles identified for partners in the work planning process; we are assured this is to be expected in a project with this size of partnership. Our overall co-finance for this project appears to be on track to meet or exceed projections, based on our most recent in-kind reports."	*Co-finance: Low risk* "The realized co-financing seems to be in line with the commitments at CEO Endorsement. The EA co-finance reports are submitted in a timely matter. They are complete and properly supported by the partners' reports."	*(The evaluator will assess co-finance when FY 2018 PIR is available.)*

Project Manager Rating / Notes	Task Manager Rating / Notes	Evaluator Comments
Stakeholder involvement: Medium risk "At CEO approval: ... concerns that National governments may not provide funding or support for expanded action, or prioritize other sectoral efforts in pursuing low carbon development goals. However, engagement with national governments and national-level associations has been ramping up, and is expected to continue in the coming semester as we move into implementation. In deep dive cities in particular, the work planning process has been effectively engaging all stakeholders." "... concerns that local government leaders may be hesitant to take steps viewed as politically risky. However, as our project's progress relies on voluntary commitments from government leadership and local government choice of policy and project action, city leaders are empowered to choose actions they are comfortable with and feel their city would benefit from. We have not experienced pushback from local government leaders thus far."	*Stakeholder involvement: Low risk*	The Task Manager's assessment of stakeholder involvement issues being low risk held throughout the project, which had very high stakeholder engagement, driven-ness and ownership by cities and their local constituents.

Table 19 External Risks commented upon by Project or Task Manager, by Fiscal Year

Project Manager Rating / Notes	Task Manager Rating / Notes	Evaluator Comments
2017		
Capacity: Medium Risk "For the light touch cities, local city liaisons are not directly funded by this project, which is a potential weakness for their participation. However, liaisons have been selected that regularly engage with the city and therefore this additional role is a low time commitment. In addition, funded regional leads, other BEA partners, and WRI support the city liaisons as needed to mitigate this risk. Thus far, this multi-layered structure has been able to mitigate this risk."	*Capacity: Low Risk*	The Task Manager's assessment of the project's capacity to meet the needs of the network ("light touch") cities has held throughout the project. This attests to the good management of the network, which was able to contribute appropriate in-kind support as needed.

ANNEX IX. RESPONSE TO STAKEHOLDER COMMENTS

Table 20: Response to stakeholder comments received but not (or not fully) accepted by the reviewers, where appropriate

Stakeholder, organization (date)	Comment	Response from evaluator

ANNEX X. BRIEF CV OF THE EVALUATOR

Kathryn M. Conway

Profession	Energy efficiency consultant
Nationality	USA
Country experience	Global
Education	• M.S. Technical Communication, Rensselaer Polytechnic Institute • B.A. Biology, Swarthmore College

Short biography

Ms Kathryn M. Conway has 30 years of experience developing, managing and evaluating international technology policy and market transformation programs that respond to building sector stakeholder needs and environmental concerns. She has authored or edited more than 60 articles, guides and books on accelerating high-efficiency technologies into the global building sector (on-grid and off-grid). She is the co-author of *The Residential Lighting Pattern Book* (McGraw-Hill 1996) and *Guide to Nationally Appropriate Mitigation Actions for Energy Efficient Lighting* (UN Environment 2014). From 2012 to 2015 Conway was a Programme Officer with UN Environment's [former] Division of Technology, Industry and Economics, in Paris, where she provided technical expertise for the "en.lighten initiative," a UN Environment-GEF public-private partnership program with 66 developing country partners. Previously she was employed by: Rensselaer Polytechnic Institute, School of Architecture, as a Research Associate Professor and Research Director; New York State Department of Education's Science Service; and, the United States Department of Agriculture. In 2001 she founded a consultancy, Conway & Silver, Energy Associates LLC, which has worked globally to advise multilateral banks, development organizations, technical associations and private technology companies on strategies to speed the adoption of high efficiency technologies.

ANNEX XI. EVALUATION TERMS OF REFERENCE

TERMS OF REFERENCE

Terminal Evaluation of the UN Environment / Global Environment Facility project "*Scaling up the SE4ALL Building Efficiency Accelerator (BEA)*"

Section 1: PROJECT BACKGROUND AND OVERVIEW

1. Project General Information

Table 1. Project summary

GEF Project ID:	9329		
Implementing Agency:	UN Environment	**Executing Agency:**	World Resources Institute (WRI)
Sub-programme:	Climate Change Mitigation	**Expected Accomplishment(s):**	MTS 2014-2017: CC - EA (b)[1]
UN Environment approval date:	April 14, 2016	**Programme of Work Output(s):**	PoW Output 3[2]
GEF approval date:	February 4, 2016	**Project type:**	Medium-Sized Project
GEF Operational Programme #:	6	**Focal Area(s):**	Climate Change
		GEF Strategic Priority:	CC 1 Program 2
***Expected* start date:**	N/A	**Actual start date:**	April, 2016
***Planned* completion date:**	October 31, 2017	**Actual completion date:**	December 31, 2017
***Planned* project budget at approval:**	US$ 10,268,347	**Actual total expenditures as of June 30, 2017:**	US$ 7,840,054
GEF grant allocation:	US$ 2,000,000	**GEF grant expenditures reported as of June 30, 2017:**	US$ 1,405,614
Project Preparation Grant - GEF financing:	N/A	**Project Preparation Grant - co-financing:**	N/A
***Expected* Medium-Size Project/Full-Size Project co-financing:**	US$ 8,268,347	**Secured Medium-Size Project/Full-Size Project co-financing:**	US$ 6,434,440 (as of June 30, 2017)
First disbursement:	June 10, 2016	**Date of financial closure:**	N/A
No. of revisions:	2	**Date of last revision:**	December 26, 2017
No. of Steering Committee meetings:	4	**Date of last/next Steering Committee meeting:**	**Last:** November 13, 2017 / **Next:** N/A
Mid-term Review/ Evaluation *(planned date):*	N/A	**Mid-term Review/ Evaluation (actual date):**	N/A
Terminal Evaluation *(planned date):*		**Terminal Evaluation (actual date):**	
Coverage - Country(ies):	Deep-dive engagement: Colombia, India, Mexico, Serbia, Turkey, Vietnam	**Coverage - Region(s):**	Global

[1] Expected Accomplishment (b): "Energy efficiency is improved and the use of renewable energy is increased in partner countries to help reduce greenhouse gas emissions and other pollutants as part of their low emission development pathways".
[2] Output 3: "Tools and approaches designed and piloted in countries to develop mitigation plans, policies, measures, and low emission development strategies, and spur sector investment and innovation within and across selected sectors".

Dates of previous project phases:	N/A (this was the 1st phase of the project)	**Status of future project phases:**	PIF BEA phase II "The SEforALL Building Efficiency Accelerator (BEA): Expanding Local Action and Driving National Change" re-submitted to the GEF on November 24, 2017 (18 months duration, US$ 2M GEF contribution)

2. Project rationale[3]

1. The UN Secretary-General's Sustainable Energy for All (SE4All) initiative is a nonprofit organization working with leaders in government, the private sector and civil society to drive further, faster action towards the achievement of Sustainable Development Goal 7, which calls for universal access to sustainable energy by 2030, and the Paris Climate Agreement, which calls for reducing greenhouse gas emissions to limit climate warming to below 2 degrees Celsius.

2. Evidence indicates that the building sector is a major contributor to global warming. Buildings account for about one-fourth of global energy demand and nearly one-third of greenhouse gas emissions. In response to that challenge, SE4ALL launched the Building Efficiency Accelerator (BEA) partnership at the Climate Summit in 2015. The BEA seeks to move real estate and construction markets toward energy efficiency by partnering with subnational governments worldwide and providing resources and guidance on energy efficiency pathways for cities. Experience shows that the barriers to building efficiency implementation are often political and information-based, rather than technical. Thus, the BEA has a particular focus on working with policy makers.

3. The BEA is complementary to, and coordinates with the other Accelerator Projects, especially the District Energy Accelerator - District Energy in Cities Initiative; the Appliances Accelerator – United for Efficiency (U4E) and the Lighting Accelerator -en.lighten (now included in the U4E) and with the Energy Efficiency Hub - Copenhagen Centre for Energy Efficiency.

3. Project objectives and components

4. The project responds to GEF 6 Climate Change Mitigation Focal Area 1: "*Promote Innovation, Technology Transfer, and Supportive Policies and Strategies*", Program 2, "*Develop and demonstrate innovative policy packages and market initiatives to foster new range of mitigation actions*". In particular, the project will contribute to corporate result 4. "*Support to transformational shifts towards a low-emission and resilient development path*", with a potential of 3,821,252 tCO2eq mitigated (during the project and for the 15 years following project completion).

5. It is aligned with UN Environment Program of Work, Output 3: "*Tools and approaches designed and piloted in countries to develop mitigation plans, policies, measures, and low emission development strategies, and spur sector investment and innovation within and across selected sectors*".

6. The project objective is stated as follows:
'*Reduce greenhouse gas emissions by supporting market transformations that will enable a doubling of the rate of energy efficiency improvements in buildings by 2030, through linking global market experience with local policy action and capacity building*'.

7. The expected outcomes, as per the approved project document are:

Outcome 1.1 Public-private engagement in the Building Efficiency Accelerator expands and provides proof-of-concept that these innovative platforms can produce market shifts toward more efficient buildings at a subnational and local level as policy leaders implement new policy,

[3] Legend: Grey =Info to be added

projects and tracking approaches in commitment to Sustainable Energy for All. The outcome is measured against *'Number of cities, NGOs and private businesses signed up to the accelerator'*.
Outcome 2.1 Capacity of cities to define and pursue actions to advance building efficiency is enhanced. The outcome is measured against *'Number of cities that define or pursue at least one new policy or project related to building efficiency during the project period'*
Outcome 3.1 Five "deep dive" cities + Mexico City are prepared to, or implement building efficiency policy and projects. Measured *against 'Number of policies or projects prepared or implemented related to building efficiency by deep dive cities'*
Outcome 3.2. "Light touch" cities request to be considered for deep dive engagement as part of a phase 2 of the BEA project. Measured against *'Number of light touch cities requesting to be part of the phase 2 deep dive engagement.'*
Outcome 4.1 Improved practices for collecting and analyzing city level data and for performance measurement in cities. Measured against '*Number of cities with building wide or city performance monitoring systems in place'.*

4. Executing Arrangements

8. The project is implemented by UN Environment's Climate Mitigation Unit, Energy & Climate Branch within the Economy Division. The World Resources Institute (WRI) served as the Executing Partner, with project Headquarters located in Washington, USA.

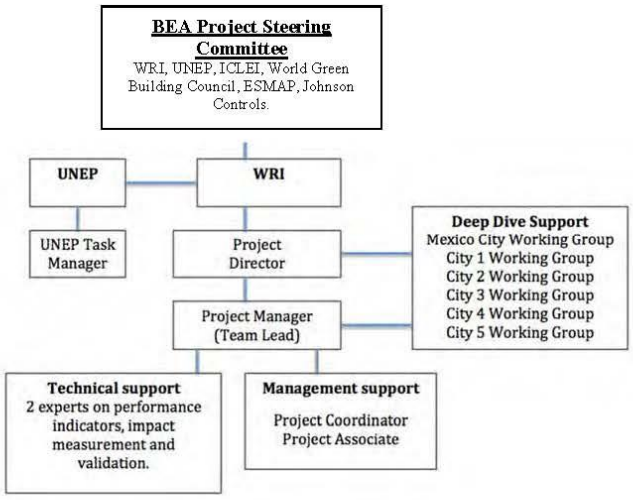
9. The day-to-day execution of the project was carried out by a Project Team formed by a Project Director, a Project Manager, a Technical Advisor and a Project Coordinator supported by two part-time technical experts supervised by the project Steering Committee. The BEA Steering Committee is composed of representatives from UN Environment, ICLEI-local government for sustainability, World Green Building Council, ESMAP, Johnson Controls, GEF Sustainable Cities Integrated Approach Pilot, WRI, participating cities, and GEF Secretariat. The BEA Steering Committee arbitrated and validated procedures, including the selection of city nominations.

10. Working Groups – lead by a stakeholder and city staff – were formed in each Deep Dive city to facilitate expert support for city actions and policies. The Working Groups helped design effective strategies for the acceleration of building efficiency. A working level group was established to ensure that there was cross-learning amongst the cities working on similar policies or projects.

11. UN Environment Cities Unit (previously called the Cities and Lifestyles Unit) provided technical support to the project for approximately 10% of the GEF grant, upon WRI's request.

Figure 1 below shows the executing arrangements.

Figure 1: Executing Arrangements (source: Request for CEO endorsement)



5. Project Cost and Financing

12. The project falls under the Medium-Size Project (MSP) category, with an overall project of US$ 10,268,347 made up of a GEF allocation of US$ 2,000,000 and co-financing support of US$ 8,266,347 from various partners, both in cash and in-kind. Table 2 below shows the planned cost of delivering each outcome.

Table 2. Budget allocation per outcome

Project Outcomes	Planned (in US$)	
	GEF Project financing	Co-financing
1.1 Public-private engagement in the Building Efficiency Accelerator expands and provides proof-of-concept that these innovative platforms can produce market shifts toward more efficient buildings at a subnational and local level as policy leaders implement new policy, projects and tracking approaches in commitment to Sustainable Energy for All.	219,669	1,176,861
2.1 Capacity of 30 cities to define and pursue actions to advance building efficiency is enhanced.	321,626	2,993,037
3.1 Five "deep dive" cities + Mexico City define and advance policy action in a rapid acceleration including 1) a 6 month intensive multistakeholder engagement process 2) direct staffing and coordination support by local partners to move to policy and project prep/implementation. 3.2. "Light touch" cities request to be considered for deep dive engagement as part of a phase 2 of the BEA project.	1,222,539	3,069,134
4.1 Improved energy management practices at city and building scales; documentation of and communication about measurement, tracking processes, and results.	127,140	849,065
Project Management Costs (PMC)	109,026	180,250
Total Planned	**2,000,000**	**8,268,347**

6. Implementation Issues

13. Project appears not to have encountered any significant barriers to implementation, except for the request from the Executing Agency for a project extension, shifting the technical completion date from 31 October 2017 to 31 December 2017.

Section 2. OBJECTIVE AND SCOPE OF THE EVALUATION

7. Key Evaluation principles

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

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

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

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

8. Objective of the Evaluation

18. In line with the UN Environment Evaluation Policy[4] and the UN Environment Programme Manual[5], the Terminal Evaluation (TE) is undertaken at completion of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among UN Environment and World Resource Institute (WRI).

[4] http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationPolicy/tabid/3050/language/en-US/Default.aspx
[5] http://www.unep.org/QAS/Documents/UNEP_Programme_Manual_May_2013.pdf . *This manual is under revision.*

19. Given the short project lifespan (20 months) and that a 18 month follow up intervention is most likely to be approved while this assessment is being conducted, the evaluation is intended to contribute to an early learning process and to inform similar exercises planned for other SE4ALL existing Accelerators and Hubs. Therefore, the evaluation will identify lessons of operational relevance for future SE4ALL projects' formulation and implementation.

9. Key Strategic Questions

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

(a) To what extent, and how, is the project contributing to SDG 7 '*Ensure access to affordable, reliable, sustainable and modern energy for all*' and to the Intended Nationally Determined Contributions (INDCs) in the '*deep-dive cities*' countries?

(b) To what extent, and how, are organizations participating in the Partnership promoting market shifts and encouraging innovations outside the Partnership?

(c) How well is this intervention aligned with the overall SE4ALL strategy up to 2030 including coordination with other Accelerators and Hubs?

(d) To what extent are participating cities satisfied with the quality of the Technical Assistance provided?

10. Evaluation Criteria

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

A. Strategic Relevance

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

i. *Alignment to the UN Environment Medium Term Strategy[6] (MTS) and Programme of Work (POW)*

23. The evaluation should assess the project's alignment with the MTS and POW under which the project was approved and include, in its narrative, reflections on the scale and scope of any contributions made to the planned results reflected in the relevant MTS and POW.

ii. *Alignment to UN Environment / Donor/GEF Strategic Priorities*

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

24. Donor, including GEF, strategic priorities will vary across interventions. UN Environment strategic priorities include the Bali Strategic Plan for Technology Support and Capacity Building7 (BSP) and South-South Cooperation (S-SC). The BSP relates to the capacity of governments to: comply with international agreements and obligations at the national level; promote, facilitate and finance environmentally sound technologies and to strengthen frameworks for developing coherent international environmental policies. S-SC is regarded as the exchange of resources, technology and knowledge between developing countries. GEF priorities are specified in published programming priorities and focal area strategies.

iii. *Relevance to Regional, Sub-regional and National Environmental Priorities*

25. The evaluation will assess the extent to which the intervention is suited, or responding to, the stated environmental concerns and needs of the countries, sub-regions or regions where it is being implemented. Examples may include: national or sub-national development plans, poverty reduction strategies or Nationally Appropriate Mitigation Action (NAMA) plans or regional agreements etc.

iv. *Complementarity with Existing Interventions*

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

Factors affecting this criterion may include:

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

B. Quality of Project Design

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

Factors affecting this criterion may include (at the design stage):

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

28. The Project Review Committee may have raised issues and made recommendations prior to approval. Recurrent issues should be stated to inform the project cycle.

C. Nature of External Context

29. At evaluation inception stage a rating is established for the project's external operating context (considering the prevalence of conflict, natural disasters and political upheaval). This rating is entered in the final evaluation ratings table as item C. Where a project has been rated as facing either an Unfavourable or Highly Unfavourable external operating context, and/or a negative external event has occurred during project implementation, the ratings for Effectiveness, Efficiency

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

and/or Sustainability may be increased at the discretion of the Evaluation Consultant and Evaluation Manager together. A justification for such an increase must be given.

D. Effectiveness

i. Delivery of Outputs

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

Factors affecting this criterion may include:

- Preparation and readiness
- Quality of project management and supervision[8]

ii. Achievement of Direct Outcomes

31. The achievement of direct outcomes (short and medium-term effects of the intervention's outputs; a change of behaviour resulting from the use/application of outputs, which is not under the direct control of the intervention's direct actors) is assessed as performance against the direct outcomes as defined in the reconstructed9 Theory of Change. These are the first-level outcomes expected to be achieved as an immediate result of project outputs. As in 1, above, a table can be used where substantive amendments to the formulation of direct outcomes is necessary. The evaluation should report evidence of attribution between UN Environment's intervention and the direct outcomes. In cases of normative work or where several actors are collaborating to achieve common outcomes, evidence of the nature and magnitude of UN Environment's 'substantive contribution' should be included and/or 'credible association' established between project efforts and the direct outcomes realised.

Factors affecting this criterion may include:

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

iii. Likelihood of Impact

32. Based on the articulation of longer term effects in the reconstructed TOC *(i.e. from direct outcomes, via intermediate states, to impact),* the evaluation will assess the likelihood of the intended, positive impacts becoming a reality. Project objectives or goals should be incorporated in the TOC, possibly as intermediate states or long term impacts. The Evaluation Office's approach to the use of TOC in project evaluations is outlined in a guidance note available on the EOU website, web.unep.org/evaluation and is supported by an excel-based flow chart, 'Likelihood of

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

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

and/or Sustainability may be increased at the discretion of the Evaluation Consultant and Evaluation Manager together. A justification for such an increase must be given.

D. Effectiveness

i. Delivery of Outputs

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

Factors affecting this criterion may include:

- Preparation and readiness
- Quality of project management and supervision[8]

ii. Achievement of Direct Outcomes

31. The achievement of direct outcomes (short and medium-term effects of the intervention's outputs; a change of behaviour resulting from the use/application of outputs, which is not under the direct control of the intervention's direct actors) is assessed as performance against the direct outcomes as defined in the reconstructed9 Theory of Change. These are the first-level outcomes expected to be achieved as an immediate result of project outputs. As in 1, above, a table can be used where substantive amendments to the formulation of direct outcomes is necessary. The evaluation should report evidence of attribution between UN Environment's intervention and the direct outcomes. In cases of normative work or where several actors are collaborating to achieve common outcomes, evidence of the nature and magnitude of UN Environment's 'substantive contribution' should be included and/or 'credible association' established between project efforts and the direct outcomes realised.

Factors affecting this criterion may include:

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

iii. Likelihood of Impact

32. Based on the articulation of longer term effects in the reconstructed TOC *(i.e. from direct outcomes, via intermediate states, to impact),* the evaluation will assess the likelihood of the intended, positive impacts becoming a reality. Project objectives or goals should be incorporated in the TOC, possibly as intermediate states or long term impacts. The Evaluation Office's approach to the use of TOC in project evaluations is outlined in a guidance note available on the EOU website, web.unep.org/evaluation and is supported by an excel-based flow chart, 'Likelihood of

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

extension could have been avoided through stronger project management and identify any negative impacts caused by project delays or extensions. The evaluation will describe any cost or time-saving measures put in place to maximise results within the secured budget and agreed project timeframe and consider whether the project was implemented in the most efficient way compared to alternative interventions or approaches.

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

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

Factors affecting this criterion may include:

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

G. Monitoring and Reporting

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

i. Monitoring Design and Budgeting

41. Each project should be supported by a sound monitoring plan that is designed to track progress against SMART[13] indicators towards the delivery of the projects outputs and achievement of direct outcomes, including at a level disaggregated by gender, vulnerability or marginalisation. The evaluation will assess the quality of the design of the monitoring plan as well as the funds allocated for its implementation. The adequacy of resources for mid-term and terminal evaluation/review should be discussed if applicable.

ii. Monitoring of Project Implementation

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

iii. *Project Reporting*

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

Factors affecting this criterion may include:

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

H. Sustainability

44. Sustainability is understood as the probability of direct outcomes being maintained and developed after the close of the intervention. The evaluation will identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of achieved direct

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

outcomes (ie.'assumptions' and 'drivers'). Some factors of sustainability may be embedded in the project design and implementation approaches while others may be contextual circumstances or conditions that evolve over the life of the intervention. Where applicable an assessment of bio-physical factors that may affect the sustainability of direct outcomes may also be included.

i. Socio-political Sustainability

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

ii. Financial Sustainability

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

iii. Institutional Sustainability

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

Factors affecting this criterion may include:

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

I. Factors and Processes Affecting Project Performance

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

i. Preparation and Readiness

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

ii. Quality of Project Management and Supervision

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

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

iii. Stakeholder Participation and Cooperation

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

i. Responsiveness to Human Rights and Gender Equity

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

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

ii. Country Ownership and Driven-ness

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

iii. Communication and Public Awareness

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

Section 3. EVALUATION APPROACH, METHODS AND DELIVERABLES

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

57. The findings of the evaluation will be based on the following:

(a) A **desk review** of:

- Relevant background documentation, inter alia SE4ALL, UN Environment and GEF-VI policies, strategies and programmes at the time of the project's approval;
- Project design documents (including minutes of the Project Review Committee meeting at approval); Annual Work Plans and Budgets or equivalent, revisions to the project (Project Document Supplement), the logical framework and its budget;
- Project reports such as six-monthly progress and financial reports, progress reports from collaborating partners, Steering Committee meeting minutes, relevant correspondence and including the Project Implementation Reviews and Tracking Tool etc.;
- Project outputs as applicable, based on the results framework e.g those found under http://united4efficiency.org/countries/country-assessments/
- Evaluations/reviews of similar projects e.g. PIF BEA Phase II "*Expanding local action and driving national change*" (November 2017)

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

- UN Environment Task Manager (TM), Mrs. Ruth Couto and Mr Julien Lheureux;
- Project management team; Mrs Jennifer Layke (Project Director), Mrs Debbie Weyl (Project Manager);
- UN Environment Fund Management Officer (FMO), Mrs Leena Darlington;
- Sub-programme Coordinator of the Climate Change Mitigation Sub-Programme, Mr Niklas Hagelberg;
- Project partners from: Business Council for Sustainable Energy, Buildings Performance Institute Europe, C40 Cities Climate Leadership Group, Copenhagen Centre for Energy Efficiency, Clean Energy Solutions Center, EDGE Program (IFC), GEF Sustainable Cities Integrated Approach Pilot, Global Buildings Performance Network, Global Green Growth Forum (3GF), ICLEI – Local Governments for Sustainability, International Energy Agency, Investor Confidence Project, UN Development Programme, UN Environment Programme, US Green Building Council, World Bank Group (ESMAP), World Business Council for Sustainable Development, World Green Building Council, Accenture, Alstom, China Energy Conservation and Environmental Protection Group, Danfoss, Ingersoll Rand, Johnson Controls, Philips, Saint-Gobain, Schneider Electric, Tecnalia.
- Relevant resource persons.

(c) **Surveys** [to be defined during inception]

(d) **Field visit:** participation at SE4ALL Forum "Leaving no one behind", Lisbon 2-3 May 2018 (updates from SE4ALL Accelerators)
(e) **Other data collection tools** [to be defined during inception]

11. Evaluation Deliverables and Review Procedures

58. The consultant will prepare:

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

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

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

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

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

12. The Consultant

63. For this evaluation, the evaluation team will consist of one consultant who will work under the overall responsibility of the Evaluation Office represented by an Evaluation Manager (Mr Francisco

Alarcon), in consultation with the UN Environment Task Manager (Mrs Ruth Cuotto), Fund Management Officer (Mrs Leena Darlington) and the Sub-programme Coordinator of the Climate Change Mitigation Sub-Programme (Mr Niklas Hagelberg). The Consultant will liaise with the Evaluation Manager on any procedural and methodological matters related to the evaluation. It is, however, the consultant's individual responsibility to arrange for visas and immunizations as well as to plan meetings with stakeholders, organize online surveys, obtain documentary evidence and any other logistical matter related to the assignment. The UN Environment Task Manager and project team will, where possible, provide logistical support (introductions, meetings etc.) allowing the Consultant to conduct the evaluation as efficiently and independently as possible.

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

65. She/ He should have: an advanced university degree in urban planning, environmental sciences or other relevant political or social sciences area; a minimum of 15 years' of technical / evaluation experience, including of evaluating large, regional or global programmes and using a Theory of Change approach; a broad understanding of local governance in developing countries and countries with economies in transition and technical experience in energy efficiency and urban development; proficiency along with excellent writing skills in English is required; team leadership experience and, where possible, knowledge of the UN system, specifically of the work of UN Environment.

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

67. *Specific Responsibilities for the Consultant:*
In close consultation with the Evaluation Manager, the Evaluation Consultant will be responsible for the overall management of the evaluation and timely delivery of its outputs, data collection and analysis and report-writing. More specifically:

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

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

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

Managing relations, including:

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

13. Schedule of the evaluation

68. The table below presents the tentative schedule for the evaluation.

Table 3. Tentative schedule for the evaluation

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

14. Contractual Arrangements

69. The Evaluation Consultant will be selected and recruited by the Evaluation Office of UN Environment under an individual Special Service Agreement (SSA) on a "fees only" basis (see below). By signing the service contract with UN Environment/UNON, the consultant certify that he/she have not been associated with the design and implementation of the project in any way which may jeopardize independence and impartiality towards project achievements and project partner performance. In addition, he/she will not have any future interests (within six months after completion of the contract) with the project's executing or implementing units. All consultants are required to sigh the Code of Conduct Agreement Form.

70. Fees will be paid on an instalment basis, paid on acceptance by the Evaluation Manager of expected key deliverables. The schedule of payment is as follows:

Table 4: Schedule of Payment for the Consultant:

Deliverable	Percentage Payment
Approved Inception Report *(as per annex document 7)*	30%
Approved Draft Main Evaluation Report *(as per annex document 13)*	30%
Approved Final Main Evaluation Report	40%

71. Fees only contracts: Air tickets will be purchased by UN Environment and 75% of the Daily Subsistence Allowance for each authorised travel mission will be paid up front. Local in-country travel will only be reimbursed where agreed in advance with the Evaluation Manager and on the production of acceptable receipts. Terminal expenses and residual DSA entitlements (25%) will be paid after mission completion.

72. The consultant may be provided with access to UN Environment's Programme Information Management System (PIMS) and if such access is granted, the consultant agree not to disclose information from that system to third parties beyond information required for, and included in, the evaluation report.

73. In case the consultant is not able to provide the deliverables in accordance with these guidelines, and in line with the expected quality standards by the UN Environment Evaluation Office, payment may be withheld at the discretion of the Director of the Evaluation Office until the consultant have improved the deliverables to meet UN Environment's quality standards.

74. If the consultant fail to submit a satisfactory final product to UN Environment in a timely manner, i.e. before the end date of their contract, the Evaluation Office reserves the right to employ additional human resources to finalize the report, and to reduce the consultants' fees by an amount equal to the additional costs borne by the Evaluation Office to bring the report up to standard.

ANNEX XII. QUALITY ASSESSMENT OF THE EVALUATION REPORT

Evaluation Office of UN Environment *Last reviewed: 17.04.18*

Evaluation Title: GEF ID 9329 "Scaling up the SE4ALL Building Energy Accelerator"

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

Substantive Report Quality Criteria		
Quality of the Executive Summary: The Summary should be able to stand alone as an accurate summary of the main evaluation product. It should include a concise overview of the evaluation object; clear summary of the evaluation objectives and scope; overall evaluation rating of the project and key features of performance (strengths and weaknesses) against exceptional criteria (plus reference to where the evaluation ratings table can be found within the report); summary of the main findings of the exercise, including a synthesis of main conclusions (which include a summary response to key strategic evaluation questions), lessons learned and recommendations.		5.5
I. Introduction A brief introduction should be given identifying, where possible and relevant, the following: institutional context of the project (sub-programme, Division, regions/countries where implemented) and coverage of the evaluation; date of PRC approval and project document signature); results frameworks to which it contributes (e.g. Expected Accomplishment in POW); project duration and start/end dates; number of project phases (where appropriate); implementing partners; total secured budget and whether the project has been evaluated in the past (e.g. mid-term, part of a synthesis evaluation, evaluated by another agency etc.) Consider the extent to which the introduction includes a concise statement of the purpose of the evaluation and the key intended audience for the findings?		5.5
II. Evaluation Methods This section should include a description of how the *TOC at Evaluation*[74] was designed (who was involved etc.) and applied to the context of the project? A data collection section should include: a description of evaluation methods and information sources used, including the number and type of respondents; justification for methods used (e.g. qualitative/ quantitative; electronic/face-to-face); any selection criteria used to identify respondents, case studies or sites/countries visited; strategies used to increase stakeholder engagement and consultation; details of how data were verified (e.g. triangulation, review by stakeholders etc.). Methods to ensure that potentially excluded groups (excluded by gender, vulnerability or marginalisation) are reached and their experiences captured effectively, should be made explicit in this section.		5.5

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

The methods used to analyse data (e.g. scoring; coding; thematic analysis etc.) should be described. It should also address evaluation limitations such as: low or imbalanced response rates across different groups; gaps in documentation; extent to which findings can be either generalised to wider evaluation questions or constraints on aggregation/disaggregation; any potential or apparent biases; language barriers and ways they were overcome. Ethics and human rights issues should be highlighted including: how anonymity and confidentiality were protected and strategies used to include the views of marginalised or potentially disadvantaged groups and/or divergent views.		
III. The Project This section should include: • *Context:* Overview of the main issue that the project is trying to address, its root causes and consequences on the environment and human well-being (i.e. synopsis of the problem and situational analyses). • *Objectives and components*: Summary of the project's results hierarchy as stated in the ProDoc (or as officially revised) • *Stakeholders:* Description of groups of targeted stakeholders organised according to relevant common characteristics • *Project implementation structure and partners:* A description of the implementation structure with diagram and a list of key project partners • *Changes in design during implementation:* Any key events that affected the project's scope or parameters should be described in brief in chronological order • *Project financing:* Completed tables of: (a) budget at design and expenditure by components (b) planned and actual sources of funding/co-financing		5
IV. Theory of Change The TOC at Evaluation should be presented clearly in both diagrammatic and narrative forms. Clear articulation of each major causal pathway is expected, (starting from outputs to long term impact), including explanations of all drivers and assumptions as well as the expected roles of key actors. Where the project results as stated in the project design documents (or formal revisions of the project design) are not an accurate reflection of the project's intentions or do not follow OECD/DAC definitions of different results levels, project results may need to be re-phrased or reformulated. In such cases, a summary of the project's results hierarchy should be presented for: a) the results as stated in the approved/revised ProDoc logframe/TOC and b) as formulated in the TOC at Evaluation. *The two results hierarchies should be presented as a two column table to show clearly that, although wording and placement may have changed, the results 'goal posts' have not been 'moved'.*		5.5
V. Key Findings **A. Strategic relevance:** This section should include an assessment of the project's relevance in relation to UN Environment's mandate and its alignment with UN Environment's policies and strategies at the time of project approval. An assessment of the complementarity of the project with other interventions addressing the needs of the same target groups should be included. Consider the extent to which all four elements have been addressed: 1. Alignment to the UN Environment Medium Term Strategy (MTS) and Programme of Work (POW) 2. Alignment to UN Environment/ Donor/GEF Strategic Priorities 3. Relevance to Regional, Sub-regional and National Environmental Priorities 4. Complementarity with Existing Interventions		5.5
B. Quality of Project Design To what extent are the strength and weaknesses of the project design effectively summarized?		5.5

C. Nature of the External Context For projects where this is appropriate, key external features of the project's implementing context that limited the project's performance (e.g. conflict, natural disaster, political upheaval), and how they affected performance, should be described.		5
D. Effectiveness **(i) Outputs and Direct Outcomes:** How well does the report present a well-reasoned, complete and evidence-based assessment of the a) delivery of outputs, and b) achievement of direct outcomes? How convincing is the discussion of attribution and contribution, as well as the constraints to attributing effects to the intervention. The effects of the intervention on differentiated groups, including those with specific needs due to gender, vulnerability or marginalisation, should be discussed explicitly.		5.5
(ii) Likelihood of Impact: How well does the report present an integrated analysis, guided by the causal pathways represented by the TOC, of all evidence relating to likelihood of impact? How well are change processes explained and the roles of key actors, as well as drivers and assumptions, explicitly discussed? Any unintended negative effects of the project should be discussed under Effectiveness, especially negative effects on disadvantaged groups.		5.5
E. Financial Management This section should contain an integrated analysis of all dimensions evaluated under financial management and include a completed 'financial management' table. Consider how well the report addresses the following: • *completeness* of financial information, including the actual project costs (total and per activity) and actual co-financing used • *communication* between financial and project management staff		5
F. Efficiency To what extent, and how well, does the report present a well-reasoned, complete and evidence-based assessment of efficiency under the primary categories of cost-effectiveness and timeliness including: • Implications of delays and no cost extensions • Time-saving measures put in place to maximise results within the secured budget and agreed project timeframe • Discussion of making use of/building on pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. • The extent to which the management of the project minimised UN Environment's environmental footprint.		5
G. Monitoring and Reporting How well does the report assess: • Monitoring design and budgeting *(including SMART indicators, resources for MTE/R etc.)* • Monitoring of project implementation *(including use of monitoring data for adaptive management)* • Project reporting *(e.g. PIMS and donor report)*		5.5
H. Sustainability How well does the evaluation identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of achieved direct outcomes including: • Socio-political Sustainability • Financial Sustainability • Institutional Sustainability		6
I. Factors Affecting Performance		5.5

These factors are not discussed in stand-alone sections but are **integrated in criteria A-H as appropriate**. Note that these are described in the Evaluation Criteria Ratings Matrix. To what extent, and how well, does the evaluation report cover the following cross-cutting themes: • Preparation and readiness • Quality of project management and supervision[75] • Stakeholder participation and co-operation • Responsiveness to human rights and gender equity • Country ownership and driven-ness • Communication and public awareness		
VI. Conclusions and Recommendations **i. Quality of the conclusions:** The key strategic questions should be clearly and succinctly addressed within the conclusions section. It is expected that the conclusions will highlight the main strengths and weaknesses of the project, and connect them in a compelling story line. Human rights and gender dimensions of the intervention (e.g. how these dimensions were considered, addressed or impacted on) should be discussed explicitly. Conclusions, as well as lessons and recommendations, should be consistent with the evidence presented in the main body of the report.		5.5
ii) Quality and utility of the lessons: Both positive and negative lessons are expected and duplication with recommendations should be avoided. Based on explicit evaluation findings, lessons should be rooted in real project experiences or derived from problems encountered and mistakes made that should be avoided in the future. Lessons must have the potential for wider application and use and should briefly describe the context from which they are derived and those contexts in which they may be useful.		5
iii) Quality and utility of the recommendations: To what extent are the recommendations proposals for specific action to be taken by identified people/position-holders to resolve concrete problems affecting the project or the sustainability of its results? They should be feasible to implement within the timeframe and resources available (including local capacities) and specific in terms of who would do what and when. At least one recommendation relating to strengthening the human rights and gender dimensions of UN Environment interventions, should be given. Recommendations should represent a measurable performance target in order that the Evaluation Office can monitor and assess compliance with the recommendations.		5.5
VII. Report Structure and Presentation Quality		6
i) Structure and completeness of the report: To what extent does the report follow the Evaluation Office guidelines? Are all requested Annexes included and complete?		6
ii) **Quality of writing and formatting:** Consider whether the report is well written (clear English language and grammar) with language that is adequate in quality and tone for an official document? Do visual aids, such as maps and graphs convey key information? Does the report follow Evaluation Office formatting guidelines?		6
	HS	114.5

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

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

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

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

Quality assurance:		
21. Were the evaluation Terms of Reference, including the key evaluation questions, peer-reviewed?	**X**	
22. Was the TOC in the inception report peer-reviewed?	**X**	
23. Was the quality of the draft/cleared report checked by the Evaluation Manager and Peer Reviewer prior to dissemination to stakeholders for comments?	**X**	
24. Did the Evaluation Office complete an assessment of the quality of both the draft and final reports?	**X**	
Transparency:		
25. Was the draft evaluation report sent directly by the Evaluation Consultant to the Evaluation Office?	**X**	
26. Did the Evaluation Manager disseminate (or authorize dissemination) of the cleared draft report to the project team, Sub-Programme Coordinator and other key internal personnel (including the Reference Group where appropriate) to solicit formal comments?	**X**	
27. Did the Evaluation Manager disseminate (or authorize dissemination) appropriate drafts of the report to identified external stakeholders, including key partners and funders, to solicit formal comments?	**X**	
28. Were stakeholder comments to the draft evaluation report sent directly to the Evaluation Office	**X**	
29. Did the Evaluation Consultant(s) respond to all factual corrections and comments?	**X**	
30. Did the Evaluation Office share substantive comments and Evaluation Consultant responses with those who commented, as appropriate?	**X**	

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

Process Criterion Number	**Evaluation Office Comments**