Evaluation Office

## Terminal Evaluation of the UNEP Project "The SEAforALL Building Efficiency Accelerator (BEA): Expanding Local Action and Driving National Change" (GEF ID 9947) (2018-2020)



## UN* <br> environment programme <br> Evaluation Office

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UNEP/GEF "The SEforALL Building Efficiency Accelerator (BEA): Expanding Local Action and Driving National Change" (GEF Project ID 9947)
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## ACKNOWLEDGEMENTS

This Terminal Evaluation was prepared for UNEP by Noara Kebir, as an independent consultant as an independent consultant, with assistance from two local consultants based in India, Mr Dinesh Aggarwal and Mr. Juned Khan. The evaluation team would like to express their gratitude to all persons met and who contributed to this evaluation, as listed in Annex II.

The evaluation team would like to thank the project team and in particular, Mr Victor Beguerie, Evaluation Manager, for his contribution and collaboration throughout the evaluation process. Sincere appreciation is also expressed to the UNEP Climate Mitigation Unit and the World Resources Institute, who took time to provide useful material and resources needed for the preparation of this report.

Special acknowledgements to all city officials from Colombia, India, Mexico, Mongolia, South Africa, and Turkey who participated directly and indirectly in this exercise.

The evaluation consultants hopes that the findings, conclusions and recommendations will contribute to the successful finalisation of the current project, formulation of a next phase and to the continuous improvement of similar projects in other countries and regions.

## BRIEF BIOGRAPHY OF PRINCIPAL CONSULTANT

With her background as an energy and process engineer, Ms Kebir has accumulated more than twenty years of relevant interdisciplinary experience along the entire value chain of development cooperation projects and programmes, from project ideation and design, implementation to monitoring and evaluation using a diversity of qualitative and quantitative methods across more than 50 countries.

Ms Kebir acquired 25+ years of expertise in energy efficiency standardisation, labelling and certification (household appliances, PV components, etc.). Her participation in the design, implementation, monitoring and evaluation of several energy-efficient building and housing programs in countries such as Armenia, Tajikistan, Kyrgyzstan and Peru granted her adequate experience in evaluating energy efficiency within the building sector. She has served as an international team leader in a number of the aforementioned projects, and with her educational and professional background, she adequately understands the necessary principles Energy Efficiency in Buildings and appropriately applied them in assessing the extent to which the goals of projects within this domain are achieved. Her recent role as the lead consultant for the GIZ in the ongoing Nigerian Energy Support Programme under current COVID-19 conditions affirms her ability to lead projects successfully from home through remote arrangements.

BRIEF BIOGRAPHY OF LOCAL CONSULTANT IN CHARGE OF KEY INFORMANT INTERVIEWS Dinesh has a master's in Engineering with overall more than 39 years of professional experience. Out of his overall experience of 39 years, about 20 years is in the area of Climate Change, Energy Efficiency, Renewable Energy, Disaster Risk Reduction and Sustainable Development. His work in the area of energy efficiency and climate change mitigation is in developing countries across the continents (including those in Asia and Africa).

The experience includes managing, implementing, and monitoring energy efficiency policies and programs across different sectors (including the building sector). Since more than last 20 years he is working as an international consultant across different countries. He has carried out mid-term reviews/ terminal evaluations for about 30 GEF supported development projects (including in the energy and building energy sector) in different countries.

His experience and expertise in the building sector includes building energy performance standards, technical aspects of EE in buildings (like insulation, building materials, building orientation), building design, building energy performance simulations (modelling), monitoring and verification of building energy performance, review/evaluations of GEF funded projects for energy efficiency in buildings.

## BRIEF BIOGRAPHY OF LOCAL CONSULTANT IN CHARGE OF WEB ANALYTICS

Juned has a MTech. in Energy Management (Gold Medallist) and B.E. in Electrical \& Electronics Engineering (First with Distinction). He has 16+ years consultancy and advisory experience in the field of Climate change, Carbon Advisory, GHG emissions, ESG, Energy (Renewable energy, Cleantech, and Energy Efficiency), Sustainability, Nature-Based Solutions, Sustainable Finance \& Investment, Stakeholder engagement, capacity building, and Institutional strengthening.
He worked with clients such as Governments, Corporate, Industries, NGOs, Donors/DFIs/Multilateral/Bilateral International Agencies-the World Bank, UNDP, UNFCCC, UNIDO, UNEP, ADB, AfDB, USAID, FCDO, IFC, GCF, GEF, etc. across diverse sectors in Developing, Developed, Small Island and Land Locked Countries - India, Afghanistan, Bangladesh, Bhutan, Nepal, Pakistan, Philippines, Myanmar, Cambodia, Vietnam, Malaysia, Indonesia, Fiji, Nauru, Solomon Islands, Marshall Islands, Vanuatu, Uzbekistan, Grande Comoros, Ghana, Kenya, Sudan, Rwanda, Tanzania, Uganda, Honduras, Angola, Democratic republic of Congo, Guinea Bissau, Algeria, Jordan, Tunisia, Turkey, Kosovo, Canada, UK, UAE, KSA, USA, Switzerland, and Germany.

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## ABOUT THE EVALUATION

Joint Evaluation: No
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Brief Description: This report is a Terminal Evaluation of a UNEP/GEF SE4ALL project: "Building Efficiency Accelerator (BEA): Expanding Local Action and Driving National Change" (GEF ID 9947).The project's overall goal was to reduce GHG emissions and local air pollution due to increased Energy Efficiency and Renewable Energy. 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 UNEP, and the relevant agencies of the project participating countries.

Key words: Building Efficiency; Building Efficiency Accelerator; Building Codes; Energy Efficiency; Renewable Energy; Market Transformation; Retrofits; Public Private Partnerships; Sustainable Energy for All; Climate Change; Climate Change Mitigation; Greenhouse Gases; Carbon Emissions; Net Zero Carbon Buildings; Emission Reduction

## Primary data collection period:

April 2022- August 2022

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## LIST OF ACRONYMS

| BE | Building Efficiency |
| :--- | :--- |
| BEA | Building Efficiency Accelerator |
| CCM | Climate Change Mitigation |
| COP | Conference of Parties |
| ECBC | Energy Conservation Building Code |
| EA | Executing Agency |
| EE | Energy efficiency |
| EOI | Expression of Interest |
| GEF | Global Environment Facility |
| GEFSEC | Secretariat of the Global Environment Facility (United Nations) |
| GHG | Greenhouse Gases |
| IA | Implementing Agency |
| ICLEI | Local Governments for Sustainability |
| IGO | Inter-Governmental Organisation |
| LIA | Likelihood of impact assessment |
| M\&E | Monitoring and Evaluation |
| MTE | Mid Term Evaluation |
| MTS | Medium-Term Strategy |
| NDC | Nationally Determined Contribution |
| NGO | Non-Governmental Organisation |
| NPMU | National Project Management Unit |
| NSC | National Steering Committee |
| OPEC | Organization of the Petroleum Exporting Countries |
| PCA | Project Cooperation Agreement |
| PDQ | Project Design Quality |
| PIR | Project Implementation Review |
| PMU | Project Management Unit |
| PoW | Programme of Work |
| PRC | Project Review Committee (internal UNEP committee) |
| PRF | Project Results Framework |
| ProDoc | Project Document |
| RE | Renewable energy |
| RToC | Reconstructed Theory of Change |
| SDG | Sustainable Development Goals |
| SMART | Specific, Measurable, Achievable, Relevant and Time-bound |
| TE | Terminal Evaluation |
| ToC | Theory of Change |
| ToR | Terms of Reference |
| ULBs | Urban Local Bodies |
| UNEP | United Nations Environment Programme |
| WRI | World Resources Institute |
| ZCBA | Zero Carbon Building Accelerator |
|  |  |

## PROJECT IDENTIFICATION

Table 1: Project Identification Table

| GEF Project ID: | 9947 | SB-010640 |  |
| :--- | :--- | :--- | :--- |
| Implementing <br> Agency: | UNEP Economy <br>  <br> Climate Branch, <br> Climate Mitigation <br> Unit | Executing Agency: | World Resources <br> Institute (WRI) |
| Relevant SDG(s) <br> and indicator(s): | SDG 7. Ensure access to affordable, reliable, sustainable, and modern energy <br> for all. |  |  |

- Target 7.3: By 2030, double the global rate of improvement in energy efficiency.
- Target 7.a: By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology
SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
- Target 9.4: By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable
- Target 11.3: By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated, and sustainable human settlement planning and management in all countries

| GEF Core <br> Indicator Targets <br> (identify these for <br> projects approved <br> prior to GEF-7) | Core Indicator 6-Greenhouse gas emission mitigated: <br> End-of-project target: 2,736,558tCO2eq for the 15 years following project <br> completion (direct and direct post-project) |  |  |
| :--- | :--- | :--- | :--- |
| Sub-programme: | Climate Change | Expected <br> Accomplishment(s): | PoW 2018-2019 <br> b) Countries <br> increasingly adopt <br> and/or implement low <br> greenhouse gas <br> emission development <br> strategies and invest in <br> clean technologies |
| UNEP approval <br> date: | July 18, 2018 | Programme of Work <br> Output(s): | PoW 2018-2019, Sub- <br> programme 1 Climate <br> Change <br> PoW 2020-2021, Sub- <br> programme 1 Climate <br> Change |
| GEF approval <br> date: | June 13, 2018 | Project type: | Medium Size Project |
| GEF Operational <br> Programme \#: | GEF-6 | Focal Area(s): | Climate Change |


|  |  | GEF Strategic Priority: | CCM-1 Program 1: Policy, planning and regulatory frameworks foster accelerated low GHG development and emissions mitigation |
| :---: | :---: | :---: | :---: |
| Expected start date: | August 1, 2018 | Actual start date: | September 5, 2018 |
| Planned operational completion date: | January 31, 2020 | Actual operational completion date: | September30, 2020 |
| Planned project budget at approval: | USD 8,116,597 | Actual total expenditures reported as of September 30, 2020: | USD 9,622,529 |
| GEF grant allocation: | USD 2,000,000 | GEF grant expenditures reported as of September 30, 2020: | USD 1,970,000 |
| Project <br> Preparation Grant - GEF financing: | USD 0 | Project Preparation Grant- co-financing: | USD 0 |
| Expected MediumSize Project cofinancing: | USD 6,116,597 | Secured Medium-Size Project co-financing: | USD 7,652,529 |
| Date of first disbursement: | September 20, 2018 | Planned date of financial closure: | January 31, 2022 |
| No. of formal project revisions: | 3 | Date of last approved project revision: | July 13, 2020 |
| No. of Steering Committee meetings: | 6 | Date of last/next Steering Committee meeting: | Last: Next: <br> October 23, N/A <br> 2020  |
| Mid-term Review/ Evaluation (planned date): | N/A | Mid-term Review/ Evaluation (actual date): | N/A |
| Terminal Evaluation (planned date): | June 30, 2021 | Terminal Evaluation (actual date): | January 2022 September 2022 |
| Coverage Country(ies): | Deep-dive engagement: Colombia, India, Mexico, Mongolia, South Africa, Turkey | Coverage - Region(s): | Africa, Asia Pacific, Latin America and Caribbean, WestAsia |
| Dates of previous project phases: | GEF ID 9329 "Scaling up the Sustainable Energy for All Building Efficiency Accelerator" (April 2016December 2017) | Status of future project phases: | GEF ID 10321 "Zero Carbon Buildings for All: from Energy Efficiency to Decarbonization" started in March 2021 |

## EXECUTIVE SUMMARY

## Project background

1. The potential contribution of the building sector to reducing GHG emissions is significant However, estimates suggest that by 2050, global building energy demand can be reduced by at least one-third if known energy efficiency best practices are implemented on a large scale. Given this, the United National Environment Programme (UNEP) and the Global Environment implemented the GEF ID 9329 "Scaling up the Sustainable Energy for All Building Efficiency Accelerator" project (also called BEA Phase I) from April 2016 to December 2017 to accelerate the uptake of energy efficient technologies in buildings globally. During this, stakeholder engagements were built between public and private sector actors, policy priorities were identified, and demonstration project options were reviewed across partner cities. As of the end of 2017, the BEA Phase I was reported to encompass 30 cities ( 24 "light touch" cities and 6 "deep-dive" cities ${ }^{1}$ ) and 42 partner organizations.
2. Following theend of the BEA Phase I, the GEF ID 9947 project, "The SEforALL Building Efficiency Accelerator (BEA): Expanding Local Action and Driving National Change" (hereafter, referred to as the BEAll project) was implemented as a second phase intervention package between September 5, 2018, and September 30, 2020, to scale up the work of the BEA Phase I at the intersection of policy and private markets. The UNEP Economy Division, Energy \& Climate Branch, Climate Mitigation Unit served as the Implementing Agency (IA) for The Project, with the World Resources Institute (WRI) as the Executing Agency (EA). The Project received a total GEF financing of USD 2,000,000, with a planned co-financing of USD 6,116,597. The actual expenditure at the end of the project was USD 9,445,245.00, of which GEF financing expenditure amounted to USD 1,792,715.00.
3. The Project generally focused on the delivery of deep-dive city-level engagements in the form of place-based market transformation partnerships for policy and project implementation in Columbia, India, Mexico, Mongolia, South Africa and Turkey. Other light touch cities were engaged in Brazil, Bulgaria, Chile, China, Colombia, Costa Rica, El Salvador, Ghana, Guatemala, Honduras, India, Jordan, Kenya, Mexico, Mongolia, South Africa and Turkey through technical assistance and capacity building for efficiency actions. In total, a list of 33 project cities was obtained at evaluation (Table 7). The overall project objective of The Project was "to reduce greenhouse gas emissions by supporting market transformations that would enable a doubling of the rate of energy efficiency improvements in buildings by 2030, by linking global market experience, national policy, and local action and capacity building".

## This evaluation

4. This Terminal Evaluation is consistent with the UNEP Evaluation Policy and the UNEP Programme Manual. The Evaluation is conducted upon completion of the BEA II project, and has two primary purposes:

- to provide evidence of results to meet accountability requirements, and

[^0]- to promote operational improvement, learning and knowledge sharing through results and lessons learned

5. Evidence on the relevant parameters of interest in this evaluation were obtained through an in-depth secondary data review, analysis of qualitative evidence on project, and quantitative data analysis. The qualitative data was obtained from discussions with key project partners and city officials. In-depth evidence on the project's performance was taken from India, with a virtual engagement of respondents from other project countries. This was further supported by a thorough Web Analysis of the communication, dissemination and replicability actions emanating from the project, given its global focus.
6. A set of criteria that are grouped into nine categories were used to assess the performance of the project: (A) Strategic Relevance; (B) Quality of Project Design; (C) Nature of External Context; (D) Effectiveness, which comprises assessments of the availability 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 ratings against each criterion are "weighted" to derive the Overall Project Performance Rating of the project as Highly Satisfactory in the Conclusion and Recommendation Chapter (VIB) of this report.

## Key findings

7. The Project was well grounded in a sound methodology for the selection of cities, the identification of priority areas and implementation of action towards enhancing the uptake of building efficiency practices. The project results and planned outputs were significantly obtained, and there was clear evidence to suggest that the project has increased the capacity and drive of cities towards adopting building efficiency codes, retrofits and policies. Notably, progress towards Building Efficiency (BE) action varied in the various cities, with the level of private sector and multinational actors' engagement with national and city governments as a main function of the progress differentials observed.
8. Evidence on all major outputs recorded in the final report of the project shows that the major planned outputs were largely delivered, and the target indicators for each output were achieved, with a significant $40 \%$ output gap in target for planned private sector engagement within the project. Beside this, all major outcomes in the revised Theory of Change were achieved, with an observed limitation in the ability of city government to track emissions from the building sector as a component of Revised Outcome 3. The project adhered to standard fiduciary and monitoring requirements for the implementation of GEF funded medium-sized along the entire course of implementation of the initiative.
9. There were no significant external factors that impacted the performance of planned stakeholders in the project. The impacts due to COVID 19 were not very significant as COVID restrictions in India for example sta rted from March 2020 onwards. By this time the project activities were completed. Due to COVID 19, some of the workshops were carried out in the online format.
10. Despite the significant attainment of project results, it was found out that more effort could have been applied to introduce a capacity building or awareness creation to actively enhance fair gender representations during the numerous national engagements. The level of ownership and driven-ness observed among city officials and national governments towards the development and implementation of energy efficiency action in their building sector towards the pursuit of Net Zero targets suggest that the project results are likely to be sustained.

## Conclusions

11. The BEAll Project was well mainstreamed in the on-going energy efficiency action of the various cities, and this was enhanced through quality collaboration between the project team and the various national and city-level energy and environmental ministries. TheProject has recorded significant amount of success in the attainment of its planned outputs and outcomes, hence its overall rating as Highly Satisfactory. Important successes observed includes the successful development of policies and implementation action in deep-dive cities, increasing awareness for energy efficiency action in cities, and putting city and national governments of project cities on a path to continuous investment into BE action. Key omissions include a limited sensitivity to gender and indigenous people's needs during project activities.
12. Regarding the Key Strategic Questions (KSQ) that the evaluation sought to answer, the following observations were made:

KSQ1:To what extent are the results attributable to the project? What can we conclude in terms of effectiveness of global accelerator projects versus local projects?

The various gains in terms of policies and implementation of pilot/demonstration projects towards accelerating energy efficiency in buildings have significantly been triggered by the various project activities based on evidence from document reviews, web analysis and key informant interviews. Regardless, it is not very easy to isolate contribution to project outcomes and their sustainability that is solely accounted for by the project, given the on-going integrated approach being adopted by city and national governments to accelerate emission reduction in general in their cities.

KSQ 2: After the completions of BEA Phase 1 and BEA Phase 2, what lessons can be learned in terms of options for exiting or transitioning strategies for the sustainability of the actions undertaken?

To consolidate gains from the BEAll project, and to strengthen the likelihood of sustainability actions, BEA projects should be integrated in national and city level climate interventions before exit. Exit from each project city, particularly deep-dive cities, should be supported by a clear identification and institutions of funding mechanisms for BE action, particularly through public-private partnerships. The key lesson is that project results would be more sustained if appropriate dedicated funding schemes often from the private sector and regulated by the public sector, were instituted before exit.

KSQ 3: How were the 9 recommendations of the Terminal Evaluation of the Phase 1 projecttaken into account and what effects did it have on the projectperformance and progress?
While some of the 9 recommendations of the Terminal Evaluation of BEA Phase I are implemented, there are gaps particularly relating to sustainable funding, inspirational cities recruitment, and inclusion of indigenous people among others.
KSQ 4: To what extent, and how, are organizations participating in the Partnership promoting marketshifts and encouraging innovations outside the Partnership?

The evaluation generally found that relevant organisations are increasingly taking actions to accelerate the uptake of energy efficient technologies and practices in the building sector beyond the partnership. Emerging approaches tend to lean towards multinational partnership actions for the development of tools and technologies, and training local actors on the use of these tools. In other cases, funding is provided under mutually beneficial agreements to implement actual action beyond capacity and technical assistance. Thus, emerging approaches are
more integrated, broader in scope of local-level stakeholders, and backed by appropriate funding schemes that enhances local implementation of concrete action.

KSQ5: How did the Phase 1 "deep-cities" which were not supported by the Phase 2 (Rajokot Municipal Corporation (India), Belgrade(Serbia) and Da Nang City (Vietnam)) perform compared with the continuing "deep-dive" cities (Bogotá (Colombia), Eskişehir (Turkey) and Mexico City (Mexico))?

Based on the city progress report obtained at evaluation, the difference observed in terms of progress differences between continuing deep-dive cities, and Phase I deep dive cities that were not supported under Phase II was not much and was limited to individually planned targets only. The observed progresses are duly described in detail within the report

KSQ 6: In terms of coherence of roles and actions as well as efficiency, what lessons can be learned from the synergies or collaborations that the BEA Phase 2 had with other complementary initiatives during the project implemen tation (like the District Energy in Cities Initiative (the SE4All district energy Accelerator), United for Efficiency (the SE4All Efficient Appliances and Equipment Accelerator), the Global Alliance for Building and Construction or the Program for Energy Efficiency in Buildings (PEEB))?

The most significant coherence observed in the various project cities was between the Project and other interventions, particularly the SE4All District Energy Accelerator. In the various project countries, the major synergies observed were in the conduction of assessments towards definition of impact potentials, and in the development of systems to monitor and track progress towards energy efficiency in cities. While the synergies were not directly explicit in terms of clear roles and collaborations, lessons were shared between stakeholder institutions, and resource duplication or common budgeted action was not observed.

KSQ 7: What changes were made to adapt to the effects of COVID-19 and how might any changes affect the project's performance?

The Covid-19 outbreak impacted the ability of the project to undertake/complete some of the project activities due to lockdowns and travel restrictions, particularly in 2020. However, appropriate mitigation measures were deployed by the EA, hence this did not significantly impact the project.

KSQ 8: To what extent are the project "beneficiaries" at the countrylevel and at the city level satisfied with the quality and the relevance of the Technical Assistance provided?

All project beneficiaries engaged at evaluation indicated a high level of satisfaction with the various Technical Assistance packages received under the project. The only notable area for improvement was in the support for actual implementation of the tracking systems.
13. Given that the project results were largely realised, and planned outputs and outcomes were largely in place at evaluation, it is concluded that the project was highly efficient in its use of resources, particularly allocated GEF finance and in leveraging on existing partnership structures in the various cities, and all monitoring arrangements that were planned were observed to have guided the tracking of the implementation of The Project. The GEF expenditure was thus $98.5 \%$ of the total $2,000,000 \mathrm{GEF}$ grant allocation, with actual co-financing resources secured excess planned targets by about $25 \%$. The allocated budget at CEO approval for monitoring was utilised appropriately through the project, with no exceeded expenditure for such purpose observed. All monitoring tools and frameworks were in line with the

UNEP standards and templates for the preparation of such reports, and all available resources observed were dully approved.
14. A clear set of knowledge management actions were planned and successfully executed in the course of the project's life. The BEA II was designed to leverage the existing knowledge and lessons from the BEA I and to further consolidate new knowledge for further projects within the scope of Building Efficiency Acceleration, which was well achieved. The tools proposed for such practices were apt and demonstrated a clear ambition to ensure that any explicit and tacit knowledge generated from this project was not lost.
15. Notwithstanding the successful implementation of the Project, the approach adopted in stakeholder engagement during implementation resulted in limited inclusivity for the potential end-users of the proposed tools and methods, more critically in deep-dive cities. Given that the target was to enhance the capacities of city governments and local partners towards the development and adoption of policies to accelerate energy-efficient technology development, attention during project engagement was largely on city officials. However, even with the observed level of engagement, significant investments are being made into BE action, and this affirms the extent to which the project's outputs and outcomes are in place. Thus, evidence show sustainability is likely, but can further be improved with widened participation of other stakeholders beyond city officials. Active private sector participation, including continuous on-boarding of multinational organisations in project countries will help facilitate sustainable financial investment into the initiative's actions, such that more of the successful outputs can be translated into outcomes and impacts towards climate change mitigation globally.

## Lessons Learned

16. Lesson Learned 1: The most successful national engagements included strong national commitment (and coordination), high local government ambition (and capacity), and feedback/collaboration between the two
17. Lesson Learned 2: The city-level government officials in some countries have practically no capacity to formulate policies and regulations for EE in buildings, hence face a lock-in effect in translating learning into action
18. Lesson Learned 3: Building Efficiency Policies such as Building codes are effective in the transformational drive, but their effectiveness can be further enhanced if capacities for simplification of these codes are further developed among cities.
19. Lesson Learned 4: The thematic interventions areas under the initiative are effective for capacity enhancement, and innovative funding schemes are necessary for the implementation and upscaling of city priorities under these themes
20. Lesson Learned 5: A menu of city intervention types enabled the BEA to provide cities with "fit for purpose" TA depending on the city's needs and readiness, leading to fast progress and, in some cases, more "impact-per-dollar".

## Recommendations

21. Recommendation 1: The UNEP Climate Mitigation Unit should ensure that the scope of emission reduction interventions that follow the Building Efficiency Accelerator Phase II be extended beyond Energy Efficiency in buildings to encompass other dimensions of the city system, given the on-going holistic approach being adopted by city and national governments to transform cities in the drive to Net-Zero
22. Recommendation 2: Specific plans and engagement strategies must be developed to foster widening the base of stakeholders that can participate in Building

Efficiency Actions, particularly regarding marginalised gender groups and indigenous people
23. Recommendation 3: The project's Executing Agency should ensure that state and National governments (through the relevant energy and environmental ministries) be engaged as possible leading stakeholders in Building Efficiency initiatives, given that city level governments are sometimes limited in their capacity to actually develop and implement/finance the implementation of building codes and other BE strategies at their local levels.
24. Recommendation 4: The project's Executing Agency should communicate with project partners at the local levels to develop comprehensive proposals for specific priority interventions, particularly with respect to retrofits and new developments towards attracting investment into Energy Efficient building action in their respective jurisdictions in collaboration with local private sector actors.
25. Recommendation 5: UNEP should institute mandatory provisions for participation of marginalised people, particularly the urban poor, and liaise with the UN Habitat in the implementation of interventions such as the BEA that seek to promote energy efficiency in buildings, particularly through useful inputs for policy and project development, such that planned actions would not lead to worsening their socioeconomic conditions or displace them from their present habitations as a result of increased property value and higher cost of retrofits among others.

## I. INTRODUCTION

26. The building sector is a major contributor to global warming, accounting for about one-fourth of global energy demand and nearly one-third of greenhouse gas emissions ${ }^{2}$. However, the sector is also suggested to have the potential of contributing significantly to the progress towards a more sustainable future. The potential contribution of the building sector to reducing GHG emissions is estimated to be around $42 \%$ (about 80 GtCO ) between 2014 and $2050^{3}$. Estimates suggest that by 2050, global building energy demand can be reduced by at least one-third if known energy efficiency best practices are implemented on a large scale (ibid).
27. Given this, the United Nations in 2011 launched the Sustainable Energy for All (SEforALL) initiative ${ }^{4}$ to mobilize action towards a goal of doubling the global rate of energy efficiency improvement by 2030 from $1.5 \%$ to a $3 \%$ annual rate of improvement. The programme recognises the need for a transition from the business-as-usual approach in the building industry that often results in inefficient buildings, to rapidly upgrading building construction and renovation processes. Thus, a Building Efficiency Accelerator (BEA) partnership between public and private actors with interest in accelerating energy efficiency in buildings was launched under the Building Efficiency Accelerator initiative of the SEforALL at the Climate Summit in 2015 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.
28. A GEF project with GEF ID 9329 "Scaling up the Sustainable Energy for All Building Efficiency Accelerator" (also called BEA Phase 1) was implemented under the BEA partnership from 2016 to 2017 to foster stakeholder engagements between public and private sector actors, identify policy priorities, and review demonstration project options across the BEA partner cities. Following the end of the BEA Phase I, the GEF ID 9947 project, "The SEforALL Building Efficiency Accelerator (BEA): Expanding Local Action and Driving National Change" (hereafter referred to as "The BEA II Project" or "The Project", and which is currently under evaluation) was implemented as a second phase intervention package between September 5, 2018, and September 30,2020, to scale up the work of the BEA Phase I at the intersection of policy and private markets.
29. The Project, which was approved on June 13, 2018, received a total GEF financing of USD 2,000,000, with a planned co-financing of USD 6,116,597. Actual expenditure at the end of the project was USD $9,622,529$, of which GEF financing expenditure amounted to USD 1,970,000. The UNEP Economy Division, Energy \& Climate Branch, Climate Mitigation Unit served as the Implementing Agency (IA) for The Project, with the World Resources Institute (WRI) as the Executing Agency (EA).
30. The Project was approved under the GEF-6 operational programme and contributes towards expected outputs under: the Programme of Works (PoW) 2018-2019, Sub-

[^1]programme 1 Climate Change; and PoW 2020-2021, Subprogramme 1 Climate Change. The overall objective of The Project was "to reduce greenhouse gas emissions by supporting market transformations that would enable a doubling of the rate of energy efficiency improvements in buildings by 2030, by linking global market experience, national policy, and local action and capacity building". The Project aligns with the other UNEP Accelerator programmes launched in 2015, particularly the District Energy in Cities Initiative, the United for Efficiency (U4E), and the en.lighten (Efficient Lighting Accelerator), which are geared towards reducing the level of GHG emissions towards Climate Change Mitigation.
31. The Project generally focused on the delivery of deep-dive city-level engagements in the form of place-based market transformation partnerships for policy and project implementation in Columbia, India, Mexico, Mongolia, South Africa and Turkey. Other light touch cities were engaged in Brazil, Bulgaria, Chile, China, Colombia, Costa Rica, El Salvador, Ghana, Guatemala, Honduras, India, Jordan, Kenya, Mexico, Mongolia, South Africa and Turkey through technical assistance and capacity building for efficiency actions. It complemented ongoing governmental efforts in the target countries towards the pursuit of their NDCs, SDGs and UNDAF targets. In India for example, the BEA II complemented the Country's NDC pledge to improve the Energy Conservation Building Code (ECBC) to promote the construction of near-zero energy-efficient buildings, as well as the continued implementation of the national building-energy rating scheme GRIHA (Green Rating for Integrated Habitat Assessment).
32. This Terminal Evaluation is conducted in line with the UNEP Evaluation Policy ${ }^{5}$ and the UNEP Programme Manual ${ }^{6}$. This Terminal Evaluation is thus conducted upon completion of the project with two primary purposes: to provide evidence of results to meet accountability requirements, and to promote operational improvement, learning and knowledge sharing through results and lessons learned.
33. All evaluation actions were implemented through a participatory approach and are geared towards creating a shared learning experience for all stakeholders, including the Implementing Agency, Executing Agency, funding organisation, national governments, city officials, and private investors among others. The evaluation findings are intended therefore to meet the needs of the UNEP, World Resources Institute, the partnered cities ("light touch" and "deep-dive"), all the BEA partners (like International Finance Corporation, TECNALIA and Ingersoll Rand).

[^2]
## II. EVALUATION METHODS

## A. Evaluation Approach and Methods

34. This Evaluation was conducted in line with UNEP Evaluation Office's standards and procedures for conducting such exercise. The Principal Evaluator was provided with a Terms of Reference (ToR) that guided the entire evaluation process (see Appendix IX: Evaluation TORs). The methods and processes employed at inception, data collection, data analysis and in reporting evaluation findings are thus consistent with the UNEP Evaluation Policy, the UNEP Programme Manual and the Guidelines for GEF Agencies in Conducting Terminal Evaluations. This TE has been carried out using a set of criteria that were grouped into nine categories: (A) Strategic Relevance; (B) Quality of Project Design; (C) Nature of External Context; (D) Effectiveness, which comprises assessments of the availability 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. These criteria were rated on a six-point scale ${ }^{7}$. The ratings against each criterion were "weighted" to derive the Overall Project Performance Rating.
35. Consistent with the ToR, the Evaluation further sought to provide answers to a set of Key Strategic Questions (KSQs) of interest to the UNEP. These were questions that were deemed to be of interest to UNEP and to which the project was believed to be able to make a substantive contribution. Findings to these questions are appropriately presented under the most relevant evaluation criteria in the main Evaluation Findings section. The Key Strategic Questions are listed herin:

KSQ1: To what extent are the results attributable to the project? What can we conclude in terms of effectiveness of global accelerator projects versus local projects?

KSQ2: After the completions of BEA Phase 1 and BEA Phase 2, what lessons can be learned in terms of options for exiting or transitioning strategies for the sustainability of the actions undertaken?

KSQ3: How were the 9 recommendations of the Terminal Evaluation of the Phase 1 project taken into account and what effects did it have on the project performance and progress?

KSQ4: To what extent, and how, are organizations participating in the Partnership promoting market shifts and encouraging innovations outside the Partnership?

KSQ5: How did the Phase 1 "deep-cities" which were not supported by the Phase 2 (Rajokot Municipal Corporation (India), Belgrade (Serbia) and Da Nang City (Vietnam)) perform compared with the continuing "deep-dive" cities (Bogotá (Colombia), Eskişehir (Turkey) and Mexico City (Mexico))?
KSQ6: In terms of coherence of roles and actions as well as efficiency, what lessons can be learned from the synergies or collaborations that the BEA Phase 2 had with other complementary initiatives during the project implementation (like the District Energy in Cities Initiative (the SE4All district energy Accelerator), United for Efficiency (the SE4All Efficient Appliances and Equipment Accelerator), the Global

[^3]Alliance for Building and Construction or the Program for Energy Efficiency in Buildings (PEEB))?

KSQ7: What changes were made to adapt to the effects of COVID-19 and how might any changes affect the project's performance?

KSQ8: To what extent are the project "beneficiaries" at the country level and at the city level satisfied with the quality and the relevance of the Technical Assistance provided?
36. Answers to the set of questions that were required for uploading in the GEF Portal are contained under the relevant evaluation criteria in the Evaluation Findings section of this report, and a summary of the findings is contained in Annex VIII: Responses to Questions for GEF Portal Input. The key issues to be addressed in the requirement for the GEF portal include the following:

- What was the performance at the project's completion against Core Indicator Targets
- The progress, challenges, and outcomes regarding engagement of stakeholders in the project/program as evolved from the time of the MTR
- The gender-responsive measures and gender result areas
- Progress made in the implementation of the management measures against the Safeguards Plan submitted at CEO Approval
- Challenges and outcomes regarding the project's completed Knowledge Management Approach

37. Consistent with the ToR, and in line with the Evaluation Policy of the UNEP, all evaluation actions were done with a high degree of participation and shared learning between key stakeholders from the project teams, project beneficiaries and other relevant partners. A critical tool employed through this evaluation process for tracking the attainment of project results was the Theory of Change (ToC). The ToC approach was used to identify expected project results, the causal pathways to each anticipated change and the drivers and assumptions to reaching each desired state of change. Even though a Theory of Change was presented in the Project Document, the Evaluator amended this ToC into a Reconstructed Theory of Change (RToC) at the inception of this Terminal Evaluation in line with the UNEP Evaluation Office's definitions of the following key concepts: project outputs, project outcomes, intermediate states, impact, assumptions and drivers. An evaluation framework was developed to provide an overview of evaluation criteria, questions, with method and source of evidence (Annex VIII. Evaluation Framework).
38. The Evaluation Manager (EM) at UNEP provided oversight responsibility of theentire Terminal Evaluation process, including a quality assurance of evaluation reporting. The reviews, recommendations and feedback from the EM ensured adherence to UNEP standards for Terminal Evaluations and facilitated coherence within all communications between the Principal Evaluator, the two local consultants supporting the Principal Evaluator, and other project stakeholders, particularly the project team throughout the course of the evaluation.

## B. Data Collection Process

39. The terminal evaluation of the BEA II project was intended to provide a critical assessment of the project Design and implementation, to assess the quality of the project design, the nature of implementation and the gaps in the implementation of the project, the extent to which planned targets have been achieved and lessons that can be learnt for. Evidence on the relevant parameters of interest were thus obtained through an in-depth secondary data review, analysis of qualitative evidence on
project, and quantitative data analysis. This was further supported by a thorough Web Analysis of the communication, dissemination and replicability actions emanating from the project, given its global focus.
40. Thus, the TE was conducted using evidence from both primary and secondary sources. Secondary evidence was gathered by the evaluator through a review of key project documents and web analysis, while primary evidence was gathered through interviews and focus group discussions with relevant project stakeholders across project cities ${ }^{8}$. All qualitative evidence that was gathered was analysed in themes based on the evaluation criteria provided by UNEP for this assignment. Where necessary, quantitative analyses were limited to simple descriptive statistics using ratios and percentages. Given that India was selected as the focal country for the conduction of the $\mathrm{TE}^{9}$, the level of data collection intensity and scope in India was planned to be greater than in all other project countries (Colombia, Mexico, Mongolia, South Africa and Turkey).
41. To enhance the understanding of actual project implementation processes and results, in-depth data has been collected in India through two (2) local consultants who were engaged over a period of three (3) months- April, May, and June. The Principal Evaluator provided the local consultants with the necessary data collection tools (interview guides, survey questionnaire, and web analysis guide), and closely monitored the data collection process.
42. The In-country Support Consultant responsible for Key Informant Interviews led interviews with the relevant stakeholders in India, largely through internet-call based media, using relevant evaluation questions developed from the Evaluation Framework. The Indian In-country Support Consultant (Analyst) was responsible for all web analytics towards establishing evidence on the project's performance outside the scope of India, particularly relating to the extent of disseminating of The Project's activities and status of communication and dissemination materials. The analyst was further responsible for the design and implementation of online surveys with The Project's global stakeholders, the Implementing and Executing Agencies, and The Project's global partners. All data collection activities of the local consultants were done online due to COVID restrictions in India.
43. Each local consultant was given the relevant project documents to enhance their understanding of the project context, planned project results and reported results based on the project final report. The Principal Evaluator held an online pre-data collection discussion session with the local consultants to review all the data collection tools. Each local consultant was briefed on the expectations and desired approach for the implementation of each data collection method. This ensured that the Principal Evaluator and local consultants had a common understanding of the purpose of the evaluation, and commonly applied a participatory learning approach in the data collection process.

## Key Informant Interviews:

44. The Evaluation Team, through the local consultant in charge of Key informant interviews, engaged city officials from both deep-dive and light-touch cities,

[^4]government agencies, non-governmental organisations andcivil society groups, and private sector actors among others in India, in semi-structured interviews. The interactions with these stakeholders who were selected based on their knowledge and involvement in the project facilitated an understanding of the project results, the reconstruction of the Theory of Change, and lessons learnt from the project.
45. The interviews followed a guide that contained a list of questions developed from the Evaluation framework in line with relevant themes for each interviewee. See Annex II. List of People Consulted during the Evaluation. The discussions were recorded by the local consultant, who organised the responses in line with the criteria for evaluation. Responses were then forwarded to the Principal Evaluator for review. Follow-up questions were sent to the interviewees after the review by the Principal Evaluator. In total, 7 key informant interviews were conducted with selected stakeholders from India.

## Focus Group Discussions:

46. The evaluator organised two (2) virtual focus group discussions for city officials and Key National Counterparts from the project countries (cities) outside India. The first discussion had one participant from South Africa, who exited the meeting shortly after joining and before discussions could commence. The discussions were to understand project performance in their countries, similarities and differences in experience across the project, and the lessons learnt from each context. Each Focus Group Discussion lasted for about 60 minutes for effectiveness and efficiency. In total, 5 national partners from Costa Rica and Columbia participated in the second online FGD.
47. To facilitate the discussions, the consultant kept the discussion points at 9 main areas of evaluation interest based on the based on nine-point evaluation criteria proposed by UNEP. Additional discussion points were developed based on the Key Strategic Questions of the TOR (see details in Annex VIII: Evaluation Framework). Probing questions were used by the local consultants to enable participants to throw more light on critical issues emanating from the submissions and to also sustain the interest of participants in the discussions. Verbal consent was obtained from the participants for the recording and use of their submissions for this evaluation only before the commencement of each discussion session.


Figure 1: A Global Focus Group Discussion session with relevant project partners

## Desk Reviews:

48. Available project documents were critically reviewed by the Principal Evaluator to assess project background and design, progress along the course of implementation, project financing, project results, project communication and reporting among others. Annex III. Key Documents Consulted. This was complemented by a thorough web review to track the global outreach and dissemination of the initiative, the catalytic effect of the project, and pointers for sustainability based on the attraction of partners and other stakeholders. The local consultant responsible for web analysis assisted the Evaluator in this regard.

## Online Surveys:

49. The Global Partners of The Project, the Implementing Agency (UNEP Climate Mitigation Unit), and the Executing Agency (World Resources Institute) were surveyed using a set of semi-structures instruments to evaluate their experience with the project, and lessons learnt. The online surveys were conducted from 13th June to 1st July 2022. The EA and IA responded 100\% to the online surveys through their focal point of communication during the evaluation.
50. While the online surveys targeted the three stakeholder groups identified, only a relevant representative from the institutions with adequate knowledge on the project was required to respond to the link to the various questions, based on a consultation with the entire members of the team. Emphasis therefore was not on quantitative evidence in the form of statistics across respondents as typical with other survey data analysis, but rather on qualitative insights and views about the project performance across relevant aspects. In many cases, only the head of the institution
(IA, EA and Project's Global Partners) were designated to provide responses to the survey items. Importantly, engagements with the EA and IA during the evaluation was facilitated by regular emails on specific data requests
51. The validity of evidence obtained from the primary data was triangulated through secondary data sources such as magazines, conference reports, and websites of city and municipal administrations, relevant institutions and project partners. All instruments used for the online survey, Focus Group Discussions and Key Informant Interviews were first piloted in India and reviewed for reliability.

## C. Ethics and Human Rights Issues

52. Fundamental ethical principles and thetenets of the Human Rights-Based Approach (HRBA) were applied by the evaluator in engaging all stakeholders throughout the evaluation, particularly during the data collection and reporting processes ${ }^{10}$. In all cases of data collection, the Evaluator and local consultants used emails to precede the engagements, such that the intent of the data collection was explained to participants in line with the objectives of this evaluation. Participants or respondents who were not willing to take part in the evaluation had the liberty to indicate their non-willingness. Respondents were thus made aware that participation in the exercises is voluntary, and submissions were reported with a high degree of anonymity.
53. All data collection tools were designed using a gender-neutral language. During the virtual Focus Group Discussions, the evaluator ensured that all participants were given equal chances of sharing their ideas and opinion on the issues. This was done using probing and re-directing questions to each participant on each of the issues being discussed. This facilitated the prevention of domination by outspoken participants. Responses obtained from interviews, FGDs and online surveys quoted in this report are reported with pseudo-identifiers.

## D. Gender representativeness and inclusion:

54. The Principal Evaluator in the sampling stage of the evaluation process ensured that participant selection created room for adequate representation of both men and women. Where possible, City officials, representatives of project partners, representatives from Key National Counterparts and other relevant stakeholders who were surveyed were encouraged to enable other female staff of their institutions with relevant knowledge on the Project who could not be pre-identified based on limited contact information at the sampling stage in the various virtual discussions.
55. The composition of the project's Implementing Agency and Execution Agency had a balanced representation of both men and women. The Principal Evaluator factored this in the stakeholder selection through the data collection process to achieve a balance. The actual distribution of participants selected for the data collection process, as well as the response rate after contacting each stakeholder category, is presented in Table 2 below.
[^5]Table 2: Sampling Strategy by Stakeholder Target Group

| Description | Description/Name | No. People involved (M/F) | No. People contacted (M/F) | Number of people consulted (M/F) | Way of Consultation | Response rate (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Project team ${ }^{11}$ | Implementing Agency | 8 | 3 (2F, 1M) | $3^{12}(2 \mathrm{~F}, 1 \mathrm{M})$ | 1 Online survey (And regular email) | 100 |
|  | Executing Agency (WRI) | 9 | 2 (2F) | $2^{13}(2 \mathrm{~F})$ | 1 Online survey (And regular email) | 100 |
|  | No. of Entities Involved | No. of Entities/Cities contacted | No. People contacted (M/F) | No. People consulted (M/F) | Way of consultation | Response \% |
| Key Project Consultants and other contacts | NA |  | $22^{14}$ | 8 (2F, 6M) | 8 KIIs | 36.4 |
| Project Global Partners | 38 | $15^{15}$ | 15 (Gender NA) | 1 (1M) | 1 Online survey | 6.7 |
| Key Counterparts (light touch) | 26 Light Touch Cities | NA | 1 official from each city ${ }^{16}$ ( 8 F , 8M) | 2 (M) | 2 Virtual FGD | 12.5 |
| Key Counterparts from deep dive cities | 7 New, and 3 Old Deep Dive Cities | NA | 1 city official from each city (5F, 5M) | 0 | Virtual FGD and KIIs (Scheduled but had no participation) | 0 |

${ }^{11}$ For contacts from IA and EA, attempts were made to avoid selecting officials with similar roles to maximise efficiency, for example two people performing same role in the project but under different time periods. Responses were complemented by secondary data on documents such as the budget-finance letters and constant email exchanges between the evaluation team and the Project Team.
${ }^{12}$ The three main contacts engaged were the Task Manager, Programme Officer and Fund Management Officer (until August 2021). The program assistant until December 2020 was initially selected but was not later actively consulted due to adequacy of information from the 3 contacts and to enhance efficiency.
${ }^{13}$ At inception of the evaluation, 8 people were planned to be contacted. However, the main persons engaged were the Project Manager and Program Analyst based on their adequacy for the needed evaluation information. These 2 collaborated with the other team members, and provided all necessary information being requested by the Evaluator during the entire evaluation process.
${ }^{14}$ The number of consulted respondents increased during the data collection process due to a latter increase in invitations sent to stakeholders in India. Full gender distribution is unavailable given that in most cases, only email addresses were accessed, and the gender of the people were not very clear given that they mostly did not respond.
${ }^{15}$ An online survey was routed through the Executing Agency for a total of 15 shortlisted partner companies, given that specific contacts from each partner organization was available to the Evaluator directly. The selection was based on the partner roles and avoidance of duplication. They are: 100 Resilient Cities, Architecture 2030, Business Council for Sustainable Energy (BCSE), C40 Cities Climate Leadership Group, Clean Energy Solutions Center/ National Renewable Energy Laboratory (NREL), Colombia Green Building Council (Consejo Colombiano de Construcción Sostenible, CCCS), Copenhagen Centre on Energy Efficiency (C2E2), and Danfoss.
${ }^{16}$ The 16 selected light touch cities were because in the Final Project report to have at least a project orpolicy in place related to building efficiency and have made progress by at least one stage, hence were seen as cities that could contribute evidence that will help to assess the project's performance. The cities are: Accra (Ghana), Belén (Costa Rica), Betim (Brazil), Calí (Colombia), Campeche (Mexico), Comayagua (Honduras), Curridabat (Costa Rica), Gabrovo (Bulgaria), Kochi (India), Montería (Colombia), Msunduzi (South Africa), Nuevo León (Mexico), Recife (Brazil), Santa Ana (Costa Rica), Shanghai (China), and Yucatán (Mexico).

## E. Evaluation Limitations and Mitigation Strategy

56. There is a considerable gap between the time of closure of the implementation of the project activities and the time when data collection was carried out (the operational closure of the project happened in September 2020 and the Key Informant Interviews were carried out during April, June, and July 2022). Due to this reason, some of the targeted KIs were not reachable (the persons have either moved on from their official positions or have retired). In India, which was supposed to be a focal country for the Evaluation and source of in-depth evidence on the performance of the project, none of the city officials from the deep dive or light touch cities responded to requests to be engaged during the data collection process, despite several attempts from the Local Consultant. To mitigate this, the principal evaluator extended the scope of participation for the Global Focus Group discussions which were held virtually with city officials and relevant project partners from other countries and extended participation call beyond the initially planned number of stakeholders to be engaged. However, city officials from other deep dive and light touch cities who were targeted for the discussions did not respond or participate. Rather, it was relevant partners from national ministries that participated. This limited the extent to which the Evaluation established facts on the perceptions of the project beneficiaries and city officials on the performance of The Project.
57. The efficiency of the Evaluation was limited by the significant challenges experienced in the engagement of stakeholders for the data collection process. This was both the case in India, and in the other project cities globally, where the Evaluation Team had to spend several weeks attempting to organise meetings and bilateral discussions repeatedly. Thus, the data collection process had to be extended significantly from the originally scheduled month of May at Evaluation Inception to end of August 2022 as a mitigation strategy, thereby delaying the timely delivery of evaluation findings.
58. Given that The Project was implemented globally, the extent to which the evaluator could verify the various project actions physically outside India was limited and were therefore based largely on the results of the Document Review, Web Analysis, and submissions of the few participants who were available for the Virtual Focus Group Discussion. Again, the various reports on meetings held with officials during the implementation of the project were limited in evidence on gender-disaggregation of participants. It was thus difficult for the evaluation to present detailed evidence on the gender sensitivity of the project's activities.
59. The Evaluation is limited in the extent to which it could isolate impacts and establish concrete attribution evidence of the project in each city, given that there were a number of actions being implemented in countries across the globe outside the context of the BEA Phase II towards decarbonising the building sector, particularly in line with pursuit of Nationally Determined Contributions. The project's Theory of Change targets a long-term impact of "Reduced GHG emissions and improved quality of life through increased use of energy efficient technologies", and even though the planned outcomes were observed to be in place towards the realisation of this impact, it is difficult to conclude that they are a sole result of the BEA II action alone. For example, the revised outcome 1 states that "Public and Private bodies demonstrate collaboration to develop and implement tools and methods of EE in the building sector". Public and private bodies across the various countries were before the BEA II, developing and implementing actions in this regard, making it important to note this limitation in attribution. Though document analysis, web analysis,
interviews and other triangulation methods during the data collection process the evaluation mitigated this limitation to a large extent.

## III. THE PROJECT

## A. Context

60. The Sustainable Energy for All (SEforALL) launched the Global Energy Efficiency Accelerator Platform in 2014 to help accelerate global efforts towards doubling the rate of improvement in energy efficiency by 2030 in countries across the world. Six accelerator platforms were launched under the initiative: Appliances and Equipment Accelerator; Building Efficiency Accelerator (under which The Project was conceived and implemented); District Energy Accelerator; Industrial Energy Efficiency Accelerator; Lighting Efficiency Accelerator; and Transport and Motor Vehicle Fuel Efficiency Accelerator. Under the Building Efficiency Accelerator, a partnership between organizations from governments, national and international organizations, businesses and civil society organizations (BEA Partnership) seeks to mobilize action from all sectors of society in support of three interlinked objectives: 1) provide universal access to modern energy services; 2) Double the global rate of improvement in energy efficiency and 3) Double the share of renewable energy in the global energy mix. The Project thus stems out of the increasing need to find sustainable interventions to reducing emissions that accrue from the building sector globally, and in pursuit of the planned objectives of the BEA Partnership.
61. The building sector has consistently been described as a major contributor to global warming. Buildings account for about one-fourth of global energy demand and nearly one-third of greenhouse gas emissions. ${ }^{17}$. The built environment generates an approximated value of around $50 \%$ of annual global CO 2 emissions ${ }^{18}$. Of those total emissions, buildings are responsible for $27 \%$ annually, while the materials used for the building and construction (embodied carbon) are responsible for an additional $20 \%$ annually.


IEA (2019). All rights reserved.

Figure 2: Global share of buildings and construction final energy and emissions, 2018
(Source: IEA 2019 Global Status Report for Buildings and Construction)
62. Within contemporary discussions on sustainable pathways to net-zero globally, the foregoing implies that the buildings and construction sector should be a primary target for GHG emissions mitigation efforts if climate targets are to be achieved. It has been estimated that by 2050 global building energy demand can be reduced by

[^6]at least one-third if known energy efficiency best practices are implemented on a large scale. ${ }^{19}$
63. Given the anthropogenic aspects of the phenomenon, the adoption of modern and efficient energy technologies for buildings can significantly contribute towards such emission reduction targets, with additional health and welfare benefits city residents. Advantages of energy efficiency integration in buildings are immediately reflected in lower energy consumption rates and associated cheaper expenditure on energy, and extend to include significant improvements in indoor and outside air quality, reducing the emission of harmful environmental gases and consequent reduction in global warming, thus increasing the overall quality of life in cities ${ }^{20}$.
64. In recent times, consensus and urgent attention to the phenomenon has rapidly accelerated, particularly with countries taking serious efforts towards the attainment of their national climate action plan to cut emissions and adapt to climate impacts, referred to as Nationally Determine Contributions (NDCs). It has been reported that there has never been a greater level of attention paid across the evolution of the building sector to energy efficiency that it has been in the last decade, which sees energy efficiency as an essential element of providing a solution for climate change that will simultaneously benefit the global economy and contribute toward human development goals. In 2011, the United Nations launched the Sustainable Energy for All (SEforALL) initiative to mobilize action towards a goal of doubling the global rate of energy efficiency improvement by 2030 from $1.5 \%$ to a 3\% annual rate of improvement by 2030. This goal is achievable, but activities must be quickly scaled.
65. The SE4ALL initiative subsequently launched a Building Efficiency Accelerator (BEA) partnership at the global 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. The BEA is one of six energy efficiency accelerators under SE4All ${ }^{21}$.

## Status of BEA Action before BEA II

66. The BEA partnership as previously described is designed to support city action through the strong capabilities and presence of the public-private collaboration. Many BEA partners at the global level and regional levels such as the World Resources Institute (WRI), Local Governments for Sustainability (ICLEI), Global Buildings Performance Network (GBPN) and the World Green Building Council have a vast experience in in-market action, including in the leveraging and nurturing of strong city government and national and relationships. Partners provide a broad set of technical competencies ranging from building design to equipment options to

[^7]retrofit experience. The BEA partnership has thus been described as one that "leverages and adds additional value by providing a mechanism and process for coordinated, on-the-ground application of the expertise, capacity and relationships" (ProDoc Pg. 16).
67. It has been reported in the project design document that to enhance communications and provide resources to partner cities, the BEA launched a number of internal- and external-facing tools and resources. Internally, all BEA partners and cities have access to online project management site Basecamp which includes resources, guidance from the BEA, and message boards for internal communication. In addition, resources including recorded BEA webinars organized by thematic topic (finance, retrofits, codes, voluntary/above code programs, procurement, tracking progress) are available on the Copenhagen Centre on Energy Efficiency (C2E2) knowledge management site. Each of these topics has a dedicated work group led by a global partner organization, and the work groups curate the resources and webinars for the BEA. Externally, the BEA launched a public website in early 2017, www.BuildingEfficiencyAccelerator.org, which includes information about city commitments, partnership events, and related thematic content.
68. During Phase I activities, the BEA has conducted 9 in-person trainings, network workshops, and regional events around the world, including a Singapore Regional Workshop (East/Southeast/SouthAsia), a retrofits workshop in Quito (Latin America / Habitat III), a codes workshop in the Philippines, the SEforALL Forum (Global) Finance Training and Partners Consultation in New York, BEA East Asia Launch in Beijing (East Asia), a regional launch event in Kenya (Africa), and regional event in Bulgaria and Belgrade (Central \& Eastern Europe), and a Financing Municipal Retrofits regional training in Mexico City for Latin American BEA and C40 cities. The previous reports on the projects' action indicate that the BEA has led partner cities through a local stakeholder engagement process to prioritize which building efficiency actions to undertake, providing technical support via online resources, webinars, trainings, and one-on-one expert support when available. A customdesigned stakeholder survey helps cities prioritize their building efficiency actions and has provided local results that can be accessed publicly on the BEA website. The cities were prior to the commencement of Phase II action, designing and implementing these commitments, working with the partners best suited to provide advice on their selected actions. In some cities, such as the BEA's in-kind-supported (i.e., co-financed) relationship with Dubai, the stakeholder engagement model used at theoutset of the policy process was a new approach which had positive reception and results.
69. BEA cities progress through five stages of building efficiency planning and policy development and implementation as shown in Figure 3 and described below.

Starting status:
Limited building
efficiency action in city


Figure 3: Stages of Progress for BEA Policy and Project Actions
Source: CEO Approval Document (ProDoc) Page 17
70. Stage 0 - Commit: The city commits to identifying and implementing locallyappropriate actions to improve energy efficiency in buildings. The commitment stage includes defining the process and timeline for major milestones. An effective outcome of the commitment stage is a public commitment and engagement kickoff.
71. Stage 1 - Assess: The city conducts baseline analyses and identifies potential policy instruments that can be used to overcome existing barriers to energy efficiency. This assessment should include stakeholder and expert consultations to ensure the key actors are aware of the opportunities and can support the development and implementation of energy efficiency policies and projects. For each prioritized policy instrument, an assessment is performed on current market barriers, existing policies, opportunities for policy harmonization with other jurisdictions, and existing global best practice. An effective outcome of the assessment stage is an energy efficiency policy roadmap or work plan that can be used to clarify goals, identify policy timelines and communicate the commitment.
72. Stage 2 - Develop: The city uses the assessment findings to create a policy development process that is in line with the local context, policy priorities and availability of resources. During the development stage, key stakeholders should be involved in setting both the process and technical requirements. To enable policy harmonization and reduced policy development effort, adaptation of successful policies from other jurisdictions is recommended. An effective outcome of the development stage is the policy language and a description of the supporting funding and process needed for implementation.
73. Stage 3 - Implement: The city uses the outcomes of the development stage to formally approve and fund the energy efficiency policies and initiate related projects. Once the policies are adopted, the enforcement and verification steps of policy implementation are conducted in accordance with the policy design. An effective outcome of the implementation stage includes the achievement of higher levels of
energy efficiency in buildings and data collected through verification to enable future policy improvement.
74. Stage 4 - Improve: The city uses the collected data to identify process and technical improvements that can be used in future energy efficiency policy development. The energy efficiency policy roadmap or work plan created in stage 1 should be used in coordination with data collected through the verification step of stage 3 to update the policy assessment or initiate a new round of policy development.
75. Following a successful demonstration of how the BEA partnership can drive action towards accelerating the uptake of Energy Efficiency action globally, this Phase II was implemented to continue to work of the previous phase, and to expand the scope of the initiative's actions to all other cities globally.
76. At the time of this Evaluation, Figure 4 shows a map of all BEA cities across the world accessed from the project's website.


Figure 4: Map of the BEA Cities
Source: Project's Website, Accessed at https://buildingefficiencyaccelerator.org/ on 30th October, 2022
77. The cities that were engaged cities have different rates of progress along the planned stages of the original BEA initiative. The various stages of each of the cities by the end of Phase I is presented in Figure 5. At the time of this evaluation, a mapping of the cities engaged under the Phase II along the BEA progression stages was not available.


Figure 5: Status of BEA cities prior to commencement of Phase II activities
Source: CEO Approval Document (ProDoc) Page 19

## B. Results Framework

78. The overall objective of the BEA II project as stated in the Project Document was to "reduce greenhouse gas emissions by supporting market transformations that would enable a doubling of the rate of energy efficiency improvements in buildings by 2030, by linking global market experience, national policy, and local action and capacity building".
79. The main components of the project were described as:

Component 1: Partnership expansion: Global and local partnerships of businesses, NGOs, local governments, and national governments scale up efficiency markets- This component sought to build on the number of cities reached during the BEAPhaseI (20162017) and was geared towards reaching out to an additional 50 cities in 2018-2019 to build awareness. This outreach took the form of a combined in-kind co-finance and GEFsupported effort in recruiting new partners organisations under the BEA Partnership

Component 2: Technical assistance and capacity building for efficiency actions in cities or subnational governments ("Light touch")- This component sought to build on the success of 30 "light touch" cities reached under BEA Phase I in 2016-2017, to recruiting an additional 30 cities for the BEA in 2018-2019 who would make a commitment to implement one project and one policy, track progress, and share best practice. Where direct technical assistance was to be provided by GEF resources, it was planned to target emerging economy partner cities only.

Component 3: Place-based market transformation partnerships for policy and project implementation ("Deep dives")- This component targeted 3 new "deep dive" cities in emerging economies and working with them locally through a facilitated process to gather multi-stakeholder input and begin market transformation through public-private engagement and project development. A subset of $3+$ of the 6 deep engagement cities from 2016-2017 provided city resources in 2018-2019 to leverage the GEF investment, and in turn received some additional matching funds from the BEA. The component targeted 3 national governments committing to join the BEA to design national policies and programs supporting subnational building efficiency action, and work with subnational governments on building efficiency action in the country.

Component 4: Monitoring Results- Under this component, all cities were to be provided with tools and training to track and measure actions, and the partnership sought to curate best practices for knowledge management and information dissemination across the network.
80. The four components were geared towards a set of interrelated purposes.
81. To achieve the above objective, the project was structured in 4 components, and had two-level of engagements for its targeted cities.
82. Component 1 activities aimed at rallying support for the BEA II in light touch cities. Activities of Component 2 were geared towards the expansion of knowledge and competencies of public and private project partners in light touch cities (both new and continuing cities), while activities under Component 3 were geared towards assisting "Deep Dive" cities to formulate and implement policies and pilot projects geared at promoting EE in buildings. In component 4, the BEA II sought to consolidate project experiences and provide training on the use of tools and methodologies developed under the BEA II to relevant stakeholders so that collaboration for the collection and analysis of data towards proper tracking of EE in buildings would be enhanced.
83. Light Touch Cities engagement: These were cities where the BEA II was implemented in the form of an assessment and prioritising actions for EE in the building sector through technical assistance. This was geared primarily towards preparing cities for further development and implementation of EE policies and programmes. Light touch cities were provided with decision support tools, peer exchange, and other technical resources.
84. Deep-dive cities engagement: In these "deep dive" cities, the BEA II provided resources beyond preparation and technical assistance for about 12-15 months of full-time direct staffing, and the project facilitated the utilisation of market participant experiences and expertise to support the city to develop and implement (or at least show commitment to implementing) EE policy and project action in the building sector.
85. The expected project outcomes of each project component according to the Project Results Framework in the Project Design document are shown in Table 3.

Table 3: Project's Result Framework as shown in ProDoc

| Project Outcome | Outcome Indicators | Baseline ${ }^{22}$ | Targets and Monitoring Milestones | Means of Verification | Assumptions \& Risks | MTS Expected Accomplishment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Project Objective |  |  |  |  |  |  |
| 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, national policy, and local action and capacity building. | Indicator A: <br> \# tCO ${ }_{2 \text { eq }}$ avoided by the project (direct and post-project direct emissions reductions) | Baseline A: <br> No $\mathrm{tCO}_{2 \text { eq }}$ emissions avoided in new BEA cities | Target A: <br> $2,736,558 \mathrm{tCO}_{2 \text { eq }}$ for the 15 years following project completion ${ }^{23}$ (direct and direct postproject) | Energy and climate impacts articulated using GHG Protocol Standards and other internationally recognized protocols <br> BEA tracking framework | Cities are unable to achieve proposed electricity saving in buildings | UNEP Medium Term Strategy 2018-2021 <br> Programme of Work 2018-2019 Climate Change Objective: Countries increasingly transition to lowemission economic development and enhance their adaptation and resilience to climate change |

[^8]| Project Outcomes |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Outcome 1.1: <br> 1.1 Expand and accelerate city-level market shifts towards more efficient buildings through the BEA partnership, including publicprivate collaboration and national government engagement with local action. | Indicator 1: <br> \# of cities or subnational governments committed to the BEA <br> Indicator 2: <br> \# of organizations committed to the BEA <br> Indicator3: <br> \# of national governments committed to the BEA | Baseline 1: <br> 30 cities or <br> subnational governments (2017) have already partnered with the BEA <br> Baseline 2: <br> 41 organizations (NGOs, businesses and associations) have already partnered with the BEA <br> Baseline 3: <br> 0 national governments have committed to the BEA | Target 1: <br> 30 new cities or subnational governments commit to join the BEA and agree to 1) implement an energy efficiency policy, 2) develop a building project and 3) track and report progress. <br> Target 2: <br> 30 new organizations join the BEA, mostly in country-specific contexts. <br> Target 3: <br> 3 national governments (each with at least 3 BEA partner cities) committed to the BEA by stewarding local action in alignment with their priorities and NDCs/SDGs. | Monitoring and tracking led by WRI Secretariat team and supported by all BEA partners over the course of the project | Cities or subnational governments are unwilling to commit to BEA <br> Stakeholders engage slowly in partnerships activities <br> Partnership activities do not deliver envisaged market change | Expected <br> Accomplishment (b) <br> Countries <br> increasingly adopt <br> and/or implement <br> low greenhouse gas <br> emission <br> development <br> strategies and invest <br> in clean <br> technologies |


| Outcome 2.1: <br> 2.1. Existing and new BEA "light touch" cities or subnational governments are better equipped to define, adopt and/or further advance building efficiency actions | Indicator 4: <br> \# of existing BEA <br> "light touch" cities or subnational governments that progress on their policy or project by at least one stage (Commit; Assess; Develop; Implement, Improve). <br> Indicator 5: <br> \# of new BEA "light touch" cities or subnational governments that define or pursue at least one new policy or project related to building efficiency. | Baseline 4: <br> 12 existing BEA "light touch" cities or subnational governments progress less than one stage on selected policies or projects <br> Baseline 5: 0 new BEA "light touch" cities or subnational governments have new policies or projects defined or pursued. | Target 4: <br> At least 10 of the 30 existing BEA "light touch" cities or subnational governments progress on their policy or project by at least one stage (Commit; Assess; Develop; Implement, Improve). <br> Target 5: <br> At least 10 of the 30 new BEA "light touch" cites or subnational governments have at least one new policy or project related to building efficiency defined or pursued. | Monitoring by the WRI Secretariat team and supported by all BEA partners over the course of the project, especially city liaisons and regional leads. The BEA Tracking Framework will be a primary source of regular information updates from cities. | Projects and actions are not being developed within proposed time frame due to various interests involved or and/ bureaucratic reasons | Expected <br> Accomplishment (b) <br> Countries <br> increasingly adopt <br> and/orimplement <br> low greenhouse gas <br> emission <br> development <br> strategies and invest <br> in clean <br> technologies |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Outcome 3.1: <br> 3.1. Continuing "deep dive" cities implement a building efficiency policy and develop project pipelines | Indicator 6: <br> \# of existing "deep dive" cities with a building efficiency policy passed into law and a demonstration project completed <br> Indicator7: | Baseline 6: <br> Existing "deep dive" cities have prepared but not implementednew building efficiency policies. <br> Baseline 7: | Target 6: <br> In at least 3 of the existing "deep dive" cites, the building efficiency policy drafted in 20162017 is passed into law and the demonstration project is completed. | Use of the BEA tracking framework and regular communication with and updates from continuing "deep dive" city staff and technical advisors/ local partners | Implementation of policy and development of project pipelines may be delayed in some cities due to various interests involved, political cycles and/or bureaucratic reasons. | Expected <br> Accomplishment (b) <br> Countries <br> increasingly adopt <br> and/orimplement <br> low greenhouse gas <br> emission <br> development <br> strategies and invest <br> in clean <br> technologies |


|  | \# of existing "deep <br> dive" cities with a <br> building efficiency <br> project pipeline <br> developed | Existing "deep dive" <br> cities have begun <br> pilot projects but <br> have not developed <br> project pipelines. | Target 7: <br> In at least 3 of the <br> existing "deep dive" <br> cities, a project <br> pipeline is <br> developed, possibly <br> expanding on the <br> pilot project <br> developed during <br> 2016-2017. |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |


| subnational governments | with NDC/SDG priorities <br> Indicator 10: \# of selected national governments with linkages to local level project pipelines or their funding/financing | Baseline 10: <br> In the 3 selected countries, limited linkages between national and local governments on funding/financing of local building projects | plans, local plans, institutions, and NDC/SDG priorities <br> Target 10: <br> At least 2 out of the 3 selected national governments are engaged in dialogue with their BEA cities on project pipelines to facilitate city project funding/finance |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Outcome 4.1: <br> 4.1. Increased capacity and improved practices for collecting, analysing and scaling city level data to measure performance of project-related activities in cities or subnational governments. | Indicator 11: <br> \# of new BEA "deep dive" cities with capacity or practices in place to measure the performance or impact of projectrelated activities. <br> Indicator 12: <br> \# of new "light touch" cities using the BEA tracking framework to set goals, milestones, and track their progress along the 5 stages of action. | Baseline 11: <br> To be determined (based on an assessment of the selected cities' capacity). <br> Baseline 12: <br> 0 new "light touch" cities use the BEA tracking framework. <br> Baseline 13: | Target 11: <br> In 3 new "deep dive" cities, capacities or practices are in place to measure the performance or impact of project activities and to report to BEA. <br> Target 12: <br> At least 10 of the 30 new "light touch" cites use the BEA tracking framework to set goals, milestones, and track their progress along the 5 stages of action. <br> Target 13: | Energy and climate impacts articulated using GHG Protocol Standards and other internationally recognized protocols <br> BEA tracking framework | Cities fail to build local capacity to adopt, or delay adoption of, new performance monitoring system | Expected <br> Accomplishment (b) <br> Countries <br> increasingly adopt <br> and/orimplement <br> low greenhouse gas <br> emission <br> development <br> strategies and invest <br> in clean <br> technologies |



## C. Stakeholders

86. The project document identified a multi-stakeholder collaboration in the implementation of the project components. The project document suggested that the project Design had anticipated a multi-stakeholder collaboration in the implementation of the project components. The project was designed and implemented with the following relevant actor institutions:

- Local/Subnational Governments in the various Deep-Dive project cities
- Global level BEA Partner Organizations, Associations, and Private Sector Companies

87. Key stakeholders that were leveraged in the implementation of Phase II action include the following:

District Heating utility of Belgrade, the Chilean Sustainable Energy Agency, the Ministry of Environment of Chile, the Ministry of Energy of Chile, the Argentinian Network of Cities for Climate Change, the Ministry of Environment of Colombia, Danish Energy Agency, Energy Efficiency Services Limited EESL (India), CECEP Environmental Consulting Group (China), Asia Pacific Urban Energy Association (APUEA), Gujarat Energy Research and Management Institute (GERMI); Gujarat Energy Development Agency (GEDA), Indian Institute of Technology Rourkela; National Thermal Power Corporation Limited (NTPC Limited); and the National Institute of Urban Affairs (NIUA) India.
88. In addition, there were other Sub-National Jurisdiction partners that participated in Deep Dive and light touch cities' engagements through working groups, workshops, and stakeholder consultations. In the Appendix A of the Final Project Report, these partners and their roles in The Project were clearly specified. The Aburrá Valley Region and Municipality of Medelín supported works in Colombia, while the Accra Metropolitan Assembly supported works in Ghana. In China, the Changning District, Shanghai actively supported sub-national engagements. The City of Alba Iulia supported engagements in Romania, while the Municipality of Comayagua supported works in Honduras. In South Africa, the KwaDukuza Municipality was an active partner, as was the Nairobi City County and Nakuru County in Kenya among others.
89. The various roles played by the project stakeholders in the implementation of the BEA II, including which specific project component their roles targeted and the form of specific action contributed by each entity is thus presented in the stakeholder analysis presented in Annex V.
90. The evaluator notes that gender-disaggregated analysis of the stakeholders, as well as evidence on the effect of the project on the indigenous people, marginalised or vulnerable groups were missing. The project was designed to involve dominantly, public sector offices and private organisations, and had a gender plan at inception. However, there is a significant gap in the planned gender issues, and the actual gender sensitivity during implementation phase. Also missing is a comprehensive safeguard analysis on how $B E$ action such as retrofits could significantly affect other marginalised urban dwellers such as the urban poor, and what mitigation strategies could reduce such negative externalities. Notably, the level of implementation of this project as a Technical Assistance package with limited physical projects implemented in each city informed justifications by the project team in this regard.

## D. Project implementation structure and partners

91. The project was implemented under the auspices of the UNEP Economy Division, Energy \& Climate Branch, Climate Mitigation Unit (Implementing Agency). The Implementing Agency (IA) was responsible to the GEF for the project's oversight, the use of resources, or any amendments agreed to it by all donors. The IA worked with an Executing Agency (EA) to oversee implementation of the project and provide supervision to ensure that the project met UNEP and GEF policies. The World Resources Institute (WRI) was the Executing Agency (EA) for the BEA II action. The agency was accountable to UNEP for the disbursement of funds and the achievement of the project goals, according to the approved work plan.
92. A Project Team was established to facilitate the routine management of the implementation of the project. The project team consisted of Project Director, Project Manager, Deep Dive Manager, Partnership Coordinator, Project Coordinator, and part-time technical and communications experts were located at the WRI Office in Washington, DC, USA. The Project Director provided strategic guidance to the project and partnership management, relationship facilitation and technical support for project implementation. The coordination and management the project activities, including liaising with the BEA network were under the responsibility of the Project Manager.
93. The project was supervised by the BEA Steering Committee which arbitrated and validated procedures and the selection of "deep-dive" city nominations, national engagements, and other similar decisions. The Steering Committee was composed of members with representatives from the following: UNEP (Task Manager), ICLEI Local Governments for Sustainability, World Green Building Council, IFC/World Bank Group, Johnson Controls, WRI, Sustainable Energy for All, representatives from the city Advisory Panel and the GEF Secretariat. The Project's Steering Committee was to meet at least twice every year at the project planning phase, with details on the number of actual meetings held presented under the Evaluation Findings section of this report.
94. A City Advisory Panel was also created to provide a mechanism for city and subnational partners to provide input to the Steering Committee at least once per year. The City Advisory Panel comprised representatives from all BEA "deep-dive" cities; additional BEA partner cities were invited to one-year terms based on the recommendations and information provided by the BEA partnership and a formal review by the Steering Committee.
95. Working Groups were formed in each "deep-dive" city to provide expert support for creation of city actions and policies. The Working Groups were formed of the most knowledgeable experts in the local market to help design effective strategies for the acceleration of building efficiency. The Working Groups delivered recommendations to the city and were co-led by a stakeholder and city staff person, and among the sectoral stakeholders included appropriate representatives from the national government.
96. Leads in the form of thematic technical assistance leads, regional leads, and national leads were selected from among the BEA partner organizations based on relevant expertise and location. Sub-grants were allocated for these leadership roles as determined by the cities that join the partnership and the building efficiency actions, they prioritized. Thematic technical assistance leads delivered and developed technical content for BEA city partners in specific thematic areas related to building efficiency action. Regional leads served as the primary advocates for the BEA in their region, helping to identify regional opportunities and needs while ensuring that partner cities and organizations in the region are actively engaged and
obtaining value for the BEA. National leads led engagement with selected national governments and linkages with BEA partner subnational governments on building efficiency action. The various roles performed by the co-financing partners in the implementation of the project are clearly presented in Annex V.
97. The evaluator found that the roles of the various stakeholders were clearly defined in the implementation of the project. The implementation arrangements are illustrated in the organigram below:


Figure 6: Organigram of the Project with key project key stakeholders
Source: Project Document (ProDoc page 157)
98. In addition to the project's organigram, an oversight management structure was developed to guide the managerial interactions at the higher project management level for the BEA II.


Figure 7: Project Oversight and Management Source: Project Document (ProDoc page 158)

## E. Changes in design during implementation

99. The Half Yearly Progress Reports and the Project Implementation Reports do not mention any major issues during the implementation of the project. Some challenges and delays were nevertheless experienced in the first months of the project about the engagement of two of the selected "deep-dive" cities (Da Nang City, Vietnam and Nairobi, Kenya) due to staff turnover in the city and/or issues with capacity readiness among lead partner organizations. Because of these challenges and delays, the BEA II project decided not to move forward with the deep engagements in these two cities.
100. The project had three revisions with no change to the overall cost of the project:

- First revision: June 2019: Budget revision to rephase the 2018 unspent balance to years 2019 and 2020
- Second Revision: February 2020: No cost extension of the technical completion date from 31 January 2020 to June 2020 due to delays experienced by WRI in their subcontracting processes related to project's regional engagements, national engagements and "deep-dive" city engagements.
- Third Revision: July 2020: No cost extension from 30 June 2020 to 31 December 2020 associated with a budget and workplan revision considering COVID-1924. The COVID-19 moderately impacted project implementation because the pandemic began late in the project. However, impacts were greater in regions where virtual training and engagement were brand new for policymakers or where technology is more limited or unreliable. This was particularly the case for India and Southeast Asia.

[^9]101. In line with UNEP evaluation requirements for a project with a duration of less than four years, a Mid-Term Evaluation (MTE) is not required, and no MTE was triggered by the Task Manager during the implementation of this project.

## F. Project financing

102. The total budget of the project at CEO approval, dated June 13, 2018, was USD $8,116,597$. Out of this, USD $2,000,000$ was for GEF financing with the remaining balance being co-financing. At evaluation, total project expenditure was found to have amounted to USD 9,622,529. Out of this, GEF financing was USD 1,970,000, and co-financing amounted to USD 7,652,529. Details on the financial expenditure review is contained under section V.E (Financial Management) of this report.
103. The review of total co-financing at evaluation suggests that an additional USD 1,535,933 was leveraged for the BEA Phase II activities.

Table 4: Project Financing at approval

| Project Component | GEF Project <br> Financing (USD) | Co-financing <br> (USD) |
| :--- | :--- | :--- |
| Component 1: Partnership expansion: Global and local <br> partnerships of businesses, NGOs, local governments, and <br> national governments scale up efficiency markets | 372,290 | $1,131,009$ |
| Component 2: Technical assistanceand capacity building for <br> efficiency actions in cities or subnational governments ("Light <br> touch") | 469,090 | $2,525,217$ |
| Component 3: Place-based market transformation <br> partnerships for policy and project implementation ("Deep <br> dives") | 924,980 | $2,251,213$ |
| Component 4: Monitoring Results | 135,860 | 80,751 |
| Subtotal | $1,902,220$ | $5,988,190$ |
| Project Management Cost | 97,780 | 128,407 |
| Total budget | $2,000,000$ | $6,116,597$ |

Table 5: Project Co-Financing Budget at CEO approval

| Sources of funds |  | Type of financing | Amount <br> (USD) |
| :--- | :--- | :---: | :---: |
| GEF Trust Fund | Cash | $2,000,000$ |  |
| Sources of Co-financing | Name of Co-financier |  | 40,000 |
| Civil Society <br> Organisation | 100 Resilient Cities | In-kind | 23,000 |
| Civil Society <br> Organisation | Alliance to Save Energy | In-kind | 170,000 |
| Civil Society <br> Organisation | Buildings Performance Institute <br> Europe (BPIE) | In-kind | 117,636 |
| Civil Society <br> Organisation | Business Council for Sustainable <br> Energy (BCSE) | In-kind | 50,000 |
| Civil Society <br> Organisation | CleanEnergy Solutions <br> Center/National Renewable <br> Energy Laboratory (NREL) | In-kind | 136,500 |
| Civil Society <br> Organisation | Colombia Green Building Council | In-kind |  |


| Civil Society <br> Organisation | Copenhagen Center on Energy <br> Efficiency (C2E2) | In-kind | 250,000 |
| :--- | :--- | :---: | ---: |
| Private Sector | Danfoss | In-kind | 35,100 |
| Private Sector | Econoler | In-kind | 20,000 |
| Civil Society <br> Organisation | Green Buildings Performance <br> Network (GBPN) | In-kind | 67,000 |
| Civil Society <br> Organisation | ICLEI- LocalGovernments for <br> Sustainability | In-kind | 115,000 |
| Private Sector | Ingersoll Rand | In-kind | 409,796 |
| Multilateral | International Energy Agency | In-kind | 850,000 |
| Civil Society <br> Organisation | International Finance Corporation <br> (IFC) | In-kind | $1,213,350$ |
| Civil Society <br> Organisation | International Partnershipfor <br> Energy Efficiency Cooperation <br> (IPEEC) | In-kind | 10,000 |
| Civil Society <br> Organisation | InvestorConfidence Project (ICP) | In-kind | 80,000 |
| Private Sector | Johnson Controls | In-kind | 403,750 |
| Civil Society <br> Organisation | Natural Resources Defense <br> Council (NRDC) | In-kind | 2,966 |
| Civil Society <br> Organisation | Pacific Northwest National <br> Laboratory (PNNL) | In-kind | 115,000 |
| Private Sector | Philips | In-kind | 230,000 |
| Civil Society <br> Organisation | TECNALIA | In-kind | 412,000 |
| Civil Society <br> Organisation | US Green Building Council | In-kind | 135,600 |
| Civil Society <br> Organisation | World Green Building Council <br> (World GBC) | In-kind | 186,000 |
| Civil Society <br> Organisation | World Resources Institute (WRI) | In-kind | $1,023,899$ |
| GEF Agency | UNEP | In-kind | 20,000 |
| Total Co-financing |  | $6,116,597$ |  |
| Total budget |  |  | 5,597 |

## IV. THEORY OF CHANGEAT EVALUATION

104. Consistent with provisions for conducting Terminal Evaluations for UNEP GEF funded project, a Theory of Change (ToC) is required at evaluation. The ToC describes the causal linkages in the major components of the BEA II intervention, particularly in terms of expected project results (the outputs, direct outcomes, intermediate states of the outcomes, and longer-term outcomes or impact).. The ToC serves as a road-map of the interrelated pathways between these major project components, with each pathway defined by a logical set of assumptions and drivers. Where a ToC is presented at design, the evaluator is required to re-construct it in line with standard conceptualisations of project results according to UN Evaluation Office standards.
105. Assumptions within the ToC are defined as conditions that are often outside the direct control of the project. Drivers on the other hand, refers to supporting actions or conditions over which the project has a measure of control and can make a meaningful influence towards the realisation of results. The ToC at design was based on the expected project results at project approval. A set of assumptions under which the project activities would successfully be transformed into outputs and the drivers to these activities were also stated in the TOC at design.
106. However, the Evaluator perceived theneed to reconstruct the ToC at Evaluation due to the following reasons:

- A number of project outcomes stated in the original ToC were not in line with the conceptualisation of UNEP. UNEP perceives outcomes to reflect the direct and indirect consequences of project activities, especially on the project beneficiaries, since they were the target of the intervention. This is consistent with project results formulation expectations of UNEP.
- A number of the originally planned project outcomes and outputs were not very clear in focus. Under such conditions, the selection of SMART indicators and specifications for measurement of results during evaluation becomes difficult. This implies that some planned outputs and outcomes had to be reconstructed to be in line with UNEP's conceptualisation of clarity in formulation of project outputs and outcomes.
- Some outputs in the original project results framework were similar and had a degree of overlap were then combined to help reduce redundancy in expected project results.
- The original assumptions and drivers in the ToC at design needed to be remodified to be consistent with the UNEP definition of assumptions and drivers to result in a ToC.

107. The reconstructed Theory of Change at Evaluation Inception guided the main Terminal Evaluation. However, the reconstructed TOC in Figure 8 identifies assumptions needed to translate outputs into outcomes and shows revised drivers to project intermediate states and impacts.

Table 6: Comparison Table for Re-construction of Theory of Change

| Original PRF formulation in ProDoc | The formulation for Reconstructed ToC at Evaluation (RTOC) | Justification for Reformulation |
| :---: | :---: | :---: |
| LONG TERM IMPACT |  |  |
| Increased energy saving and reduced GHG emissions via project objective: Reduce greenhousegas emissions by supporting market transformations that would enable a doubling of the rate of energy efficiency improvements in buildings by 2030, by linking global market experience, national policy, and local action and capacity building | Reduced GHG emissions and improved quality of life through increased use of energy efficient technologies | Increased energy savings and reduced GHG emissions leads to climate change mitigation, and also lowers expenditure on heating and cooling technologies, thereby increasing disposable income levels and overall quality of life |
| INTERMEDIATESTATES |  |  |
| Leveraged finance/funding for Energy Efficiency projects and buildings | -Governments at various levels implement EE policies and improvements in buildings | The perceived key intermediate state is for governments to implement energy efficiency policies and programmes based on the various outcomes they gained from the BEA II, which will then directly lead to the ultimate project goal/expected impact |
| Facilitated dialogue, information exchange and awareness on Energy Efficiency policy and project opportunities |  |  |
| Facilitated local actions at national and subnational levels for support of Energy Efficiency measures in buildings |  |  |
| Better building energy consumption data and local capacity to improve scalable assessment methods |  |  |
| Improved capacity to implement Energy Efficiency projects and policies on buildings |  |  |
| Increased Energy Efficiency technology deployment |  |  |
| PROJECT OUTCOMES |  |  |
| Component 1: Partnership expansion: Global and local partnerships of businesses, NGOs, local governments, and national governments scale-up efficiency markets |  |  |


| Outcome 1.1: Expand and accelerate city-level market shifts towards more efficient buildings through the BEA partnership, including public-private collaboration and national government engagement with local action | Outcome 1.: Public and Private bodies demonstrate collaboration to develop and implement tools and methods of EE in the building sector | Reconstructed to reflect an actual change in behaviour between local and public entities due to the intervention received |
| :---: | :---: | :---: |
| Component 2: Technical assistance and capacity building for efficiency actions in cities or subnational governments ("Light touch") |  |  |
| Outcome 2.1: Existing and new BEA "light touch" cities or subnational governments are better equipped to define, adopt and/or further advance building efficiency actions | Outcome 2: "light touch" cities or subnational governments demonstrate BE actions | Reconstructed to reflect an actual change in behaviour between local and public entities due to the intervention received |
| Component 3: Place-based market transformation partnerships for policy and project implementation ("Deep dives") |  |  |
| Outcome 3.1: Continuing "deep dive" cities implement a building efficiency policy and develop project pipelines | Outcome 3: Governments of project cities develop and implement, or are prepared to implement building efficiency policies/projects and commitment actions | Merged in outcome 3 to avoid overlapping |
| Outcome 3.2: New "deep dive" cities are prepared to adopt or implement building efficiency policies and projects. |  |  |
| Outcome 3.3: Selected national governments are prepared to adopt building efficiency programs/policies and tracking towards national goals integrated with the actions of BEA cities or subnational governments |  |  |
| Component 4: Monitoring Results |  |  |
| Outcome 4.1: Increased capacity and improved practices for collecting, analyzing and scaling city-level data to measure performance of project-related activities in cities or subnational governments | Outcome 4: Relevant actors at city and national levels apply new knowledge and best practices on BEA in decision-making, and in tracking the results of building efficiency action. | The expectation at the outcome level is to see an actual transformation in the entity's behaviour due to the technical assistance received. Through the taking of actual steps to collect and analyse data based on the lessons learnt, behavioural change can be justified. |
| OUTPUTS |  |  |


| Component 1 |  |  |
| :---: | :---: | :---: |
| 1.1.1. 30 new cities and 30 cities or sub-national governments and 30 new companies/organizations sign up to the BEA | No change |  |
| 1.1.2. Commitments from 3 national governments (each with at least 3 BEA partner cities) to be stewards for local action are issued | 1.1.2. 3 national governments (each with at least 3 BEA partner cities) issue commitments to be stewards for local action | Reconstructed to show a result of an activity that can be verified, rather than as completed activities |
| Component 2 |  |  |
| 2.1.1. Technical assistanceusing the standardized BEA offer is provided to cities or subnational governments | 2.1.1. Cities or subnational governments receive technical assistance using the standardized BEA offer | Reconstructed to show a result of an activity that can be verified, rather than as completed activities |
| 2.1.2. Private sector commitments to be stewards for collective local action across the value chain are issued | 2.1.2. Private sector actors commit to be stewards for collective local action across the value chain |  |
| 2.1.3. Announcements on BEA actions are made during key international events | No change |  |
| Component 3 |  |  |
| 3.1.1. Commitments from continuing "deep dive" cities to provide funding for continued implementation activities are issued | 3.1.1. DD cities identify and/or issue commitments to provide funding for continued implementation activities and policies with clear funding mechanisms |  |
| 3.1.2. Continuing "deep dive" cities have adopted the policy drafted in 2016-2017 | No change |  |
| 3.1.3. Finance/funding mechanism(s) for policy implementation are identified by continuing "deep dive" cities | Merged with 3.1.1 |  |
| 3.1.4. Continuing "deep dive" cities have completed the demonstration project(s) begun in 2016-2017 | No change <br> 3.1.3. Continuing "deep dive" cities have completed the demonstration project(s) begun in 2016-2017 |  |


| 3.1.5. Assistance is provided on systemization of project <br> pipeline development including identification of finance/funding <br> mechanism(s) | 3.1.4. Cities receive assistance on systemization <br> of project pipeline development including <br> identification of finance/funding mechanism(s) |
| :--- | :--- | :--- |


| 4.1.1. Guidelines for cities are distributed on a. monitoring and <br> reporting city-scale energy performance b. tracking building- <br> scale energy performance | 4.1.1. City officials receive guidelines on a. <br> monitoring and reporting city-scale energy <br> performance b. tracking building-scale energy <br> performance | Reconstructed to show a result of an <br> activity that can be verified, rather than <br> as completed activities |
| :--- | :--- | :--- |
| Output 4.1.2: Impact projections for policies and projects are <br> quantified by participating cities, demonstrating localizable <br> impact assessment methods. | 4.1.2. Participating cities quantify impact <br> projections for policies and projects, and develop <br> localizable impact assessment methods |  |
| Output 4.1.3: Knowledge products (i.e., best practices for <br> technical content, peer learning, project results, lessonslearned, | 4.1.3. Relevant stakeholders across project <br> letwork receive knowledge products (i.e., best <br> local and national tracking/ goal-setting) are properly managed <br> and disseminated across the network. | practices for technical content, peer learning, <br> project results, lessons learned, local and national <br> tracking/ goal-setting) |

## Project Outputs

1.1.1. Environment and housing ministries or sub-governments) and 30 new companies/organizations sign up to the BEA
1.1.2. 3 national governments (each with at least 3 BEA partner cities) issue commitments to be stewards for local action
2.1.1. Cities or subnational governments receive technical assistance using the standardized BEA
2.1.2. Private sector receives commitments to be stewards for collective local action across the value chain
3.1.1. Continuing DD cities issue commitments to provide funding for continued implementation activities and policies with clearly identified funding mechanisms
3.1.2. Continuing "deep dive" cities have adopted the policy drafted in 2016 2017
3.1.3. A set of finance/funding mechanism(s) for policy implementation are developed by ministries in DD cities
3.1.4. Cities receive assistance on systemization of project pipeline development including identification of finance/funding mechanism(s)
3.2.1. Market-specific research outputs on relevant policy and project development are accessible to public and private actors
322 Cities receive BE recommendations from wokir collaborate to disseminate BE actions
3.2.3. Relevant public institutions receive commitments from local partners to provide direct staffing and coordination supportto policy and issue project preparations
32.4. Relevant public institutions receive integrated and improved BEpolicies and commit to implementation plans for BE action
3.3.1 National/local governments and the private sector engage a policy dialogue
3.3.2 Evidence on potential additional focus countries is made available by the project team
4.1.1. City officials receive guidelines on a. monitoring and reporting city-scale energy performance b. tracking building-scale energy performance
4.1.2. Participating cities quantify impact projections forpolicies and projects, and develop localizable impact assessment methods
4.1.3. Relevant stakeholders across project network receive knowledge products (i.e, best practices for technical content, peer learning project results, lessons learned, local and national tracking / goal-setting)

Assumptions

## For Outcome 1:

Substantive
partners (public and private entities) agree to join the BEA II in the light touch cities and newly target cities

For Outcome $\mathbf{2}$ Government and non-governmental bodies in target cities cooperate to develop implement effec market-based instruments from

## For Outcome 3:

 For Outcome 3: dynamics of the various deep dive cities will not significantly affect the formulation and adoption of EE policies


## Drivers to outcomes

BEA Executing Agency will leverage on lessons from BEA Phase I experience to create options for inclusive action across gender disaggregated and vulnerable groups in al project cities

## Drivers for IS

UNEP and other project partners will continue to support the implementation of EE in the building sector within DeepDive cities


Figure 8: Reconstructed Theory of Change (RToC)

## A. Causal Pathways from Project Outputs to Project Outcomes

108. The Theory of Change in the CEO approval document has only one driver specified for attaining the project outcome: "commitment leads to action". In the revised TOC, 4 assumptions were deemed critical to the realisation of project outcomes:
109. For a successful demonstration of collaboration between public and private partners to develop and implement tools for EE in buildings, both public and private partners must agree to join the BEA initiative. Since this "will" is beyond the control of the project, it is a critical assumption for the realisation of project outcome 1. Upon such agreements, the BEA implementing and executing agencies can then work together with these entities through a series of actions that will lead to building commitment to develop and implement EE policies and interventions in the building sector.
110. It is expected in project outcome 2, that light touch cities or sub-national governments in project cities go beyond the commitment to demonstrate BE action through their receptibility to technical assistance, and public declaration of their commitment to BE action. This implies that existing and new BEA light touch cities or subnational governments are better equipped to define, adopt and/or further advance building efficiency actions through the quality of stakeholder engagements that would be implemented in the project. Again, this will depend on the willingness of both public and private entities to cooperate in joint action (Adinyira, Kwofie, \& Quarcoo, 2018). Such willingness to cooperate depends on the perception of mutual benefits between these partners, often demonstrated through the adoption of market-based instruments that address such concerns (Karakosta, Papapostolou, Vasileiou, \& Psarras, 2021). While governments will be aiming at the realisation of local policy and climate action targets, private sector actors must be assured of investment viability if they commit resources to the BE action in the cities. A consensus at this level is thus outside the control of the project, but very critical to the demonstration of building efficiency action in project cities.
111. In selected deep-dive cities (old and new), the project expects that governments of project cities develop and implement or are prepared to implement building efficiency policies/projects and commitment actions in revised outcome 3. This will be done through engaging the project partners who have a. agreed to join the BEA and $b$. agreed to cooperate and work together among themselves with the assistance of the project team to develop such policies, and to adopt them. However, since policy formulation and adoption are processes that are significantly influenced by the internal dynamics of politics and existing institutional frameworks in cities (Berg, 2015), the project assumes that such dynamics, including internal reforms among local governments, will not significantly hinder the BEA action. This will result in a smooth engagement of all entities in the cities, together with the project partners at the global level for the attainment of outcome 3.
112. The project in outcome 4 intends to have relevant actors at the city and national levels applying new knowledge held and best practices on BEA in decision-making, and in tracking the results of building efficiency action. To rally all stakeholders towards the implementation of the resolutions, appropriate dissemination means must be utilised to conscientize stakeholders. Once policy decisions and tools are disseminated through the most effective means, their assimilation level becomes higher, and chances of success further increase (seeHenryson, Håkansson, \& Pyrko, 2000; Laustsen, 2008). Again, it is important that after BEA implementing agencies assist cities to develop the policies, officials who have the familiarity of best
communication practices within their cities, be willing to communicate using the most effective means if project actions are to be widely adopted.
113. A critical driver to the attainment of all project outcomes in BEA phase II is that the BEA Executing Agency will utilise lessons learnt from previous experiences at each stage of the project and will leverage on such experience to create options for inclusive adoption of the project actions across gender-disaggregated and vulnerable groups.

## B. Causal Pathways from Project Outcomes to the Project's Intermediate States

114. Beyond policy formulation and adoption, implementation is critical. At the intermediate state of the BEA II outcomes, the project expects that governments implement EE policies and improvements in buildings. A critical assumption for the realisation of this intermediate state is that investing into climate action in the building sector will continue to remain a development priority among governments in cities. While the project institutes mechanisms to ensure that its outputs are sustained, it is a prerogative of the city governments to prioritise their investment actions beyond the project life. This implies that a commitment to climate action is a critical assumption for the continuous implementation of the EE actions developed in the BEA II (see Gillingham, Huang, Buehler, Peccia, \& Gentner, 2021).
115. The project, within its control limits, can also ensure that UNEP, the GEF and other project partners, will continue to support the implementation of EE in the building sector within Deep-Dive cities. This will create an overall commitment to the implementation of BE policies not only in those cities but also in learning cities. The support could be in the form of continuous technical assistance and mediation of proposed policy actions depending on changing dynamics of the project environment. Since this is within the control of the project, it becomes an important driver to the project's Intermedia State.

## C. Causal Pathways from Project Intermediate States to Project Impact

116. The project goal has been revised in the Reconstructed Theory of Change (RTOC) to "Reduced GHG emissions and improved quality of life through increased use of energy efficient technologies". The realisation of the goal depends on the assumption that there will be a conservative growth in electricity prices and inflation rate, which will then ensure that in the long term, investment in EE practices within the building sector will have an increased value, hence will become more attractive to stakeholders in the building sector and increase adoption rates. This will then result in an overall reduction in emissions from the sector. Again, the socio-economic conditions of the people, across gender and vulnerable groups in cities should enable their adoption of EE measures in buildings if adoption rates are to increase for emission levels to reduce. This will then improve the overall health and quality of life of the people (see Gillingham et al., 2021), including reducing their expenditure on electricity bills within their homes in the long run.
117. A critical driver for this is that the project implementation will be designed to facilitate the institutionalisation of the finalised EE policies and strategies for the building sector in such a manner that they will be sustained even if there is a change in government after the end of the project. This will result in a continuous implementation of BE projects across cities and improve the overall quality of air and life in cities.

The following further explorations are proposed on the TOC in the evaluation:
118. The extent to which the various assumptions were held in place, and how that affected the causal relationship between the various project components. In cases where the proposed assumptions failed, the alternatives that were resorted to will be further examined, to provide useful lessons for further project development.

## V. EVALUATION FINDINGS

## A. Strategic Relevance

## Alignment to UNEP MTS and POW

119. The BEA II Project is consistent with UNEP's Medium-Term Strategy (MTS) 2018-2021 ${ }^{25}$. In the UNEP MTS for the period, the proposed set of targeted actions towards the climate change component are in strong alignment with the planned achievements of the BEAII. The climate component of the MTS seeks to ensure that by 2030, countries are more resilient to the adverse impacts of climate change, and greenhouse gas emissions are significantly reduced.
120. The MTS planned that by 2030, the climate change mitigation target of "reduced emissions consistent with a $1.5-2^{\circ} \mathrm{C}$ stabilization pathway" adopted globally is achieved. The attainment of the planned MTS target is to be measured by two indicators: a. emission reductions of greenhouse gases and other pollutants from renewable energy and energy efficiency; and b. share of gross domestic product invested in energy efficiency and renewable energy.
121. Within the scope of planning for the implementation of the MTS actions, UNEP targeted the provision of support to member states of the United Nations towards the formulation and implementation of appropriate low greenhouse gas emission development strategies, particularly in energy efficiency and renewable energy technology deployment towards the pursuit of their commitments in the Paris Agreement. The components of the BEA II are thus consistent with such planned climate actions in the UNEP MTS.
122. Further, the initiative is in line with the UNEP proposed Programme of Work for the period 2018-201926. The initiative's actions most significantly complements the Sub-Programme 1 (Climate Change): Countries increasingly adopt and/or implement low greenhouse gas emission development strategies and invest in clean technologies. This sub-component is to be measured by number of countries that have adopted or are implementing plans, strategies or policies on energy efficiency, renewable energy and/or cleaner technologies. The Programme of Work period intended to continue strengthening global partnerships under global initiatives such as the Sustainable Energy for All (SE4ALL) which includes the BEA Phase I and II (of which the Phase II is currently evaluated in this document), and its other parallel initiatives such as the Global Fuel Economy Initiative, the Global Efficient Lighting Partnership Programme (en.lighten), the Global Efficient Appliances and Equipment Partnership, the United for Efficiency (U4E) initiative, andtheDistrict Energy Systems for Cities Initiative among others.
123. The BEA further aligns with the collaborative approach to development by UNEP in its Bali Strategic Plan (BSP) ${ }^{27}$. The plan aims to "strengthen the capacity of governments of developing countries through targeted capacity building within the mandate of UNEP, using and sustaining the capacity of technology obtained through training or other capacity building efforts, and developing national research, monitoring and assessment capacity that supports national institutions in data collection, analysis and monitoring of environmental trends and in establishing infrastructure forscientific

[^10]development and environmental management (that will ensure sustainability of capacity building efforts)". All actions of the BEA II initiative are found to be consistent with capacity building of governments at different levels, particularly through collaboration, hence a strong alignment is observed between the Project and the BSP priorities of UNEP.
124. The Project's rating for its Alignment to UNEP's Medium-Term Strategy, Programme of Work and strategic priorities is HighlySatisfactory.

## Alignment to GEF/Partner Strategic Priorities

125. The BEA Phase II initiative fits within the scope of the funding priorities of the GEF Operational Programme and was approved during the GEF-6 programming directions (2016-2018). Actions within the Climate Change Mitigation focal area of the funding framework are significantly contributed to by the BEA II and is reflected in the goal of the GEF-6 CCM strategy which sought to "support developing countries to make transformational shifts towards low emission, resilient development path". The various project components (Component 1 to 4) fall within the GEF 6 strategic priority, CCM-1 Program 2: Develop and demonstrate innovative policy packages and market initiatives to foster a new range of mitigation actions
126. The BEA II was approved under the GEF-6 operational phase but remains very relevant to the GEF-7 programming directions (2019-2022), particularly the Focal Strategic Objective 1: "Objective 1: Promote innovation, technology transfer for sustainable energy breakthroughs" 28 .
127. The various co-financing partners further demonstrated their commitment based on the relevance of the project to their climate action. The Executing Agency, the World Resources Institute, by nature of its operational focus works with governments, businesses, multilateral institutions and civil society groups to develop practical solutions that improve people's lives and ensure sustainability of nature. The institute works around seven global challenges: Food, Forests, Water, Energy, Climate, the Ocean and Cities, which further highlights the alignment of the project with the strategic priorities of the EA in terms of climate mitigation and environmental sustainability.
128. The Project's alignment to UNEP/GEF/Donor Strategic Priorities is thus rated Highly Satisfactory.

## Relevance to Global, Regional, Sub-regional and National Priorities

129. The BEA II initiative is of particular relevance to the Global Sustainable Development Goals. At design, the project team streamlined the project to these goals through the expected outcomes. Thus, the planned actions and outcomes are of particular relevance to key targets of SGD 7, 11 and 13 as below:

- SDG 7. Ensure access to affordable, reliable, sustainable, and modern energy for all.

Target 7.3: By 2030, double the global rate of improvement in energy efficiency.
Target 7.a: By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy

[^11]efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology

- SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

Target 9.4: By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

- SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable

Target 11.3: By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated, and sustainable human settlement planning and management in all countries
130. The project goals were further consistent with regional GHG emission reduction priorities in the target countries reflected through their NDC targets and were of relevance to governments' climate action priorities in the implementing countries at the time of its implementation, as well as with the GEF funding priority for Climate Change Mitigation.
131. The BEA II further aligns significantly with climate change mitigation priorities globally, and specifically with initiatives and policies in the various project countries. In India for example, efforts are being put by the government towards EE in buildings. EE in buildings is considered one of the important contributors to achieving climate change mitigation goals, hence is one of the important elements in the plan of the government of India to address challenges associated with climate change.
132. This is evident from the provision in India's National Action Plan for Climate Change Action plan, where one of the eight missions under the plan is the National Mission on Sustainable Habitat. The National Mission on Sustainable Habitat comprises CC mitigation measures in urban transport and EE in buildings through the implementation of ECBC. Since last more than 15 years, the government is making efforts toward the implementation of the Energy Conservation Building Code (ECBC) in India and mandating ECBC for certain categories of commercial buildings. The government has come out with a version of ECBC applicable for residential buildings. There is also an ongoing program for EE in the cooling sector, India Cooling Action Plan. Apart from EE in buildings, the project is aligned with the priorities of the government toward providing "Sustainable Housing".
133. The efforts under the project were realised at Evaluation to be predominantly focused on city-level governance. However, the regulation of the building sector and energy is often a state subject in countries such as India, Kenya, and Ghana among others. Thus, in cases where the state governments do not have a specific plan for prioritising EE in buildings, the relevance of EE in the buildings at the city level is less aligned with local priorities. This is more compounded by scenarios where city governments have limited partnership opportunities and rely on government budgets for project financing, hence are obliged to define their priorities based on state priorities for easy budget approval. Although the objectives and goals of the BEA II project were aligned with the priorities and Climate Change Mitigation agenda of the country, the project design could have included aspects like the Promotion of green building certification (larger contribution of GHG mitigation in the Green Building certification schemes, promotion of fiscal and non-fiscal incentives for promotion of Certified Green Buildings to further enhance integration with local climate mitigation efforts.
134. The relevance of the project to global, regional, sub-regional and national environmental priorities is thus rated as HighlySatisfactory.

## Complementarity with Existing Interventions/ Coherence

135. The project team created synergies between The Project, and other global interventions under the six energy efficiency accelerators of the SE4All which was launched by the UN in 2014. The Six Accelerator Initiatives are: 1. Building Efficiency Accelerator (BEA) (whose Phase II is currently under evaluation) 2. Appliances and Equipment Accelerator 3. District Energy in Cities Initiative 4. Global Fuel Economy Initiative 5. Industrial Energy Accelerator and 6. Efficient Lighting Accelerator
136. Of particular alignment with the BEA II at the time of implementation is the UNEP/ GEF ID 9320 project "Increasing Investments in District Energy Systems in Cities - a SE4All Energy Efficiency Accelerator", whose main objective was "to reduce greenhouse gas emissions by supporting market transformations that would enable a doubling of the rate of energy efficiency improvements in buildings by 2030, by linking global market experience, national policy, and local action and capacity building".
137. The synergy effort of the team to align these projects at design, inception and mobilisation were well reflected across the project design document. The Project generally focused on the delivery of city-level efficiency and complemented ongoing governmental efforts in these countries towards the pursuit of their NDCs, SDGs and UNDAF targets, which is consistent with the overall goal of the DES initiative. Based on experience and lessons from the Phase I activities, the project was appropriately designed to allow for broader compatibility through continuous partner networking and sharing of knowledge towards accelerating BE action in general, and thus demonstrate complementarity with other on-going non-UNEP led interventions such as the Smart Energy Services Integrating the Multiple Benefits from Improving the Energy Efficiency of the European Building Stock (SENSEI) project funded by the EU HORIZON 2020 in expanding EE action in buildings through the development and implementation of innovative finance models.
138. The extent of complementarity of the Project with existing interventions is thus rated Highly Satisfactory.

Rating for Strategic Relevance: Highly Satisfactory

## B. Quality of Project Design

139. The quality of the project design sought to analyse the project development processes, nature of stakeholder engagement in the design of the project, clarity of planned actions and targets, implementation structure and risk mitigation measures among others which are stated in the Evaluation Framework. Review of secondary data, virtual Focus Group Discussions and key informant interviews with local stakeholders were used as key methods to assess this criterion. Key issues analysed include the following:

- the extent to which the project provided a comprehensive stakeholder analysis that addresses the needs of all relevant stakeholders who are affected by or who could affect (positively or negatively)
- involvement of main stakeholders been involved in the design of the project, and their level of involvement
- responsiveness of project to the needs of relevant groups such as the vulnerable, indigenous people and comprehensiveness in addressing gender issues
- the extent to which roles and responsibilities of the key stakeholders facilitates project delivery and effectiveness
- adequacy of mediation measures for all risks

Findings on the strengths and weaknesses of the project design based on the aforementioned issues are presented at Evaluation Inception, and those that are still perceived to hold based on experience with stakeholders during evaluation are presented in the following:

## Strengths in Project Design

140. A gender plan was integrated into the project during the design phase, and a number of well-defined gender actions were streamlined with each component of the project's logical framework. Even though the extent to which the proposed actions were implemented was limited, for a high level-building efficiency program such as the BEA II, the inclusion of a gender action plan in the project design is thus a positive addition. This is perceived further as a strength given that many global capacity programmes designed before GEF-7 did not place much emphasis on gender at design.
141. A clear set of knowledge management actions were planned in the project. The BEA II was designed to leverage the existing knowledge and lessons from the BEA I and to further consolidate new knowledge for further projects within the scope of Building Efficiency Acceleration. The tools proposed for such practices were apt, consistent with modern information and communication exchange trends, and demonstrated a clear ambition to ensure that any explicit and tacit knowledge generated from this project was not lost.
142. A detailed analysis of the role and contribution of each project partner was contained in the project document. This clearly explained how each of the partners' work reinforced the other towards the overall realisation of the objectives of the project. It again enhanced the level of responsibility and accountability in the overall project design.
143. Given that the BEA II was an advancement of the BEA I, the expected project results (outcomes) were well-tailored to make efficient use of the resources available. The indicative budget was appropriately distributed over a realistic number of new deep-dive cities. The project's ability to still include these new cities while keeping the old ones on the entire programme showed an effective resource utilisation plan in the project design.

## Weaknesses in Project Design

144. The BEA II was designed to reduce the overall emission level of GHGs, particularly from the building sector. However, Building Efficiency interventions have other potential negative impacts on other ecosystems. A minor weakness observed is that even though BE action has significant potential negative externalities, a limited effort, if any, was made to identify all the possible negative environmental consequences of the Building Efficiency action beyond the completion of the Environmental quality check framework at CEO approval, so that an adequate mitigation plan would be prepared and included in the various training modules deployed at the latter stages of the intervention. This includes other negative externalities that are likely to occur, such as the retention of moisture in rooms. A detailed analysis of these issues would have been a great addition to the project design.
145. The BEA II design was limited in its inclusion of the potential end-users of the proposed tools and methods in the deep-dive cities. Given that the target was to enhance the capacities of city governments and local partners towards the development and adoption of policies to accelerate energy-efficient technology development, it must also be noted that in the end, relevant stakeholders such as property developers and occupants of housing units have a key role to play in implementing the propositions that would be agreed upon, sustainably. However, at the stakeholder analysis section, even though the project recognised these people as essential local partners, it was not clear on what their roles would be in the project, nor the manner for engaging them on the project.
146. The BEA II design (including the expected outputs) identified private sector partners in the project cities and co-finance partners who were largely international private sector institutions as essential to the leveraging of funds and support for the implementation of the project. However, beyond the public sector offices, project co-finance partners and international private organisation partners within the cities themselves, the BEA II design was unclear on how to which specific strategies (incentives for the local private sector in the various cities and other marginalised groups such as the urban poor) would be used to foster the effective development of a joint action to implement the objectives in a manner that would enhance project efficiency and effectiveness. It was also not very clear, what the roles of these stakeholders would be in the project, and how policies, codes and retrofits will ensure that their needs are catered for, given that their participation in workshops and webinars were observed at evaluation to be largely limited.
147. While the project contains a logical framework that links project outputs to outcomes and expected project impact, the causal relationship between these components were not sufficiently explained in the project's ToC at design. Again, almost all the project outputs as stated in the original formulation were in the form of completed activities, and not entirely in line with the definitions of UNEP for project results. This also includes the overall assumptions and drivers for the various intended project outputs, outcomes, and intermediate states. The presented descriptions of these results indicators vary slightly from the standards required by UNEP and were thus reviewed at Evaluation.
148. At evaluation inception, the rating based on identification of project design weaknesses/gaps was Highly Satisfactory. However, based on the evidence mentioned above, the overall quality of project design has been rated Satisfactory.

## Rating for Project Design: Satisfactory

## C. Nature of the External Context

149. The nature of the project implies implementation through active interaction between the project's internal environment, and the policy, actor and institutional arrangements in the project's external environment. This implies the project's conceptualisation as an open system and is affected by stimuli from outside the control of the project, including natural, social and macro-economic variables among others. This criterion assessed the extent to which such factors affected the implementation of the BEA Phase II, negatively or positively.
150. The political climate in all the project cities were found to be favourable for the implementation of the BEA Phase II activities. There was no significant impact of any economic or socio-political variable in any of the participating project countries on the ability of the WRI to implement its planned activities. The project implementation coincided with the on-set of the COVID-19 pandemic. The major
impact of this on the Project was that it limited the extent of international travels and face-to-face interactions between the project team and local stakeholders. Due to this, 29 of the 74 BEA Phase II events such as conferences, webinars and training workshops were carried out virtually as a mitigation strategy.
151. There was a stable political environment in each of the project cities and countries, hence no significant negative impacts of the socio-political environment of the project were observed through the design and implementation of the Project.
152. All project risk ratings during the project progress implementation reviews were low. Thus overall, no significant external risks including natural disasters affected the successful implementation of the project.

## Rating for Nature of the external context: Favourable

## D. Effectiveness

153. The outputs delivered by the BEA II ${ }^{29}$, achievement of project's direct outcomes and the likelihood of impact were assessed under this criterion. The project final report and primary data gathered from the various stakeholders are used to draw conclusions on this evaluation criterion. For the purposes of accountability and learning, the assessment of the extent to which project outputs are in place towards the attainment of planned project outcomes encompassed planned targets under the original formulations of the various project outputs. The assessments of project results and the likelihood of attainment of project outcomes, intermediate states and impact were done in line with the application of the Reconstructed Theory of Change, and the revised project results in the RToC. Where results statements were merged, the originally planned outputs for the merged results statements were all accounted for in the revised statement.

## Availability of Outputs for Revised Outcome 1: Public and Private bodies demonstrate collaboration to develop and implement tools and methods of EE in the building sector

## Output 1.1.1:30 new cities or subnational governments and30 new companies/organizations sign up to the BEA:

154. According to the final project report covering the implementation period (September 2018 to September 2020), a total of 27 new cities (of which 26 are new light touch cities) have joined the BEA during Phase II (thus a 10\% gap in attainment of the planned target for new cities). A list of the new cities was duly made available at Evaluation and is presented in Table 7. The project team indicated that recruitment of partner cities was halted in early $2020^{30}$ to facilitate the implementation of subsequent phases of the project activities, given that continued recruitment would hinder a smooth transition across the entire phases of the project in each city in the planned implementation period, and a planned shift of the Project's focus towards zero-carbon ambition in its advancing phase. However, the recruitment platform was kept open for cities that were already engaged by on-theground partners.
[^12]Table 7: List of Recruited BEA Phase II Cities

| City |  |
| :--- | :--- |
| NewLight Touch |  |
| 1. Accra | Ghana |
| 2. Belén | Costa Rica |
| 3. Betim | Brazil |
| 4. Calí | Colombia |
| 5. Campeche | Mexico |
| 6. Comayagua | Honduras |
| 7. Curridabat | Costa Rica |
| 8. Fortaleza | Brazil |
| 9. Grabrovo | Bulgaria |
| 10. Guatemala City | Guatemala |
| 11. Kochi | India |
| 12. KwaDukuza | South Africa |
| 13. Montería | Colombia |
| 14. Msunduzi | South Africa |
| 15. Nagpur | India |
| 16. Nuevo León | Mexico |
| 17. Recife | Brazil |
| 18. Sahab | Jordan |
| 19. San Salvador | El Salvador |
| 20. Santa Ana | Costa Rica |
| 21. Santiago | Chile |
| 22. Shanghai | China |
| 23. uMhlathuze | South Africa |
| 24. Yucatán | Mexico |
| 25. Quintana Roo | Mexico |
| 26. Homa Bay | Kenya |
| Deep Dive |  |
| 1. Bogota (Existing) | Colombia |
| 2. Eskisehir(Existing) | Turkey |
| 3. Mexico City(Existing) | Mexico |
| 4. Nagpur (New) | India |
| 5. State of Sonora(New) | Mexico |
| 6. Ulaanbaatar(New) | Mongolia |
| 7. Tshwane (New) | South Africa |
|  |  |

155. Regarding partner organisations, it was reported in the final project report that 36 new organisations have joined the initiative during Phase II, an over achievement of the planned target by about $20 \%$. A list of the various partner organisations recruited by the BEA II was duly attained at Evaluation ${ }^{31}$.
[^13]Private Sector: Apiros; DEXMA; Econoloer; Green Building Design Group; Prodesa; Siemens Turkey; Şişecam Flat Glass; Setri Sustentabilidad SAS; Simgea; Turkey Sustainable Energy Financing Facility (TurSEFF); WWF

Output 1.1.2: 3 national governments (each with at least 3 BEA partner cities) issue commitments to be stewards for local action:
156. At Evaluation, evidence on the commitment by three national governments (Columbia, India and Mexico) to be stewards for local action was duly obtained. The commitment letter for the Republic of Mexico was dated 31 October 2018 and was signed by the Director General of Energy Efficiency and Sustainability. The commitment letter for collaborative engagement with the World Resources Institute (WRI) in Columbia was led by the Vice-Minister of Housing and dated 27 September 2018.
157. While a commitment letter was not sighted for India, evidence of various national and sub-national engagements in the forms of meetings (including agenda of the various virtual consultative workshops) held with the various public and private sector organisations as well as key Civil Society Organisations were produced. The intergovernmental meeting session held at Greenbuild Mexico in Mexico City was on the $17^{\text {th }}$ of June 2019 and was organised by the US Green Building Council; the World Green Building Coulcil; WRI Mexico; and Johnson Controls. In Columbia, an Intergovernmental Meeting was organised on May 7, 2019 by the Colombia Green Building Council in Spanish, with detailed agenda and meeting notes presented and shared with the various project partners. However, no details on total attendees and gender distribution were observed in the Appendix E provided by the Project Team on the list of BEA Phase II activities and meetings. In general, while the details of the various presentations made by the organising partners was available at evaluation, other details on number of attendees and their gender distribution were not available at evaluation.
158. The availability of outputs for outcome 1 is thus rated Satisfactory.

## Availability of Outputs for Revised Outcome 2: "Light touch" cities or subnational governments demonstrate BE actions

Output 2.1.1: Cities or subnational governments receive technical assistance using the standardized BEA offer: The final report of the project indicated that the BEA II has successfully completed the delivery of updated plan for streamlined BEA network technical assistance complete on 3 core offer topics (Codes, Retrofits, Targets) including an additional set of materials, BEA Learning Guides.
159. The output report suggests further that the initiative has issued 11 Leadership Grants, supporting a total of 17 BEA cities. The grants were given to local partner organizations to address specific work plan barriers for network cities or cohorts of network cities. For Accra and Comayagua, no budget or estimate of the total leadership grant these cities received was given. This is reported as a new accomplishment outside the originally planned targets. Details on the cities reported to have received leadership grants is presented in Table 8.

Table 8: Leadership Grants Carried out During BEA Phase II

| City(ies) | Topic | Work Completed | TA Support <br> Lead | Budget/Scale <br> from GEF <br> Funds |
| :--- | :--- | :--- | :--- | :--- |
| Accra, <br> Ghana | Finance | Support to Accra through the <br> Clean Energy Solutions Center <br> for creation of a funding model <br> for EE implementation. | Clean Energy <br> Solutions <br> Center and <br> Econoler | S0 |


| Comayagua, Honduras | Action Prioritization | Analysis of building efficiency policy options. | Clean Energy <br> Solutions <br> Center and a Local <br> Consultant | \$0 |
| :---: | :---: | :---: | :---: | :---: |
| Costa Rican Cohort: Curridabat, Santa Ana, Belem, and Moravia | Action Prioritization | Four cities carried out stakeholder and national government engagement to create a local vision for building efficiency progress through the Assess stage of the BEA maturity framework. | Green Building Council Costa Rica | \$30,000 |
| Santa Rosa, Philippines | Codes, Targets | Workshop and scoping for development of a city green building code | Consultants managed by ICLEI Southeast Asia | \$10,000 |
| Nairobi, Kenya; Nakuru County, Kenya | Action <br> Prioritization, Codes | Support from KGBS for kick-off workshops on the development of green building guidelines. | Kenya Green Building Society | \$10,000* |
| Kochi, India | Targets | Development of plans for a benchmarking program and building energy data center for Kochi | WRI India | \$9,600 |
| South <br> African <br> Cohort: <br> KwaDukuza, <br> Msunduzi, and uMhlathuze | Work Planning | Three cities in Kwazulu-Natal are assessed for green building guideline implementation and green building professional skills \& capacity. Training plan developed based on results. | ICLEI Africa \& regional experts | \$24,000 |
| Eskişehir, Turkey | Zero-carbon ambition | Support for preparation for transition from energy efficiency to decarbonization and development of national relationships | WRI Turkey | \$17,000 |
| Sonora, Mexico | Targets | Expanded support for the Sonora Buildings Challenge Program | WRI Mexico | \$20,000 |
| Bogotá and national engagement, Colombia | Zero-carbon ambition | Support for preparation for transition from energy efficiency to decarbonization and development of national relationships | Colombia Green Building Council | \$10,000 |
| Sahab City, Jordan | Action prioritization | Support for a launch workshop and related stakeholder engagement | World Green Building Council | \$2,000 |

* Though Nairobi, Kenya was dropped as a deep dive engagement city, the city received TA support from the Kenya Green Building Society (KGBS) as lead forkick-off workshops on the development of green building guidelines.

Source: AppendixD of the Final Project Report
160. Further evidence obtained from the list of BEA II events and meetings indicated that at least 14 regional and city training events (outside of webinars) have been undertaken in the project across four regions (Latin America, Southeast Asia, the Middle East, and Africa). Evidence on the various meetings was duly available at evaluation in the partial list of BEA II activities. For example, the BEA Phase II launch in Bogotá, Colombia, was held on the $10^{\text {th }}$ of March 2018. The meeting was organised by Consejo Colombiano de Construcción Sostenible (Colombia Green Building Council, or CCCS) and had about 40-50 attendees. Similarly, the launching of project's activities in Sonora was held in Hermosillo, Mexico on the $12^{\text {th }}$ of April 2018, and had 49 attendees. A Consultation workshop and Training meeting was held in India on $2^{\text {nd }}$ August 2019.
Output 2.1.2: Private sector actors commit to be stewards for collective local action across the value chain:
161. Evidence on private sector commitments during the BEA II have been presented in the final project report and its appendices. While the project team reported that commitments were collected from and executed by Johnson Controls (a Global Project Partner) and other members of Green Building Council working groups across the Americas, there was no list of the specific private sectors in the region that committed to local action across the value chain, their form and size of commitment, and commitment letters among others. This engagement, however, was reported by the Project Team to be regionally focused, and did see significant regional action hence the team decided to re-strategise its approach to private sector commitment in subsequent planned project phases.
162. It must be noted that the Project Team recognised and indicated in the final report of the project that the regional-level private sector commitments beyond Johnson Controls and national green building councils were not the most effective way to engage the private sector. With evidence from the initiative's actions suggesting that regionally important companies in most BEA locations were already members of national and regional green building councils, the BEA sought to rely on these Green Building Council (GBC) partners to represent private sector interests as a collective. The level of planned attainment of the intended private sector engagement for local action beyond the regional engagements was observed in general to be in a significant deficit.

Output 2.1.3: Announcements on BEA actions are made during key international events:
163. The Project continued to leverage on the structures for communication and dissemination of action at international and national events from the BEA Phase I to accelerate relevant announcements on BEA action. The international event profile during the BEA Phase II reportedly decreased in comparison with Phase I activities. While it was unclear what accounted for this decrease before the peak of the pandemic, the project team indicated that the decrease was partly attributed to the COVID pandemic. Despite this, cities reportedly discussed their BEA work at international events in at least 5 regions including the Conference of the Parties of the United Nations Framework Convention on Climate Change (COP26). Evidence on the communication of the World Resources Institute during the COP26 was available at evaluation.
164. The stories shared by the Project team were reported in several media outlets, with others reported to be under compilation by the WRI. Specific evidence on these includes the following:

- 5 Takeaways for Decarbonizing Buildings from COP26- The City Fix: A panel discussion co-hosted by WRI in the SDG7 Pavilion of COP26. The director of mitigation programs and sustainability resource mobilization for Tshwane, South Africa, highlighted her city's achievements as a part of the Building Efficiency Accelerator (BEA), including the development of a building efficiency and green building hub, city retrofitting guidelines for building efficiency, and capacity building through stakeholder engagements and retrofitting trainings. ${ }^{32}$
- An event recording: SDG7 Pavilion at COP26-Cities, Regions and Built Environment Day ${ }^{33}$
- An event recording: GEF at COP26 (November 4, 2021; 13:30-14:45 GMT): The role of energy efficient buildings on the path to net-zero ${ }^{34}$ : This event is part of the GCFGEF Pavilion at the UN Climate COP26. The GEF and GCF share a common vision to support nature and climate solutions which work together.
- An event recording: Navigating the Transition to Zero Carbon Buildings ${ }^{35}$ : The WRI hosted a joint event with the Global Alliance for Building and Construction (GlobalABC) to discuss Buildings as a Critical Climate Solution and share insights on national roadmaps for decarbonizing the buildings and construction sector by 2050.

165. Over seventeen regional events were reported to have been held during the Phase II, with an international event (Sustainable Cities Costa Rica) planned to be held in mid-July following the end of the initiative's engagements in Phase II, even though evidence on whether the event was held after the Project could not be substantiated at Evaluation through the Web Analysis. The details of the other events held during the project duration were however dully accessed in the full list of events presented by the Project team at evaluation.
166. Global announcements of the BEA action continued through the Phase II. The initiative's actions were announced in 25 reputable media sources and in at least 6 international media stories outside of WRI and partners' own blogs and websites. The most dominant examples cited were one in PR Newswire ${ }^{36}$ about the BEAbacked BETTER tool for building efficiency retrofits, coverage in Construction Business News Middle East ${ }^{37}$ about BEA results in Dubai, discussion of the BEA in Green Building \& Design Magazine ${ }^{38}$, an interview with the BEA India lead that discusses results in India in the Economic Times, along with features in prominent
[^14]Spanish language international media including a feature a feature of BEA work in Costa Rica in El Mundo along with ACT Latinoamerica's and Portafolio's coverage of work in Bogotá.
167. At the time of the preparation of the final project report, the initiative noted that the list of key global and national announcements made was not exhaustive. Evidence on coverage from Southeast Asian and East Asian sources were the most missing. Evidence on the reported announcements were duly obtained at evaluation.
168. The availability of outputs for outcome 2 is thus rated Satisfactory.

## Availability of Outputs for Revised Outcome 3: Governments of project cities develop and implement, or are prepared to implement building efficiency policies/projects and commitment actions

Output 3.1.1: Deep Dive cities identify and/or issue commitments to provide funding for continued implementation activities and policies with clear funding mechanisms:
169. Project output 3.1.1 was reported to have been completed prior to Phase II launch. In a review of the various commitment notices by cities at evaluation, it was observed that the initiative actively engaged the various cities on their commitments during the preparatory phase of phase II activities. There was no evidence seen of attrition in commitments across all the existing deep dive cities indicated in Table 7 of this report.
170. What could not be established is the extent to which these cities went beyond signed and declared commitments, to actually provide specific building efficiency fundings, as well as the actual sizes of specific investments in funding for individually selected projects, given the challenges with engaging city officials from these cities for discussions at evaluation. However, the details on city actions beyond the commitments which were obtained through Web Analytics and virtual Focus Group Discussions held with Key National Counterparts are reported under the respective specific action outputs of The Project.
171. Funding mechanisms for implementation of the policy actions under output 3.1.2 were reported to largely have been identified by the continuing cities during BEA Phase I. While there was no concrete dedicated funding scheme identified at evaluation for the BEA action during the BEA Phase II, evidence on dialogue towards the identification of these policies was substantiated. It was therefore difficult to evaluate the actual existence of funding schemes in each of the deep dive cities, and the progress that has been made in this regard at the BEA Phase II.
172. Bogota has held a number of finance-focused meetings for implementation of their new MRV system. In Eskisehir (Turkey), various discussions and meetings, including with external financiers, has led to successful implementation of the city's new Energy Management Unit, but a dedicated funding scheme could not be named. It is important to note that the level of commitment to implementing Building Efficiency action in Eskisehir was recognised as commendable ${ }^{39}$. In Mexico City, multiple finance-oriented discussions were held in preparation for the launch of the city's Challenge Program, with again no specific evidence on an actual dedicated funding scheme established at evaluation.

## Output 3.1.2: Continuing "deep dive" cities have adopted the policy drafted in 2016-2017:

[^15]173. The three existing Deep dive cities were found to have completed policy development and were at least at the implementation phase of these policies by the end of phase II. Bogota adopted a policy known as Resolution 1874, and an implementation protocol (Res.549) under the water and energy efficiency code, which was duly found to have been formally adopted and passed into law at the time of this evaluation. The city has further incorporated the energy efficiency standards into a new development project, Progresa Fenicia. However, there was no evidence on the actual extent of the implementation of the policy and its accompanied implementation protocols during evaluation, even though evidence on the extent to which the Project continued to engage city partners to implement this was observed ${ }^{40}$.
174. In Mexico City, the policy priority took the forms of both the construction code adopted in Phase I, its technical specifications which have been passed into law, and the launch of the Mexico City Buildings Challenge conceived in Phase I. The city further set ambitious policies, including the adoption of the bylaws for NOM 008 and NOM 020 for the thermal envelope of buildings and NADF-008-AMBT-2017 for solar water heating systems. While these policies are publicly available, it was difficult to establish the extent of implementation of these policies at evaluation given the limited participation of city officials in the data collection at evaluation.
175. In Eskişehir, the continuing Phase I policy focused on the establishment of a municipal energy management division. It must be noted that due to the country's institutional set-up, this priority cannot be passed into law (but was regarded to be consistent with the initiative's definition of policy action). Thus, the municipality issued an internal directive for its formation, and works have been reported to have commenced at the time of project exit. It was again difficult to substantiate progress on this action during evaluation given the limited participation of city officials in the evaluation process.

Output 3.1.3: Continuing "deep dive" cities have completed the demonstration project(s) begun in 2016-2017:
176. Evidence on the implementation of demonstration actions commenced under Phase I was duly observed across the continuing deep dive cities at evaluation. Bogotá's action took the form of the incorporation of energy efficiency standards into a new pilot development project, "Progresa Fenicia". Also, a partnership agreement with Fondo Acción, a Colombian private fund with over 20 years of experience in sustainable investments in the environment and children was signed to develop an MRV that defines the real reduction of GHG emissions of Energy Efficiency actions in Buildings and BEA program. The city at project exit, was integrating energy efficiency guidelines into the project development ${ }^{41}$. The Project received support for this action from the Colombia Green Building Council, Bogotá's government and local stakeholders towards the development of a measurement and verification (MRV) system for building energy and water use that is being expanded to include carbon emissions and may provide a basis for a national system. The Ministries of Urban Planning, Environment, and Habitat provided support for the action.
177. In Mexico City, 15 municipal retrofits were carried out. It was revealed through the various desk reviews and web analysis that actions in this regard for Mexico City

[^16]were completed under BEA Phase I, hence no further actions in this regard were reported within the implementation phase of The Project.
178. In Eskişehir, an energy benchmarking and auditing of public buildings to prioritize retrofits has been conducted. The city sought to finalize a municipal building inventory, select municipal buildings to be audited, perform energy audits on at least 3 municipal buildings, perform energy retrofits on at least 1 municipal building, and to conduct Lighting upgrades in the public parks. The desk review of project results documents revealed that a Building Energy Information Form has been developed and delivered internally for the Eskisehir Metropolitan Municipality $(E M M)^{42}$. The EMM's solar energy power plant is reported to be operational and being operated by the Energy Management Unit since it has been established. However, the limited contact with city officials limited the verification of the functionality status at evaluation. The project used data on building inventory provided by the municipality to select opera, the main municipal services and the city bus terminal buildings as main targets for energy audits. The City's bus terminal was selected for the first energy audit, and it was completed by July 2019. The audit report was however not publicly sighted at evaluation.

## Output 3.1.4 Cities receive assistance on systemization of project pipeline development including identification of finance/funding mechanism(s):

179. Evidence on the municipal retrofit program that has been implemented in Mexico City and in Eskisehir was obtained at evaluation of the project. The city leveraged the BEA Leadership Grant received in 2019 (valued at $\$ 17,000$ ) to support preparation for the transition from BEA-supported work on building energy efficiency, to building decarbonization, and the development of national relationships among stakeholders for implementation of BE action. The web analysis revealed that the Eskişehir Metropolitan Municipality further announced a potential estimated saving of 32 gigawatt hours of energy and $\$ 4.4$ million between 2019 to 2030 due to the partnership with the BEA for the implementation of BE action ${ }^{43}$.
180. In Bogota, the Progresa Fenicia project has incorporated energy efficiency guidelines in the proposal requirements. The Project assisted through capacity and technical assistance partnership with the relevant institutions through the incorporation process, but evidence on the source and size of funding for the various activities is limited due to challenges with contacting city officials at evaluation.
181. At the exit of the phase II action, working groups were reported to be in the process of identifying financing barriers and innovative finance schemes for their cities. The project intends to advance it's work on assisting cities to systemise projects and to fund them in its successor, the Zero Carbon Building Accelerator GEF funded project whose implementation is approved and underway at the time of this evaluation.
182. It was observed through the Web Analysis and Virtual FGD with key partners that in many cases, fundings for Building Efficiency action are not independent, but integrated in overall Energy Efficiency plans of the cities. This hints towards a more integrated approach to accelerating energy efficiency action across city

[^17]governments, rather than the dedicated focus of The Project on only Building Efficiency action.

Output 3.2.1: Market-specific research outputs on relevant policy and project development are accessible to public and private actors:
183. New deep dive city work plans and workshop summary reports that incorporates market research on Energy Efficiency in buildings were reported in the final project report and its appendices.
184. In the city selection process for The Project, the assessment of deep dive proposals towards GEF eligibility for example was based on desktop research on the geographies of applicant cities, dozens of stakeholder interviews and conversations and staff knowledge. Recommendations on which cities to engage, the level to engage each city (deep dive or light touch) were based on market-informed research and recommendations in line with the research findings. The well-defined GEF eligibility criteria developed from advanced market research and applied in the comparative assessment of candidates for national-subnational engagements based on research and is presented in Table 9 below:

Table 9: GEF Eligibility Criteria for assessment of candidates for national-subnational engagements

| Category of Criteria | Assessment Dimensions and description (specific criteria) |
| :---: | :---: |
| Impact Potential ( $25 \%$ for national and continuing cities, 20\% for new cities) | 1. Rapid construction and energy demand growth |
|  | 2. Significant feasible energy and emissions savings (high energy intensity and/or efficiency potential) |
|  | 3. In a country with high relative building energy consumption (i.e. potential for far higher impact if/when national policies are implemented) |
| Political Will (25\% for national and continuing cities, $20 \%$ for new cities) | 4. Durable political commitment by the government leadership, including: <br> a. A political term of the chief executive that will endure at least 2 years (required for new deep dive cities); <br> b. Institutionalized commitment and coordination among different departments/ministries to facilitate building efficiency |
|  | 5. Government ambition, capacity andmatching resources <br> a. Ambition level of phase 2 proposal (for deep dive cities) <br> b. Government staff capacity and willingness to deliver if assisted <br> c. In-kind or existing government administrative staff or resources identified <br> d. Ready for "acceleration" - pre-existing local assessments or policies; |
|  | 6. National and sub-national alignment <br> a. Support from national government for locality to engage in the BEA (e.g., inclusion of building efficiency in national NDC or national guidance/planning documents), or <br> b. Support from BEA cities for a BEA national-subnational engagement; |
| BEA Capacity (25\% for national and continuing cities, $20 \%$ for new cities) | 7. Engagement with the BEA activities, partners and resources in Phase 1 ; <br> a. Pace and significance of progress between the BEA stages in Phase 1, and success in their workplan for Phase 1 (for deep dive cities); |


|  | 8. A BEA partner present in the region has interest and capacity to act as lead to provide staff and facilitate work planning and implementation process; |
| :---: | :---: |
|  | 9. Presence of other BEA partners and allies, opportunities to link city priorities with partner offers and a foundation for a local/national BEA partnership group <br> a. For cities, this includes significance of local matching resources in phase 2 proposal |
| Replicability, Scaling and Influence (25\% for national and continuing cities, $40 \%$ for new cities) | 10. Possibility for replication by other cities/countries (The prominence of the jurisdiction in the country or region, particularly as to the perception of it as a leader) |
|  | 11. Opportunities to leverage other investments in the geography, including other SE4ALL Accelerators <br> a. (i.e. presence of District Energy in Cities Initiative or U4E) and likelihood of being able to attract supplemental funding to scale up efforts; |
|  | 12. Existing or planned BEA activities at other levels of government <br> a. In a national engagement country (if city) <br> b. with $1+$ deep dive city or $3+$ network cities from Phase 1 (if country) |

Source: Developed from AppendixF of the Project Final Report
185. The above criteria were applied to select and classify cities, and as a guiding principle through the implementation of various actions in The Project. For each assessment criteria, thorough research was done on the various countries and cities. It is important to note that there was no scientific research publication reported on The Project, and the research was largely market-based research for planning purposes, which was actively disseminated and discussed among the BEA coordination team at WRI, the Project's partner organizations and the Project's Steering Committee, and made available in the public domain.
186. Research on benchmarking Energy Use for improving Building Energy Efficiency in Nagpur, India, with a description of good practices and lessons learnt for example was published and is available for download ${ }^{44}$. The case study report captures Nagpur city's efforts in understanding the energy performance and identifying the potential and opportunities for energy efficiency actions in a small portfolio of buildings in the city, supported by the BEA. Similarly, a publication titled "Guidelines for Energy Efficient and Climate Responsive Homes in Nagpur" by the ICLEI - Local Governments for Sustainability, South Asia, presented advanced research evidence on the contextual, technical and market issues surrounding locally adoptable principles and energy efficient measures across the stages of design while constructing for new housing in Nagpur.

## Output 3.2.2: Cities receive BE recommendations from working groups and collaborate to disseminate $B E$ actions:

187. Evidence on the completion of output 3.2.2 was duly obtained for 4 cities. Nagpur in India, City of Ulaanbaatar in Mongolia, and State of Sonora in Mexico were the originally targeted deep-dive cities (existing cities) for this output. However, Tshwane, a city in South Africa which was one of the new deep-dive cities also achieved this target. This reflects an over-achievement of this output by about $33 \%$. Evidence on the various announcements were obtained through the Web Analysis at evaluation. Thus, in all the cities, the working group recommendations have been

[^18]announced publicly in local media, and evidence on this was obtained through the Web Analysis.
188. The commitment in cities in India, was covered by the Times of India and the "Times'Economic Times," in collaboration with the local lead, WRI India as well as by local other non-English sources. Announcements in other local media outlets (including websites of newspapers) were verified at evaluation.
189. The video communication by the City of Ulaanbaatar, Mongolia, was available. In the State of Sonora, Mexico, evidence on the series of public announcements about the project launch, development, and subsequent program launch in media outlets such as Obras, Real Estate Market \& Lifestyle Mexico, and El Sol de Hermosillo were available among others.

Output 3.2.3: Relevant public institutions receive commitments from local partners to provide direct staffing and coordination support to policy and issue project preparations:
190. This output was duly completed in 2019, with formation of BEA working groups and signature of Memoranda of Understanding (MOU) with support organizations. Evidence on the various working groups was obtained at through the desk review at evaluation in the form of recommendations and meeting reports. A common MOU template was developed by the project and applied in all the cities. The document sighted in Annex F of the final Project report contained expected commitments from cities and roles of the various partners among others. On the part of the Project team, all the MOUs were signed by the Director, Urban Efficiency and Climate of the World Resources Institute at the time of project implementation.
191. The signed commitments in the city of Tswane, South Africa, for example indicated that the project would provide an additional 26 days of technical staff time for the period of 1 April to 31 May 2020 and was endorsed by the ICLEI African and WRI. In almost all the cases of local staff support provided, it was not clear however, the actual proportions of staff committed, their duration at post, engagement conditions, specific key achievements of the support staff during the project, and the gender disaggregation of the support staff that these local partners provided.

## Output 3.2.4: Relevant public institutions receive integrated and improved BE policies and commit to implementation plans for BE action:

192. The various city-level working plans that were created and approved were available at evaluation. Evidence of this was presented in the summaries of the city engagement reports through desk review. The recommendations were approved by the BEA Steering Committee as of November 25, 2019.
193. The Project worked on national-subnational alignment on building efficiency actions in three target countries: Colombia, Mexico, and India, with additional locally driven national engagement work in South Africa, Turkey, and Costa Rica. Evidence was duly available in the final workshop summary reports submitted to the WRI and national government partners, which was also made available at evaluation of the project. It must be noted that these plans were not contained in isolated documents, hence a search of policy documents developed specifically for Building Efficiency action in each of the cities through Web Analytics y ielded no results. This again hints at an integrated approach to policy for energy efficienct action in buildings.
194. Initial steps towards the adoption of the various working recommendations for each city were taken in some of the project countries. In Turkey and Columbia, for example, progress and commitment to implement the recommendations were sighted in the form of a written commitments to develop a zero-carbon buildings roadmap that incorporates city-level action, and those commitments link to the

Nationally Determined Contributions commitments or an equivalent climate change mitigation commitment. In all instances, the cities were provided with access to the following resources among others to enable them take action on their policies and commitments:

- Guidelines to selecting Building Efficiency Policies and Programs for the Building Efficiency Accelerator
- The BEA Tracking Progress Template
- BEA City Training Webinar: Using the BEA Tracking Progress Template (Webinar)

195. The most significant evidence of policy approval verified at evaluation through the Virtual Focus Group Discussions is the approval of Building Efficiency policies in Colombia and Mexico. It was difficult to establish evidence on policy approval for the remaining countries through web analytics, even though evidence from the discussions with the key project partners, online survey with project team and virtual focus group discussions suggest that the continuous development and review of building codes in the various project cities are impacted by the BEA II activities.

## Output 3.3.1: National/local governments and the private sector engage a policy dialogue:

196. The final project report indicated that the private sector has been brought into national-subnational collaboration based on the interests and needs of given national-level stakeholders. Sector representatives brought on board reportedly include private financiers, architects, planners, etc. In the Virtual Focus Group Discussions, participants from all the participating countries affirmed that quality dialogues were held between their various ministries and institutions, and the project team. The desk review revealed for example, that a BEA National Forum was held in San Jose, Costa Rica on January 1, 2023, and drew about 120 participants (but no evidence on gender disaggregation of participants). The National-Subnational Collaboration for Energy Efficiency in Buildings 2019 Forum held in Mexico City on the $17^{\text {th }}$ of July 2019 for example drew about 73 participants (but no gender disaggregated data on participation was observed). All dialogues observed were limited in disaggregated data on participants, to ascertain the proportion of private sector participants.
197. The most significant evidence on the on-boarding of private sector was through dialogues, and this was adequately revealed by stakeholders engaged in the Key Informant Interviews, as well as the Virtual discussions with relevant partners in the other cities outside of India. Evidence on the actual commitment level of the private sector, particularly at the local levels, to the continue collaborating towards the implementation of BEA II activities in the various cities was difficult to substantiate at evaluation due to limited reach of private sector actors for the focus group discussions.

Output 3.3.2: Evidence on potential additional focus countries is made available by the project team:
198. The project sought to identify potential countries for further BEA action. However, given that the subsequent phase of the project is re-designed into the GEF ID 10321 "Zero Carbon Buildings for All: from Energy Efficiency to Decarbonization" project which started in March 2021, it was observed that the BEA Steering Committee approved a selection criterion for the Zero Carbon Building (ZCB) for all national Engagements instead. Evidence from the desk review, web analysis showed a selection of Turkey and Colombia as potential pilot countries. The selection of Colombia using a ZCB city selection criterion for example, was based on strong
engagement from multiple national ministries with the BEA 2019 nationalsubnational engagement process; the country's commitment to increase ambition of 2020 NDC, including indication of interest in including buildings measures; a strong engagement on building efficiency implementation from multiple subnational governments and interest in zero carbon buildings from Bogotá.
199. The availability of outputs towards outcome 3 is thus rated Satisfactory.

## Availability of Outputs for Revised Outcome 4: Relevant actors at city and national levels apply new knowledge and best practices on BEA in decision-making, and in tracking the results of building efficiency action.

200. Output 4.1.1: City officials receive guidelines on a. monitoring and reporting city-scale energy performance b. tracking building-scale energy performance:
201. The tracking framework developed under BEA Phase I component 4 activities was updated for the cities during phase II. Two new tools were developed and offered to BEA cities via training and support and are in use: (1) the BETTER building performance \& retrofit targeting tool offered by BEA partners JCI and LBNL, and (2) a codes impact tracking tool developed by BEA partners WRI and PNNL.
202. In addition, given that the evaluation was limited in engagement of city officials, it became difficult to ascertain the extent to which the competencies and skills developed through the project has facilitated the monitoring and tracking of building energy performance. During the virtual focus group discussions with relevant partners from Bogota (Colombia), Belén (Costa Rica), Calí (Colombia), and Curridabat (Costa Rica) all agreed that city officials do not seem to be very well prepared to track building scale energy performance. This was largely attributable to the fact that there are still capacity gaps in terms of the ability to collect the right data, as well as the challenges with tracking emissions from buildings as an isolated sector in their localities. Thus, a more integrated approach to emission tracking in cities would have been much easier to implement.
203. Output 4.1.2: Participating cities quantify impact projections for policies and projects, and develop localizable impact assessment methods:
204. The Project engaged two BEA partners, Lawrence Berkeley National Lab (LBL) and Pacific Northwest National Lab (PNNL), to conduct city-specific assessments of the potential energy and GHG impacts of the building improvement actions implemented with support from the BEA in 10 deep engagement cities from 20182020. Impacts of actions by other BEA network cities were not assessed. BEA actions implemented by each of these cities were grouped into three categories: energy codes, energy saving targets and energy retrofits. WRI provided the assessment partners, LBL and PNNL, with technical information regarding the BEAassociated actions implemented in each city and provided other recommendations. Some key parameters that were used for the energy codes template included:

- Code coverage: The building types covered by the code (e.g., does the policy only target residential or commercial buildings?)
- Growth rate of the building stock: Estimated changes in floorspace, or absent this, population change
- Percent ramp-up of policy over time: Anticipated ramp-up of the code over a code cycle; absent a specific target, the team assumed a $10 \%$ ramp up per code cycle
- Building energy consumption: Drawn from total building energy consumption for the city (if available) or average EUI and per capita floor space data for the region from the literature
- Electricity rate: Cost/kWh based on available national or local energy statistics

205. Figure 9: GHG estimations for the various citiesFigure 9 provides detail on the estimated and GHG emissions reduction over time and among the cities assessed, with Ulaanbaatar showing the highest potential of GHG savings through retrofits.


Figure 9: GHG estimations for the various cities
Source: AppendixH1 of the Final Project Report
206. Impact projections have thus been found to have been finalised for each city, and the evidence was duly provided in an excel spreadsheet at evaluation. It was noted that Dubai has completed its benchmarking project and will leave the BEA at the end of Phase II project implementation.
Output 4.1.3: Relevant stakeholders across project network receive knowledge products (i.e., best practices for technical content, peer learning, project results, lessons learned, local and national tracking / goal-setting).
207. Importantly, the BEA website hosts a lot of useful content for enhancing capacities for the adoption of EE in buildings. The website link has easy accessibility for the users, whoever wants to visit the site can easily refer to the website-specific link and visit the site. But if one does not know the exact link or name of the website then one has to give a hit and trial with some keywords to find the BEA projectspecific website. There is no separate website for the BEA II project. The website is searchable and accessible only with the name 'Building Efficiency Accelerator' and not with other similar keywords such as Building Energy System, SE4ALL initiatives, UNEP BEA initiative, and different keywords related to the project.


Figure 10: Outreach performance of the BEA website at Evaluation Source: Web Analysis by the Project Team at Evaluation, 2022
208. It was realised from Figure 10 that access to the website from 2019 was relatively low but peaked in 2021 towards the end of the project. The largest proportion of people who accessed the website were found to be new users, indicating an increase in the global level of awareness about the project and its increased used as a source of information on building efficiency action.
209. The content housed over the BEA project website is relevant and in brief covers most of the relevant content such as BEA Cities, Zero Carbon Building Accelerator launched in 2021, Resources (Building energy codes, building efficiency renovations, building efficiency targets), a News About section (About, Partnership, Governance, and FAQ), and contact among others. One can easily access each tab and clearly defined sub-tabs within it. The hosted content talks about progress in the various cities. and promotes the BEA initiatives. It further provides links to other useful resources developed for building efficiency action for city officials, academic communities, project partners and other stakeholders.
210. The availability of outputs towards project outcome 4 is rated Satisfactory.
211. Overall, the availability of Project Outputs is rated Satisfactory.

## Achievement of Project Outcomes

212. Following a revision of the various project outcomes in the Reconstructed Theory of Change (with appropriate justifications), the following four (4) outcomes were assessed:

Revised Outcome 1.: Public and Private bodies demonstrate collaboration to develop and implement tools and methods of EE in the building sector

Revised Outcome 2: "Light touch" cities or subnational governments demonstrate BE actions

Revised Outcome 3: Governments of project cities develop and implement, or are prepared to implement building efficiency policies/projects and commitment actions

Revised Outcome 4: Relevant actors at city and national levels apply new knowledge and best practices on BEA in decision-making, and in tracking the results of building efficiency action.

Achievement of Project Revised Outcome 1: Public and Private bodies demonstrate collaboration to develop and implement tools and methods of EE in the building sector
213. The various project activities have been observed to have duly expanded the partnership of cities adopting Building Efficiency Action. Thus, an increasing number of public and private bodies have been actively committing to the development and implementation of tools to accelerate energy efficiency in the building sector. This outcome is therefore evaluated to have commenced during and by the end of the BEA Phase II action. A total of 57 city governments across Africa, Brazil, Central and Eastern Europe, East Asia, Latin America, the Organisation for Economic Cooperation and Development (OECD), South Asia and Southeast Asia have demonstrated action to implement EE in their building sector. However, the total number of private bodies in the various cities that have committed to local action could not be substantiated at evaluation.
214. In all the project cities, particularly the deep-dive cities (Bogota, Eskisehir, Mexico City, Nagpur, State of Sonora, Ulaanbaatar and Tshwane), it is observed that there has been progress in the development of building efficiency tools and policies through collaboration between diverse stakeholders. The virtual focus group discussions revealed that the development of policies and action in these cities were largely done by government institutions, with support from The Project.
215. Consistent with the RToC, both public and private partners must agree to join the BEA initiative for the attainment of revised outcome 1 . Since this "will" is beyond the control of the project, it is a critical assumption for the realisation of project outcome 1. Given the evidence on such agreements, the BEA implementing and executing agencies can then work together with these entities through a series of actions that will lead to building commitment to develop and implement EE policies and interventions in the building sector.
216. The achievement of revised outcome 1 is thus rated Satisfactory.

Achievement of Project Revised Outcome 2: "light touch" cities or subnational governments demonstrate BE actions:
217. It was clearly established at evaluation that the new deep dive cities were prepared for the adoption and/or implementation of building efficiency action. This is largely attributable to the initiative's active engagement of the cities through workshops and bilateral discussions. In total, 10 of the 30 existing BEA "light touch" cities progressed on their policy or project by at least one stage against a target of 10. These are Medellín in Colombia; Alba lulia in Romania; Bogotá in Colombia; Bucharest in Romania; Iskandar in Malaysia; Jalisco in Mexico; Nairobi in Kenya; Porto Alegre in Brazil; Ulaanbaatar in Mongolia; and State of Sonora in Mexico.
218. Similarly, $16^{45}$ of the 26 new BEA "light touch" cities or subnational governments have at least a project or policy in place related to building efficiency and have made progress by at least one stage, and this was verified through desk review and web analysis.
219. In Costa Rica for example, four cities (Curridabat, Santa Ana, Belem, and Moravia) carried out stakeholder and national government engagement to create a local vision for building efficiency progress through the Assess stage of the BEA maturity framework. Workshop and scoping for development of a city green building code were completed in Santa Rosa, Philippines. In the city of Kochi, India, plans for a benchmarking program and building energy data center for Kochi has been developed.
220. Policy priorities were set in all the new deep dive cities, with others going beyond the identification of policy priorities to commence complete training programs towards the implementation of such priorities. Notable examples are the cities of KwaDukuza, Msunduzi, and uMhlathuze in South Africa which have completed assessment for green building guideline implementation and green building professional skills and capacity development.
221. The achievement of revised outcome 2 is thus rated Highly Satisfactory

Achievement of Project Revised Outcome 3: Governments of project cities develop and implement, or are prepared to implement building efficiency policies/projects and commitment actions:
222. The BEA worked to serve light touch cities through an updated, streamlined technical assistance offer in Phase II based on partner feedback and city priorities. The initiative identified 3 strategic areas (Codes, Retrofits, and Targets) plus a key initial area of action prioritization. Regional training events, webinars, Playbooks, and interactive online Learning Guides have been designed and implemented around these areas, and Direct Technical Assistance Leadership Grants (Table 8) that were received have bolstered this offer and filled in gaps to accelerate city work plans.
223. Evidence on the support for the development of implementation protocols in Colombia, through assistance with local consultative dialogues in Cali and Montería for the development of implementation protocols for Resolution 549 was found to be in place through web analysis. Again, the significant progress which have been made in Ulaanbaatar city of Mongolia in the pursuit of the retrofitting of 1,077 prefabricated buildings and making them more energy efficient (Eco houses) have been duly verified. The project when completed is said to have the potential to directly mitigate 2.4 Mt CO 2 e over the lifetime of its interventions at a cost efficiency of 15 EUR/tCO2e plus an additional $2.3 \mathrm{Mt} \mathrm{CO2e}$ of indirect emissions due to continuous retrofitting ${ }^{46}$. It would further benefit an estimated 14,068 households (over 53,000 residents through access to improved thermal comfort and indoor air quality. Revised Outcome 3 is in the process of being attained in all the project cities given the increasing focus of governments to invest in emission reduction strategies.
224. The achievement of revised outcome 3 is thus rated Highly Satisfactory

[^19]Achievement of Project Revised Outcome 4: Relevant actors at city and national levels apply new knowledge and best practices on BEA in decision-making, and in tracking the results of building efficiency action:
225. Both existing and new "deep dive" cities have begun implementing policies or projects, with others prepared to, or implementing an action related to building efficiency. National government of Turkey, together with support from GIZ, is developing roadmaps to "nearly zero-energy" buildings- a strategy which will be a key input into a roadmap for decarbonizing buildings in the country. Similarly in Kenya, the Nakuru County Government has entered a partnership with the Kenya Green Building Society (KGBS) as it seeks to transform its building industry into an environmentally friendly and sustainable sector due to its readiness to apply knowledge from The Project into EE action in the building sector. In the city of Yucatan also, the state has been actively promoting the generation of renewable energy towards maximising energy efficiency in the building sector. The web analysis revealed that four power generating parks already operate and other projects have been planned to be added, which if all materialized, would add a renewable generation of 3,400 megawatts and would represent an investment of approximately 87,000 million pesos, capital that comes from countries such as China, Spain and the United States to power the building sector.
226. In terms of applying knowledge held from the project to tracking emissions from the building sector, the impact assessment framework that has been developed under the initiative are adopted in many project cities. Even though cities have received access to these frameworks and guidance on data that should be collected to track progress, it is unclear, the total emissions that have been tracked so far in the various cities as a result of BEA action. In the city of Yucatan for example, the evaluation found out through web analytics that a monitoring system and technological infrastructure based on the Internet of Things has already been developed for the monitoring and evaluation of the water quality of the Yucatan aquifer. However, the extent of application and use of this system could not be verified due to limited city contact. Similarly, in a success story from Iskandar city, the Iskandar Regional Development Authority (IRDA) established the city's own assessment tools to evaluate built environment efficiency performance called CASBEE (Comprehensive Assessment System for Built Environment Efficiency), together with a checklist for self-assessment monitoring building monitoring in Iskandar Malaysia. However, it is not clear the extent to which this system has been used so far towards tracking results.
227. It is noted that directly estimating emissions that are attributable to the BEA II would be difficult, if not impossible, given the integrative approach being adopted by cities to track emissions in the contemporary state of climate mitigation leading current global priorities. This was a common revelation by the participants of the Focus Group Discussions.
228. The achievement of this outcome is thus rated Satisfactory.
229. Overall, achievement of project outcomes is rated "Satisfactory".

## Achievement of Likelihood of Impact.

230. The revised ToC presents the project's impact as to "Reduced GHG emissions and improved quality of life through increased use of energy efficient technologies". The project expects that governments implement EE policies and improvements in buildings to translate project outcomes into an intermediate state of governments at various levels implementing EE policies and improvements in buildings. A critical assumption for the realisation of this intermediate state is that investing into climate
action in the building sector will continue to remain a development priority among governments in cities. In all the project cities, and consistent with on-going global climate actions, the few stakeholders engaged affirmed that climate action is a top priority of all city governments, hence the existence of significant government commitment to accelerate technologies that minimises energy use.
231. A key driver to the project's intermediate state is that UNEP and other project partners will continue to support the implementation of EE in the building sector within Deep-Dive cities to create an overall commitment to the implementation of BE policies not only in those cities but also in learning cities. The GEF ID 10321 "Zero Carbon Buildings for All: from Energy Efficiency to Decarbonization" project that started in March 2021 as a continued support for EE action shows that the driver is strongly in place, hence the project results have a higher likelihood of being translated into intermediate states.
232. The assumptions that a conservative growth in electricity prices and inflation rate will facilitate a realisation of the impact of reduced GHG emissions and improved quality of life through increased use of energy efficient technologies were largely observed to be in place. Owing to the COVID 19 pandemic, and current global states of political destabilisation in key OPEC countries, electricity prices have been hiking in recent years, thus intensifying investment into technologies that consume less energy in buildings and leading towards a wide adoption of BE action, hence increasing likelihood of attainment of project impact.
233. The critical driver for this was that the project implementation will be designed to facilitate the institutionalisation of the finalised EE policies and strategies for the building sector in such a manner that they will be sustained even if there is a change in government after the project. Evidence reviewed in the various project activities through the discussions, Key informant interviews and web analysis suggest that in all the project cities, there was no significant change of government during implementation, and beyond the implementation, no evidence of a shift in city government policies from promoting EE in buildings was observed. Thus, a continuity in the implementation of BE projects action across cities and improve the overall quality of air and life in cities.
234. No significant evidence on the likelihood of the Project to lead to, or contribute to unintended negative effects (e.g. on vulnerable groups such as people living with disabilities and/or women and children), was realised at evaluation. Instead, the acceleration of the uptake of energy efficient technologies in buildings have a higher likelihood of rather creating jobs for people, including those in poor and marginalised groups. Again, accelerating the uptake of energy efficient policies in buildings contributes towards reducing overall energy costs in buildings, hence vulnerable households could spend less on energy bills and thus increase their ability to afford other needs among others. In the case where cities eventually implement retrofit programs, there is no need for displacement of households.
235. Thus, owing the evidence obtained on the assumptions and drivers to project's impact in the previous findings, the likelihood of attainment of the project's impact is very high, but has gaps in tracking the emissions, hence rated Likely.

## Rating for Effectiveness: Satisfactory

## E. Financial Management

Adherence to UNEP's Financial Policies and Procedures
236. The financial management of the project was done by UNEP, and upon review of all the project's budgets and expenditure reports, no deviation from UNEP's financial policies and procedures was observed. There was a timely approval of all project budgets and the three revisions, and this was revealed through the review of the request and approval letters. Again, expenditure reports were submitted quarterly in time (a total of 9 quarterly reports), and the project manager was satisfied with all financial reporting procedures throughout the implementation. The financial management of the project was evaluated primarily from the set of documents made available by the project team, and in consultation with the project team.
237. The level of adherence to UNEP's financial policies and reporting standards is thus rated HighlySatisfactory.

## Completeness of Financial Information

238. The project financials were found to be consistent with UNEP's financial reporting standards. Key documents were made available to the evaluation consultant upon request. The following financial information was made available by the Executing Agency at evaluation. Notably, the following documents were obtained:

- Budget was at CEO approval
- Budget revisions
- Quarterly Expenditure reports
- Proof of funds transfer (cash advance receipts)
- Proof of co-finance (co-finance report and co-finance letters from partners)
- Audit report

239. An independent auditor's report dated 12 April 2021 and officially signed concluded that the financial report for the project from August 1, 2018, to September 30, 2020, is consistent in all aspects of reporting according to the Financial Reporting Framework relevant for preparing such financial reports. This was accompanied by a co-signed management report confirming all cash receipts from UNEP through SunTrust Bank for the reporting period. The management report further indicated that a total of $75.5 \%$ of the project's expenses were reviewed.
240. Proof of funds transfer were presented. The cash advance receipts obtained showed disbursement of the GEF funds in five (5) tranches:

- Tranche 1 (26.09.2018): USD 600,000.00
- Tranche 2 (04.02.2020): USD 223,987.00
- Tranche 3 (11.02.2020): USD 293,683.00
- Tranche 4 (03.06.2020): USD 580,492.00
- Tranche 5 (07.08.2020): USD 229,838.00

241. Report on expenditure along the course of the implementation of the project were presented on quarterly basis from the Q3 of 2018, to Q3 of 2020. The expenditures were reported for each of the four project components, and a Project Management Cost (PMC) component. For each reporting quarter, spendings for the reporting quarter were presented in addition to the accrued expenditure from previous reporting period. A projected expenditurefor the advancing quarter (except 2020 Q3 which was the last quarter of the project) was then presented, together with
explanations on each quarters' expenditure where necessary. Output activities and expected deliverables associated with each expenditure were presented and all accounting information was found to be consistent.
242. The completeness of financial information is thus rated as Highly Satisfactory.

## Financial Tables

Table 10: Expenditure by Outcome/Output (USD)

| Component/subcomponent/output All figures as USD | Estimated cost at design |  |  | Actual Cost/ expenditure |  |  | Expenditure Ratio (ER)- Actual/Planned) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | GEF Financing | Co-financing | Total | GEF Financing | Co-financing | Total | GEF ER | Co-finance ER |
| Component 1 | 372,290 | 1,131,009 | 1,503,299 | 427,517 | 1,572,878 | 2,000,395 | 1.148344033 | 1.390685662 |
| Component 2 | 469,090 | 2,525,217 | 2,994,307 | 502,568 | 2,747,095 | 3,249,663 | 1.071367968 | 1.087864924 |
| Component 3 | 924,980 | 2,251,213 | 3,176,193 | 787,233 | 3,141,872 | 3,929,105 | 0.8510811045 | 1.395635153 |
| Component 4 | 135,860 | 80,751 | 216,611 | 156,144 | 45,040 | 201,184 | 1.149300751 | 0.5577639905 |
| Project Management | 97,780 | 128,407 | 226,187 | 96,538 | 145,645 | 242,183 | 0.987298016 | 1.134245018 |
| Total | 2,000,000 | 6,116,597.00 | 8,116,597.00 | 1,970,000 | 7,652,529 | 9,622,529 | 0.985 | 1.251109073 |

Table 11: Co-financing Table

| Co-financing (Type/Source) | UNEP own Financing (US\$) |  | Government (US\$) |  | Other*1 (US\$) |  | Total (US\$) |  | TotalDisbursed (US\$) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Planned | Actual | Planned | Actual | Planned | Actual | Planned | Actual |  |
| - Grants | - | - | - | - | - | - | - | - | - |
| - Loans |  | - | - | - | - | - | - | - | - |
| - Credits |  | - | - | - | - | - | - | - | - |
| - Equity investments | - | - | - | - | - | - | - | - | - |
| - In-kind support | 20,000 | 36,500 | - | - | 6,096,597 | 7,616,029 | - | - | 7,652,529 |
| Other (*) | - | - | - | - | - | - | - | - | - |
| - Totals |  |  | - | - | 6,116,597 | 7,652,529 |  |  | 7,652,529 |

Other*1: This refers to contributions mobilized for the project from its partners which is made up of the following international organisations comprising of CSOs, private sector organisations, multilateral organisations. The co-financing component from the GEF UNEP at design 47 , and from the 2020 consolidated co-finance report were taken as UNEP's own financing, planned and actual respectively, hence deducted from the reported total co-financing values to obtain the total proportion for the remaining partners)
${ }^{47}$ See CEO Endorsement Document Table C on Page 4 captioned: Confirmed Sources of Co-Financing for the project by name and by type
243. The following were actual sources of co-financing for the project: Business Council for Sustainable Energy, Colombia Green Building Council, International Energy Agency, International Finance Corporation, Pacific Northwest National Laboratory, Signify, UNEP - Economy Division, World Green Building Council, World Resources Institute, Alliance to Save Energy, The Business Council for Sustainable Energy, Buildings Performance Institute Europe, Clean Energy Solutions Center, Econoler, Ingersoll Rand, and Tecnalia Research centre.
244. The project was observed to be generally highly efficient in the utilisation of the GEF financing and had a left-over of USD 30,000 (corresponding to the budget provisioned for evaluations). With the exception of project Component 3, actual GEF funding spent on project components 1,2 and 4 exceeded planned GEF finance. In all cases, the detailed budget revisions were accompanied by explanations regarding internal re-allocation of funds across the different project budgeting lines. The total (cumulative GEF and Co-financing expenditures) showed an over expenditure on component 1,2 and 3 and under expenditure on component 4 . While the reasons that accounted for the variations were diverse and specific to internal activity reviews and need for mitigation of changes in staff (including working hours planned for) and project focus within each engagement region, the excess expenditures were generally due to the fact that a number of specific project activities were financed during implementation with co-financing, and this was further enhanced by the excess co-financing that was leveraged by the WRI during the implementation of the project.
245. Thus, in terms of total co-financing, the project leveraged an additional cofinancing of USD 1,535,933.00. This reflects significant leveraging of additional partner support and resources for the implementation of the project actions in the various cities.

## Communication Between Finance and Project Management Staff

246. An effective communication of financial information was observed between the project management, notably between the fund management officer, the task manager and the project manager. All parties indicated a high degree of satisfaction with the project communication.
247. The Task Manager, Programme Officer and Fund Management Officer August 2021 demonstrated a common level of transparent exchange and understanding of all transactions and financial communications through the implementing the BEA II initiative. The UNEP Climate Change Mitigation Unit (IA) expressed a high degree of satisfaction with the level of transparency and adherence to specified financial reporting standards by UNEP. The quality of financial communication is thus rated as Highly Satisfactory.

Table 12: Financial Communication Table

| NON-GEF AND GEF PROJECTS |  |  |
| :--- | :--- | :--- |
| Financial management components: | Rating | Evidence/Comments |
| 1. Adherence toUNEP's/GEF's <br> policies and procedures: | HS | The financial practices in the project <br> adhered to all standards and policies of <br> the UNEP/GEF |
| Any evidence that indicates <br> shortcomings in the project's <br> adherence to UNEP or donor policies, <br> procedures or rules | No | No evidence to suggest a shortcoming in <br> adherence to UNEP or donor policies and <br> procedures was observed throughout the <br> evaluation. |


| 2. Completeness of project financial information: |  |  |  |
| :---: | :---: | :---: | :---: |
| Provision of key documents to the evaluator (based on the responses to A-H below) |  | HS | WRI was timely and comprehensive in the provision of necessary financial documents during the evaluation process. |
| A. | Co-financing and Project Cost's tables at design (by budget lines) | Yes | All project co-financing and cost tables at design were provided. <br> The co-financing and project cost tables presented at design specified the planned proportion of co-finance from each contributing partner. It differentiated between cash and in-kind resources, and allocated the co-financing budget across the three major project components and Project Management Cost (PMC) |
| B. | Revisions to the budget | Yes | The budget was at CEO inception was revised three times. Each revised version is presented, and consistent with clarity. <br> - First revision: 2019-06-07 <br> - Second Revision: (exact date not available on the approval of second budget revision) <br> - Third revision: 6-19-20. <br> Th various components revised were accompanied with relevant explanations on the changes. Again, evidence of submission of the revised versions of the budgets for approval were presented. |
| C. | All relevant project legal agreements (e.g. SSFA, PCA, ICA) | Yes | Yes. All relevant project documents were provided. |
| D. | Proof of fund transfers | Yes | Proof of funds transfer (cash receipts) were presented. The cash advance receipts obtained showed disbursement of the GEF funds in five (5) tranches: Tranche 1 (26.09.2018): US $\$ 600,000.00$ Tranche 2 (04.02.2020): US\$ 223,987.00 Tranche 3 (11.02.2020): US $\$ 293,683.00$ Tranche 4 (03.06.2020): US $\$ 580,492.00$ Tranche 5 (07.08.2020): US\$ 229,838.00 |
| E. | Proof of co-financing (cash and in-kind) | Yes | Proof of co-finance were presented through the following: <br> a. Partner letter confirming approval to commit the stated resources to the project <br> Co-financed reports signed by each of the partners indicating the total resources (in-kind) actually committed to the project |


| F. | A summary report on the project's expenditures during the life of the project (by budget lines, project components and/or annual level) | Yes | Report on expenditure along the course of the implementation of the project were presented on quarterly basis from the Q3 of 2018, to Q3 of 2020. <br> The expenditures were reported for each of the four project components, and a Project Management Cost (PMC) component. |
| :---: | :---: | :---: | :---: |
| G. | Copies of any completed audits and management responses (where applicable) | Yes | All documents were received including an independent audit report for the BEA II. |
| H. | Any other financial information that was required for this project (list): | Yes | NA |
|  | 3. Communication between finance and project management staff | HS |  |
|  | ect Manager and/or Task ager's level of awareness of the ect's financial status. | HS | The project Team, particularly the Project Manager at the WRI and task manager at UNEP Climate Mitigation Unit all demonstrated a high level of awareness of the project's financial status, with appropriate endorsement on all applicable financial reposting documents |
|  | Management Officer's wledge of project progress/status $n$ disbursements are done. | HS | The fund management officer had a full knowledge of all disbursements across the entire implementation of the project |
|  | l of addressing and resolving ncial management issues among d Management Officer and Project ager/Task Manager. | HS | No significant issues were observed apart from budgets revisions within the project's implementation phase. In all cases, the reviews were addressed with timely and effective communication between the UNEP and WRI |
|  | tact/communication between by d Management Officer, Project ager/Task Manager during the aration of financial and progress orts. | HS | There was an effective communication between the Fund Management Officer, the Project Manager and Task Manager during the preparation of all financial and progress reports, and this was seen through the document reviews and feedback from these stakeholders during the evaluation. |
|  | ect Manager, Task Manager and d Management Officer onsiveness to financial requests ing the evaluation process | HS | The project manager, task manager and fund manager were very responsive to financial communication and information requests during the evaluation. |
|  | rall rating | HS | Overall, the project demonstrated a Highly Satisfactory financial management |

## Rating for Financial Management: Highly Satisfactory

## F. Efficiency

248. The BEA II initiative which commenced on September 5, 2018, was brought to a financial closure on 30 September 2020. The project had a no-cost extension for

8 months from the originally planned closure date. The first budget revision was explained by three main factors: First, the project began later than had been anticipated, hence the planned spending arc across years has thus shifted, with fewer funds expensed in the first year and more projected in later months and years; Second, staffing changes have necessitated more funds to be made available in certain staff budget lines and correspondingly less in others; and Third, the WRI has at the time of the extension request, finalized and detailed in greater specificity the scopes of work for our many subgrants, which necessitated minor adjustments across subgrant budget lines.
249. The second budget revision was necessitated by several internal changes across certain project activities and budget lines. For example, some funding in leadership grants were shifted from 2019 to 2020. In addition, the evolving needs of project cities necessitated reallocation of funding to technical lead partners. Again, some unspent funds under activity budget line for component 3 had to be used to compensate over expenditure along certain budget lines in component 1 among other reasons.
250. The main reasons cited for the extension were delays experienced by the executing agency in sub-contracting processes in terms of regional, national and deep-dive city engagements, as well as a moderate impact of the COVID-19 pandemic in the second half of 2020. The various project activities were implemented within an expenditure framework of the initially approved GEF budget allocation of USD 2,000.000 for the planned project outputs and outcomes.
251. The project harnessed largely, the existing potentials and networks in its partner cities from the Phase I engagement phase in the implementation of the planned activities, thus attracting significant excess resources in terms of in-kind co-financing as duly reported under the Financial Management section of this report. Through its implementation, The Project leveraged access to online project resources developed from the BEA Phase I including recorded BEA webinars organized by thematic topic (finance, retrofits, codes, voluntary/above code programs, procurement, tracking progress) which were available on the Copenhagen Centre on Energy Efficiency (C2E2) knowledge management site. The Project further leveraged the BEA public website which was created during the latter stages of the BEA Phasel (www. BuildingEfficiencyAccelerator.org) without need for an additional expenditure on a new project website for Phase II.
252. In line of the achievement of results of the project given the resources utilised, partner networks leveraged, and no-cost extension due to the COVID-19 pandemic, the project's efficiency is rated as Satisfactory.

## Rating for Efficiency: Satisfactory

## G. Monitoring and Reporting

## Monitoring Design and Budgeting

253. At design, a budgeted Monitoring and Evaluation (M\&E) plan was prepared for the BEA II in line with requirements for UNEP/GEF funded medium-sized projects (contained in Annex G of the ProDoc, Page 137). The plan included the following Monitoring and Evaluation provisions at approval: Inception Workshop (IW) and Report, Half-yearly progress report, Quarterly expenditure reports, Technical and thematic Reports, Communication of lessons learnt, Project Implementation Review (PIR), Co-financing Report, and optional Medium-Term Review (MTR), Final Report, Terminal Evaluation, Audits, Publication of Lessons Learnt and other project
publications. The proposed strategies were found to be very relevant and appropriate for tracking progress towards each of the expected action and results in the Project.
254. Appropriate timelines were specified for each planned monitoring strategy. The inception workshop and report were planned to be delivered within 2 months after project approval. Two half yearly progress reports were planned to be delivered foe each implementing year at the ending of July and January. Quarterly reports were to be submitted at the ending of January, April, July and October, for each implementing year, with a financial expenditure report planned to be delivered within 60 days of project completion. The Project Implementation Review (PIR) reports and co-financing reports were to be delivered yearly, by the end of July each year. Budgeted provision was also made for a mid-term review if triggered by the Task Manager. In general, the monitoring design was very comprehensive.
255. GEF tracking tools are duly prepared for the project and presented in Annex J1 and J-2 of the ProDoc. A set of impact assessment methods and results for Building Efficiency Accelerator Phase 2 was prepared in addition to a tool for the impact assessment
256. For all planned monitoring strategies, a total budget of USD 425,000.00 was allocated, with GEF financing amountingto USD 96,860 and Co-financing amounting to USD 328,400 . It is important to note that the total M\&E budget includes an allocation of USD 25,000 for the publication of lessons learnt and other project publications that are relevant to the Project and also useful for future projects. Given that all planned monitoring and evaluation activities at approval were successfully carried out, and appropriate deliverables in terms of publications were made available at evaluation, it can be concluded that the M\&E budget was adequate for the project. Unspent budget on activities such as the Mid Term Review was shifted to other project components, and the total GEF expenditure at project exit was thus less than the 2,000,000 GEF allocated budget at CEO approval.
257. The adequacy and appropriateness of the design budgeting informs the criteria's rating as Highly Satisfactory.

## Monitoring of Project Implementation

258. At evaluation, all monitoring arrangements that were planned were observed to have guided the tracking of the implementation of the BEA II, with a notable exception being the Mid Term Review given that it was not triggered by the manager. The allocated budget at CEO approval for monitoring was utilised appropriately through the project in preparation of publications, organisation of partner meetings, and the development of other informative resources reported under outputs in project components 3 and 4 to communicate project's progress among others, with no exceeded expenditure for such purpose observed. All monitoring tools and frameworks that were applied through the project were in line with the UNEP standards and templates for the preparation of such reports, and all available resources observed were dully approved.
259. Upon approval of the project, the inception meeting planned was held on October 10, 2018, at the World Resources Institute's global office at Washington DC, USA. Participants who could not attend the meeting in person joined remotely. Halfyearly progress reports undersigned by the Project Manager and Project Director (first report spanning 01 August 2018to 31 December 2018, second report spanning 01 January 2019 to 30 June 2019, and third sighted report spanning 01 July 2019 to 31 December 2019), guided the regular reporting of the implementation progress of the project.
260. The implementation progress was monitored through minutes and agendas from national workshops and city-level stakeholder consultations. This includes submissions during kick-off/inception meetings. The project team has also been undertaking regular consultations with national stakeholders, and summaries of the national engagement workshops were duly verified at evaluation. This was complemented with Progress Summary for BEA Cities and Jurisdictions to help track project implementation activities for the BEA Phase II.
261. The first BEA II Steering Committee meeting was held on Tuesday, 17 July 2018. A total of six (6) steering committee meetings were held, with the last meeting held on 23 October 2020. The agenda and briefing materials for each meeting towards monitoring key project activities, were duly available at project evaluation.
262. The first PIR was for the reporting period from 1 July 2019 to 30 June 2020, with a number of key project outputs being rated as Highly Satisfactory by the UNEP Task Manager. The second PIR was for the reporting period from 1 July 2020 to 30 June 2021. In both PIRs, project risks were rated Low by the Task Manager.
263. The monitoring of project implementation is rated Highly Satisfactory.

## Project Reporting

264. The Project's Implementation Reports (PIRs) described in the previous section were used to communicate progress on the project's implementation from inception to completion. Each PIR presented complete information on the overview of the project's status, including linkages of the project activities with the United Nations Development Assistance Framework (UNDAF) of each country as well as an assessment of progress towards the Core Indicator 6 indicator of Greenhouse gas emissions mitigation. Details on planned contribution of the project activities towards relevant SDGs and their indicators were sufficiently addressed in each PIR, including issues on gender mainstreaming in the project activities (even though the indicators of gender representation were not adequate and leaves room for more efforts). The overall quality of the PIRs is highly satisfactory.
265. A final report undersigned by the Project Director, and Project Manager, was prepared to cover all project activities and results from September 2018 to September 2020. The progress towards each project component was presented in the report, and the overall level of attainment of planned outputs and outcomes for each project component was contained therein, including a summary of project budget for the period, stakeholder engagements and other leveraged resources. No significant gaps were observed in the final project report, except for certain key details on some project achievements. Particularly for results like output 2.1.2 on private sector commitments, it is reported in the final project report that $60 \%$ has been completed due to difficult in regional engagements experience along the course of implementation, but it is not clear the basis for the estimation of the $60 \%$ achievement.
266. Given the quality of the project's reports and their completeness and timeliness, the project reporting is rated as HighlySatisfactory.

## Rating for Monitoring and Reporting: Highly Satisfactory

## H. Sustainability

267. The sustainability of the project assessed the extent to which project the project's outcomes are likely to be consolidated with little or no more support from the BEA II initiative's actions. At the project's evaluation, evidence on the actual
impact emanating from investment into BEA II (actual estimated greenhouse gas emissions from Phase II activities) could not be substantiated. Thus, the revised project outcomes in line with the Theory of Change at Evaluation were the basis for the assessment.

## Socio-political Sustainability

268. The socio-political sustainability of The Project assesses the extent to which social or political factors support the continuation and further development of the benefits derived from project outcomes. This is further informed by the level of ownership, interest and commitment observed among government and other stakeholders to take the project achievements forwards beyond the support actions at implementation.

Socio-Political sustainability of revised Outcome 1: Public and Private bodies demonstrate collaboration to develop and implement tools and methods of EE in the building sector:
269. A very high socio-political sustainability of outcome 1 is observed at evaluation. Public institutions in cities have commenced actions to develop and implement tools and methods for EE in the building sector. In Colombia for example this is demonstrated in the country's progress on the National Roadmap for Net Zero Carbon Buildings which was launched in June 2022 by the Ministry of Environment and Sustainable Development to achieve net zero in all new buildings by 2030 and all buildings by 2050. The cities of Bogotá and Cali have already completed baseline assessment and evaluation of mitigation measures under the initiative, which revealed potential GHG emissions reduction from the buildings and construction sector by $54 \%$ in Bogotá and $51 \%$ in Cali by 2030, all in line with the goals set by the roadmap and the country's NDCs of $51 \%$ reduction by 2030.
270. In Turkey for example, the government continues to demonstrate its ownership and commitment to accelerating energy efficiency projects in buildings through public private partnership by a close collaboration between public institutions (the Ministry of Energy and Natural Resources, Ministry of Environmentand Urbanization, General Directorate of Construction Works) and higher level global multinational actors (including the World Bank) to implement actions towards reducing energy use in central government buildings and inform the development of sustainable financing mechanisms to support a scaled-up, national program for energy efficiency in public buildings.
271. Further engagement of Mexican stakeholders in the development of the Regional Roadmap for Buildings and Construction are underway through a collaboration between national government and higher-level private actors like the IEA and the Global Alliance for Buildings and Construction ${ }^{48}$ among others. Beyond this, the Mexican government, in consultation with KfW Development Bank and the InterAmerican Development Bank, has designed a programme to construct energyefficient social housing called "EcoCasa". On average, an EcoCasa house uses 20\% less energy than a comparable standard house. In addition to the German contribution of around USD 250 million, the Inter-American Development Bank has contributed around USD 100 million to the programme, indicating commitment of both private and public sector actors to advancing energy efficiency interventions in the country's building sector.

[^20]272. Given the nature of global commitment to reducing emissions in their cities in general, governments and private cities commitment to action is less contestable. However, even though there is substantive evidence on the attainment of outcome 1 in many project cities and other non-project cities globally, there are some areas for improvement, particularly in terms of private sector commitment. It is reported in the project's final report for example, that the BEA continues to engage with the private sector significantly, but faced significant gaps in such engagements, particularly at the city levels.
273. The socio-political sustainability towards outcome 1 is thus rated Likely.

Socio-Political sustainability of revised Outcome 2: "light touch" cities or subnational governments demonstrate $B E$ actions:
274. It is evident from the evaluation that the BEA initiative has created enough socio-political support for governments at all levels to demonstrate building efficiency actions through the quality of engagement with The Project team. The level of commitment to action beyond the project as planned in outcome 2 is constantly being communicated on different platforms such as Newspaper articles, websites, magazines, events, and evidence of socio-political sustainability towards outcome 2 are obtained through web analysis, the key informant interviews and virtual discussion with partners.
275. In South Africa for example, the web analysis revealed that the KwaDukuza municipality, a light touch city, has commenced implementation of its green building guidelines, with a key demonstration action being the renovation of the Nokukhanya Luthuli House municipal office building with a number of energy efficient building elements such as LED sensor lights, double-glazed windows, and energy-efficient air conditioners ${ }^{49}$.
276. Nagpur city in India for example, went beyond the deep-dive support received to complete a citywide greenhouse gas emissions inventory and is in the process of aligning principal actions towards carbon emission reduction with national and subnational policies and building codes like ECO-Niwas Samhita (the energy conservation building code for residential buildings) and through the promotion of efficiency and decarbonization at every stage of the building lifecycle.
277. In Costa Rica for example, the city of Curridabat in 2022 has been reported to have commenced revising its city master plan to include a municipal efficiency code, and this was verified with officials during the focus group discussions. Similarly, Belén, a city with a strong commercial industrial sector, is reported to be in the process of updating its bylaws for construction permits to incorporate energy efficient standards. The city of Moravia is implementing actions towards sustainable building strategies in its main Municipal Government Building among others.
278. The foregoing suggests that sub-national and city-level socio-political structure are strongly fostering ownership towards an integrated approach to accelerating building efficiency action, even though most of these actions are still in the early stages. Hence, the socio-political sustainability of revised outcome 2 is rated Highly Likely.

[^21]Socio-Political sustainability of revised Outcome 3: Governments of project cities develop and implement, or are prepared to implement building efficiency policies/projects and commitment actions:
279. At BEAll project exit, 3 national governments already had engagements with the BEA to steward local action in alignment with their priorities and NDCs/SDG s. These evidence among other reflect significant sustainability of revised outcome 2.
280. In the revised Nationally Determined Contribution (NDC) submitted to UNFCCC by the government of Mongolia in 2020, the country has raised its ambition for climate action with a new target of total greenhouse gas (GHG) emissions reduction by $22.7 \%$ by the end of 2030, as compared to the BAU scenario for 2010. The government intends to drive such ambition through accelerating efficiency action in the building and energy sector of the country.
281. In India, Egypt and Brazil, there is strong evidence of practitioners in the building sector utilizing green building methods for upgrading informal settlements to be resilient, healthy and low-carbon. Such progress was shared in the form of community stories and best practices in May 202250, for other cities to learn from and also for general discussions on how pilots can be scaled to promote low-carbon living in low-income areas through fostering stronger supports and ownership by city and national level governments.
282. One of the activities carried out in India following the project was 'energy consumption benchmarking' for the office buildings and hotel buildings for the two participating cities. The results of the EE benchmarking are reported during the Key Informant Interviews to be under preparation for publication. These kinds of studies have been planned for other cities in the future as well and are increasingly being integrated in other interventions such as the Smart City plans due to the commitment and ownership of the city governments towards accelerating energy efficiency in the building sector.
283. The city of Beijing, China, is currently in the process of implementing the lowemission zone policy launched with the support of the Project in September 2017. While this is not a direct building efficiency action, the policy bans heavy-duty freight vehicles with emissions below National IV Standards from entering the city, and WRI China supported the planning and implementation of this zone as well as replication in other cities to improve air quality. This demonstrates the existence of a strong political on the part of the city government to continue implementing integrated policies towards quality city environment, and such integrated lessons informed the subsequent re-development of the planned next phase of this project (the GEF ID 10321 "Zero Carbon Buildings for All: from Energy Efficiency to Decarbonization" project).
284. Given the on-going global discussions and several initiatives towards sustainable develop through accelerating the investment into environmentally friendly technologies, it can be concluded that the mechanisms in place for the political sustainability of the outcome are very strong, even though the extent of verification at evaluation was limited by low participation in the data collection process. Hence, the socio-political sustainability towards outcome 3 is rated Highly Likely.

[^22]Socio-Political sustainability of revised Outcome 4: Relevant actors at city and national levels apply new knowledge and best practices on BEA in decision-making, and in tracking the results of building efficiency action:
285. Evidence at evaluation suggest that there is a significant likelihood of sustainability of revised outcome 4, even though there are key gaps in the extent to which these cities could continue utilising the knowledge independently, and the commitment of governments to tract BE action as an independent sector achievement. At project exit, all the four (4) deep dive cities have been provided tracking and benchmarking support in the form of tools and data, including estimations of potential emission savings for their various cities (Figure 9). The impact projections are dated January 2021. However, the commitment of city governments to the actual utilisation of the tools and support received to track progress beyond the project was difficult to verify at evaluation.
286. There is no data on the actual progress on tracking that has been achieved by each city observed at evaluation, even though there is a strong political will to track emissions in all countries. The socio-political sustainability of outcome 4 is rated Likely.
287. The overall socio-political sustainability of the project is thus rated Likely.

## Financial Sustainability

Financial sustainability of revised Outcome 1.: Public and Private bodies demonstrate collaboration to develop and implement tools and methods of EE in the building sector:
288. There is significant evidence observed across the evaluation of the project on the fact that many substantive partners (public and private entities) have agreed to invest in building efficiency in the light touch cities and newly target cities. Such agreements are supported with commitment letters to contribute towards the actions, including making available resources for the development and implementation of EE action in buildings. Beyond the implementation of the project, evidence of continued financial support was seen in the new UNEP/GEF funding obtained for the GEF ID 10321 "Zero Carbon Buildings for All: from Energy Efficiency to Decarbonization" project which started in March 2021 and onboarded a number of cities from Turkey and Columbia among others. The project secured a GEF grant allocation of $\$ 2,000,000$, and Co-financing of $\$ 6,938,081$, giving it a total value of $\$$ 8,938,08151.
289. It must be stated that usually, public funds have been a major source of funding for projects initiated by city and national governments. However, Public-Private Partnerships (PPPs) are increasingly being advocated as a more feasible funding alternative given the limited availability of public funds. In many European contexts, the PPP initiatives have been observed in recent time to have progressively slowed down, by unfavourable conditions that emerged in capital markets. The direction tends to point towards a more integrated approach to funding energy efficient actions in cities in general.
290. This reflection informs the rating of the financial sustainability towards the realisation of revised outcome 1 as Likely.
Financial sustainability of revised Outcome 2: "light touch" cities or subnational governments demonstrate BE actions and revised Outcome 3: Governments of project cities develop and

[^23]291. Given the similarity in expected outcomes 2 and 3 , the financial sustainability is assessed together. Evidence obtained through web analytics suggest that governments are increasingly investing in decarbonising their cities, and some of these investments are going directly to the building sector. The government of Turkey for instance has sought to invest around $\$ 10.9$ billion in line with the country's National Energy Efficiency Action Plan by $2023^{52}$. Similarly, the International Finance Corporation (IFC) signed an agreement to provide KCB Bank Kenya with $\$ 150$ million in loan financing to fund the development of smart energy projects aimed at boosting the country's climate action initiatives ${ }^{53}$.
292. It is important to add however, that sustainability requires significant mobilisation of financial resources for continuous capacity support. It was reported for example, that in India, the project did not leverage any additional (additional to GEF funding) financial resources during its implementation. The cities where the project was implemented in India, were covered under the 'Smart City' initiative of the government, thus there were some resources provided by the central government and the state government, but these resources were not dedicated for the building EE.
293. To accelerate the mobilisation of funding from the private sector for energy efficiency action in India for example, the World Bank under the Partial Risk Sharing Facility (PRSF) for Energy Efficiency Project applies the Bank's global experiences, lessons learned, and best practices to demonstrate innovative financing and implementation mechanisms that can tap into the significant private sector potential in India ${ }^{54}$. Other countries are increasingly drawing global and local level support to invest in promoting energy efficiency in their buildings.
294. The global focus of BEA II led to a thin distribution of financial resources across many countries, hence no demonstration project was planned or implemented. Additional funding would have helped to support a pilot project to demonstrate the results at the city level. However, apart from funding, this would have required some additional time as well. As previously indicated, some of the activities are planned to continue under the follow-up project (Carbon Neutral/Zero Emission buildings project), thereby enhancing the financial sustainability.
295. The financial sustainability for outcomes 2 and 3 is thus rated Likely.

Financial sustainability of revised Outcome 4: Relevant actors at city and national levels apply new knowledge and best practices on BEA in decision-making, and in tracking the results of building efficiency action:
296. Evidence from the web analytics and project report further showed that many project cities have already begun commitment action towards investing in building efficiency policies and projects, and in tracking progress towards attainment of their Nationally Determined Contributions, at and beyond project exit. In December 2021, the Mexican government for example published a new version of the Special Climate Change Program (PECC, in Spanish) that outlines, strategies, actions and goals related to climate change mitigation and adaptation. In its Objective 2: the

[^24]
#### Abstract

government seeks to "reduce greenhouse gas emissions" with tracking being a major component However, it is unclear the source and allocation of funding for such tracking actions under the policy. The continuous investment into such actions demonstrated a likelihood of the outcome to be sustained with a regular financial support from government and through collaboration with private entities.


297. The Global Alliance for Building and Construction's new Buildings Climate Tracker, which considers measures such as incremental energy efficiency investment in buildings and the share of renewable energy in global buildings remain the most significant tracking tool available for cities. Under the platform, UNEP publishes annual reference documents that present sectoral overviews of emissions. The 2020 report finds significant gaps in tracking emissions from the building sector, even though it was reported to have accounted for $37 \%$ of total energy-related CO2 emissions.
298. Thus, while policy priorities and emission targets are clearly being set by countries, there is no clear funding mechanisms for tracking emissions from the building sector observed generally. Given that the policy and planning process in cities is a continuous practice, regardless of whether or not BEA is a policy priority, significant opportunities exist for the integration of lessons into the development of building codes and legislations among others, thus reducing the cost implications of embarking solely on BEA action among cities, including actions towards tracking progress from cities in general.
299. This suggest that the financial sustainability towards the outcome is likely but would be further eased with and integrated planning approach. Thus, the financial sustainability of Outcome 4 is Moderately Likely
300. Overall, the financial sustainability of the BEA II is rated Moderately Likely.

## Institutional Sustainability

Institutional sustainability for all project revised outcomes:
301. Throughout COP26 in 2021, and subsequent global climate actions such as COP 27, cities and subnational governments increasingly pledge their commitment and support to developing policies, implementing pilot projects and reporting impressive progress through their various environmental, energy and other climate related institutions. However, to achieve climate goals, upscale achievements of this project to other cities, and translate gains made in accelerator interventions such as BEAll into sustainable outcomes, a strong institutional capacity and readiness is required.
302. It is observed at evaluation during the discussions with partners, Key Informant Interviews in India, Document Review and Web Analysis, that the quality of engagement between the project team, project partners and the various governments at national and sub-national levels was high and led to increasing their capacities towards accelerating the uptake of energy efficiency policies in the building sector, and in development of targets and action plans. Institutional capacities towards policy development and project selection are thus well develop in all the project cities, and the continues development of policies by state and city level institutions towards energy efficiency and decarbonisation of the building sectors is an indication of the existence of capacities in this regard.
303. However, there are key gaps in the institutional capacities towards tracking progress in the sector, particularly regarding the ability of city officials to effectively monitor the implementation of BE action, and to track results using reliable data. In the virtual focus group discussion with city officials, it was clear that local
government workers are usually unable to track emissions specifically from the building sector due to limited ability to collect the necessary data, and to analyse them appropriately in line with planned targets. Often, external institutions have to be contracted to undertake such assignments, with extra financial cost on the ministries and city governments. A high degree of reliance on the project's support (and anticipation of continued support in subsequent phases of the BEA-the ZCBA), or reliance on external aid is thus the current main alternative adopted by many cities.
304. The effective demonstration of BE action and consolidation of outcomes in a sustainable manner across all cities globally requires that institutions in across the various levels of government have the capacity to develop, implement and monitor the implementation of policies and initiatives. It is important to note that while there is preliminary evidence on the likelihood of institutional sustainability in terms of policy development and setting of priorities, gaps still exist in capacity building that should continually be improved.
305. Overall, the institutional sustainability is rated Likely.

## Rating for Sustainability: Moderately Likely

## I. Factors Affecting Performance and Cross-Cutting Issues

## Preparation and Readiness

306. Between February 02, 2018, which was the date of first approval letter of the project, and final approval of the project on June 13, 2018, the project team engaged in quality stakeholder consultations to ensure that the necessary stakeholder and institutional capacities were available for the implementation of the project. Within the same period, all necessary minor comments by the GEFSEC review regarding the project design were addressed, even though it must be stated that there were no major comments that required a change to the overall design of the project. Building on its network from the BEA PhaseI, no major issues were encountered between the final project approval and the first disbursement of funds in terms of initial staffing arrangements, partnership agreements and financing arrangements. All partnership agreements with Global Project partners were fulfilled.
307. However, in the confirmation of partner capacities within the various cities for implementation of planned project action after approval, it was realised that in two of the earlier selected "deep-dive" cities (Da Nang City in Vietnam and Nairobi in Kenya), there was a staff turnover at the city and/or lead partner organization from BEA Phase I (see Section III-E on changes in design during implementation), which resulted in a lack of capacity to continue with engagement of the two cities as deepdive cities under The Project. To mitigate this, the project decided to exempt these two from deep-dive engagements, and redesigned the deep-dive engagements to focus on Nagpur, State of Sonora, Ulaanbaatar, and Tshwane as new deep-dive cities, with Bogota, Eskisehir and Mexico as deep dive existing brought forward from BEA Phase I.
308. Based on observed evidence at evaluation, the project's preparation and readiness is rated Satisfactory.

## Quality of Project Management and Supervision

309. In terms of monitoring the project design and budgeting, the project team adhered to all standard procedures and planned monitoring requirements approved
for the project, in line implementation agreements between the UNEP Climate Change Mitigation Unit, and the World Resources Institute. In addition, there were efficient instruments in place along the course of the implementation of the project to ensure effective supervision. The institutional structure within which the implementation of the initiative was organised (see Section III-D) facilitated a quality management of the implementation and its supervision at all levels.
310. It was revealed through document reviews, emails and the online survey questions administered to the Implementing Agency (UNEP CCMU) that the Executing Agency (WRI) adhered to all agreed provisions and maintained a quality communication with the IA throughout the course of design and implementation of the project. The EA, WRI, adopted hybrid meeting strategies to ensure that the relevance of the project is maintained across the implementation span, including the period of risk of COVID-19 pandemic on physical meetings. This also facilitated the ability of the project to continue to sustain the interest of all relevant partners and stakeholders throughout the implementation. Thus, a high level of adaptation was observed, such that project activities were managed effectively in all cities and countries despite the global focus. Thus, the quality of project management and supervision by the EA is rated Highly Satisfactory.
311. In similar evidence from document reviews and specific discussions through emails and the online survey questions administered to the EA at evaluation, the EA indicated that the level of reporting of project's progress and overall communication of all project activities across the project partners was of a highly satisfactory quality. Where there was need for clarification on reports, the IA indicated that the EA was always available, and timely in the provision of their responses and clarifications. Other institutional structures for the implementation of the project, particularly the Project's Steering Committee was thorough in recommendations, and demonstrated a problem-solving approach in comments towards improving project's engagement within the cities, and thus the EA was generally satisfied with the extent to which the project showed a high sense of adaptation to changing environmental needs, particularly during the risks posed by the COVID-19 pandemic. The level of project management and supervision by the IA is thus rated Highly Satisfactory.
312. Thus overall, the standard fiduciary and monitoring requirements for the implementation of GEF funded medium-sized projects were adhered to along the entire course of implementation of the initiative, and the project team maintained quality engagements to sustain the relevance of the project, and to guide actions in the various cities towards the planned outputs and outcomes. The quality of project management and supervision is rated HighlySatisfactory.

## Stakeholders Participation and Cooperation

313. This evaluation notes a significant limitation in the extent to which local stakeholders such as property owners, and other marginalised and gender groups are included in the project. However, there were no significant external or internal project factors which were observed through the document reviews on partner commitment including evidence on continuous participation in meetings and provision of in-kind support, surveys with the EA, Key Informant Discussions among others that impacted the quality of engagement of the planned stakeholders in the project.
314. The impacts of COVID 19 on stakeholder engagement were not very significant across all the major countries and cities. COVID restrictions in India for example started from March 2020 onwards. By this time the major project activities were
completed. The EA adopted a hybrid approach, where stakeholders from distant places who could not participate in physical engagements were allowed to participate in the various meetings, workshops and briefing sessions through zoom meetings and MS Teams platforms.
315. In all the project cities, the EA maintained quality communication which is tailored to the needs of each stakeholder through the implementation of the project. In Tswane, South African for example, the quality of stakeholder engagement led to the building of key synergies and buy-ins with key departments such as the city planning (Spatial planning), Building Control Office, Group Property Management and Group Finance (Office of the CFO) towards understanding the importance of building efficiency and Green Buildings, and these stakeholders proceeded to demonstrate ownership action through the project. In India for example, there were a lot of ongoing activities in the area of EE, supported by different multilateral and bi-lateral agencies, and the project leverage its local networks to foster effective engagement with the stakeholders from these other institutions. In the state of Sonora for example, through the Technical Advisory Group (GTA), the project maintained a high level of stakeholder participation with experts on Energy Efficiency from the academic sector, public sector (including the municipal planning institution and state government commission of energy) and the private sector (represented by a company specialize on technologies for energy efficiency on buildings).
316. Communication with all stakeholders across the project was thus observed to be very consistent, and in line with approved provisions in the stakeholder engagement plan of the project at CEO approval. This includes constant follow up meetings with key national partners and city officials, supporting decisions making and sharing knowledge on virtual platforms, during presentations, and within the institutions in terms of working recommendations and reports.
317. In general, the project design had equal opportunities for all to participate, irrespective of gender or other considerations, given that no limitation conditions for participation were presented. It is observed however, that the nature of the project activities placed city officials, national government officials, and other stakeholders from among Civil Society Organizations, private sector agencies and academic communities at the centre of project actions, with limited opportunity for local people and others like urban poor and vulnerable groups in BE action to participate in workshops, or to provide policy inputs. Stakeholders' participation in the project is rated Satisfactory.

## Responsiveness to Human Rights and Gender Equality

318. At design, the project was screened as not having any significant negative impact on human rights. The project activities also respected the fundamental human rights of all persons and did not in any way seek to marginalise a given group of people among all the directly affected stakeholders. Thus, project's activities and all actions undertaken at implementation were found to be consistent the UN Common Understanding on the human rights-based approach (HRBA) ${ }^{55}$ and the UN Declaration on the Rights of Indigenous People56. There was no provision observed to intentionally prevent a particular group from participating in the project, and no

[^25]project action at implementation was observed to have negatively affected the rights of humans in all the project cities.
319. Gender dimensions are dominating most global interventions in the contemporary project planning and implementation discourse. The composition of the Executing Agency for example, had about $75 \%$ females, which is a great effort in this regard towards provision of mentorship to participating cities and attracting interest of marginalised groups to actively participate in energy efficiency action. Importantly, the project has paid some level of sensitivity to the collection of genderdisaggregated data during stakeholder meetings.
320. The project's working group participation was reported to have reflected a $56 \%$ participation by women and $44 \%$ participation by men in local "deep dive" city activities (see thePIRs). $79 \%$ of BEA cities were reported to have a female city liaison (or primary project manager) and women led the authorship of all three BEA "Playbooks" and city-scale monitoring tool. In August 2020, a webinar was held on the intersection of building efficiency work and gender equity, featuring a number of BEA on-the-ground partners and global thought leaders discussing research and programming gaps in that intersection and describing some related peer initiatives. While this is a significant effort at the level of this project, this is however not enough to empower marginalised gender groups in city administrations with a high- male dominance, especially when these cities are not given mandatory provisions on proportion of participants in capacity building sessions that should be women for example.
321. A little more effort could have been adopted to introduce a capacity building or awareness creation to actively enhance fair gender representations during the numerous national engagements. to the responsiveness of the project to human rights and gender is thus rated "Satisfactory" based on evaluation findings.

## Environmental and Social Safeguards

322. Given that the project was approved prior to the introduction of the Safeguard Risk Identification Form (SRIF) in 2019 by UNEP, the project was observed to have met the criteria necessary for environmental and social safeguards screening under the Environmental, Social and Economic Review note (ESERN) by UNEP. In the Environmental and social Safeguards checklist at CEO approval of the project, the appropriate screening check for projects with a significantly anticipated negative impact on the environment appropriate potential negative impacts was completed. The project by design, sought to significantly improve environmental quality. Even though Building Efficiency such as retrofits may have adverse effects due to uncontrolled disposal of building waste, etc., property value increases and urban poor cannot afford the new upgraded buildings among others, the level of implementation of this project, including the budget and time led to the project assuming more of technical assistance, capacity building and awareness, with limited implementation of physical upgrading actions directly. Hence, there were no significantly anticipated potential negative externalities identified at design that required mitigation. For all assessments of safeguard standards triggered by the Project, a risk rating of Low (Negative impacts negligible: no further study or impact management required) was applied to the project across 9 assessment dimensions ${ }^{57}$.

[^26]323. At implementation of the project, the PIR for the reporting period from 1 July 2019 to 30 June 2020 specified 5 safeguard recommendations by the Safeguard Advisor of the project. The project team sufficiently addressed all the risks, with no violation of the measures observed. Similarly in the PIR for the reporting period from 1 July 2020 to 30 June 2021, the 5 previously recommended environmental and social safeguards were sufficiently addressed by the project. For example, regarding risks to infrastructure in terms of building design, execution, residents and pedestrians, the majority of work carried out by the project related to building sector policy, financing and best practices. Issues relating to the design of retrofitting projects or new constructions were planned through diverse city-level stakeholders, hence the project's actions in general did not significantly pose any socioenvironmental risks.
324. It is observed also that the project's adoption of hybrid approaches to some of the meetings and workshops also reduced the overall environmental footprint of the project, given that in many cases, travel and its associated contribution to GHG emissions were minimal. Overall, the project's level of Environmental and Social Safeguards is rated Satisfactory.

## Country Ownership and Driven-ness

325. Throughout the implementation of the BEA Phase II action, it was observed that city officials and national governments (relevant ministries, departments and agencies, as well as civil society groups) formed the core of the recipient stakeholder group for implementation of the project and have demonstrated a high acceptability for the BE action and showed an ownership over the various project activities. Based on discussions with Key Informants in India, as well as Key national partners outside India who were drawn from the various ministries, departments and agencies that participated in the project, including other higher level nongovernmental institutions, the project is described as one that has created enough contextual relevance, local sensitivity and interest amongst the stakeholders, thus facilitating country ownership and driven-ness of the intervention. There is a higher level of interest to explore the concept.
326. The level of ownership and driven-ness of The Project observed at the time of implementation among not only city officials, but even national governments who have commenced the development and implementation of energy efficiency action in their building sector towards the pursuit of Net Zero targets informed the criterion's rating as Highly Satisfactory.

## Communication and Public Awareness

327. The BEA II maintained a very consistent and adequate set of provisions for communications and public awareness creation at city levels, national levels, regional and global levels. All communication platforms that have been developed under the initiative have been reported in earlier sections of the evaluation findings to be in place and are deemed to be in a good state of functioning towards enhancing the acceleration of the project lessons, achievements and disseminating capacity enhancement content.
328. Given that the project leveraged the already existing website of the Building Efficiency Accelerator for dissemination of key actions and hosting of relevant

[^27]project knowledge resources among others, the institutional, socio-political and financial sustainability of the various communication materials and platforms is highly likely. This is further deepened by a continuous collaboration with other partners such as the ICLEI for further dissemination of project action. The quality of the various communication materials was observed to be very high, and in many cases, materials are prepared and hosted directly in the local languages of the target audience. Good practices are well consolidated, and are constantly disseminated, including the use of YouTube channels and other global platforms such as the COP.
329. The project components by nature, as well as approach adopted for stakeholder engagement enhanced dissemination of action along the entire course of implementation. The communication and public awareness of the BEA II is thus rated as HighlySatisfactory

Rating for Factors Affecting Performance and Cross-Cutting Issues: Highly Satisfactory

## CONCLUSIONS AND RECOMMENDATIONS

## A. Conclusions

330. Overall, the project received a rating of Highly Satisfactory.
331. The planned project outputs for each of the project components were available, and the amount of policy and project action observed in the various cities showed that the project stimulated concrete actions accelerating efforts in decarbonising the building sector across its cities and generated enough momentum for other cities to replicate the results, leading to an increasing number of cities joining the BEA. There is a high existence of political will to sustain the project results and increasing financial resource commitment is observed both among governments of the project cities, partners, and other higher inter-governmental institutions such as shown in the GEF approval for a follow-up project to the BEA Phase II. While the key drivers and assumptions to translate project outputs to outcomes, outcomes to intermediate states and then to the overall project impact are largely in place, there is however, some gaps in private sector commitment, including the need for more financial commitment to investing in Building Efficiency Action if the full impacts are to be realised.
332. The BEA II is a very relevant project to the developmental priorities of UNEP, the GEF and all cities in the ongoing debates and discussions towards climate change adaptation and mitigation. The Project has recorded significant amount of success in the attainment of its planned outputs and outcomes. Important successes observed includes the successful development of policies and implementation action in deep-dive cities, increasing awareness for energy efficiency action in cities, and putting city and national governments of project cities on a path to continuous investment into BE action. Key omissions include a limited sensitivity to gender and indigenous people's needs during project activities.
333. The project was efficiently implemented, and all monitoring arrangements that were planned were observed to have guided the tracking of the implementation of the BEA Phase II. The allocated budget at CEO approval for monitoring was utilised appropriately through the project, with no exceeded expenditure for such purpose observed. All monitoring tools and frameworks were in line with the UNEP standards and templates for the preparation of such reports, and all available resources observed were dully approved.
334. Findings on the Key Strategic Questions (KSQ) through the evaluation and review of evidence are therefore summarised herein:

KSQ1: To what extent are the results attributable to the project? What can we conclude in terms of effectiveness of global accelerator projects versus local projects?

The various gains in terms of policies and implementation of pilot/demonstration projects towards accelerating energy efficiency in buildings have significantly been triggered by the various project activities. Key achievements under each planned objective clearly shows that, even though governments of the various countries have been implementing series of interventions towards accelerating energy efficiency before and after the Project, majority of key policy actions and reforms that placed some specific emphasis on a proper organisation and structuring of interventions targeting the building sector are largely attributed to the project's engagement of stakeholders, provision of capacity and technical assistance packages to city officials, and continuous dissemination actions on Building Energy efficiency. Regardless, it is not very easy to isolate contribution to project outcomes and their sustainability that is solely accounted
for by the project, given the on-going integrated approach being adopted by city and national governments to accelerate emission reduction in general in their cities.

KSQ 2: After the completions of BEA Phase 1 and BEA Phase 2, what lessons can be learned in terms of options for exiting or transitioning strategies for the sustainability of the actions undertaken?

To consolidate gains from the BEAll project, and to strengthen the likelihood of sustainability actions, BEA projects should be integrated in national and city level climate interventions before exit. Once agreements are reached in the forms of commitments with city officials and sub-national governments to implement policies and priorities that are agreed upon as integrated policies and climate actions, these gains would be consolidated in overall climate action plans following the exit of the project. This will help further deepen the ownership of Building Efficiency action among cities, such that the integration of plans with local action will ensure that adequate socio-political and financial commitment are made. Again, exit from each project city, particularly deep-dive cities, should be supported by a clear identification and institutions of funding mechanisms for BE action, particularly through public-private partnerships. While the project durations are often too short to foster the concretisation of these actions, it is possible to at least, identify potential funding sources, and facilitate commitment to funding among private sector actors through MOUS, before project exit. The key lesson is that project results would be more sustained if appropriate dedicated funding schemes often from the private sector and regulated by the public sector, were instituted before exit.

KSQ 3: How were the 9 recommendations of the Terminal Evaluation of the Phase 1 project taken into account and what effects did it have on the project performance and progress?

The findings to the 9 recommendations of the Terminal Evaluation of BEA Phase I are presented in Table 13.

KSQ 4: To what extent, and how, are organizations participating in the Partnership promoting marketshifts and encouraging innovations outside the Partnership?
The evaluation generally found that relevant organisations are increasingly taking actions to accelerate the uptake of energy efficient technologies and practices in the building sector beyond the partnership. Emerging approaches tend to lean towards multinational partnership actions for the development of tools and technologies, and training local actors on the use of these tools. In other cases, funding is provided under mutually beneficial agreements to implement actual action beyond capacity and technical assistance. In Turkey for example, beyond the partnership, the Ministry of Environment and Urbanisation (MoEU) through a collaboration with German and Technical experts collaborated with the Deutsche Gesellschaft für Internationale Zusammenarbeit $\mathrm{GmbH}(\mathrm{GIZ})$ to educate and train 228 experts from a wider stakeholder group made up of Chambers of Mechanical Engineers, Civil Engineers, Architects Electrical Engineers and private companies on "Train-the-Trainer" programmes on Energy Performance Certificates and a newly developed software. Similarly, the SENSEI project funded by the EU HORIZON 2020 is expanding EE action in buildings through the development and implementation of innovative finance model, a pay-for-performance (P4P) scheme. Thus, emerging approaches are more integrated, broader in scope of local-level stakeholders, and backed by appropriate funding schemes that enhances local implementation of concrete action.

KSQ5:How did the Phase 1 "deep-cities" which were not supported by the Phase 2 (Rajokot Municipal Corporation (India), Belgrade (Serbia) and Da Nang City (Vietnam)) perform compared with the continuing "deep-dive" cities (Bogotá (Colombia), Eskişehir (Turkey) and Mexico City (Mexico))?

There is not much difference observed in terms of progress differences between continuing in the continuing deep-dive cities, and Phase I deep dive cities that were not supported under Phase II. Bogota progressed to the adoption and implementation of an MRV system in partnership with Fondo Accion. Eskişehir went beyond policy formulation and adoption to perform energy retrofits in a municipal public building and conduct upgrades in public parks. Mexico City deepened actions in terms of gains made under Phase I to conduct energy audits and to monitor retrofitted public buildings.

In the existing cities that were not supported under Phase II, Rajkot has carried out investment grade audits on several public buildings and received assistance from Econoler to identify financial mechanisms for energy efficiency implementation. The city adopted the retrofitting of three public buildings based on the energy audits performed during Phase 1, and finalisation and implementation of an associated MRV system in Phase II. In Belgrade, guidelines on EE in residential buildings and houses were completed in February 2018 and published on the City of Belgrade website, with a renovation of the Belgrade city office finished by BPIE in February 2018. In Da Nang City, an 8-day energy audit of a selected hotel building was completed, and the results shared with private sector, BEA partners, and potential donors at 3GF event at Ha Noi. Thus, in general, there is no significant different in real outcomes realised between the two different city categories.

KSQ 6: In terms of coherence of roles and actions as well as efficiency, what lessons can be learned from the synergies or collaborations that the BEA Phase 2 had with other complementary initiatives during the project implementation (like the District Energy in Cities Initiative (the SE4All district energy Accelerator), United for Efficiency (the SE4All Efficient Appliances and Equipment Accelerator), the Global Alliance for Building and Construction or the Program for Energy Efficiency in Buildings (PEEB))?

The most significant coherence observed in the various project cities was between the Project and other interventions, particularly the SE4All District Energy Accelerator. In the various project countries, the major synergies observed were in the conduction of assessments towards definition of impact potentials, and in the development of systems to monitor and track progress towards energy efficiency in cities. While the synergies were not directly explicit in terms of clear roles and collaborations, it was revealed through the KIIs, FGDs and web analytics that these interventions leveraged local partners, particularly the common support of the ministries responsible for energy, environment and climate change to implement the various actions under each project. Thus, lessons were shared between stakeholder institutions, but resource duplication or common budgeted action was not observed.

KSQ 7: What changes were made to adapt to the effects of COVID-19 and how might any changes affect the project's performance?

The Covid-19 outbreak impacted the ability of the project to undertake/complete some of the project activities due to lockdowns and travel restrictions, particularly in 2020. To mitigate this, the project team revised its workplan and requested for an extension of the project's technical completion date to 30 September 2020, which allowed sufficient time for all remaining activities to be completed. Finally, by 30 June 2021, most of the end-of-project targets have been completed, with the exception of the slight underachievement of the number of new cities joining the BEA (27 instead of 30).

KSQ 8: To what extent are the project "beneficiaries" at the country level and at the city level satisfied with the quality and the relevance of the Technical Assistance provided?

During the KIIs, and Focus Group Discussions, all project beneficiaries engaged indicated a high level of satisfaction with the various Technical Assistance packages
received under the project. The only notable area for improvement was in the support for actual implementation of the tracking systems.
335. Notwithstanding the successful implementation of the Project, approach adopted in stakeholder engagement during implementation resulted in limited inclusivity for the potential end-users of the proposed tools and methods, more critically in deep-dive cities. Given that the target was to enhance the capacities of city governments and local partners towards the development and adoption of policies to accelerate energy-efficient technology development, significant investments are being made into BE action as a result of the project's outputs and outcomes, thus evidence show sustainability is likely. Active private sector participation, including continuous on-boarding of multinational organisations in project countries will help facilitate sustainable financial investment into the initiative's actions, such that more of the successful outputs can be translated into outcomes and impacts towards climate change mitigation globally.
336. Evidence observed across the evaluation suggest that the BEA Phase II activities have taken adequate measures to address the 9 recommendations in the terminal evaluation of the BEA Phase I action. The recommendations are summarised here, with detailed explanations in the evaluation report of the BEA Phase I. Observations on the extent to which the recommendations were addressed based on the evaluation of The Project are noted accordingly.

Table 13: Level of responsiveness of Phase II action to Phase I TE recommendations

| Recommendation from TE of BEA I | Comments and Observations from Evaluation |
| :--- | :--- |
| There is a need for a deeper analysis of what <br> constitutes a "market" for buildings | A thorough understanding of the building market <br> has been demonstrated in the second phase of <br> the BEA initiative. The results of the market <br> analysis were used to inform the city selection <br> and decisions on engagement levels, as <br> described in the project's effectiveness section <br> under Output 3.2.1. |
| The BEA Phase II Steering Committee and thematic <br> work groups should re-examine the BEA project <br> Phase II timeframe, scope and expectations for each <br> city's activities | While the initiative attempted to ensure that <br> project activities under phase II are well tailored <br> to the needs of cities with clear expectations <br> during the selection phase established, there is <br> still a little more to do with the time-frame of the <br> interventions to facilitate ability to implement <br> initiatives, and monitor the ability of cities to <br> actually track their emissions. |
| The Finance and Funding Working Group should <br> immediately explore and recommend that the <br> Steering Committee and project managers pursue <br> longer-term funding to sustain, manage and govern <br> the BEA network when the Phase 2 GEF grant ends | While significant progress is being made in <br> leveraging co-financing for the project, gaps <br> remain in sustainable funding schemes beyond <br> national and city governments making <br> budgetary allocations for BE action. |
| To better assist the cities that have not progressed <br> beyond Stage 0 (commitment to participate) or <br> Stage 1 (assessment), the BEA Steering Committee <br> should more actively recruit new partners and draw <br> upon experts from existing partner organizations <br> who can rapidly identify appropriate actions and <br> enabling capacities that have been proven to <br> accelerate the market transformation toward more <br> efficient buildings | The partner recruitment through Phase II has <br> been extensive and stopped when there is the <br> need for cities to re-focus their priorities. |


| 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 have pertinent market ties to BEA cities | The initiative has not recruited "aspiration cities" but has widened its dissemination of actions from successful cities on relevant global platforms. Lessons learnt are integrated continuously in regional and global stakeholder consultations. |
| :---: | :---: |
| 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 BEA as stakeholders | This remains not addressed through the phase II activities |
| The BEA project executing agency in Phase II should consider recruiting more international and local electric utilities and more nationally-based developers | There is active recruitment of international and local partners. Utilities of cities such as the Serbian Ministry of Energy, Da Nang Water Corporation, Rajkot Municipal Corporation's Electrical and Lighting Departments, etc... have been brought on board during Phase II, but the nature of their engagement is still not very clear. |
| When planning future market transformation project proposals, the UNEP CCMU could review all of its prior, ongoing and planned market transformation projects to provide guidance on best practices for projects to new projects | The planning of BEA Phase II activities was based significantly on Phase I status. However, it has been observed that the scientific research components that informed city selection methodologies paid some level of attention to market transformations, just that there are still some gaps that can be improved upon. |
| The evaluator recommends that 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 | The extent of awareness creation adopted in the second phase of this project for this purpose was significant. |

## B. Summary of project findings and ratings

337. The table below provides a summary of the ratings and findings. Overall, the project demonstrates a rating of 'Highly Satisfactory'.

Table 14: Summary of project findings and ratings

| Criterion | Summary assessment | Rating |
| :--- | :--- | :--- |
| Strategic Relevance |  | HS |
| 1.Alignment to UNEP MTS, POW and <br> strategic priorities | Strong alignment with the UNEP's MTS, BSP and SSC was <br> realised | HS |
| 2.Alignment to UNEP/Donor strategic <br> priorities | The project strongly aligns with the CW1 of GEF's climate <br> mitigation priorities under the GEF 6 programming | HS |
| 3.Relevance to global, regional, sub- <br> regional and national environmental <br> priorities | The BEA II is relevant to the climate change mitigation <br> priorities and energy policies of all the countries and partner <br> citied | HS |
| 4.Complementarity with existing <br> interventions / Coherence | The BEA II aligns with the on-going accelerator interventions <br> under the SEforALL initiative, specifically complementing the <br> District Energy Systems | HS |


| Criterion | Summary assessment | Rating |
| :---: | :---: | :---: |
| Quality of Project Design | The project design is well grounded in logic and efficiency but has limitations in adequacy of local stakeholder participation provisions. | S |
| Nature of External Context | No external pressures or shocks affected the implementation of the BEA II significantly. | F |
| Effectiveness |  | S |
| 1. Availability of outputs | All the planned project outputs are delivered | S |
| 2. Achievement of project outcomes | A number of cities have commenced action based on the project outputs and working group recommendations, with some successful demonstration projects implemented even after the initiative's actions. | S |
| 3. Likelihood of impact | Drivers to impact are in place with significant governments across the globe prioritising EE in buildings due to their NDCs | L |
| Financial Management |  | HS |
| 1. Adherence to UNEP's financial policies and procedures | All financial management and reporting standards of UNEP were adhered to | HS |
| 2. Completeness of project financial information | All financial information that was needed was available, and were complete | HS |
| 3. Communication between finance and project management staff | Project management team members who handled the finances for the BEA II and were contacted at evaluation demonstrated high degree of satisfaction and transparency in communications. | HS |
| Efficiency | The project was implemented within the planned budgetary allocation, and extensions were without extra cost | S |
| Monitoring and Reporting |  | HS |
| 1. Monitoring design and budgeting | Monitoring design is consistent with UNEP and GEF guidelines | HS |
| 2. Monitoring of project implementation | Project-level monitoring activities were effective, with all reports and communications on project progress duly submitted in timely manner and appropriately approved | HS |
| 3. Project reporting | Project Final Report, PIRs, Half-yearly progress reports among others were consistent with requirements of UNEP and appropriate reporting guidelines were adhered to. | HS |
| Sustainability |  | L |
| 1. Socio-political sustainability | Participating countries and cities across the globe have demonstrated a high political transformation in policy and investment priorities towards sustaining the BEA II | L |
| 2. Financial sustainability | The integration of BEA II projects in national priorities points to a promising financial sustainability, but sustainable funding schemes are still needed to accelerate action | L |
| 3. Institutional sustainability | Institutional capacity for policy development is adequate, but capacities for continuous development and implementation of policies need to be enhanced | L |
| Factors Affecting Performance |  | HS |
| 1. Preparation and readiness | The project was implemented after adequate analysis of phase I strengths and weaknesses, and planning of actions and resources were appropriate | S |
| 2. Quality of project management and supervision | The quality of project management and supervision both from the IA and EA was very good. | HS |
| 3. Stakeholders' participation and cooperation | Stakeholder participation and cooperation was high, but limited in comprehensiveness and inclusiveness at the local levels | S |


| Criterion | Summary assessment | Rating |
| :--- | :--- | :--- | :--- |
| 4. $\quad$Responsiveness to human rights and <br> gender equality | No impact on human rights were assessed given that the <br> project did not have any significant human right infringement <br> component. Gender equality could not be assessed due to <br> limited evidence on gender-disaggregated aspects of the <br> project results | S |
| 5. $\quad$Environmental and social economic <br> safeguards | All environmental and social safeguards were adequate and <br> consistent with UNEP requirements | S |
| 6. Country ownership and driven-ness | Project countries and cities demonstrated a high degree of <br> ownership for the project. | HS |
| 7. Communication and public awareness | The project maintained a very consistent and adequate set of <br> provisions for communications and dissemination action | HS |
| Overall Project Performance Rating |  | HS |

## C. Lessons learned

| Lesson Learned\#1: | The most successful national engagements included strong national commitment (and coordination), high local government ambition (and capacity), and feedback/collaboration between the two |
| :---: | :---: |
| Context/comment: | The EA observed that national-level engagements were most successful with clear commitments via national frameworks, alignment between ministries to prioritize buildings, demonstrated success of local implementation of that framework, and feedback/collaboration between national and local governments to improve the frameworks. Because institutional barriers at the national level were observed to be much more challenging to overcome, ministry coordination is more vital to ensure all needed authorities are part of the planning process. In addition, energy efficiency ministries and administrative branches are often small or housed under larger departments, making coalition work more necessary for the success of their political goals. <br> The presence of multinational stakeholders whose working priorities align with the initiative's ambition and are willing to support the initiative in project cities through collaboration significantly increases rate of success compared to cities with potential. The significant progress which has been made in Ulaanbaatar, the capital city of Mongolia in the pursuit of the retrofitting of 1,077 old buildings for example was based on active engagement of the BEA II through the ICLEI East Asia and the Global Green Growth Institute (GGGI). However, the presence of GIZ and the active commitment of the Asian Development Bank (ADB) in parallel energy efficient interventions together with the Municipality of Ulaanbaatar contributed significantly to accelerated overall success. |


| Lesson Learned \#2: | The city-level government officials in some countries have practically <br> no capacity to formulate policies and regulations for EE in buildings, <br> hence face a lock-in effect in translating learning into action |
| :--- | :--- |
| Context/comment: | The BEA project was actively implemented at the city level. The city-level <br> government officials in a country such as India for instance, have <br> practically no capacity to formulate policies and regulations for EE in |


|  | buildings. Further, given the budget constraints, it is generally not <br> possible for the city-level officials to carry out any large-scale <br> intervention. At the city level, the officials have their own set of priorities <br> (e.g., shortage of water, sanitation, waste management, etc.), thus EE in <br> buildings may not get the required level of attention. |
| :--- | :--- |


| Lesson Learned \#3: | Building Efficiency Policies such as Building codes are effective in the <br> transformational drive, but their effectiveness can be further enhanced <br> if capacities for simplification of these codes are further developed <br> among cities. |
| :--- | :--- |
| Context/comment: | The BEA II enhances capacities for the taking of BE action, and some <br> cities prioritise the development and enforcement of building codes. The <br> energy efficacy building code in India for example needsto be simple and <br> easier to implement. A complicated building code (like ECBC), in the <br> beginning, becomes difficult to adopt due to a lack of skills and non- <br> availability of the right kind of building materials. In India, one of the <br> reasons for loweracceptance of ECBC observed is its complications, the <br> lack of skills of the ULBs to enforce, and the availability of the required <br> specifications of the materials. Comparatively the acceptance level of <br> the ECBC-R is higher as it is simpler and easier to implement. |


| Lesson Learned \#4: | The thematic interventions areas under the initiative are effective for <br> capacity enhancement, and innovative funding schemes are necessary <br> for the implementation and upscaling of city priorities under these <br> themes |
| :--- | :--- |
| Context/comment: | The identification of priorities in cities were tailored across these three <br> categories (codes, retrofits and targets), and this facilitated a clear <br> definition of scope for the BEA II actions based on city-specific needs <br> and capacities. To move beyond the identification of priorities to <br> implementation, benefit maximisation and upscaling required advancing <br> "Technical Assistance" packages with dedicated funding support for BE <br> action. In order to unlock funding potentials for BE action within these <br> cities, priorities must be accompanied by advanced effort into bids and <br> applications for support, as was the case with the success story <br> observedin Ulaanbaatar |


| Lesson Learned \#5: | A menu of city intervention types enabled the BEA to provide cities with <br> "fit for purpose" TA depending on the city's needs and readiness, <br> leading to fast progress and, in some cases, more "impact per dollar" |
| :--- | :--- |
| Context/comment: | The Executing Agency noted that its new "leadership grant" direct <br> technical assistance offer given to cities had outsized impact relative to <br> budget allocation, showing that smaller-scale investments that respond <br> to discrete, identified barriers to city work plans improves both the <br> motivation of cities to create better work plans to qualify forfunding and <br> the results. |
| This alsofacilitated the EA's renewed focus on 'clusters' of cities working <br> on similar actions in the same market types, by funding two'city clusters' <br> to progress together through the stages of shared priority policy <br> development areas. This type of support was faster, more precise, and <br> more fit for purpose than past engagements and allowed us to both sene |  |


|  | cities and learn more about what small grants coupled with large <br> knowledge resources can accomplish. These grants' impact was further <br> bolstered by enhanced regional coordinating groups; greater resources <br> for regional leadership would be an extremely vital piece of the success <br> of the expanding BEA network moving forward. |
| :--- | :--- |

## D. Recommendations

| Recommendation\#1: | The UNEP Climate Mitigation Unit should ensure that the scope of <br> emission reduction interventions such as that would follow the Building <br> Efficiency Phase II be extended beyond Energy Efficiency in buildings to <br> encompass other dimensions of the city system, given the on-going <br> holistic approach being adopted by city and national governments to <br> transform cities in the drive to Net-Zero |
| :--- | :--- |
| Challenge/problem to be <br> addressed by the <br> recommendation: | In the context of net-zero efforts, CO2 emission reduction strategies <br> among city governments and national governments are taking bader broader <br> scope beyond energy efficiency in buildings. Emerging initiatives include <br> maximising water efficiency using wastewater for example, district <br> heating systems based on modern renewable energy systems, <br> accelerating the uptake of renewable energy technologies (prosumer <br> concepts), and investments in behavioural change through city-wide <br> climate action. Thus, subsequent actions towards reducing emissions <br> from cities towards climate mitigation should be a bit broader in scope <br> and integrated more with parallel climate interventions within these cities <br> to enhance overall success. |
| Priority Level: | High |
| Type of Recommendation | Project Level |
| Responsibility: | UNEP CCMU |
| Proposedimplementation <br> time-frame: | As soon as possible |


| Recommendation \#2: | The UNEP project staff should encourage city officials and other project <br> partners to ensure that specific plans and engagement strategies be <br> developed to foster widening the base of stakeholders that can <br> participate in Building Efficiency Actions, particularly regarding <br> marginalised gender groups and indigenous people |
| :--- | :--- |
| Challenge/problem to be <br> addressed by the <br> recommendation: | The current strategies adopted for stakeholder engagement in the BEA II <br> limits the sensitivity to gender needs as well as participation of <br> indigenous people. It is important to note that buildings are erected on <br> lands which belongs to indigenous people, hence regardless of the level <br> of implementation of an action that seeks to drive a change in the sector, <br> participation of such people should be minimum. It is not often the case <br> also that property development is always in the hands of big estate <br> companies or city governments. While this does not only respect their <br> rights, it also enhances sensitivity of policies and codes to the socio- <br> economic attributes of this target group, such that going "smart" in <br> buildings does not shift them further down poverty scaled, including |
| potential of facing demolishingaction or not being granted when they are |  |
| not able to build according to "expensive" codes. |  |


| Priority Level: | Critical |
| :--- | :--- |
| Type of Recommendation | Partner level |
| Responsibility: | UNEP CCMU |
| Proposed implementation <br> time-frame: | Immediately |


| Recommendation\#3: | The project's Executing Agency should ensure that state and National <br> governments (through the relevant energy and environmental <br> ministries) are engaged as possible leading stakeholders in Building <br> Efficiency initiatives, given that city level governments are sometimes <br> limited in their capacity to actually develop and implement/finance the <br> implementation of building codes and other BE strategies at their local <br> levels. |
| :--- | :--- |
| Challenge/problem to be <br> addressed by the <br> recommendation: | In many governance systems, these institutions are responsible for the <br> formulation of policies such as building codes to drive energy efficiency <br> actions, awhile city governments usually guide development activities in <br> line with the policies and codes that are developed, with local adaptation <br> to their contexts. As observed in India, the lack of legal and institutional <br> capacity among city governments to develop building codes has stifled <br> progress in terms of policy action, which is a critical component of the <br> BEA initiative |
| Priority Level: | Critical |
| Type of Recommendation | Project Level |
| Responsibility: | WRI |
| Proposedimplementation <br> time-frame: | Immediately |


| Recommendation\#4: | The project's Executing Agency should communicate with project <br> partners at the local levels to develop comprehensive proposals for <br> specific priority interventions, particularly with respect to retrofits and <br> new developments towards attracting investment into Energy Efficient <br> building action in their respective jurisdictions in collaboration with local <br> private sector actors. |
| :--- | :--- |
| Challenge/problem to be <br> addressed by the <br> recommendation: | While there is a significant amount of success recorded across the <br> project cities in terms of identification of priority actions, and <br> commencement of investment into enforcing these actions, sustainable <br> financing schemes for actual projects are missing. This, enforcement of <br> the recommendations by working groups are integrated in local action <br> priorities, but it is difficult to move beyond formulation of codes, <br> disseminating of action by key announcements in the media, and <br> development of policies among others, to a full implementation of city <br> priorities is there is no dedicated funding. <br> In cases where private individuals own housing units, retrofitting |
| programmes can be fast-tracked by quota-based subsidies among |  |
| others., while new projects and other publicly owned entities for instance |  |
| needto be financed. |  |


|  | It is important to observe that from the evaluation findings, there is <br> evidence of private sector willingness to invest in BE action. Such will can <br> only be converted into a genuine attraction and concrete support if <br> financial proposal that are robust are prepared for city priorities and <br> floated. |
| :--- | :--- |
| Priority Level: | High |
| Type of Recommendation | Project Level |
| Responsibility: | WRI |
| Proposedimplementation <br> time-frame: | Immediately |


| Recommendation \#5: | UNEP should institute mandatory provisions for participation of <br> marginalised people, particularly the urban poor, and liaise with the UN <br> Habitat in the implementation of interventions such as the BEA that seek <br> to promote energy efficiency in buildings, particularly through useful <br> inputs for policy and project development, such that planned actions <br> would not lead to worsening their socio-economic conditions or displace <br> them from their present habitations as a result of increased property <br> value and higher cost of retrofits among others. |
| :--- | :--- |
| Challenge/problem to be <br> addressed by the <br> recommendation: | At the centre of energy efficiency policies in buildings are city dwellers, <br> whose socio-economic conditions and living statuses are affected by BE <br> action. Thus, the adoption of energy efficiency actions could have a <br> marginalisation aspect, particularly when retrofitting needs for <br> modernisation of housing units introduce a systemic inequality in <br> between the ones who could afford and those who cannot, most <br> especially in the absence of welfare support funding schemes for such <br> initiatives during simultaneous enforcement of policies and building <br> codes. Such likely minor negative externalities can effectively be <br> mainstreamed into policies and actions if representations of such <br> vulnerable groups are made to participate in the design of policies and in <br> their implementation |
| Priority Level: | High |
| Type of Recommendation | UNEP-wide <br> Responsibility: |
| Proposedimplementation <br> time-frame: | Immediately |

## ANNEX I. RESPONSE TO STAKEHOLDER COMMENTS

Table 5: Response to stakeholder comments received but not (fully) accepted by the reviewers, where appropriate

| Page Ref | Stakeholder comment | Evaluator(s) Response | UNEP Evaluation Office Response |
| :---: | :---: | :---: | :---: |
| 12 | Paragraph 8: "40\% gap [...]", "[...] notable gap [...]". <br> Can you clarify what this means? Speaking of a "gap" makes it sound like there was a shortcoming in the achieving the target, while the rest of the paragraph seems to allude over achievement. | The document review revealed that the planned target for private sector engagement as an output has not fully been achieved and had a $40 \%$ deficit in the attainment of the planned output (see Page 6 of the final project report, under Original Output 2.1.2: Private sector commitments to be stewards for collective local action across the value chain are issued). This gap is what has been reported here. The Evaluation team observed that this however did not significantly affect the attainment of planned outcomes under the component, and the rest of the achievements are what has been highlighted in the subsequent paragraph and in the main evaluation findings) |  |
| $\begin{aligned} & \hline 14,109- \\ & 110 \end{aligned}$ | Conclusion KSQ5 asserts there isn't much difference between the progress of Phase I Deep Dive cities that continued as Deep Dives in Phase II (Bogotá, Eskisehir, Mexico City) and those that did not continue as deep dives (Rajkot, Belgrade and DaNang). The WRI project team concluded the opposite. It is possible the Evaluating team did not see that in the case of Bogota and Mexico City each had made progress towards their second set of goals in Phase II, having completed the first set of goals in Phase I. | The city progress report in Appendix C_of the Final Report (BEA City Progress Summary 2020) and the various document reviews, web analysis and interactions with the stakeholders contacted at Evaluation were used as the basis for the observation. <br> In Da Nang for example which was a non-continuing deep-dive city, beyond the signing of the MOU, 8 days of energy audit at the hotel including lighting, air-condition, elevator and pumping, heating, glass systems and others were completed. Further, 14 potential solutions were proposed, and results of the energy audit were shared, including city consultation with private sector, BEA partners, and potential donors at 3GF event at Ha Noi. <br> Comparing this to Mexico City which continued for example, it was difficult to obtain evidence on Phase II deep-dive actions in Bogota (a continuing Deep-Dive City for example), partnership with Fondo Acción was signed to develop an MRV framework, with 5 follow up meeting with microgrid equipment for a pilot project. It was difficult to substantiate in Mexico City for example, the key differences in actions for Phase II set of targets, far beyond progress made in the cities that did not continue. <br> Thus, the Evaluation team noted based on this evidence among others, that while significant actions were done, the differences in the continuing and new deep-dive cities were marginal. |  |
| 123 | The relevance of the stakeholder chart starting on page 123 to the evaluation is unclear. The partner typology seems | The stakeholder chart was developed based on the various partner roles through the project, as well as their influence/control on the project. This helped to understand the |  |


| Page <br> Ref | Stakeholder comment | Evaluator(s) Response | UNEP Evaluation Office <br> Response |
| :--- | :--- | :--- | :--- |
|  | incorrect for some partners. For example, <br> CCICED as having "high power" over the <br> project and CCCS "Iow power" would have <br> been the opposite. | nature of actor engagement through the process at evaluation, as well as the changes that <br> occur in their behaviour due to the project. <br> The suggested classification of the China Energy Conservation and Environmental <br> Protection Group has been revised appropriately in this version of the report. |  |

## ANNEX II. PEOPLE CONSULTED DURING THE EVALUATION

Table 6: People consulted during the Evaluation

| Organization or <br> Location | Name | Position | Gender |
| :--- | :--- | :--- | :--- |
| UNEP | Ruth Coutto | Task Manager | F |
| UNEP | Julien Lheureux | Programme Officer | M |
| UNEP | Leena Darlington | Fund Management Officer (until <br> August 2021) | F |
| WRI | Nebbie Weyl | Project Manager | F |
| WRI | Program Analyst | F |  |
| Alliance for Energy <br> Efficient Economy <br> (AEEE), India | Tarun Garg | M |  |
| ICLEI South Asia | Nikhil Kolsepatil |  | M |
| ICLEI South Asia | Soumya Chaturvedula |  | F |
| ICLEI South Asia | Emani Kumar | OrniorManager |  |
| Energy Program, WRI <br> India | Sumedha Malaviya | F |  |
| Shakti Sustainable <br> Energy Foundation | Smita Chandiwala | Organisation's staff | F |
| Ministry of <br> Environment of <br> Colombia | Angélica Ospina | Chief Executive Officer | M |
| World Green Building <br> Council, Costa Rica | Nicolas Ramirector, Colombia | F |  |
| WRI, Mexico | Fairuz Loutfi | Circular Economy and Energy <br> Efficiency Manager | F |
| WRI, Mexico | Octavio Molina | Laura Magdaleno Chapa | Americas Programmes Head at |
| WorldGBC | F |  |  |
| World Green Building <br> Council | M |  |  |

## ANNEX III. KEY DOCUMENTS CONSULTED

## Project planning and reporting documents

- Project Document (CEO Endorsement Document)
- Project Review documents (for revisions 1, 2 and 3 )
- PIRs
- Half-Yearly progress reports
- Final Project Report
- MSP PIF Approval Letter and document
- GEF Secretariat Review Sheets
- Project Inception Report
- Project Final report
- SMC Meeting agenda documents


## Project outputs - Overall

- Project Document
- Final Project report
- List of Deliverables provided by Executing Agency

Project outputs work Outcomes (from revised Outcome 1 to Revised Outcome 3, which are equivalent to Planned Outcomes 1 to 4):

- Project Inception Report
- Project Final report
- DES initiative website and knowledge management platform
- Other external relevant websites
- Detailed project budget and co-finance budgets
- Project expenditure sheets
- Independent auditor's report (by Grant Thornton) dated 12 April 2021


## References (Bibliography)

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# ANNEX IV. BRIEF CV OF THE EVALUATOR 

| Name | Noara Zohra Kebir |
| :---: | :---: |
| Profession | Engineer, Lead Senior Consultant, Managing Director. |
| Nationality | Algerian / German |
| Country experience | - Europe: Germany, France <br> - Africa: South Africa, Nigeria, Kenya, Ghana, DRC, Morocco, Senegal, Tanzania, Mali, Ethiopia, Uganda, Madagascar, Ruanda, Ivory Coast, Algeria, Tunisia, Burkina Faso, Lesotho, Cap Verde, Mozambique, Niger, Zimbabwe, <br> - Americas: USA, Canada, Peru, Colombia, Mexico, Haiti, Bolivia, Jamaica, Trinidad and Tobago, Grenada, <br> - Asia: India, Indonesia, China, Philippines, Singapore, Pakistan, Sí Lanka, Viet Nam, Cambodia, Saudi Arabia, Afghanistan, Bangladesh, Nepal, Uzbekistan, Yemen, Armenia, Jordan, Kirgizstan, Oman, Tadjikistan. |
| Education | - Technician for Machines and Systems (German vocational training) and Master in Energy and Process Engineering |

## Short biography

With her background as an energy and process engineer, Ms Kebir has accumulated more than twenty years of relevant interdisciplinary experience along the entire value chain of development cooperation projects and programmes, from project ideation and design, implementation to monitoring and evaluation using a diversity of qualitative and quantitative methods across more than 50 countries. She led the Terminal Evaluation of the UNEP/GEF (GEF Project ID 4139 - Market Transformation for Energy Efficient Lighting in Morocco), which granted her familiarity with the UN working principles, and the application of the Theory of Change methodology and other Terminal Evaluation exercises. Furthermore, she has been leading and involved in several monitoring and evaluation activities of EE and RE products, services, markets, projects, companies and business models (t echnical and financial due diligence). She is familiar with different approaches of socioeconomic and environmental impact evaluation and regularly requested as a jury member and evaluator of scientific papers, business plan competitions or tenders in the field of RE and EE.

Ms Kebir acquired 25+ years of expertise in energy efficiency standardisation, labelling and certification (household appliances, PV components, etc.). Her participation in the design, implementation, monitoring and evaluation of several energy-efficient building and housing programs in countries such as Armenia, Tadjikistan, Kyrgyzstan and Peru granted her adequate experience in evaluating energy efficiency within the building sector. She has served as an international team leader in a number of the aforementioned projects, and with her educational and professional background, she adequately understands the necessary principles of district energy and can appropriately apply them in assessing the extent to which the goals of projects within this domain are achieved. Her recent role as the lead consultant for the GIZ in the ongoing Nigerian Energy Support Programme under current COVID-19 conditions affirms her ability to lead projects successfully from home through remote arrangements.

## Key specialties and capabilities cover:

- Renewable energies and energy efficiency, green and circular economy, sustainable battery management and recycling.
- Project management and leadership, communication.


## Selected assignments and experiences

- Provision of Assessment of Microfinance Institutions in Yemen (UNOPS, 2018-2019)
- Managing the Africa Renewable Energy Scale-Up Facility (Proparco, 2017-2019)
- Developing an enabling framework for off-grid electricity investment together with a package of bankable projects in Ethiopia (EU Technical Assistance Facility, 2018)
Independent evaluations:
- Terminal Evaluation of the UNEP/GEF Project "Market Transformation for Energy Efficiency Lighting in Morroco (GEF 4139)
- Terminal Evaluation of the UNEP/GEF Project "The SEforALL Building Efficiency Accelerator (BEA): Expanding Local Action and Driving National Change (GEF 9947)"


## ANNEX V. STAKEHOLDER ANALYSIS FOR THE PROJECT

| Agency/organisation | Type (Perceived Influence/Relevance) | Observed role in project | Participation in Project Design | Changes in their behaviour through the implementation of the project |
| :---: | :---: | :---: | :---: | :---: |
| 100 Resilient Cities | Type C: Low power / high interest over the project = Show consideration | - Provision of technical expertise in reviewing documents, planning and participating in workshops and site visits, and engaging in external communications on behalf of Da Nang. <br> - Particular contribution to component 3 activities | Yes | Increased uptake of BEA among target cities, and continuous provision of support by model cities to emerging ones in the adoption of BEA II |
| Accenture | Type C: Low power / high interest over the project = Show consideration | - Provision of technical assistance expertise for components 2 \& 3 | Yes | Enhanced technical commitment to the development and deployment of tools that will facilitate the adoption of energy efficiency in the building sector |
| Alliance to Save Energy (ASE) | Type C: Low power / high interest over the project = Show consideration | - Support for global energy efficiency convening, including support for BEA engagement at EE Global, the Clean Energy Ministerial in Copenhagen, and COP24. <br> - Participation in strategic meetings and discussions, and review of key strategic documents during the project period, particularly on BEA national strategy for and engagements in India. | Yes | Increased commitment towards creating support for fostering a partnership between relevant actors for the adoption of BEA policies and projects |
| Alstom | Type C: Low power / high interest over the project = Show consideration | - Provision of technical assistance expertise for components 2 \& 3 | Yes | Enhancedtechnical commitment to the development and deployment |
| Architecture 2030 | Type C: Low power / high interest over the project = Show consideration | - Provision of technical assistance expertise for components 2 \& 3 | Yes | of tools that will facilitate the adoption of energy efficiency in the building sector |


| Agency/organisation | Type (Perceived Influence/Relevance) | Observed role in project | Participation in Project Design | Changes in their behaviour through the implementation of the project |
| :---: | :---: | :---: | :---: | :---: |
| Buildings Performance Institute Europe (BPIE) | Type C: Low power / high interest over the project = Show consideration | Assisting in components $1,2,3$, and 4 activities, through: <br> - Support for arranging global EE workshops and events convening policy decision-makers. <br> - Technical assistance at workshops and engagement to support investments designed to increase energy efficiency in buildings <br> - As-needed technical assistance for BEA deep-dive engagements <br> - Provision of policy recommendations <br> - Webinars on BPIE's areas of expertise. | Yes |  |
| Business Council for Sustainable Energy (BCSE) | Type C: Low power / high interest over the project = Show consideration | Supporting component 1 activities through: <br> - Event organization, engagement, communications, and logistics support <br> - Strengthening project partnership and promoting technical assistance opportunities <br> - Relationship-building and networking <br> - Provide information and expertise on sustainable energy and EE markets <br> - Support for BEA private-sector engagement <br> - Explore and deepen relationships with selected national governments on building efficiency opportunities within nationally determined contributions (NDCs) | Yes | Increased commitment to the development of workable models, and the facilitation of investment (particularly private sector financing) towards the deployment of Energy Efficiency in the building sector |
| C40 Cities Climate Leadership Group | Type A: High power / high interest = Key player | Supporting components 2 and 3 activities through: <br> - Training events and review of strategic documents. <br> - Replicating previous effort in other regions and/or building upon the first workshop with expanded technical assistance on this topic for the same cities during BEA II | Yes | A deepened commitment towards the provision of technical assistance and expertise for the global upscaling of BEA II policies and interventions |
| The Carbon Trust | Type A: High power / high interest = Key player | Providing technical expertise assistance for components 2 $\& 3$ | Yes | Enhancedtechnical commitment to the |
| China Energy Conservation and | Type C: Low power / high interest over the | Providing technical expertise assistance for components 2 $\& 3$ | Yes | development and deployment of tools that will facilitate the |


| Agency/organisation | Type (Perceived Influence/Relevance) | Observed role in project | Participation in Project Design | Changes in their behaviour through the implementation of the project |
| :---: | :---: | :---: | :---: | :---: |
| Environmental Protection Group | project = Show consideration |  |  | adoption of energy efficiency in the building sector |
| Clean Energy Solutions <br> Center/ National <br> Renewable Energy <br> Laboratory (NREL) | Type C: Low power / high interest over the project = Show consideration | Supporting component 2 activities through: <br> - Provision of no-cost energy policy and energy finance advising to the BEA partnership <br> - Provision of "Ask an Expert Assistance" at no cost to government agencies <br> - Technical assistance to city, municipal, and other local governments <br> - Capacity building activities such as delivering Webinars | Yes | Further development incompetency and technical expertise, including commitment in communication and dissemination towards the adoption of efficient technologies in the building sector |
| Colombia Green <br> Building Council (Consejo Colombiano de Construcción Sostenible, CCCS) | Type C: Low power / high interest over the project = Show consideration | Support component 1 and 3 activities through: <br> - City liaison for BEA deep-dive city Bogota, Colombia. <br> - Engagement in regional convening and knowledge sharing between BEA partner cities Latin America and the Caribbean. <br> - Engaging with the Colombian national government on building efficiency policy and project action, as well as relevant data standards and initiatives. | Yes | Increased commitment towards creating support for fostering a partnership between relevant actors for the adoption of BEA policies and projects |
| Copenhagen Centre on Energy Efficiency (C2E2) | Type C: Low power / high interest over the project = Show consideration | Support components 1, 2 and 3 through:• Partnershipsupporting role, offering support in key areas such as coordination with the other Global Energy Efficiency Accelerator Platforms• Technical expertise, analytical support, market insights on energy efficiency, linking cities to the BEA's international expertise and relevant partners, developing knowledge products of cities, conducting joint communications activities and engaging together on global events and engagements, and contributing to expert discussions, workshops, and events. | Yes | Further development in competency level and technical expertise, including commitment in communication and dissemination towards the adoption of efficient technologies in the building sector |


| Agency/organisation | Type (Perceived Influence/Relevance) | Observed role in project | Participation in Project Design | Changes in their behaviour through the implementation of the project |
| :---: | :---: | :---: | :---: | :---: |
| Danfoss | Type A: High power / high interest = Key player | Support component 2 activities through: <br> - Collaborating with the BEA in DES-BEA jurisdictions <br> - Support for projects in Eastern Europe, India, and China with local technical expertise. <br> - Support awareness-raising campaigns <br> - Provision of technical expertise and market insights. <br> - Review of documentation to verify outcomes. | Yes | Overall increase in <br> a. technical competency towards the deployment of energy-efficient technologies in the building sector |
| DEXMA | Type C: Low power/ high interest over the project = Show consideration | Supporting component 4 through the provision of a BEA tool, case study, and learning material development | Yes |  |
| Econoler | Type C: Low power/ high interest over the project = Show consideration | Supporting components 3 and 4 activities including support for BEA tracking and impact evaluation processes. | Yes | b. development and deployment of communication and training materials to facilitate EE adoption in buildings <br> c. raising the overall awareness level and |
| Global Buildings Performance Network (GBPN) | Type C: Low power / high interest over the project = Show consideration | Support component 2 activities through: <br> - Technical assistance provision and resource development particularly on building codes <br> - Development of and participation in training and webinars <br> - Synergies between the BEA and the Building Energy <br> Policy Scenario (BEPS) Tools, Policy Best Practice Tools for New Buildings and Renovation, and development of the Cities Knowledge Centre for Building Energy Policies | Yes |  |
| Global Cool Cities Alliance (GCCA) | Type C: Low power / high interest over the project = Show consideration | Supporting component 1 and 2 activities on BEA including strategic thinking on cooling | Yes | private actors on the development of EE technologies in buildings |
| GEF Sustainable Cities Integrated Approach Pilot | Type A: High power / high interest = Key player | Supporting component 1 activities related to global strategy and convening around the global, national, and subnational vertical coordination on urban sustainability | Yes |  |


| Agency/organisation | Type (Perceived Influence/Relevance) | Observed role in project | Participation in Project Design | Changes in their behaviour through the implementation of the project |
| :---: | :---: | :---: | :---: | :---: |
| ICLEI-Local Governments for Sustainability | Type C: Low power / high interest over the project = Show consideration | Supporting components 1,2 , and 3 activities through: <br> - leveraging network of cities and depth of knowledge of communities to expand and solidify the BEA Partnership. <br> - Serving on the BEA Steering Committee <br> - Provision of tools, including, Carbon, Clearpath, and others for BEA cities to plan and implement their building efficiency actions, and measure and track their progress <br> - Regional leadership and support for deep-dive activities | Yes |  |
| Ingersoll Rand | Type A: High power / high interest = Key player | Supporting component 2 and 3 activities through: <br> - Diverse technical assistance to cities <br> - BEA partnership coordination and engagement in workshops and resource development | Yes |  |
| International Finance Corporation Excellence in Design for Greater Efficiencies (EDGE) Program | Type A: High power / high interest = Key player | Supporting component 2 and 3 activities through: <br> - Maintenance and updates to, access to, training on, and technical assistance related to use of, the EDGE Tool for cities which prioritize it | Yes |  |
| Investor Confidence Project | Type A: High power / high interest = Key player | Supporting component 2 activities through:• Technical assistance on financial mechanisms for energy efficiency, including participating in training and supporting resource development as well as case-specific assistance• Additional technical assistance on the project and pipeline development for investment | Yes |  |


| Agency/organisation | Type (Perceived Influence/Relevance) | Observed role in project | Participation in Project Design | Changes in their behaviour through the implementation of the project |
| :---: | :---: | :---: | :---: | :---: |
| Johnson Controls | Type A: High power / high interest = Key player | Supporting components 1 through 4 activities through: <br> - BEA private sector engagement leadership and strategy <br> - Supporting convening, city engagement, training, and technical assistance <br> - BEA strategic guidance via the BEA Steering Committee <br> - Serve as a leading expert on energy performance contracting and building efficiency technology <br> - Provide best practices documentation and tools on building efficiency <br> - Assist with training, webinars, and the use of building efficiency tools. <br> - Leverage its network and expertise to expand and strengthen the BEA Partnership and to assist BEA Cities with stakeholder engagement. | Yes |  |
| Lawrence Berkeley National Laboratory (LBNL) | Type A: High power/ high interest = Key player | Supporting components 2 \& 3 technical assistance activities. | Yes | Enhancedtechnical commitment to the development and deployment of tools that will facilitate the adoption of energy efficiency in the building sector |
| Natural Resources <br> Defense Council <br> (NRDC) | Type C: Low power / high interest over the project = Show consideration | Supporting components 2 \& 3 activities include sharing international best practices based on their experience in Andhra Pradesh and Telangana implementing energyefficient building codes at the state level. | Yes |  |
| Pacific Northwest National Laboratory (PNNL) | Type A: High power / high interest = Key player | Supporting components $1,2, \& 3$ activities through: <br> - Leadership of technical assistance on building codes and related training activities and resource development activities <br> - Targeted assistance as requested on building codes | Yes |  |
| Philips Lighting | Type C: Low power / high interest over the project = Show consideration | Supporting component 1 and 2 activities through: <br> - Technical assistance expertise <br> - Private sector engagement, city engagement, and global outreach and convening. | Yes |  |
| Saint-Gobain | Type C: Low power/ high interest over the project = Show consideration | Supporting components $2 \& 3$ with technical assistance expertise | Yes |  |


| Agency/organisation | Type (Perceived Influence/Relevance) | Observed role in project | Participation in Project Design | Changes in their behaviour through the implementation of the project |
| :---: | :---: | :---: | :---: | :---: |
| Schneider Electric | Type C: Low power / high interest over the project $=$ Show consideration | Supporting components $2 \& 3$ with technical assistance expertise | Yes |  |
| TECNALIA | Type A: High power / high interest = Key player | Supporting components $1,2 \& 3$ activities through: <br> - Leading technical assistanceprovision, training, and resource development on retrofits and retrofit finance <br> - Support for general city engagement, training, and convening activities. | Yes |  |
| UN Environment Programme | Type A: High power / high interest = Key player | Supporting components 1,2, and 3 activities through: <br> - Collaboration between the BEA and the UNEP Sustainable Buildings and Construction Initiative (SBCI) in the Cities Programme in a variety of ways. <br> - Technical expertise on sustainable procurement and synergies with 10YFP <br> - Leadership of global and regional convenings and training activities. <br> - Leadership of the BEA's ongoing relationship with 20162017 deep dive Belgrade, Serbia. <br> - Leading collaboration between the BEA and the GABC and its COP24 activities. <br> - Collaboration on joint work in BEA-DES partner cities | Yes | Increase commitment towards the pursuit of climate change adaptation goals and sustainable development |
| UN Foundation | Type C: Low power/ high interest over the project = Show consideration | Supporting component 1 activities including engagement and communications activities | Yes |  |
| US Green Building Council (USGBC) | Type C: Low power / high interest over the project = Show consideration | Supporting components 1, 2, and 3 activities through: • Support for the work plan of the BEA's Voluntary Programs Working Group Leadership of the BEA Communications Task Force. | Yes |  |
| World Bank Group, Energy Sector Management | Type A: High power / high interest = Key player | - Supporting components 2 \& 3 through technical assistance activities. | Yes | Accelerating the deployment of tools (largely fiscal), and the commitment of resources |


| Agency/organisation | Type (Perceived Influence/Relevance) | Observed role in project | Participation in Project Design | Changes in their behaviour through the implementation of the project |
| :---: | :---: | :---: | :---: | :---: |
| Assistance Program (ESMAP) |  |  |  | for climate change intervention support |
| World Business Council for Sustainable Development (WBCSD) | Type A: High power / high interest = Key player | Supporting component 1 activities in private sector engagement. | Yes |  |
| World Green Building Council (World GBC) | Type A: High power / high interest = Key player | Supporting components 1,2 , and 3 activities through: <br> - Leading technical assistanceon Voluntary Programs and certifications <br> - Leading BEA events and engagements <br> - Serving as BEA regional lead <br> - Collaborating on many communications activities <br> - Supporting recruitment and convening | Yes | Increased level of commitment of resources and expertise towards the deployment of efficient technologies and the pursuits of climate adaptation goals |
| World Resources Institute (WRI) | Type A: High power / high interest = Key player | - Function as an executing agency and leads the partnership's work <br> - Supply tools and expertise on global city engagement and environmental policy, as well as BEA strategic guidance and collaboration with cross-sectoral initiatives. <br> - Support BEA policy and project implementation and leads the partnership's external fundraising effort. | Yes |  |
| Other deep-dive partners from the following cities (including city officials): Belgrade, Bogota, Da Nang, Mexico City, Eskişehir, and Rajkot, | Type C: Low power / high interest over the project = Show consideration | Collaborating with BEA II implementing agency for localisation of the Deep-Dive components in the various cities | No | Enhanced local capacities and commitment (including the formation of strong partner relationships) towards the formulation and adoption of policies and methods that will enhance the deployment of EE technologies in the building sector, particularly within the various cities |

## ANNEX VI. GUIDE FOR GLOBAL DISCUSSIONS

## Draft Guide for Global Focus Group Discussions-BEA II

1. What have been the key issues you encountered in your city committing to joining the BEA?
2. How did you align the objective of the BEA Phase II to local actions in your city?
3. How did you align your local action with national building codes and policies? Probe engagement of national and municipal governments
4. Was the assistance package you received, well-tailored to the needs of your city? How contextually relevant was the specific intervention received?
5. How did your city engage the private sector (during the BEA Phase II and after the receipt of the TA packages) in implementing Energy Efficiency in buildings?
6. What actions did you take to continue disseminating BE action after the BEA Phase II?
7. Were the strategies adopted by the WRI in engaging your city adequate, effective and efficient?
8. How effective is the Measuring, Reporting and Verification (MRV) methodology and platform for buildings in your city? Is your city prepared to track data on energy and water consumption in buildings?
9. How do you think BEA action can be designed to maximise its benefit for indigenous people?
10. Did you ensure gender sensitivity of the BEA action, including beneficiary engagement? How can BEA action be designed to maximise gender disaggregated benefits?
11. How satisfied were you with the quality and relevance of achievements of the BEA in your cities?
12. For light touch cities, what specific Technical Assistance packages did you receive in terms of codes, retrofits, and targets? And how adequate was this in implementing Building Efficiency in your city?
13. What policy progresses have you made in building efficiency in your cities due to participation in the BEA Phase II?
14. For continuing Deep Dive Cities, what is the status of the implementation of the policies developed in 2016-2017?
15. Has your city been able to leverage any finance for Building Efficiency action? What is your experience and lessons in leveraging finance for $B E$ action?
16. What is the status of the demonstration projects implemented in your city from the Phase I (Make specific reference to Mexico City, Eskisehir and Bogota)
17. For new Deep Dive Cities (Tswane, Ulaanbaatar and Nagpur) how prepared are you to implement building efficiency policies and projects due to your participation in the BEA Phase II?
18. Any specific policy changes due to your engagement in the BEA Phase II so far? What are the prospects and challenges?

## For Relevant Partners

1. What is the experience of your organisation/institution regarding joining the BEA Phase II?
2. How were you involved in the national engagements in the BEA II? What is your comment on the effectiveness of the approach adopted in engaging you in the BEA II?
3. Is your organisation or institution prepared to continue its participation and support for Building Efficiency engagement?
4. What recommendations do you have for improving the effectiveness of Energy Efficiency action in the various cities?
5. How can partner network expansion for energy efficiency interventions be enhanced?
6. From your experience, what strategies can be adopted to enhance the replication of the BEA action, first in other cities within the various countries, and other parts of the world?

## ANNEX VII. RESPONSES TO QUESTIONS FOR GEF PORTAL INPUT

(a) Question: What was the performance at the project's completion against Core Indicator Targets? (For projects approved prior to GEF-7 $7^{58}$, these indicators will be identified retrospectively and comments on performance provided ${ }^{59}$ ).

## Response:

The project report (final) presented evidence on the attainment of planned targets and outputs but contained no information on GHG emission reductions realized from this Project. All contacted stakeholders during project evaluation indicated that their cities have not been able to yet measure how much emissions have been reduced as a result of their participation in the BEA II

There is no detail evidence on gender disaggregation for the various engagement workshops that were organised. The evaluation was therefore not able to estimate the impact of the BEA II on beneficiaries on a gender disaggregated basis.
(b) Question: What were the progress, challenges, and outcomes regarding engagement of stakeholders in the project/program as evolved from the time of the MTR? (This should be based on the description included in the Stakeholder Engagement Plan or equivalent documentation submitted at CEO Endorsement/Approval)

## Response:

There was no major challenge encountered in stakeholder participation during the BEA II. No MTR was conducted for the project. The engagement reports that have been presented were clear on the roles of each stakeholder, and evidence on the number of people who actively participated in the implementation of the project was significant. Thus, no major challenges were faced with regards to actual project engagements along the course of the project life.
(c) Question: What were the completed gender-responsive measures and, if applicable, actual gender result areas? (This should be based on the documentation at CEO Endorsement/Approval, including gender-sensitive indicators contained in the project results framework or gender action plan or equivalent)

## Response:

There is a significant gap in the planned gender actions versus the observed gender actions at evaluation. At project approval, the gender plan indicated that the BEA II activities in 2018-2019 will examine the gender differences, gender differentiated impacts and risks, and opportunities to address gender gaps and promote the empowerment of women relevant to building efficiency. No significant evidence on this planned action was observed.
The major gender actions observed were in the form of taking attendance in a stakeholder working group based on gender-segregation. It was also reported that dialogues were held in working group sessions in Ulaanbaatar (Mongolia) and Tshwane (South Africa) about the impact of energy efficiency actions on and affordability concerns of households with women as the primary earners.
(d) Question: What was the progress made in the implementation of the management measures against the Safeguards Plan submitted at CEO Approval? The risk classifications reported in the latest PIR report should be verified and the findings of the effectiveness of any measures or lessons learned taken to address identified risks assessed. (Any supporting documents gathered by the Consultant during this review should be shared with the Task Manager for uploading in the GEF Portal)

## Response:

All the safeguard risks that were identified at CEO approval were rated low.

[^28]In July 2020, the initiative anticipated a reputational risk in recruiting new network cities so late in Phase II. Given that the focus will shift with the next project with the BEA network (Zero Carbon Buildings for All), the project network-directed resources were anticipated to be more limited in the subsequent phases. After reviewing the progress of 26 new Phase 2 cities, the team stopped recruiting new cities toward Output 1.1.1 and rather focused on existing partners. At evaluation, no significant impact of this action on the reputation of the initiative was observed.

A limited capacity of partners was predicted as a risk in the same reporting period. This risk was also observed in the previous phase I activities. However, at evaluation, it was realised that this risk prevalence was low, and did not affect the attainment of planned targets in the partner cities. Regarding the anticipated risk of insufficient and incomparable systems for tracking results, it was observed at evaluation that this risk was prevalent in less well-equipped municipalities.

The overall risk classification by the project Overall Risk Rating by the Project Manager and Task Manager in both PIRs was Low (L).
(e) Question: What were the challenges and outcomes regarding the project's completed Knowledge Management Approach, including: Knowledge and Learning Deliverables (e.g. website/platform development); Knowledge Products/Events; Communication Strategy; Lessons Learned and Good Practice; Adaptive Management Actions? (This should be based on the documentation approved at CEO Endorsement/Approval)

## Response:

There was no significant challenge in terms of knowledge management for the BEA II initiative. All planned communication and dissemination actions at project approval were developed/implemented and verified at evaluation. This is largely due to the initiatives wellfunctioning website, extensive parent and networks resources that facilitated dissemination of outcomes and findings through different media streams, and active collaboration with the

## ANNEX VIII. EVALUATION FRAMEWORK

| Topic | Proposed Questions | Indicators | Data Sources |
| :---: | :---: | :---: | :---: |
| Quality of Project Design <br> The TE will review the overall quality of the project Design, including its comprehensive inclusion of all relevant stakeholders |  |  |  |
| Related to stakeholders in the Quality of Project Design | In the review of Project Design quality review, the following will be addressed: <br> 1. Is the project Design having a comprehensive stakeholder analysis that addresses the needs of all relevant stakeholders who are affected by or who could affect (positively or negatively)? <br> 2. Have the main stakeholders been involved in the design of the project, and what has been their level of involvement? <br> 3. Have the needs of relevant groups such as the vulnerable, indigenous people and gender issues been comprehensively addressed in the project Design? <br> 4. Have the specific roles and responsibilities of the key stakeholders been documented concerning project delivery and effectiveness? <br> 5. At the country level of implementation of the BEA II, have specific roles of each stakeholder been identified? Are the stakeholders organized under a lead country partner? Have the country level stakeholders been involved in the project Design? <br> 6. Does the project Design make adequate mediation measures for all risks associated with partner involvement or discontinued involvement in the project? | - Stakeholder analysis framework <br> - Evidence of deliberate effort to involve stakeholders in project design and implementation. <br> - Evidence of consultative interviews with stakeholders <br> - Minutes of consultative dialogues with stakeholders <br> - Documentation of project partners and stakeholders. <br> - Documentation of project partners | Desk review of main project document (ProDoc) <br> Evaluation inception report <br> Progress reports <br> Key Informant Interviews with project implementing team <br> Relevant Stakeholder consultations |
| Within the Theory of Change <br> The TE will assess the logic in the project activities, outputs, outcomes, and impact. It will assess the adequacy of provisions and causal linkages between the key parts of the TOC, and the overall effect of the project on the target beneficiaries. The contribution of the project for replication and upscaling will be further assessed. |  |  |  |


| Topic | Proposed Questions | Indicators | Data Sources |
| :---: | :---: | :---: | :---: |
| Related to stakeholders in the Achievement of Outputs and Direct Outcomes | 1. Are all relevant project stakeholders aware of the intended outputs of the project? <br> 2. Were project outputs appropriately communicated and made accessible to all relevant stakeholders? <br> 3. Have desired outcomes and impacts occurred amongst all stakeholder groups (and if not, consider why this might be)? <br> 4. Have there been any unanticipated outcomes or impacts regarding indigenous groups? <br> 5. Did the project outcomes have an overall positive effect on the behaviour of all stakeholders before their involvement in the BEA II project? | - Evidence on stakeholder satisfaction level with project <br> - Evidence on the impact of the project on all stakeholders <br> - Evidence that the expected results of the BEA II (following consultations, and review of project log frame) at the end of the project are achieved particularly in India <br> - Evidence that unintended or unanticipated impacts were experienced by the indigenous groups particularly in India | ProDoc <br> Logical framework TOC and Reconstructed ToC Discussion with relevant project stakeholders Interviews |
| Catalytic effect (Within the Theory of Change) | Catalytic effect: <br> Where the project expects to play a catalytic role the Theory of Change can be used to explore the extent to which the project has: <br> Catalyzed behavioural changes in terms of use and application, by the relevant stakeholders, of capacities, developed <br> a. Has the BEA II project provided any incentives (social, economic, market-based, competencies etc.) that can contribute towards catalyzing changes in stakeholder behaviour? <br> b. Has the BEA II project made any contribution to institutional changes? for instance, institutional uptake of the proposed BEA II project and its tools? <br> c. Has the project made any contribution to energy, the environment of building policy changes? (On paper and in implementation of policy within any of the countries?) <br> d. Has the project contributed to sustained followon financing (catalytic financing) from | - Records on follow up initiatives by country-level stakeholders, national and municipal organizations, or individuals to replicate results and lessons from the BEA II project <br> - New or amended legislation and policies on BEA II in the project countries <br> - Number of newly established institutions to promote BEA II <br> - Evidence of increased knowledge, awareness, and commitment to BEA II beyond the project <br> - Number of follow up initiatives by the national level stakeholders to replicate results and lessons in other cities | ProDoc <br> Project Logical framework <br> Key informant interviews with project implementors and other Key stakeholders <br> PIR and other progress reports <br> Web Analytics |


| Topic | Proposed Questions | Indicators | Data Sources |
| :---: | :---: | :---: | :---: |
|  | Governments, the private sector, donors etc. (with a particularfocus on India)? <br> e. Has the project created opportunities for individuals or institutions ("champions") to catalyze change (without which the project would not have achieved all of its results)? |  |  |
| Replication and Scaling Up (Within the Theory of Change) | Replication: <br> 1. What specific activities were undertaken to promote replication effects of the BEA II? <br> 2. To what extent has actual replication occurred, or is likely to occur in the near future? (Consider ongoing projects within and outside the domain of UNEP and the GEF <br> 3. What are the factors that may influence the replication and scale-up of BEA II project experiences and lessons? <br> 4. What is the level of investor commitment towards providing support for the replication phase of the project? <br> 5. How motivated are the key stakeholders to upscale the project based on their experience from the Deep Dive cities? | - New legislation to promote BEA II <br> - Level of new calls for support by learning cities <br> - Number of new countries committing to implementing BEA II <br> - Number of emerging partners to support the implementation of BEA II <br> - Emerging scientific research evidence on the Design and implementation of BEA II, as well as their potential benefits and techno-economic assessments | Web analytics <br> Key informant interviews <br> Project reports |
| Safeguards (Within the Theory of Change) | 1. Are there any significant negative changes anticipated with the adoption of BEA II? <br> 2. How severe are the anticipated negative consequences of the adoption of BEA II (if any)? <br> 3. Was the safeguard management instrument completed and were UNEP Environmental, Social and Economic Safeguarding requirements complied with? <br> 4. Has the project adequately considered environmental, social and economic risks and established whether they were vigilantly monitored? | - Evidence on risk planning in the project Design <br> - Existence of a mitigation plan in cases where significant negative outcomes are anticipated <br> - Stakeholder perceptions on the negative consequences associated with the project implementation | Project document <br> Project report <br> Stakeholder Interviews <br> Project budget document |
| Financial Management |  |  |  |


| Topic | Proposed Questions | Indicators | Data Sources |
| :---: | :---: | :---: | :---: |
|  | Evaluation of financial planning requires assessment of the quality and effectiveness of financial planning and control of financial resources throughout the project's lifetime. The assessment will look at actual project costs by activities compared to budget (variances), financial management (including disbursement issues), and co-financing. The evaluation will: <br> a. Have proper budgeting standards been applied in the budget for the BEA II (clarity, transparency, audit etc.)? <br> b. Were the stipulated timelines of financial planning, management and reporting sufficient and enough to provide timely financial resources to the project and its partners? <br> c. Were the various administrative processes such as recruitment of staff, procurement of goods and services (including consultants), preparation and negotiation of cooperation agreements contribute appropriately towards enhancing the project performance? <br> d. Was the project co-financed? And if yes, has the co-financing arrangements materialized as expected at project approval? <br> e. What is the breakdown of final actual costs and co-financing for the different project components? <br> f. Were the resources leveraged originally for the project adequate in contributing towards the realization of the project objectives? | 1. Budget quality evaluation report <br> 2. Verification of the standards used in the financial preparation for the project <br> 3. Verification of procurement documents <br> 4. Verification of contracting documents (including administrative expenses) <br> 5. Project financial performance report <br> 6. Level of stakeholder satisfaction with resource utilization on the project | Project document <br> Project progress reports <br> Project budget at Design <br> Project revised budget at completion Project procurement invoices and receipts verification Co-financing Reports M\&E reports |


| Topic | Proposed Questions | Indicators | Data Sources |
| :---: | :---: | :---: | :---: |
|  | g. Were any additional resources mobilized beyond the original pool in pursuit of the project objectives? <br> h. Were there any observed irregularities in procurement, use of financial resources and human resource management, and if there were any, how did they affect the project performance? <br> i. What measures were taken (consistent with the UNEP provisions) to guard against misappropriation in the project? Were they adequate? |  |  |
| 1. Completeness of Financial Information <br> 2. Communication Between the Finance and Project Management Staff <br> 3. Compliance with UNEP Standards and Procedures | 1. Were there any inconsistencies in the financial report of the project? <br> 2. How were the project financial performances communicated among all relevant stakeholders? <br> 3. Were the project financiers satisfied with the financial performances of the project? | Verification of accountability information reports <br> Evidence on perceptions of project financiers on the financial performance of the project | Accountability reports and communication documents between stakeholders Key informant interviews |
| Efficiency |  |  |  |
|  | 1. Was the project implemented within the secured funding? <br> 2. Did the project secure/receive any extra funding within its implementation? <br> 3. Was the project objectives successfully implemented within the time-frame planned? Were there any adjustments in time? Did that come with any extra costs? How was that financed if any? | Financial performance <br> Partner satisfaction <br> Overall Project Efficiency rating | Project Budget Key Informant Interviews Project Reports |


| Topic | Proposed Questions | Indicators | Data Sources |
| :---: | :---: | :---: | :---: |
|  | 4. Does the project make use of/build upon preexisting institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency? <br> 5. Does the project create strategies for value for money in its implementation (ie increasing economy, efficiency and/or costeffectiveness)? |  |  |
| Monitoring and Reporting <br> The TE will undertake a comprehensive assessment of the quality, application and effectiveness of project monitoring and evaluation plans and tools, including an assessment of risk management based on the assumptions and risks identified in the project document. The evaluation will assess how monitoring results and feedback were used to improve the project along its implementation |  |  |  |
| 1. Monitoring Design and Budgeting | a. Did the project have a sound M\&E plan to monitor results and track progress towards achieving project objectives? Have the responsibilities for M\&E activities been clearly defined? Were the data sources and data collection instruments appropriate? Was the time frame for various M\&E activities specified? Was the frequency of various monitoring activities specified and adequate? <br> b. How well was the project logical framework (original and possible updates) Designed as a planning and monitoring instrument? <br> c. SMART-ness of indicators: Are there specific indicators in the log frame for each of the project objectives? Are the indicators measurable, attainable (realistic) and relevant to the objectives? Are the indicators time-bound? <br> d. Adequacy of baseline information: To what extent has baseline information on performance indicators been collected and presented in a clear | - The causal linkage between project objectives, outcomes, and anticipated outputs <br> - The causal linkage between project objectives, outcomes, outputs, and indicators. <br> - Ability to assess project implementation based on performance indicators <br> - Linkages between baseline information, performance indicators and stakeholder country situation. <br> - Evidence of stakeholder involvement/collaboration in identifying and contributing to project baseline information/situation. <br> - Establishment of clear protocols for M\&E; | Project <br> document <br> PIF <br> Project Manager <br> Project log <br> frame <br> ToC <br> PIR <br> Half-yearly <br> reports <br> Minutes of <br> meetings <br> Monitoring <br> budget <br> Reports on <br> workshops <br> reports - <br> particularly <br> those |

Proposed Questions
manner? Was the methodology for the baseline data collection explicit and reliable? For instance, was there adequate baseline information on preexisting accessible information on global and regional environmental status and trends, and on the costs and benefits of different policy options for the different target audiences? Was there sufficient information about the assessment capacity of collaborating institutions and experts etc. to determine their training and technical support needs?
e. To what extent did the project engage key stakeholders in the design and implementation of monitoring? Which stakeholders (from groups identified in the inception report) were involved? If any stakeholders were excluded, what was the reason for this? Was sufficient information collected on specific indicators to measure progress on HR and GE (including sexdisaggregated data)?
f. Did the project appropriately plan to monitor risks associated with Environmental Economic and Social Safeguards?
g. Arrangements for evaluation: Have specific targets been specified for project outputs? Has the desired level of achievement been specified for all indicators of objectives and outcomes? Were there adequate provisions in the legal instruments binding project partners to fully collaborate in evaluations?
h. Budgeting and funding for M\&E activities: Determine whether support for M\&E was budgeted adequately and was funded in a timely fashion during implementation

Indicators

- Identification of stakeholder roles and responsibilities in the M\&E process and expected outcomes.
- Identification of specific mid-term and end of project targets for individual project outcomes and outputs, and linkage with performance indicators
- Number of indicators measured or monitored successfully by the project's M\&E efforts
- Evidence of legal or other binding arrangements between project partners to collaborate in evaluations
- Funds allocated for undertaking the MTE and TE exercise
- Adequacy of resources for undertaking the above.
- Timeliness in the submission of reports to UNEP.
- Revision, ground-truthing and acceptance of reports submitted to UNEP

Data Sources
specifically which included stakeholders in addressing M\&E issues PRC document

| Topic | Proposed Questions | Indicators | Data Sources |
| :---: | :---: | :---: | :---: |
| 2. Monitoring of Project Implementation | a. What was the performance at the project's completion against Core Indicator Targets? <br> b. Was the M\&E system operational and did it facilitate timely tracking of results and progress towards projects objectives throughout the project implementation period? <br> c. Were PIR reports prepared (the realism of the Task Manager's assessments will be reviewed) <br> d. Were half-yearly Progress \& Financial Reports complete and accurate? <br> e. Was there risk monitoring (including safeguard issues)? And was this regularly documented? <br> f. Were the information provided by the M\&E system used during the project to improve project performance and to adapt to changing needs? | - Inception Reports indicating M\&E approved <br> - PIR adequately identify M\&E systems established and operational <br> - Risks assessment adequately documented <br> - MTE undertaken | Project document <br> Progress and financial report. <br> PIR <br> Mid Term Report <br> Half-yearly <br> reports <br> Results <br> Framework <br> Meetings and <br> workshops <br> reports - <br> particularly <br> those which <br> included <br> stakeholders in <br> addressing M\&E <br> issues |
| 3. Project Reporting | 1. Was sufficient information collected on specific indicators to measure progress on Human Rights and Gender Equality (including sex-disaggregated data)? <br> 2. How was that data collected? | The extent to which both UNEP and donor reporting commitments have been fulfilled. | Project document <br> Key Informant <br> Interviews <br> Samples of data <br> collection tools <br> during rapid <br> assessment and deep-dive <br> PIR <br> Half-yearly reports |


| Topic | Proposed Questions | Indicators | Data Sources |
| :---: | :---: | :---: | :---: |
| Socio-political Sustainability | 1. Are there any significant social or political factors that may influence positively or negatively the sustenance of the BEA II project results and progress towards impacts? <br> 2. Is the level of ownership by the main stakeholders sufficient to allow for the project results to be sustained? <br> 3. Are there sufficient government and other key stakeholder awareness, interests, commitment and incentives towards the promotion of the adoption of BEA II? <br> 4. Did the project conduct 'succession planning' and implement this during the life of the project? <br> 5. Was capacity building conducted for key stakeholders? <br> 6. Did the project demonstrate evidence on adaptation to other contexts beyond the scope of its implementation? (China, Chile, India and Serbia?) | - Level of political stability during project implementation <br> - Influence of existing country policies and regulations on the project (compatibility with existing provisions) <br> - The commitment level of countrylevel stakeholders towards the BEA II initiative <br> - Level of commitment of local and national governments towards the promotion of BEA II beyond the scope of the current project | Project <br> Document <br> Log frame <br> Project <br> Managers <br> Progress <br> Reports <br> Discussion with <br> stakeholders <br> Web analytics <br> Key informant <br> interviews with <br> the project team <br> on sustainability <br> plans and <br> upscaling <br> projects |
| Financial Sustainability | 1. To what extent are the continuation of project results and the eventual impact of the project dependent on financial resources? <br> 2. Could the project generate revenue to cover the cost of adopting BEA II in each city? <br> 3. What is the likelihood that adequate financial resources will be or will become available to use capacities built by the project? <br> 4. Are there any financial risks that may jeopardize the sustainability of project results and the onward progress towards impact? <br> 5. Is there evidence of the willingness of organizations outside the scope of this project to take up the project in other contexts? | - Evidence on government budgets and policy priorities in project countries <br> - Investment viability reports <br> - Evidence on suitable market-based instruments that will enhance adoption of BEA II beyond the scope of this project | Project <br> Document <br> Log frame <br> Project <br> Managers <br> Progress <br> Reports <br> Discussion with <br> stakeholders <br> (both country <br> level and global <br> level) |


| Topic | Proposed Questions | Indicators | Data Sources |
| :---: | :---: | :---: | :---: |
| InstitutionalSustainability | 1. To what extent is the sustainability of the results and the onward progress towards impact dependent on issues relating to institutional frameworks and governance? <br> 2. How robust are the institutional achievements such as governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. required to sustain project results and to lead those to impact on human behaviour and environmental resources, goods or services? <br> 3. Are the existing institutions in the project countries adequate to implement BEA II? | - Evidence on the existing capacities of institutions in the project countries to sustain the BEA II initiative <br> - Evidence of changes in government's behaviour in the project countries towards institutional reformation and organizational restructuring, in pursuit of the BEA II initiative | Project <br> Document <br> Log frame <br> Project <br> Managers <br> Progress <br> Reports <br> Post-Project <br> institutional <br> transformation <br> assessment <br> through key <br> informant <br> interviews |
| Environmental Sustainability | 1. Are there any environmental factors, positive or negative, that can influence the future flow of project benefits? <br> 2. Are there any project outputs or higher-level results that are likely to affect the environment, which, in turn, might affect the sustainability of project benefits? <br> 3. Are there any foreseeable negative environmental impacts that may occur as the project results are being upscaled? (Include the positive potentials of the BEA II on GHG emission reduction) | - Environmental Impact Evidence for BEA II <br> - Evidence on the consistency of project goals with exiting environmental and energy policies <br> - Post-implementation plans to promote awareness of the environmental benefits of BEA II <br> - The direction of research evidence among global level research partners on the environmental impact of BEA II | Project <br> Document <br> Log frame <br> Project <br> Managers <br> Progress <br> Reports <br> TOC <br> Discussion with <br> stakeholders <br> Web analytics |
| Factors Affecting Performance <br> This criterion focuses on the quality of project design and preparation, and how this influences the realization of project objectives |  |  |  |
| Preparation and Preparedness | 1. Were project stakeholders adequately identified and were they sufficiently involved in project development and ground-truthing e.g., of proposed timeframe and budget? <br> 2. Were the project's objectives and components clear, practicable and feasible within its timeframe? | - Capacity needs assessment evidence <br> - Report on the Capacity of the main implementing partners of the BEA II <br> - Stakeholder capacity assessment evidence | ProDoc <br> PIF <br> Progress reports MoUs and other legally binding documents |

Proposed Questions
3. Are potentially negative environmental, economic and social impacts of projects identified?
4. Were the capacities of executing agencies properly considered when the project was Designed?
5. Was the project document clear and realistic to enable effective and efficient implementation?
6. Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project implementation?
7. Were counterpart resources (funding, staff, and facilities) and enabling legislation assured?
8. Were adequate project management arrangements in place?
9. Were lessons from other relevant projects properly incorporated in the projectDesign?
10. What factors influenced the quality-at-entry of the project Design, choice of partners, allocation of financial resources etc.?
11. Were any Design weaknesses mentioned in the Project Review Committee minutes at the time of project approval adequately addressed?

Indicators

- Level of the ease with which project partners and other relevant stakeholders understood the project and bought into its idea
- Ease (or otherwise) in the adoption of proposed plans for the BEA II across all stakeholders (including ease of training)
- Evidence of documents/ communications outlining and confirming commitment to provide counterpart resources and support enabling legislation.
- Evidence of incorporation of management experience from similar projects and projects partners.
- Evidence, during project Design, of assessments of and incorporation of experiences of other similar regional projects and lessons learned.
- Evidence of communication with stakeholders to identify experiences that have relevance to the BEA II project.
- Evidence of alignment of objectives outcomes and outputs with the similar projects that were either ongoing or recently completed (including alignment of BEA II with BEA).
- (Documentation of) Situational analysis and experiences of partnering agencies.

Data Sources
between
supporting projects and implementing countries Inception report Project Manager PIR Key informant interviews

| Topic | Proposed Questions | Indicators | Data Sources |
| :---: | :---: | :---: | :---: |
|  |  | - Project Design aligned with GEF environmental and social safeguards. <br> - Agreement by GEF to support/fund project following assessment of its goals and objectives |  |
|  | What was the progress made in the implementation of the management measures against the Safeguards Plan submitted at CEO Approval? The risk classifications reported in the latestPIR report should be verified and the findings of the effectiveness of any measures or lessons learned taken to address identified risks assessed. | - Evidence from document-based assessment | PIR report Key Informant Interviews Project Report |
|  | What were the challenges and outcomes regarding the project's completed Knowledge Management Approach, including Knowledge and Learning Deliverables (e.g. website/platform development); Knowledge Products/Events; Communication Strategy; Lessons Learned and Good Practice; Adaptive Management Actions? | - Evidence on functional and accessible Knowledge Management platforms/products for the project | CEO <br> Endorsement <br> Document <br> Project Reports Interviews |

## Quality of Project Management and Supervision

This includes an analysis of implementation approaches used by the project, its management framework, the project's adaptation to changing conditions and responses to changing risks including safeguard issues (adaptive management), the performance of the implementation arrangements and partnerships, the relevance of changes in project design, and overall performance of project management.

| Management: | a. To what extent were the project implementation mechanisms outlined in the project document followed and were they effective in delivering project milestones, outputs and outcomes? Were pertinent adaptations made to the approaches originally proposed? <br> b. How effective and efficient was the project management and how well has the management been able to adapt to changes during the life of the project? | - Evidence of results-based/results-driven project management. <br> - The causal linkage between PIR rating and the project realities and risks. <br> - Evidence of adaptive management. <br> - Evidence of effective communication, coordination and leadership for project management and supervision | ProDoc <br> Project Manager <br> Focal points <br> Progress reports <br> MoUs and other <br> legally binding <br> documents <br> between <br> supporting <br> projects and <br> implementing <br> countries |
| :---: | :---: | :---: | :---: |


| Topic | Proposed Questions | Indicators | Data Sources |
| :---: | :---: | :---: | :---: |
|  | c. What were the role and performance of the teams and working groups established and the project execution arrangements at all levels? To what extent did the project management respond to direction and guidance provided by the UNEP Task Manager and project steering bodies? <br> d. What were the main operational and political/institutional problems and constraints that influenced the effective implementation of the project, and how the project tried to overcome these problems? |  | PIR |
| Supervision | The purpose of supervision is to verify the quality and timeliness of project execution in terms of finances, administration and achievement of outputs and outcomes, to identify and recommend ways to deal with problems that arise during project execution. Such problems may be related to project management but may also involve technical/institutional substantive issues in which UNEP has a major contribution to make. <br> The evaluation will therefore assess the effectiveness of supervision, guidance and technical support provided by the different supervising/supporting bodies including: <br> a. How adequate were the project supervision plans, inputs and processes? The realism and candour of project reporting and the emphasis given to outcome monitoring (results-based project management); <br> b. How well did the different guidance and backstopping bodies play their role and how well did the guidance and backstopping mechanisms | - Evidence of project supervision plans prepared <br> - Evidence on acceptance of project reports by the UNEP <br> - Evidence on the robustness and accuracy of the proposed project outputs/activities, and the implemented outputs/activities <br> - Evidence of oversight reports from UNEP <br> - Evidence of acceptance of progress and financial reports from stakeholder countries and coordination team. <br> - Evidence of ongoing communication between UNEP and stakeholders on financial and administrative matters. <br> - Evidence that deliverables were achieved within anticipated times and budgets <br> - Evidence that the project paid attention to human rights, gender issues and needs of the indigenous people | ProDoc Project Manager Progress reports MoUs and other legally binding documents between supporting projects and implementing countries PIR Key informant interviews with relevant stakeholders |


| Topic | Proposed Questions | Indicators | Data Sources |
| :---: | :---: | :---: | :---: |
|  | work? What were the strengths in guidance and <br> backstopping and what were the limiting factors? | Evidence of equitable opportunities for <br> all districts and cities to benefit from the <br> training provided. |  |

## Stakeholders Participation and Cooperation

The Evaluation will assess the effectiveness of mechanisms for information sharing and cooperation with other UNEP projects and programs, external stakeholders and partners. The term stakeholder should be considered in the broader sense, encompassing both project partners and target users of project products. The TOC and stakeholder analysis should assist the evaluators in identifying the key stakeholders and their respective roles, capabilities and motivations in each step of the causal pathways from activities to achievement of outputs, outcomes and intermediate states towards impact.
a. information dissemination to and between stakeholders,
b. consultation with and between stakeholders, and
c. active engagement of stakeholders in project decision making and activities. The evaluation will specifically assess:

1. the approach(es) and mechanisms used to identify and engage stakeholders (within and outside UNEP) in project Design and at critical stages of project implementation. What were the strengths and weaknesses of these approaches concerning the project's objectives and the stakeholders' motivations and capacities?
2. How was the overall collaboration between different functional units of UNEP involved in the project? What coordination mechanisms were in place? Were the incentives for internal collaboration in UNEP adequate?
3. Was the level of involvement of the Regional, Liaison and Out-posted Offices in project Design, planning, decision-making, and implementation of activities appropriate?
4. Has the project made full use of opportunities for collaboration with other projects and programs including opportunities not mentioned in the Project Document? Have complementarities been sought,

- Evidence of deliberate effortto involve stakeholders in project design and implementation.
- Evidence of involvement of/collaboration between funding agencies, coordination team, stakeholder countries and partners in project Design.
- Evidence of linkages between assignment of individual tasks for project Design, and expertise/capacity of individual partners.
- Documentation of project partners and stakeholders.
- Evidence of attempts at public outreach, via e.g., different media, consultations etc.
- Evidence of stakeholder involvement
- Evidence that project outcomes were achieved as anticipated in project log frame and according to that stipulated in ToC ;
- Evidence that the expected results (following consultations, and review

Project document
(ProDoc)
Log frame
Project Manager
Project inception report

Progress reports
Public education and outreach program reports

Training
Workshop
Reports

| Topic | Proposed Questions | Indicators | Data Sources |
| :---: | :---: | :---: | :---: |
|  | synergies been optimized, and duplications avoided? <br> 5. What was the achieved degree and effectiveness of collaboration and interactions between the various project partners and stakeholders during the Design and implementation of the project? This should be disaggregated for the main stakeholder groups identified in the inception report. <br> 6. To what extent has the project been able to take up opportunities for joint activities, pooling of resources and mutual learning with other organizations and networks? In particular, how useful are partnership mechanisms and initiatives such as [insert relevant examples] to build stronger coherence and collaboration between participating organizations? <br> 7. How did the relationship between the project and the collaborating partners (institutions and individual experts) develop? <br> 8. Which benefits stemmed from their involvement for project performance, for UNEP and for the stakeholders and partners themselves? <br> 9. Do the results of the project (strategic programs and plans, monitoring and management systems, sub-regional agreements etc.) promote participation of stakeholders, including users, in environmental decision making? | of project log frame) at the end of the project are achieved; |  |
| Responsiveness to Human Rights and Gender Equality | 1. To what degree did participating institutions/organizations change their policies or practices thereby leading to the fulfilment of Human Rights and Gender Equality principles (e.g., new services, greater responsiveness, resource reallocation, etc.) | - Evidence that the project sought to address human rights and gender equality <br> - Evidence of equitable opportunities for vulnerable groups to benefit from training provided. | ProDoc <br> Log frame <br> Progress reports Workshop and meeting reports UNEP BSP strategy document |


| Topic | Proposed Questions | Indicators | Data Sources |
| :---: | :---: | :---: | :---: |
|  | 2. Assess the extent to which Human Rights and Gender Equality were integrated into the Theory of Change and results framework of the intervention <br> 3. Did the intervention activities aim to promote (and did they promote) positive sustainable changes in attitudes, behaviours and power relations between the different stakeholders? To what extent has the integration of Human Rights and Gender Equality led to an increase in the likelihood of sustainability of project results? <br> 4. To what extent were Human Rights and Gender Equality allocated specific and adequate budget in relation to the results achieved? <br> 5. What were the completed gender-responsive measures and, if applicable, actual gender result areas? | - Evidence of equitable distribution of resources to participating districts and cities |  |
| Country Ownership and Driven ness | 1. Assess the degree and effectiveness of involvement of government / public sector agencies in the project those involved in project execution and those participating in [insert whatever is relevant e.g., project Steering Committee, partnershiparrangements]: <br> 2. How and how well did the project stimulate country ownership of project outputs and outcomes? <br> 3. To what extent have Governments of the participating countries (Chile, China, India and Serbia) assume responsibility for the project and did they provide adequate support to project execution, including the degree of cooperation received from the various public institutions involved in the project? | - The signing of relevant agreements/documents with GEF/UNEP. <br> - Efficiency in the provision of in-kind contributions. <br> - Establishment of in-country focal points and assignment of committed project staff. <br> - Enactment of policies for local adaptation of BEA II in project countries <br> - Consistent provision of committed national representation in project steering mechanisms | -Progress reports <br> -Key informant interviews with project partners |
| Communication and Public Awareness | 1. Assess the effectiveness of any public awareness activities that were undertaken during implementation of the project to communicate the project's objective, progress, outcomes and lessons. | - Evidence of attempts at public outreach, via e.g. different media, consultations etc.; for the dissemination of information about the BEA II | -ProDoc <br> -Progress reports -Webpage |


| Topic | Proposed Questions | Indicators | Data Sources |
| :---: | :---: | :---: | :---: |
|  | 2. The effects of public awareness and communications activities should be considered on a disaggregated basis by stakeholder group. <br> 3. Did the project identify and make use of existing communication channels and networks used by key stakeholders? <br> 4. Did the project provide feedback channels? | - Levels of public awareness and participation <br> - Verification of the project virtual platform for information management and learning communication | -Public and <br> Educational <br> Project Manager <br> Awareness <br> materials <br> -Workshop and meeting reports <br> -Web analytics of all internetbased platforms of the project and other opensource websites |
| Key Strategic Questions |  |  |  |
|  | Q1: To what extent are the results attributable to the project? What can we conclude in terms of effectiveness of global accelerator projects versus local projects? <br> Q2: After the completions of BEA Phase 1 and BEA Phase 2, what lessons can be learned in terms of options for exiting or transitioning strategies for the sustainability of the actions undertaken? <br> Q3: How were the 9 recommendations of the Terminal Evaluation of the Phase 1 project considered and what effects did it have on the project performance and progress? <br> Q4: To what extent, and how, are organizations participating in the Partnership promoting market shifts and encouraging innovations outside the Partnership? <br> Q5: How did the Phase 1 "deep-cities" which were not supported by the Phase 2 (Rajokot Municipal Corporation (India), Belgrade (Serbia) and Da Nang City (Vietnam)) perform compared with the | - Number of new policies for EE in buildings that are formulated in project cities since 2018 <br> - Number of institutional reforms and adjustments made in the project countries towards promoting EE in buildings since 2018 <br> - Feedback on adherence to TE criteria in project <br> - New Market-Based Instruments developed in project cities to facilitate the uptake of EE technologies in buildings <br> - Performance assessment and comparative analysis between Phase 1 Deep-dive cities and phase 2 deep dive cities <br> - Beneficiary views (through ratings and other criteria) on project | -Project stakeholders <br> -Beneficiary views <br> -Progress Reports <br> -Key-Informant interviews <br> -Market Analysis (Including Webbased analysis) |


| Topic | Proposed Questions | Indicators | Data Sources |
| :---: | :---: | :---: | :---: |
|  | continuing "deep-dive" cities (Bogotá (Colombia), Eskişehir (Turkey) and Mexico City (Mexico))? Q6: In terms of coherence of roles and actions as well as efficiency, what lessons can be learned from the synergies or collaborations that the BEA Phase 2 had with other complementary initiatives during the project implementation (like the District Energy in Cities Initiative (the SE4All district energy Accelerator), United for Efficiency (the SE4AII Efficient Appliances and Equipment Accelerator), the Global Alliance for Building and Construction or the Program for Energy Efficiency in Buildings (PEEB))? <br> Q7: What changes were made to adapt to the effects of COVID-19 and how might any changes affect the project's performance? <br> Q8: To what extent are the project "beneficiaries" at the country level and at the city level satisfied with the quality and the relevance of the Technical Assistance provided? |  |  |

# ANNEX IX. EVALUATION TORS (WITHOUT ANNEXES) 

# TERMS OF REFERENCE <br> Terminal Evaluation of the UNEP/GEF project <br> "The SEforALL Building Efficiency Accelerator (BEA): Expanding Local Action and Driving National Change" (GEF ID 9947) <br> <br> Section 1: PROJECT BACKGROUND AND OVERVIEW 

 <br> <br> Section 1: PROJECT BACKGROUND AND OVERVIEW}

## 1. Project General Information

Table 1. Project summary

| GEF Project ID: | 9947 | SB-010640 |  |
| :---: | :---: | :---: | :---: |
| Implementing Agency: | UNEP <br> Economy <br> Division, <br>  <br> Climate <br> Branch, <br> Climate <br> Mitigation Unit | Executing Agency: | World Resources Institute (WRI) |
| RelevantSDG(s) and indicator(s): | SDG 7. Ensure access to affordable, reliable, sustainable and modern energy for all. <br> - Target 7.3: By 2030, double the global rate of improvement in energy efficiency; <br> - Target 7.a: By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology <br> SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. <br> - Target 9.4: By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities <br> SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable <br> Target 11.3: By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries |  |  |
| GEF Core Indicator Targets (identify these for projects approved prior to GEF-760) | Core Indicator 6 - Greenhouse gas emission mitigated: <br> End-of-project target: 2,736,558 tCO2eq for the 15 years following project completion (direct and direct post-project) |  |  |

[^29]| Sub-programme: | Climate Change | Expected <br> Accomplishment(s): | PoW 2018-2019 <br> b) Countries increasingly adopt and/or implement low greenhouse gas emission development strategies and invest in clean technologies |
| :---: | :---: | :---: | :---: |
| UNEP approval date: | July 18, 2018 | Programme of Work Output(s): | PoW 2018-2019, Subprogramme 1 Climate Change <br> PoW 2020-2021, <br> Subprogramme 1 <br> Climate Change |
| GEF approval date: | June 13, 2018 | Project type: | Medium Size Project |
| GEF Operational Programme \#: | GEF-6 | Focal Area(s): | Climate Change |
|  |  | GEF Strategic Priority: | CCM-1 Program 1: Policy, planning and regulatory frameworks foster accelerated low GHG development and emissions mitigation |
| Expected start date: | August 1, 2018 | Actual start date: | September 5, 2018 |
| Planned operational completion date: | $\begin{aligned} & \text { January 31, } \\ & 2020 \end{aligned}$ | Actual operational completion date: | September 30, 2020 |
| Planned project budget at approval: | USD 8,116,597 | Actual total expenditures reported as of September 30, 2020: | USD 9,622,529 |
| GEF grant allocation: | USD 2,000,000 | GEF grant expenditures reported as of May 27, 2021: | USD 1,970,000 |
| Project Preparation Grant GEF financing: | USD 0 | Project Preparation Grant - co-financing: | USD 0 |
| Expected Medium-Size Project co-financing: | USD 6,116,597 | Secured Medium-Size Project co-financing: | USD 7,652,529 |
| Date of first disbursement: | $\begin{aligned} & \text { September 20, } \\ & 2018 \end{aligned}$ | Planned date of financial closure: | September 30, 2021 |
| No. of formal project revisions: | 3 | Date of lastapproved project revision: | July 13, 2020 |
| No. of Steering Committee meetings: | 6 | Date of last/next Steering Committee meeting: | Last: Next: <br> October $\mathrm{N} / \mathrm{A}$ <br> 23, 2020  |
| Mid-term Review/ Evaluation (planned date): | N/A | Mid-term Review/ Evaluation (actual date): | N/A |
| Terminal Evaluation (planned date): | June 30, 2021 | Terminal Evaluation (actual date): | $\begin{aligned} & \text { October } 2021 \text { - June } \\ & 2022 \end{aligned}$ |


| Coverage - Country(ies): | Deep-dive engagement: Colombia, India, Mexico, Mongolia, South Africa, Turkey | Coverage-Region(s): | Africa, Asia Pacific, Latin America and Caribbean, West Asia |
| :---: | :---: | :---: | :---: |
| Dates of previous project phases: | GEF ID 9329 <br> "Scalingup the <br> Sustainable <br> Energy for All <br> Building <br> Efficiency <br> Accelerator" <br> (April 2016 - <br> December <br> 2017) | Status of future project phases: | GEF ID 10321 "Zero Carbon Buildings for All: from Energy Efficiency to Decarbonization" started in March 2021 |

## 2. Project Rationale

1. The building sector is a major contributor to global warming. Buildings account for about onefourth of global energy demand and nearly one-third of greenhouse gas emissions ${ }^{61}$. The sector holds potential for some of the greatest areas of progress towards a more sustainable future. By 2050 global building energy demand can be reduced by at least one-third if known energy efficiency best practices are implemented on a large scale. ${ }^{62}$ In 2011, the United Nations launched the Sustainable Energy for All (SEforALL) initiative to mobilize action towards a goal of doubling the global rate of energy efficiency improvement by 2030 from $1.5 \%$ to a $3 \%$ annual rate of improvement.
2. Electricity growth continues at approximately $5.7 \%$ year in non-OECD countries, with half of electricity generation (on average) from coal. The pace of electricity demand is determined by a number of factors including 1 ) increasing access to those living in energy poverty, 2) dramatic urbanization trends resulting in tremendous growth in the built environment and 3) additional energy consuming devices including space heating and cooling. With these macro trends, policymakers must look to energy efficiency strategies in the building sector to contribute significantly to stabilizing energy demand to meet a global 2 -degree pathway.
3. The International Energy Agency (IEA) found in its model of least-cost approaches that the global buildings sector can contribute emissions declines of 42 percent between 2012 and 2050 (around 80 GtCO 2 ). Emissions reductions can occur at the same time that population, Gross Domestic Product (GDP), built floor space, and energy use are expected to grow ${ }^{63}$. Technically feasible and costeffective building efficiency solutions are available around the world in support of climate and energy goals. However, these solutions require significant shifts from business-as-usual construction and operation of buildings. And today, with the global population increasing from $54 \%$ urban to over $70 \%$ urban by 2050, we risk locking in a high carbon, inefficient built environment if cities are not rapidly upgrading building construction and renovation practices.
4. 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

[^30]are often political and information-based, rather than technical. Thus, the BEA has a particular focus on working with policy makers. The BEA is one of six energy efficiency accelerators under SE4All. ${ }^{64}$
5. The BEA is complementary to, and coordinates with three other SE4All energy efficiency accelerators: the District Energy in Cities Initiative (District Energy Accelerator), United for Efficiency (U4E, the Efficient Appliances and Equipment Accelerator) and en.lighten (Efficient Lighting Accelerator).
6. From 2016 to 2017, the BEA was funded by the GEF under the GEF ID 9329 "Scaling up the Sustainable Energy for All Building Efficiency Accelerator" project (also called BEA Phase 1), the partnership rapidly scaled up action with cities and global partner organizations. In the first two years, the city partners were building stakeholder engagement, identifying policy priorities, and reviewing demonstration project options. As of the end of 2017, the BEA encompassed 30 cities ( 24 "light touch" cities and 6 "deep-dive" cities ${ }^{65}$ ) and 42 partner organizations.
7. The GEF ID 9947 "The SEforALL Building Efficiency Accelerator (BEA): Expanding Local Action and Driving National Change" project (under evaluation) is the Phase 2 and started in August 2018 with a planned duration of 18 months. It was eventually completed in September 2020.
8. During Phase 2, the BEA sought to scale up its work at the intersection of policy and private markets. It aimed at closing the gap between inefficient practice and best practice by linking private sector market implementation experience with local policy action and capacity building and with national policies and programs. It did so by supporting market transformation to allow rapid scale up of energy efficient new and existing buildings, working with cities and sub-national jurisdictions in their pursuit of building efficiency improvements, and connecting national and sub-national governments to increase the ambition and impact of building efficiency actions.
9. More specifically, the BEA Phase 2 project broadened and deepened the coalition approach by expanding national government and business engagement; continued to support cities through the project and policy prioritization and pre-development process; encouraged standardization and scaling of projects to programs to increase ambition and enable financing; connected with national governments and international platforms in order to create political linkages and spur a building efficiency movement.
10. Three Phase 1 "deep-dive" cities were carried over in to Phase 2 namely (Bogotá (Colombia), Eskişehir (Turkey) and Mexico City (Mexico)) and four new "deep-dive" cities were added: Nagpur (India), the State of Sonora (Mexico), Tshwane (South Africa) and Ulaanbaatar (Mongolia).
11. The GEF ID 10321 "Zero Carbon Buildings for All: from Energy Efficiency to Decarbonization" project that started in March 2021 represents the BEA Phase 3.

## 3. Project Results Framework

12. The project objective was to reduce greenhouse gas emissions by supporting market transformations that would enable a doubling of the rate of energy efficiency improvements in buildings by 2030, by linking global market experience, national policy, and local action and capacity building. The CEO Endorsement Document set out four components through which the above-mentioned objective was to be achieved, these are:

- Component 1:Partnership expansion: Global and local partnerships of businesses,NGOs, local governments, and national governments scale up efficiency markets
- Component 2: Technical assistance and capacity building for efficiency actions in cities or subnational governments ("Light touch")

[^31]- Component 3: Place-based market transformation partnerships for policy and project implementation ("Deep dives")
- Component 4: Monitoring Results

13. A summarized version of the project's logical framework is presented in Table 2 below:

## Table 2. Summary of project components, outcomes and outputs

| Component | Expected Outcomes | Outputs |
| :---: | :---: | :---: |
| Component 1: Partnership expansion: Global and local partnerships of businesses, NGOs, local governments, and national governments scale up efficiency markets | 1.1 Expand and accelerate citylevel market shifts towards more efficient buildings through the BEA partnership, including public-private collaboration and national government engagement with local action. | Output 1.1.1: 30 new cities or subnational governments and 30 new companies/organizations sign up to the BEA <br> Output 1.1.2: Commitments from 3 national governments (each with at least 3 BEA partner cities) to be stewards for local action are issued. |
| Component 2: Technical assistance and capacity building for efficiency actions in cities or subnational governments ("Light touch") | 2.1 Existing and new BEA "light touch" cities or subnational governments are better equipped to define, adopt and/or further advance building efficiency actions | Output 2.1.1: Technical assistance using the standardized BEA offer is provided to cities or subnational governments. <br> Output 2.1.2: Private sector commitments to be stewards for collective local action across the value chain are issued. <br> Output 2.1.3: Announcements on BEA actions are made during key international events. |
| Component 3: Place-based market transformation partnerships for policy and project implementation ("Deep dives") | 3.1 Continuing "deep dive" cities implement a building efficiency policy and develop project pipelines | Output 3.1.1: Commitments from existing "deep dive" cities to provide funding for continued implementation activities are issued. <br> Output 3.1.2: Continuing "deep dive" cities have adopted the policy drafted in 2016-2017. <br> Output 3.1.3: Finance/funding mechanism(s) for policy implementation are identified by existing "deep dive" cities. <br> Output 3.1.4: Continuing "deep dive" cities have completed the demonstration project(s) begun in 2016-2017. <br> Output 3.1.5: Assistance is provided on systemization of project pipeline development including identification of finance/funding mechanism(s). |


|  | 3.2 New "deep dive" cities are prepared to adopt or implement building efficiency policies and projects | Output 3.2.1: Market-specific research is compiled in support of relevant policy and project development. <br> Output 3.2.2: In each city working group activities are agreed upon, co-leaders are selected, efficiency vision, action ideas and recommendations are provided to officials, and recommendations are released publicly. <br> Output 3.2.3: Commitments from local partners to provide direct staffing and coordination support to policy and project preparation are issued. <br> Output 3.2.4: Policies and actions are drafted and project implementation is planned or underway. |
| :---: | :---: | :---: |
|  | 3.3 Selected national governments are prepared to adopt building efficiency programs/policies and tracking towards national goals integrated with the actions of BEA cities or subnational governments. | Output 3.3.1: National plans on enabling local actions on building efficiency, including linkages to NDC/SDG priorities, are drafted. <br> 3.3.2. Policy dialogue between national/local governments and the private sector is undertaken. <br> Output 3.3.3: New national policies, programs, and project pipelines are improved or developed to support the needs of local governments to act on building efficiency. <br> Output 3.3.4: Potential additional focus countries are identified. |
| $\begin{aligned} & \text { Component 4: Monitoring } \\ & \text { Results } \end{aligned}$ | 4.1 Increased capacity and improved practices for collecting, analyzing and scaling city level data to measure performance of project-related activities in cities or subnational governments. | Output 4.1.1: Guidelines for cities are distributed on: <br> a. monitoring and reporting cityscale energy performance; <br> b. tracking building-scale energy performance <br> Output 4.1.2: Impact projections for policies and projects are quantified by participating cities, demonstrating localizable impact assessment methods. <br> Output 4.1.3: Knowledge products (i.e. best practices for technical content, peer learning, |


|  |  | project results, lessons learned, <br> local and national tracking / <br> goal-setting) are properly <br> managed and disseminated <br> across the network. |
| :--- | :--- | :--- |

14. A theory of change was included in the CEO Endorsement Document. It mentioned six Intermediate States and one long-lasting Impact as presented in Table 3 below:
Table 3. Intermediate States and Impact

| First level Intermediate States | Second level Intermediate <br> States | Impact |
| :--- | :--- | :--- |
| Leveraged finance/funding for <br> Energy Efficiency projects and <br> buildings | Improved capacity to <br> implement Energy Efficiency <br> projects and policies on <br> buildings | Increased energy saving and <br> reduced GHG emissions via <br> project objective: Reduce <br> greenhouse gas emissions by <br> supporting market <br> transformations that would <br> enable a doubling of the rate of <br> energy efficiency <br> improvements in buildings by <br> 2030, by linking global market <br> experience, national policy, and |
| Facilitated dialogue, <br> information exchange and <br> awareness on Energy <br> Efficiency policy and project <br> opportunities | Increased Energy Efficiency <br> technology deployment <br> building |  |
| Facilitated local actions at capacity <br> national and subnational levels <br> for support of Energy Efficiency <br> measures in buildings |  |  |
| Better building energy <br> consumption data and local <br> capacity to improve scalable <br> assessment methods |  |  |

## 4. Executing Arrangements

15. The Implementing Agency (IA) of the project was UNEP Economy Division, Energy \& Climate Branch, Climate Mitigation Unit. It was responsible to the GEF for the project's oversight, the use of resources, or any amendments agreed to it by all donors. The IA worked with the Executing Agency (EA) to oversee implementation of the project and provide supervision to ensure that the project met UNEP and GEF policies. The EA was the World Resources Institute (WRI). It was accountable to UNEP for the disbursement of funds and the achievement of the project goals, according to the approved work plan.
16. The project team consisted of Project Director, Project Manager, Deep Dive Manager, Partnership Coordinator, Project Coordinator, and part-time technical and communications experts were located at the WRI Office in Washington, DC, USA.
17. The Project Director provided strategic guidance to the project and partnership management, relationship facilitation and technical support for project implementation. The coordination and management the project activities, including liaising with the BEA network were under the responsibility of the Project Manager.
18. The day-to-day management of the project was carried out by the Project Team.
19. The project was supervised by the BEA Steering Committee which arbitrated and validated procedures and the selection of "deep-dive" city nominations, national engagements, and other similar decisions. The Steering Committee was composed of members with representatives from the following: UNEP (Task Manager), ICLEI - Local Governments for Sustainability, World Green Building Council, IFC/World Bank Group, Johnson Controls, WRI, Sustainable Energy for All, representatives from the city Advisory Panel and the GEF Secretariat. The BEA Steering Committee was to meet at least twice every year.
20. A City Advisory Panel was also created to provide a mechanism for city and subnational partners to provide input to the Steering Committee at least once per year. The City Advisory Panel comprised representatives from all BEA "deep-dive" cities; additional BEA partner cities were invited to one-year terms based on the recommendations and information provided by the BEA partnership and a formal review by the Steering Committee.
21. Working Groups were formed in each "deep-dive" city to provide expert support for creation of city actions and policies. The Working Groups were formed of the most knowledgeable experts in the local market to help design effective strategies for the acceleration of building efficiency. The Working Groups delivered recommendations to the city and were co-led by a stakeholder and city staff person, and among the sectoral stakeholders included appropriate representatives from the national government.
22. The thematic technical assistance leads, regional leads, and national leads were selected from among the BEA partner organizations based on relevant expertise and location. Sub-grants were allocated for these leadership roles as determined by the cities that join the partnership and the building efficiency actions they prioritized. Thematic technical assistance leads delivered and developed technical content for BEA city partners in specific thematic areas related to building efficiency action. Regional leads served as the primary eyes, ears and voice for the BEA in their region, helping to identify regional opportunities and needs while ensuring that partner cities and organizations in the region are actively engaged and obtaining value for the BEA. National leads led engagement with selected national governments and linkages with BEA partner subnational governments on building efficiency action.
23. Figure 1 and Figure 2 below present the BEA Organizational Chart and the Project Oversight and Management Chart.

Figure 1. BEA Organizational Chart


Figure 2. Project Oversight and Management Chart


## 5. Project Cost and Financing

24. The total budget of the project was USD $8,116,597$ of which USD $2,000,000$ was GEF financing and the balance was co-financing, as detailed in Table 4 below.

Table 4. Planned project budget (as presented in the CEO Endorsement Document)

| Sources of funds | Type of financing | Amount <br> (USD) |  |
| :--- | :--- | :---: | :---: |
| GEF Trust Fund | Name of Co-financier | Cash | $2,000,000$ |
| Sources of Co-financing | lam | In-kind | 40,000 |
| Civil Society <br> Organisation | 100 Resilient Cities | In-kind | 23,000 |
| Civil Society <br> Organisation | Alliance to Save Energy | In-kind | 170,000 |
| Civil Society <br> Organisation | Buildings Performance Institute <br> Europe (BPIE) | In-kind | 117,636 |
| Civil Society <br> Organisation | Business Council for Sustainable <br> Energy (BCSE) | In-kind | 50,000 |
| Civil Society <br> Organisation | Clean Energ Solutions <br> Center/National Renewable <br> Energy Laboratory (NREL) | In-kind | 136,500 |
| Civil Society <br> Organisation | Colombia Green Building Council <br> Civil Society <br> OrganisationCopenhagen Center on Energy <br> Efficiency (C2E2) | In-kind | 250,000 |
| Private Sector | Danfoss | In-kind | 35,100 |
| Private Sector | Econoler | In-kind | 20,000 |
| Civil Society <br> Organisation | Green Buildings Performance <br> Network (GBPN) | In-kind | 67,000 |
| Civil Society <br> Organisation | ICLEI - Local Governments for <br> Sustainability | In-kind | 115,000 |
| Private Sector | Ingersoll Rand | In-kind | 409,796 |


| Multilateral | International Energy Agency | In-kind | 850,000 |
| :--- | :--- | :---: | ---: |
| Civil Society <br> Organisation | International Finance Corporation <br> (IFC) | In-kind | $1,213,350$ |
| Civil Society <br> Organisation | International Partnership for <br> Energy Efficiency Cooperation <br> (IPEEC) | In-kind | 10,000 |
| Civil Society <br> Organisation | Investor Confidence Project (ICP) | In-kind | 80,000 |
| Private Sector | Johnson Controls | In-kind | 403,750 |
| Civil Society <br> Organisation | Natural Resources Defense <br> Council (NRDC) | In-kind | 2,966 |
| Civil Society <br> Organisation | Pacific Northwest National <br> Laboratory (PNNL) | In-kind | 1115,000 |
| Private Sector | Philips | In-kind | 230,000 |
| Civil Society <br> Organisation | TECNALIA | In-kind | 412,000 |
| Civil Society <br> Organisation | US Green Building Council | In-kind | 135,600 |
| Civil Society <br> Organisation | World Green Building Council <br> (World GBC) | In-kind | 186,000 |
| Civil Society <br> Organisation | World Resources Institute(WRI) | In-kind | $1,023,899$ |
| GEF Agency | UNEP | In-kind | 20,000 |
| TotalCo-financing |  |  | $6,116,597$ |
| Total budget |  | $\mathbf{8 , 1 1 6 , 5 9 7}$ |  |

25. The budget breakdown by component is presented in Table 5 below.

Table 5. Planned project budget by component (as presented in the CEO Endorsement Document)

| Project Component | GEF Project Financing <br> (USD) | Co-financing <br> (USD) |
| :--- | :--- | :--- |
| Component 1: Partnership expansion: Global <br> and local partnerships of businesses,NGOs, <br> local governments, and national governments <br> scale up efficiency markets | 372,290 | $1,131,009$ |
| Component 2: Technical assistanceand <br> capacity building for efficiency actions in cities <br> or subnational governments ("Light touch") | 469,090 | $2,525,217$ |
| Component 3: Place-based market <br> transformation partnerships for policy and <br> project implementation("Deep dives") | 924,980 | $2,251,213$ |
| Component 4: Monitoring Results | 135,860 | 8 |
| Subtotal | $1,902,220$ | $5,988,190$ |
| Project Management Cost | 97,780 | 128,407 |
| Total budget | $2,000,000$ | $6,116,597$ |

## 6. Implementation Issues

26. The Half Yearly Progress Reports and the Project Implementation Reports do not mention any major issues during the implementation of the project. Some challenges and delays were nevertheless
experienced in the first months of the project about the engagement of two of the selected "deep-dive" cities (Da Nang City, Vietnam and Nairobi, Kenya) due to staff turnover the city and/or lead partner organization and ensuing lack of capacity. Because of these challenges and delays, the BEA Phase 2 project decided not to move forward with the deep engagements in these two cities.
27. The project had three revisions with no change to the overall cost of the project:

- June 2019: Budget revision to rephase the 2018 unspent balance to years 2019 and 2020.
- February 2020: No cost extension of the technical completion date from31 January 2020 to June 2020 due to delays experienced by WRI in their subcontracting processes related to project's regional engagements, national engagements and "deep-dive" city engagements.
- July 2020: No cost extension from 30 June 2020 to 31 December 2020 associated with a budget and workplan revision in light of Covid-1966. The COVID-19 moderately impacted project implementation because the pandemic began late in the project. However, impacts were greater in regions where virtual training and engagement were brand new for policymakers or where technology is more limited or unreliable. This was particularly the case for India and Southeast Asia.

28. No Mid-Term Evaluation was carried out during the project implementation ${ }^{67}$.

## Section 2. OBJECTIVEANDSCOPEOF THEEVALUATION

## 7. Objective of the Evaluation

29. In line with the UNEP Evaluation Policy68 and the UNEP Programme Manual69, the Terminal Evaluation is undertaken at operational 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 UNEP, WRI, the partnered cities ("light touch" and "deep-dive"), all the BEA partners (like International Finance Corporation, TECNALIA and Ingersoll Ran). Therefore, the Evaluation will identify lessons of operational relevance for future project formulation and implementation, especially where a second phase of the project is being considered. Recommendations relevant to the whole house may also be identified during the evaluation process.

## 8. Key Evaluation Principles

30. Evaluation findings and judgements will 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.
31. The "Why?" Question. As this is a Terminal Evaluation and a follow-up project is on-going, particular attention will 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 consultant(s) needs 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 (i.e. what contributed to the achievement of the project's results). This should provide the basis for the lessons that can be drawn from the project.

[^32]32. Attribution, Contribution and Credible Association: In order to attribute any outcomes and impacts to a project intervention, one needs to consider the difference between what has happened with, and what would have happened without, the project (i.e. take account of changes over time and between contexts in order to isolate the effects of an intervention). This requires appropriate baseline data and the identification of a relevant counterfactual, both of which are frequently not available for evaluations. Establishing the contribution made by a project in a complex change process relies heavily on prior intentionality (e.g. approved project design documentation, logical framework) and the articulation of causality (e.g. narrative and/or illustration of the Theory of Change). Robust evidence that a project was delivered as designed and that the expected causal pathways developed supports claims of contribution and this is strengthened where an alternative theory of change can be excluded. A credible association between the implementation of a project and observed positive effects can be made where a strong causal narrative, although not explicitly articulated, can be inferred by the chronological sequence of events, active involvement of key actors and engagement in critical processes.
33. Communicating evaluation results. A key aim of the Evaluation is to encourage reflection and learning by UNEP staff and key project stakeholders. The consultants 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 consultant(s) will plan with the Evaluation Manager 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.

## 9. Key Strategic Questions

34. 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 UNEP and to which the project is believed to be able to make a substantive contribution. Also included are five questions that are required when reporting in the GEF Portal and these must be addressed in the TE.
Q1: To what extent are the results attributable to the project? What can we conclude in terms of effectiveness of global accelerator projects versus local projects?
Q2: After the completions of BEA Phase 1 and BEA Phase 2, what lessons can be learned in terms of options for exiting or transitioning strategies for the sustainability of the actions undertaken?
Q3: How were the 9 recommendations of the Terminal Evaluation of the Phase 1 project taken into account and what effects did it have on the project performance and progress?
Q4: To what extent, and how, are organizations participating in the Partnership promoting market shifts and encouraging innovations outside the Partnership?
Q5: How did the Phase 1 "deep-cities" which were not supported by the Phase 2 (Rajokot Municipal Corporation (India), Belgrade (Serbia) and Da Nang City (Vietnam)) perform compared with the continuing "deep-dive" cities (Bogotá (Colombia), Eskişehir (Turkey) and Mexico City (Mexico))?
Q6: Interms of coherence of roles and actions as well as efficiency, what lessons can be learned from the synergies or collaborations that the BEA Phase 2 had with other complementary initiatives during the project implementation (like the District Energy in Cities Initiative (the SE4All district energy Accelerator), United for Efficiency (the SE4All Efficient Appliances and Equipment Accelerator), the Global Alliance for Building and Construction or the Program for Energy Efficiency in Buildings (PEEB))?
Q7: What changes were made to adapt to the effects of COVID-19 and how might any changes affect the project's performance?
Q8: To what extent are the project "beneficiaries" at the country level and at the city level satisfied with the quality and the relevance of the Technical Assistance provided?
35. Address the questions required for the GEF Portal in the appropriate parts of the report and provide a summary of the findings in the Conclusions section of the report:
Under Monitoring and Reporting/Monitoring of Project Implementation:

- What was the performance at the project's completion against Core Indicator Targets? (For projects approved prior to GEF-7, these indicators will be identified retrospectively and comments on performance provided ${ }^{70}$ ).
Under Factors Affecting Performance/Stakeholder Participation and Cooperation:
- What were the progress, challenges and outcomes regarding engagement of stakeholders in the project/program as evolved from the time of the MTR? (This should be based on the description included in the Stakeholder Engagement Planor equivalentdocumentation submitted at CEO Endorsement/Approval)
Under Factors Affecting Performance/Responsiveness to Human Rights and Gender Equality:
- What were the completed gender-responsive measures and, if applicable, actual gender result areas? (This should be based on the documentation at CEO Endorsement/Approval, including gender-sensitive indicators contained in the project results framework or gender action plan or equivalent)
Under Factors Affecting Performance/Environmental and Social Safeguards:
- What was the progress made in the implementation of the management measures against the Safeguards Plan submitted at CEO Approval? The risk classifications reported in the latestPIR report should be verified and the findings of the effectiveness of any measures or lessons learned taken to address identified risks assessed. (Any supporting documents gathered by the Consultant during this review should be shared with the Task Manager for uploading in the GEF Portal)
Under Factors Affecting Performance/Communication and Public Awareness (Knowledge Management):
- What were the challenges and outcomes regarding the project's completed Knowledge Management Approach, including: Knowledge and Learning Deliverables (e.g. website/platform development); Knowledge Products/Events; Communication Strategy, Lessons Learned and Good Practice; Adaptive Management Actions? (This should be based on the documentation approved at CEO Endorsement/Approval)


## 10. Evaluation Criteria

36. All evaluation criteria will be rated on a six-point scale. Sections A-I below, outline the scope of the criteria. A weightings table in excel format will be provided by the Evaluation Manager 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 availability 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 Consultant(s) can propose other evaluation criteria as deemed appropriate.

## A. Strategic Relevance

37. The Evaluation will assess the extent to which the activity is suited to the priorities and policies of the donors, implementing regions/countries and the target beneficiaries. The Evaluation will include an assessment of the project's relevance in relation to UNEP's mandate and its alignment with UNEP'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:
[^33]
## i. Alignment to the UNEP Medium Term Strategy ${ }^{71}$ (MTS), Programme of Work (POW) and Strategic Priorities

38. 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. UNEP strategic priorities include the Bali Strategic Plan for Technology Support and Capacity Building72 (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.

## ii. Alignment to Donor/GEF/Partner Strategic Priorities

39. Donor, including GEF, strategic priorities will vary across interventions. GEF priorities are specified in published programming priorities and focal area strategies. The Evaluation will assess the extent to which the project is suited to, or responding to, donor priorities. In some cases, alignment with donor priorities may be a fundamental part of project design and grant approval processes while in others, for example, instances of 'softly-earmarked' funding, such alignment may be more of an assumption that should be assessed.

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

40. The Evaluation will assess the alignment of the project with global priorities such as the SDGs and Agenda 2030. 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 will be considered. Examples may include: UN Development Assistance Frameworks (UNDAF), national or sub-national development plans, poverty reduction strategies or Nationally Appropriate Mitigation Action (NAMA) plans or regional agreements etc. Within this section consideration will be given to whether the needs of all beneficiary groups are being met and reflects the current policy priority to leave no one behind.

## iv. Complementarity with Relevant Existing Interventions/Coherence ${ }^{73}$

41. An assessment will be made of how well the project, either at design stage or during the project inception or mobilization74, took account of ongoing and planned initiatives (under the same subprogramme, other UNEP sub-programmes, or being implemented by other agencies within the same country, sector or institution) 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 UNDAFs or One UN programming. Linkages with other interventions should be described and instances where UNEP'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 equality
- Country ownership and driven-ness


## B. Quality of Project Design

42. 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. The complete Project Design Quality template should be annexed in the Evaluation
[^34]Inception Report. Later, the overall Project Design Quality rating75 should be entered in the final evaluation ratings table (as item B) in the Main Evaluation Report and a summary of the project's strengths and weaknesses at design stage should be included within the body of the report.

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

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


## C. Nature of External Context

43. At evaluation inception stage a rating is established for the project's external operating context (considering the prevalence of conflict, natural disasters and political upheaval76). This rating is entered in the final evaluation ratings table as item C . Where a project has been rated as facing either an Unfavourable or Highly Unfavourable external operating context, and/or a negative external event has occurred during project implementation, the ratings for Effectiveness, Efficiency and/or Sustainability may be increased at the discretion of the Evaluation Consultant and Evaluation Manager together. A justification for such an increase must be given.

## D. Effectiveness

## i. Availability of Outputs" ${ }^{71}$

44. The Evaluation will assess the project's success in producing the programmed outputs and making them available to the intended beneficiaries as well as its success in achieving milestones as per the project design document (ProDoc). Any formal modifications/revisions made during project implementation will be considered part of the project design. Where the project outputs are inappropriately or inaccurately stated in the ProDoc, reformulations may be necessary in the reconstruction of the Theory of Change (TOC). In such cases a table should be provided showing the original and the reformulation of the outputs for transparency. The availability 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 provision. It is noted that emphasis is placed on the performance of those outputs that are most important to achieve outcomes. 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 ${ }^{78}$


## ii. Achievement of Project Outcomes ${ }^{79}$

45. The achievement of project outcomes is assessed as performance against the project outcomes as defined in the reconstructed80 Theory of Change. These are outcomes that are intended to be achieved by the end of the project timeframe and within the project's resource envelope. Emphasis is placed on the achievement of project outcomes that are most important for attaining intermediate states. As with outputs, a table can be used where substantive amendments to the

[^35]formulation of project outcomes is necessary to allow for an assessment of performance. The Evaluation should report evidence of attribution between UNEP's intervention and the project outcomes. In cases of normative work or where several actors are collaborating to achieve common outcomes, evidence of the nature and magnitude of UNEP's 'substantive contribution' should be included and/or 'credible association' established between project efforts and the project outcomes realised.

Factors affecting this criterion may include:

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


## iii. Likelihood of Impact

46. Based on the articulation of long-lasting effects in the reconstructed TOC (i.e. from project 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-lasting impacts. The Evaluation Office's approach to the use of TOC in project evaluations is outlined in a guidance note available and is supported by an excel-based flow chart, 'Likelihood of Impact Assessment Decision Tree'. Essentially the approach follows a 'likelihood tree' from project outcomes to impacts, taking account of whether the assumptions and drivers identified in the reconstructed TOC held. Any unintended positive effects should also be identified and their causal linkages to the intended impact described.
47. The Evaluation will also consider the likelihood that the intervention may lead, or contribute to, unintended negative effects (e.g. will vulnerable groups such as those living with disabilities and/or women and children, be disproportionally affected by the project?). Some of these potential negative effects may have been identified in the project design as risks or as part of the analysis of Environmental and Social Safeguards.
48. The Evaluation will consider the extent to which the project has played a catalytic role ${ }^{81}$ or has promoted scaling up and/or replication as part of its Theory of Change (either explicitly as in a project with a demonstration component or implicitly as expressed in the drivers required to move to outcome levels) and as factors that are likely to contribute to greater or long-lasting impact.
49. Ultimately UNEP and all its partners aim to bring about benefits to the environment and human well-being. Few projects are likely to have impact statements that reflect such long-lasting or broadbased changes. However, the Evaluation will assess the likelihood of the project to make a substantive contribution to the long-lasting changes represented by the Sustainable Development Goals and/or the intermediate-level results reflected in UNEP's Expected Accomplishments and the strategic priorities of funding partner(s).

Factors affecting this criterion may include:

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

[^36]
## E. Financial Management

50. Financial management will be assessed under three themes: adherence to UNEP's financial policies and procedures, completeness of financial information and communication between financial and project management staff. The Evaluation will establish the actual spend across the life of the project of funds secured from all donors. This expenditure will be reported, where possible, at output/component level and will be compared with the approved budget. The Evaluation will verify the application of proper financial management standards and adherence to UNEP's financial management policies. Any financial management issues that have affected the timely delivery of the project or the quality of its performance will be highlighted. The Evaluation will record where standard financial documentation is missing, inaccurate, incomplete or unavailable in a timely manner. The Evaluation will assess the level of communication between the Project/Task Manager and the Fund Management Officer as it relates to the effective delivery of the planned project and the needs of a responsive, adaptive management approach.

## Factors affecting this criterion may include:

- Preparation and readiness
- Quality of project management and supervision


## F. Efficiency

51. Under the efficiency criterion the Evaluation will assess the extent to which the project delivered maximum results from the given resources. This will include an assessment of the cost-effectiveness and timeliness of project execution.
52. Focusing on the translation of inputs into outputs, cost-effectiveness is the extent to which an intervention has achieved, or is expected to achieve, its results at the lowest possible cost. Timeliness refers to whether planned activities were delivered according to expected timeframes as well as whether events were sequenced efficiently. The Evaluation will also assess to what extent any project extension could have been avoided through stronger project management and identify any negative impacts caused by project delays or extensions. The Evaluation will describe any cost or time-saving measures put in place to maximise results within the secured budget and agreed project timeframe and consider whether the project was implemented in the most efficient way compared to alternative interventions or approaches.
53. The Evaluation will give special attention to efforts made by the project teams during project implementation to make use of/build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities 82 with other initiatives, programmes and projects etc. to increase project efficiency.
54. 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

55. 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
56. Each project should be supported by a sound monitoring plan that is designed to track progress against SMART 83 results towards the provision of the project's outputs and achievement of project

[^37]outcomes, including at a level disaggregated by gender, marginalisation or vulnerability, including those living with disabilities.. In particular, the Evaluation will assess the relevance and appropriateness of the project indicators as well as the methods used for tracking progress against them as part of conscious results-based management. 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

57. 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 assessment will include consideration of whether the project gathered relevant and good quality baseline data that is accurately and appropriately documented. This should include monitoring the representation and participation of disaggregated groups (including gendered, marginalised or vulnerable groups, such as those living with disabilities) in project activities. It will also consider the quality of the information generated by the monitoring system during project implementation and how it 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.
58. The performance at project completion against Core Indicator Targets should be reviewed. For projects approved prior to GEF-7, these indicators will be identified retrospectively and comments on performance provided.

## iii. Project Reporting

59. UNEP has a centralised project information management system (Anubis) in which project managers upload six-monthly progress reports against agreed project milestones. This information will be provided to the Evaluation Consultant(s) by the Evaluation Manager. Some projects have additional requirements to report regularly to funding partners, which will be supplied by the project team (e.g. the Project Implementation Reviews and Tracking Tool for GEF-funded projects). The Evaluation will assess the extent to which both UNEP and donor reporting commitments have been fulfilled. Consideration will be given as to whether reporting has been carried out with respect to the effects of the initiative on disaggregated groups.

## Factors affecting this criterion may include:

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


## H. Sustainability

60. Sustainability 84 is understood as the probability of the benefits derived from the achievement of project 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 endurance of achieved project outcomes (i.e. '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 project outcomes may also be included.

## i. Socio-political Sustainability

61. The Evaluation will assess the extent to which social or political factors support the continuation and further development of the benefits derived from project outcomes. It will consider the level of ownership, interest and commitment among government and other stakeholders to take the project achievements forwards. Inparticular the Evaluation will consider whether individual capacity development efforts are likely to be sustained.
[^38]
## ii. Financial Sustainability

62. Some project 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 project 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 natural 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 a project's outcomes 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

63. 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 equality (e.g. where interventions are not inclusive, their sustainability may be undermined)
- Communication and public awareness
- Country ownership and driven-ness


## I. Factors Affecting Project Performanceand Cross-Cutting Issues

(These factors are rated in the ratings table but are discussed within the Main Evaluation Report as crosscutting themes as appropriate under the other evaluation criteria, above. If these issues have not been addressed under the evaluation criteria above, then independent summaries of their status within the evaluated project should be given.)

## i. Preparation and Readiness

64. This criterion focuses on the inception or mobilisation stage of the project (i.e. 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

65. In some cases 'project management and supervision' may refer to the supervision and guidance provided by UNEP to implementing partners and national governments while in others, specifically for GEF funded projects 85 , it may refer to the project management performance of the executing agency and the technical backstopping and supervision provided by UNEP. The performance of parties playing different roles should be discussed and a rating provided for both types of supervision (UNEP/Partner/Executing Agency) and the overall rating for this sub-category established as a simple average of the two.
66. The Evaluation will assess the effectiveness of project management with regard to: providing leadership towards achieving the planned outcomes; managing team structures; maintaining

[^39]productive partner relationships (including Steering Groups etc.); maintaining project relevance within changing external and strategic contexts; communication and collaboration with UNEP 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

67. 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 UNEP and the Executing Agency. 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.
68. The progress, challenges and outcomes regarding engagement of stakeholders in the project/program occurring since the MTR should be reviewed. (This should be based on the description included in the Stakeholder Engagement Plan or equivalent documentation submitted at CEO Endorsement/Approval).

## iv. Responsiveness to Human Rights and Gender Equality

69. 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 UNEP's Policy and Strategy for Gender Equality and the Environment 86.
70. In particular the Evaluation will consider to what extent project implementation and monitoring have taken into consideration: (i) possible inequalities (especially those related to gender) in access to, and the control over, natural resources; (ii) specific vulnerabilities of disadvantaged groups (especially women, youth and children and those living with disabilities) to environmental degradation or disasters; and (iii) the role of disadvantaged groups (especially those related to gender) in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation.
71. The completed gender-responsive measures and, if applicable, actual gender result areas should be reviewed. (This should be based on the documentation at CEO Endorsement/Approval, including gender-sensitive indicators contained in the project results framework or gender action plan or equivalent).

## v. Environmental and Social Safeguards

72. UNEP projects address environmental and social safeguards primarily through the process of environmental and social screening at the project approval stage, risk assessment and management (avoidance, minimization, mitigation or, in exceptional cases, offsetting) of potential environmental and social risks and impacts associated with project and programme activities. The Evaluation will confim whether UNEP requirements 87 were met to: review risk ratings on a regular basis; monitor project implementation for possible safeguard issues; respond (where relevant) to safeguard issues through risk avoidance, minimization, mitigation or offsetting and report on the implementation of safeguard management measures taken. UNEP requirements for proposed projects to be screened for any safeguarding issues; for sound environmental and social risk assessments to be conducted and initial risk ratings to be assigned are evaluated above under Quality of Project Design).

[^40]73. The Evaluation will also consider the extent to which the management of the project minimised UNEP's environmental footprint.
74. Implementation of the management measures against the Safeguards Plan submitted at CEO Approval should be reviewed, the risk classifications verified and the findings of the effectiveness of any measures or lessons learned taken to address identified risks assessed. Any supporting documents gathered by the Consultant should be shared with the Task Manager.

## vi. Country Ownership and Driven-ness

75. 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, i.e. either a) moving forwards from outputs to project outcomes or b) moving forward from project outcomes towards intermediate states. The Evaluation will consider the engagement 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 (e.g. representatives from multiple sectors or relevant ministries beyond Ministry of Environment). This factor is concerned with the level of ownership generated by the project over outputs and outcomes and that is necessary for long-lasting impact to be realised. Ownership should extend to all gendered and marginalised groups.

## vii. Communication and Public Awareness

76. 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. Whereknowledge sharing platforms have been established under a project the Evaluation will comment on the sustainability of the communication channel under either sociopolitical, institutional or financial sustainability, as appropriate.
77. The project's completed Knowledge Management Approach, including: Knowledge and Learning Deliverables (e.g. website/platform development); Knowledge Products/Events; Communication Strategy; Lessons Learned and Good Practice; Adaptive Management Actions should be reviewed. This should be based on the documentation approved at CEO Endorsement/Approval.

## Section 3. EVALUATION APPROACH, METHODS AND DELIVERABLES

78. 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 consultants will 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.)
79. The findings of the Evaluation will be based on the following:
(a) A desk review of:

- Relevant background documentation, inter alia [GEF ID 9329 "Scaling up the Sustainable Energy for All Building Efficiency Accelerator" project documents and Terminal Evaluation (also called BEA Phase 1)];
- Project design documents (including minutes of the project design review 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, meeting minutes, relevant correspondence and including the Project Implementation Reviews and Tracking Tool etc.;
- Project deliverables;
- Evaluations/reviews of similar projects.
(b) Interviews (individual or in group) with:
- UNEP Task Manager (TM);
- Project management team, including the Project Manager within the Executing Agency, where appropriate, the Project Team, the BEA Steering Committee, the Working Groups in the "deep-dive" cities and the City Advisory Panel;
- UNEP Fund Management Officer (FMO);
- Portfolio Manager and Sub-Programme Coordinator, where appropriate;
- Project partners, including: WRI, International Finance Corporation, TECNALIA and Ingersoll Ran and other relevant BEA partners, "deep-dive" cities stakeholders, national governments which have committed to the BEA (Colombia, India and Mexico);
- Relevant resource persons;
- Representatives from civil society and specialist groups (such as engineers or architect associations etc).
(c) Surveys: online surveys with relevant stakeholders of the "light touch" cities, as well as with the different organizations which joined the BEA since the close of Phase I;
(d) Field visits: depending on the COVID-19 situation, field visits in one pilot country (India), its "deep-dive" city and some of its "light-touch" cities should be led by an In-country Support Consultant;
(e) Other data collection tools.


## 11. Evaluation Deliverables and Review Procedures

80. The Evaluation Team will prepare:

- Inception Report: (see Annex 1 for a list of 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: 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.
- A portfolio brief on Energy Efficiency: summarizing the findings of selected recent Terminal Evaluations of UNEP/GEF projects on Energy Efficiency in Buildings.

81. Review of the Draft Evaluation Report. The Evaluation Consultants 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 Task Manager and Project Manager, who will alert the Evaluation Manager in case the report contains any blatant factual errors. The Evaluation Manager will then forward the revised draft report (corrected by the Evaluation Consultants 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 Consultants for consideration in preparing the final report, along with guidance on areas of contradiction or issues requiring an institutional response.
82. 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.
83. The Evaluation Manager will prepare a quality assessment of the first draft of the Main Evaluation Report, which acts as a tool for providing structured feedback to the Evaluation Consultant(s). The quality of the final 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.
84. Preparation of a portfolio brief on Energy Efficiency in Buildings. The Evaluation Consultants will submit a Draft and Final Portfolio Brief on Energy Efficiency in Buildings (between 20 to 30 pages) based on the Terminal Evaluations of the six following projects.

| Project Title | Project Completion <br> Date |
| :--- | :--- |
| GEF ID 9320 "Increasing Investments in District Energy Systems in Cities - a <br> SE4All Energy Efficiency Accelerator" | 2021 |
| GEF ID 9947 "The SEforALL Building Efficiency Accelerator (BEA): Expanding <br> Local Action and Driving National Change" (BEA Phase 2) | 2021 |
| GEF ID 9329 "Scaling up the Sustainable Energy for All Building Efficiency <br> Accelerator" (BEA Phase 1) | 2017 |
| GEF ID 4171 "Energy for Sustainable Development in Caribbean Buildings" | 2020 |
| GEF ID 4167 "LGGE Promoting Energy Efficiency and Renewable Energy in <br> Buildings in Jamaica" | 2020 |
| GEF ID 3788 "Promoting Energy Efficiency in Buildings in East Africa (EEBA)" | 2017 |

By bringing together and synthesizing the similarities, the evaluation findings, the lessons learned and the recommendations of these different projects, this portfolio brief will assess what worked and what did not and will identify best practices for the implementation of future Energy Efficiency in Buildings projects. The Draft Portfolio Brief should be delivered shortly after the submission of the Draft Evaluation Report. It will be reviewed by the Evaluation Manager and shared with the Task Managers of the different projects as well as with the Heads of the relevant UNEP branches and units and other relevant stakeholders for comments.
85. 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 for a maximum of 12 months.

## 12. The Evaluation Team

86. For this Evaluation, the Evaluation Team will consist of a Principal Evaluator supported by one In-country Support Consultant (for India) ${ }^{88}$, who will work under the overall responsibility of the Evaluation Office represented by an Evaluation Manager, Victor Béguerie, in consultation with the UNEP Task Manager, Ruth Do Coutto and Julien Lheureux, Climate \& Energy Branch Fund Management Officer (Amanda Lees), Climate Change Mitigation Unit Fund Management Officer (Leena Darlington/Fatma
[^41]Twahir), Head of Energy \& Climate Branch (Mark Radka), and the Coordinator of UNEP Sub-programme on Climate Change (Niklas Hagelberg). The consultants will liaise with the Evaluation Manager on any procedural and methodological matters related to the Evaluation, including travel. It is, however, each consultant's individual responsibility (where applicable) to arrange for their visas and immunizations as well as to plan meetings with stakeholders, organize online surveys, obtain documentary evidence and any other logistical matters related to the assignment. The UNEP Task Manager and project team will, where possible, provide logistical support (introductions, meetings etc.) allowing the consultants to conduct the Evaluation as efficiently and independently as possible.
87. The Principal Evaluator will be hired over a period of nine months from October 2021 to June 2022; and should have the following: a university degree in environmental sciences, international development or other relevant political or social sciences area is required and an advanced degree in the same areas is desirable; a minimum of 6 years of technical / evaluation experience are required, preferably including evaluating large, regional or global programmes and using a Theory of Change approach; and a good/broad understanding of Energy Efficiency is desired. Experiences working with cities and private sector engagement would be an added advantage. English and French are the working languages of the United Nations Secretariat. For this consultancy, fluency in oral and written English is a requirement. Working knowledge of the UN system and specifically the work of UNEP is an added advantage. The work will be home-based.
88. The In-country Support Consultant (India) will be hired over a period of five months from December 2021 to April 2022; and should have the following: a university degree in environmental sciences, international development or other relevant political or social sciences area is required. A minimum of 2 years of technical/evaluation experience and a broad understanding of Energy Efficiency are required. A good understanding of participatory data collection tools is desirable. English and French are the working languages of the United Nations Secretariat. For this consultancy fluency in oral and written English is a requirement. Working knowledge of the UN system and specifically the work of UNEP is an added advantage. The In-Country Support Consultant should be based in India. The work will be home-based with possible field visits.
89. The Principal Evaluator will be responsible, in close consultation with the Evaluation Office of UNEP for overall management of the Evaluation and timely provision of its outputs, described above in Section 11 Evaluation Deliverables, above. The In-country Support Consultant will make substantive and high-quality contributions to the evaluation process and outputs. The consultants will ensure together that all evaluation criteria and questions are adequately covered.
90. Specifically, Evaluation Team members will undertake the following:

Specific Responsibilities for Principal Evaluator:
91. The Principal Evaluator will be responsible, in close consultation with the Evaluation Manager, for overall management of the Evaluation and timely provision of its outputs, described above in Section 11 Evaluation Deliverables

## 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;
- draft the survey protocols (if relevant);
- draft the interview guide for the In-country Support Consultant;
- draft the template of the In-country Support Consultant evaluation mission reports;
- plan the evaluation schedule;
- 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. 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.


## 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 consultants and indicating the reason for the rejection; and
- prepare a draft portfolio brief on Energy Efficiency;
- liaise with the Evaluation Manager on comments received and finalize the portfolio brief on Energy Efficiency, ensuring that comments are taken into account until approved by the Evaluation Manager;


## 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.


## Specific Responsibilities for the In-country Support Consultant:

92. The In-country Support Consultant will make substantive and high-quality contributions to the evaluation process and outputs. Together with the Principal Evaluator, the In-country Support Consultant will ensure that all evaluation criteria and questions are adequately covered. More specifically.

Data collection and analysis phase of the evaluation, including:

- in consultation with the Principal Evaluator and the Country Office, prepare detailed travel itinerary or data collection plan (with stakeholders to meet, contact details, etc.);
- based on the interview guides provided by the Principal Evaluator, organize/conduct field visits to interview key stakeholders and validate/confirm the preliminary findings already identified by the Principal Evaluator;
- ensure independence of the evaluation and confidentiality of data collected as part of the evaluation; and
- regularly report back to the Evaluation Manager, Principal Evaluator on progress and inform of any possible problems, issues or information gaps encountered.


## Reporting phase, including:

- participate in online meetings with the Evaluation Manager and the Principal Evaluator to reflect on the available evidence and preliminary findings;
- Draft National Evaluation Report (with direct inputs to the draft evaluation report, in the agreed template with the Principal Evaluator);
- liaise with the Evaluation Manager and the Principal Evaluator on comments received and address any follow up questions to the submitted inputs.


## 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.

93. The In-country Support Consultant will submit:

Before field visit/interviews:

- Detailed in-country data collection plan, with names of stakeholders to interview and sites to visit.
After field visits interviews:
- Draft National Evaluation Report (with inputs to the draft evaluation report, in agreed template with the Principal Evaluator).


## 13. Schedule of the Evaluation

94. The table below presents the tentative schedule for the Evaluation.

Table 6. Tentative schedule for the Evaluation

| Milestone | Tentative Dates |
| :--- | :--- |
| Evaluation Initiation Meeting | October 2021 |
| Draft Inception Report | December 2021 |
| Approved Inception Report | December 2021 |
| In-depth data collection and analysis, interviews and surveys | January - February 2022 |
| Field Mission | January - February 2022 |
| Draft National Evaluation Report | March 2022 |
| PowerPoint/presentation on preliminary findings and <br> recommendations | March 2022 |
| Draft report to Evaluation Manager (and Peer Reviewer) | April 2022 |
| Draft Report shared with UNEP Project Manager and team | April 2022 |
| Draft Report shared with wider group of stakeholders | May 2022 |
| Draft Portfolio Brief | May 2022 |
| Final Report | June 2022 |
| Final Report shared with all respondents | June 2022 |
| Final Portfolio Brief | June 2022 |

## 14. Contractual Arrangements

95. Evaluation Consultants will be selected and recruited by the Evaluation Office of UNEP under an individual Special Service Agreement (SSA) on a "fees only" basis (seebelow). By signing the service contract with UNEP /UNON, the consultant(s) certify that they have not been associated with the design and implementation of the project in any way which may jeopardize their independence and impartiality towards project achievements and project partner performance. In addition, they 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 sign the Code of Conduct Agreement Form.
96. 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:

Schedule of Payment for the Principal Evaluator:

| Deliverable | Percentage Payment |
| :--- | :--- |
| Approved Inception Report (as per annex document \#9) | $30 \%$ |
| Approved Draft Main Evaluation Report (as per annex document <br> $\# 10)$ | $30 \%$ |
| Approved Final Main Evaluation Report and Approved Portfolio <br> Brief | $40 \%$ |

Schedule of Payment for the In-country Support Consultant

| Deliverable | Percentage Payment |
| :--- | :--- |
| Approved In-country Data Collection Plan | $25 \%$ |

```
Draft National Evaluation Report (with approved inputs to the
main draft evaluation report, in a template agreed with the
Principal Evaluator)
```

97. Fees only contracts: Where applicable, air tickets will be purchased by UNEP 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 aftermission completion.
98. The consultants may be provided with access to UNEP's information management systems (e.g PIMS, Anubis, Sharepoint etc) and if such access is granted, the consultants agree not to disclose information from that system to third parties beyond information required for, and included in, the evaluation report.
99. In case the consultants are not able to provide the deliverables in accordance with these guidelines, and in line with the expected quality standards by the UNEP Evaluation Office, payment may be withheld at the discretion of the Director of the Evaluation Office until the consultants have improved the deliverables to meet UNEP's quality standards.
100. If the consultant(s) fail to submit a satisfactory final product to UNEP 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 X. QUALITY ASSESSMENT OF THE EVALUATION REPORT

Evaluand Title:

## "The SEforALL Building Efficiency Accelerator (BEA): Expanding Local Action and Driving National Change" (GEF ID 9947)

All UNEP 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.

|  | UNEP Evaluation Office Comments | Final Report Rating |
| :---: | :---: | :---: |
| Substantive Report Quality Criteria |  |  |
| Quality of the Executive Summary: <br> The Summary should be able to stand alone as an accurate summary of the main evaluation product. It should include a concise overview of the evaluation object; clear summary of the evaluation objectives and scope; overall evaluation rating of the project and key features of performance (strengths and weaknesses) against exceptional criteria (plus reference to where the evaluation ratings table can be found within the report); summary of the main findings of the exercise, including a synthesis of main conclusions (which include a summary response to key strategic evaluation questions), lessons learned and recommendations. | Final report: <br> The issues raised in the Draft have been appropriately considered. | 5 |
| I. Introduction <br> A brief introduction should be given identifying, where possible and relevant, the following: institutional context of the project (subprogramme, 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.) <br> Consider the extent to which the introduction includes a concise statement of the purpose of the evaluation and the key intended audience for the findings? | Final report: <br> The issues raised in the Draft have been appropriately considered. <br> The introduction covers now the necessary elements. | 5 |
| II. Evaluation Methods <br> 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.). <br> 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. <br> The methods used to analyse data (e.g. scoring; coding; thematic analysis etc.) should be described. <br> It should also address evaluation limitations such as: low or imbalanced response rates across different groups; gaps in | Final report: <br> This section covers the necessary elements. | 5 |

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. Is there an ethics statement?

## 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).
- Results framework: 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


## 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.
This section should include a description of how the TOC at Evaluation ${ }^{89}$ was designed (who was involved etc.) and applied to the context of the project? 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 UNEP's 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'.
Check that the project's effect on equality (i.e. promoting human rights, gender equality and inclusion of those living with disabilities and/or belonging to marginalised/vulnerable groups) has been included within the TOC as a general driver or assumption where there was no dedicated result within the results framework. If an explicit commitment on this topic was made within the project document then the driver/assumption should also be specific to the described intentions.

Final report:
Some of the issues raised in the Draft Report have been appropriately. The links between BEA Phase I and Phase II are clearer now.

Nevertheless, the achievements of BEA I could have been presented like the number of partner cities. Figure 4 shows the map of BEA cities after BEA II, which is not relevant in a Context section.

And outputs are not presented in the Results framework.

Final report:
Both the narrative and the diagram of the TOC are clear and well presented.

[^42]
## V. Key Findings

## A. Strategic relevance:

This section should include an assessment of the project's relevance in relation to UNEP's mandate and its alignment with UNEP's policies and strategies at the time of project approval. An assessment of the complementarity of the project at design (or during inception/mobilisation ${ }^{90}$ ), 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:
i. Alignment to the UNEP Medium Term Strategy (MTS) and Programme of Work (POW)
ii. Alignment to Donor/GEF Strategic Priorities
iii. Relevance to Regional, Sub-regional and National Environmental Priorities
iv. Complementarity with Existing Interventions

## B. Quality of Project Design

To what extent are the strength and weaknesses of the project design effectively summarized?

## 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 ${ }^{91}$ ), and how they affected performance, should be described.

## D. Effectiveness

(i) Outputs and Project Outcomes: How well does the report present a well-reasoned, complete and evidence-based assessment of the a) availability of outputs, and b) achievement of project 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.
(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.

## E. Financial Management

This section should contain an integrated analysis of all dimensions evaluated under financial management and include a completed 'financial management' table.

Final report:

Final report:
More details and evidence are provided for the availability of outputs compared with the Draft Report.

Even though improved, evidences justifying the discussions of the achievement of outcomes are limited.


Final report:
This section is well written and detailed

Final report:
Limited discussion.

Final

Final report:
This section meets minimum

| Consider how well the report addresses the following: <br> - Adherence to UNEP's financial policies and procedures <br> - completeness of financial information, including the actual project costs (total and per activity) and actual co-financing used <br> - communication between financial and project management staff | 11, precisions on the source of cofinancing are nevertheless missing. |  |
| :---: | :---: | :---: |
| F. Efficiency <br> To what extent, and how well, does the report present a wellreasoned, complete and evidence-based assessment of efficiency under the primary categories of cost-effectiveness and timeliness including: <br> - Implications of delays and no cost extensions <br> - Time-saving measures put in place to maximise results within the secured budget and agreed project timeframe <br> - Discussion of making use during project implementation of/building on pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. <br> - The extent to which the management of the project minimised UNEP's environmental footprint. | Final report: <br> Limited discussion. | 4 |
| G. Monitoring and Reporting <br> How well does the report assess: <br> - Monitoring design and budgeting (including SMART results with measurable indicators, resources for MTE/R etc.) <br> - Monitoring of project implementation (including use of monitoring data for adaptive management) <br> - Project reporting (e.g. PIMS and donor reports) | Final report: <br> Comments made on the Draft Report considered. | 5 |
| H. Sustainability <br> 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 project outcomes including: <br> - Socio-political Sustainability <br> - Financial Sustainability <br> - Institutional Sustainability | Final report: <br> The confusion between achievement of outcomes and their sustainability has been fixed. This section is now satisfactory. | 5 |
| I. Factors Affecting Performance <br> 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 crosscutting themes: <br> - Preparation and readiness <br> - Quality of project management and supervision ${ }^{92}$ <br> - Stakeholder participation and co-operation <br> - Responsiveness to human rights and gender equity <br> - Environmental and social safeguards <br> - Country ownership and driven-ness | Final report: <br> The section is satisfactory. | 5 |

- Country ownership and driven-ness

[^43]| - Communication and public awareness |  |  |
| :---: | :---: | :---: |
| VI. Conclusions and Recommendations <br> i. Quality of the conclusions: The key strategic questions <br> should be clearly and succinctly addressed within the conclusions section. <br> It is expected that the conclusions will highlight the main strengths and weaknesses of the project and connect them in a compelling story line. Human rights and gender dimensions of the intervention (e.g. how these dimensions were considered, addressed or impacted on) should be discussed explicitly. Conclusions, as well as lessons and recommendations, should be consistent with the evidence presented in the main body of the report. | Final report: <br> All the strategic questions are answered. | 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 are intended to be adopted any time they are deemed to be relevant in the future and must have the potential for wider application (replication and generalization) and use and should briefly describe the context from which they are derived and those contexts in which they may be useful. | Final report: <br> Satisfactory lessons learned | 5 |
| iii) Quality and utility of the recommendations: <br> 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. <br> At least one recommendation relating to strengthening the human rights and gender dimensions of UNEP interventions, should be given. <br> Recommendations should represent a measurable performance target in order that the Evaluation Office can monitor and assess compliance with the recommendations. <br> In cases where the recommendation is addressed to a third party, compliance can only be monitored and assessed where a contractual/legal agreement remains in place. Without such an agreement, the recommendation should be formulated to say that UNEP project staff should pass on the recommendation to the relevant third party in an effective or substantive manner. The effective transmission by UNEP of the recommendation will then be monitored for compliance. <br> Where a new project phase is already under discussion or in preparation with the same third party, a recommendation can be made to address the issue in the next phase. | Final report: <br> The 5 recommendations are actionable | 5 |
| VII. Report Structure and Presentation Quality |  |  |
| i) Structure and completeness of the report: To what extent does the report follow the Evaluation Office guidelines? Are all requested Annexes included and complete? | Final report: <br> The report follows the Evaluation Office guidelines. All requested Annexes are included. | 6 |
| ii) Quality of writing and formatting: <br> 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 | Final report: <br> The report is well written, in an adequate tone and follows Evaluation Office formatting |  |


| formatting guidelines? | guidelines. |  |
| :--- | :--- | :---: |
| OVERALL REPORT QUALITY RATING |  | 4.85 |

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

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

| Evaluation Process Quality Criteria | Compliance |  |
| :---: | :---: | :---: |
|  | Yes | No |
| Independence: |  |  |
| 1. Were the Terms of Reference drafted and finalised by the Evaluation Office? | X |  |
| 2. Were possible conflicts of interest of proposed Evaluation Consultant(s) appraised and addressed in the final selection? | X |  |
| 3. Was the final selection of the Evaluation Consultant(s) made by the Evaluation Office? | X |  |
| 4. Was the evaluator contracted directly by the Evaluation Office? | X |  |
| 5. Was the Evaluation Consultant given direct access to identified external stakeholders in order to adequately present and discuss the findings, as appropriate? | X |  |
| 6. Did the Evaluation Consultant raise any concerns about being unable to work freely and without interference or undue pressure from project staff or the Evaluation Office? |  | X |
| 7. If Yes to Q6: Were these concerns resolved to the mutual satisfaction of both the Evaluation Consultant and the Evaluation Manager? |  |  |
| Financial Management: |  |  |
| 8. Was the evaluation budget approved at project design available for the evaluation? | X |  |
| 9. Was the final evaluation budget agreed and approved by the Evaluation Office? | X |  |
| 10. Were the agreed evaluation funds readily available to support the payment of the evaluation contract throughout the payment process? | X |  |
| Timeliness: |  |  |
| 11. If a Terminal Evaluation: Was the evaluation initiated within the period of six months before or after project operational completion? Or, if a Mid Term Evaluation: Was the evaluation initiated within a six-month period prior to the project's mid-point? |  | X |
| 12. Were all deadlines set in the Terms of Reference respected, as far as unforeseen circumstances allowed? |  | X |
| 13. Was the inception report delivered and reviewed/approved prior to commencing any travel? |  |  |
| 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 all stakeholder comments to the draft evaluation report sent directly to the Evaluation Office | x |  |
| 29. Did the Evaluation Consultant(s) respond adequately 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.

| $\underline{\text { Process }}$ <br> $\underline{\text { Criterion }}$ <br> Number | Evaluation Office Comments |
| :--- | :--- |
| 11 | The consultant's contract was issued 18 months after the project technical completion. <br> The Evaluation Consultant (EC) was hired to conduct this TE and the TE of the GEF ID 9320 project <br> which ended 7 months before the launch of the EC's assignment. |
| 12 | The consultant's contract was extended due to difficulties in data collection. It took time for the <br> EA to give support to the data collection. |
| 17 | It took time for the EA to give support to the data collection. |


[^0]:    ${ }^{1}$ The six Phase 1 "deep-dive" cities (also referred severally in this report as "existing cities") were: Bogotà (Colombia), Rajokot Municipal Corporation (India), Mexico City (Mexico), Belgrade (Serbia), Eskişehir (Turkey), Da Nang City (Vietnam). A map showing the names and geographical distribution of the remaining cities is presented in Figure 4 under the Project Context in this report.

[^1]:    ${ }^{2}$ D. Urge-Vorsatz et al., "Towards Sustainable Energy End-Use: Buildings.," in Global Energy Assessment, vol. Chapter 10 (Laxenburg, Austria, Cambridge, United Kingdom and New York, NY, USA.: IIASA and Cambridge University Press, 2012)
    ${ }^{3}$ See IEA (2015) Energy Technology Perspectives 2015
    ${ }^{4}$ The Sustainable Energy for All (SE4All) Global Energy Efficiency Accelerator Platform seeks to promote public-private partnerships to scale up energy efficiency policies, action and investment towards doubling the global rate of improvement in energy efficiency by 2030. The six interventions are: Building Efficiency Accelerator (under which The Project was implemented), Appliances and Equipment Accelerator, District Energy in Cities Initiative, Global Fuel Economy Initiative, Industrial Energy Accelerator and Efficient Lighting Accelerator.

[^2]:    ${ }^{5}$ https://www. unenvironment.org/about-un-environment/evaluation-office/policies-and-strategies
    ${ }^{6}$ https://wecollaborate.unep.org/

[^3]:    ${ }^{7}$ The rating scale used Is as follows: Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU). Sustainability and Likelihood of Impact are rated from Highly Likely (HL) downwards to Highly Unlikely (HU) and Nature of External Context is rated from Highly Favourable (HF) to Highly Unfavourable (HU).

[^4]:    ${ }^{8}$ See details of project cities engaged at evaluation in Table 3 (Sampling Strategy). Phase 1 "deep-cities" that were not supported by the Phase 2 were also engaged: Rajokot Municipal Corporation (India), Belgrade (Serbia) and Da Nang City (Vietnam)).
    ${ }^{9}$ India was chosen for in-depth data collection during the Terminal Evaluation because of its high involvement in The Project (the project covered three cities: Kochi and Nagpur for light touch, and Nagpur-New for the Deep Dive engagements) as well as its participation in the parallel intervention, which is also under evaluation at the same time, GEF ID 9320 project, "Increasing Investments in District Energy Systems in Cities- a SE4All Energy Efficiency Accelerator".

[^5]:    ${ }^{10}$ The HRBA requires human rights principles (universality, indivisibility, equality and non-discrimination, participation, accountability) to guide development action, and focuses on developing the capacities of both 'duty-bearers' to meet their obligations, and 'rights-holders' to claim their rights. See https://unsdg.un.org/resources/human-rights-based-approach-development-cooperation-towards-common-understanding-among-un to access a description document on the HRBA

[^6]:    ${ }^{17}$ D. Urge-Vorsatz et al., "Towards Sustainable Energy End-Use: Buildings.," in Global Energy Assessment, vol. Chapter 10 (Laxenburg, Austria, Cambridge, United Kingdom and New York, NY, USA.: IIASA and Cambridge University Press, 2012).
    ${ }^{18}$ See https://architecture2030.org/why-the-building-sector/

[^7]:    ${ }^{19}$ D. Urge-Vorsatz et al., Best Practice Policies for Low Energy and Carbon Buildings. A Scenario An alysis (Budapest, Hungary: Research report prepared by the Center for Climate Change and Sustainable Policy (3CSEP) for the Global Best Practice Network for Buildings, May 2012), http://www. globalbuildings.org/global-projects/.
    ${ }^{20}$ B Boza-Kiss, S Moles-Grueso, and K Petrichenko, Handbook of Sustainable Building Policies. Composing Building Blocks (United Nations Environment Programme (UNEP), 2013), http://sustain able-buildings-policy-assessment-tools.net/Content/PolicyPackages/ENG/SPoD-final-ALL.pdf.
    ${ }^{21}$ Building Efficiency Accelerator, Appliances and Equipment Accelerator, District Energy in Cities Initiative, Global Fuel Econ omy Initiative, Industrial Energy Accelerator and Efficient Lighting Accelerator.

[^8]:    ${ }^{22}$ More detailed information on the baseline situation is provided in a separate Annex located at the end of the Results Framework table.
    ${ }^{23}$ This estimation is based on 10 new light touch cities and 3 new deep dive cities advancing one or more building efficiency action (policies, programs or projects). Please refer to section A.1.5) for detailed explanations on the GHG emissions reductions calculations and Annex J-2 for the calculations sheets using the GEF EE GHG Tool.

[^9]:    ${ }^{24}$ The Executing Agency (WRI) managed to finish the activities in September 2020.

[^10]:    ${ }^{25}$ The 2018-2019 MTS of the UNEP can be accessed at https://wedocs.unep.org/handle/20.500.11822/7621
    ${ }^{26}$ The approved UNEP Programme of work and budget for the biennium 2018-2019 Report of the Executive Director can be accessed at https://wedocs.unep.org/handle/20.500.11822/7707
    ${ }^{27}$ https://wedocs.unep.org/bitstream/handle/20.500.11822/26642/Annex\%202\%20to\%20the\%20briefing\%20on\%20South South\%20Cooperation.pdf?isAllowed=y\&sequence=1

[^11]:     pg 37

[^12]:    ${ }^{29}$ The outputs assessed were based on their formulation in the CEO Endorsement document.
    ${ }^{30}$ The Project team decided to re-design the next phase of the project as a GEF ID 10321 "Zero Carbon Buildings for All: from Energy Efficiency to Decarbonization" project, which was later found to be duly approved by the UNEP/GEF and started in March 2021. Active recruitment of new cities was halted to facilitate a transition to this new project.

[^13]:    ${ }^{31}$ Nonprofit Sector \& Associations: Alliance for an Energy-Efficient Economy (AEEE); Alliance to Save Energy; Botswana Green Building Council; Buildings 2030; CONUEE (National Commission for the Efficient Use of Energy); El Salvador Green Building Council; Eskişehir Branch of UCTEA Chambers (5 sectors); Fondo Acción; GIZ; Global Alliance for Buildings and Construction (GABC); Global Cool Cities Alliance; Green Building Council Costa Rica; Guatemala Green Building Council; Ingersoll Rand; Jordan Green Building Council; Kenya Green Building Council; Lawrence Berkeley National Laboratory (LBNL); Lebanon Green Building Council; Partnering for Green Growth and the Global Goals 2030 (P4G); National Home Builders Registration Council of South Africa, Panama Green Building Council; Philippine Green Building Council; SHURA; Sustentabilidad para Mexico (SUMe); Turkish Green Building Council;

[^14]:    ${ }^{32}$ See https://thecityfix.com/blog/5-takeaways-for-decarbonizing-buildings-from-cop26/
    ${ }^{33}$ See https://www.linkedin.com/video/live/urn:li:ugcPost:6864514516072456193/
    ${ }^{34}$ See full video at https://youtu.be/3Px80Cvggfs
    ${ }^{35}$ See full video at: https://youtu.be/22W2ZDW33zc
    ${ }^{36}$ The PR Newswire can be accessed at: https://www.prnewswire.com/news-releases/iohnson-controls-introduces-open-source-energy-analysis-software-for-targeting-building-efficiency-retrofits-301090982.html
    ${ }^{37}$ Other relevant resources in the Middle East can be accessed at the following:

    - https://emiratesgbc.org/press_releases/emiratesgbc-invites-schools-in-dubai-to-participate-in-its-building-efficiency-accelerator-project/
    - https://www.cbnme.com/news/emiratesgbcs-building-efficiency-accelerator-project-report-released/
    ${ }^{38}$ See link to BEA discussion in GBD magazine at: https://gbdmagazine.com/most-sustainable-cities/

[^15]:    ${ }^{39}$ See details on progress in the city at https://thecityfix.com/blog/eskisehir-turkey-leads-energy-efficient-buildings-meltem-bayraktar-emma-stewart/

[^16]:    ${ }^{40}$ See https://buildingefficiencyaccelerator.org/bea-countries/colombia/
    ${ }^{41}$ See communication evidence on Bogota's action obtained through Web Analytics at

[^17]:    ${ }^{42}$ In addition to the report on progress in Appendix C of the final project report, see https://buildingefficiencyaccelerator.org/bea-countries/turkey/ for details on progress in Eskisehir
    ${ }^{43}$ See details at https://wrirosscities.org/news/eskisehir-turkey-building-efficiency-accelerator-deep-dive

[^18]:    ${ }^{44}$ The publication can be downloaded at https://www.greengrowthknowledge.org/case-studies/benchmarking-energy-use improving-building-energy-efficiency-nagpur-good-practices-and

[^19]:    ${ }^{45}$ Accra, Ghana; Belén, Costa Rica; Betim, Brazil; Calí, Colombia; Campeche, Mexico, Comayagua, Honduras; Curridabat, Costa Rica; Gabrovo, Bulgaria; Kochi, India; Montería, Colombia; Msunduzi, South Africa; Nuevo León, Mexico; Recife, Brazil; Santa Ana, Costa Rica; Shanghai, China; Yucatán, Mexico
    ${ }^{46}$ See details about the state of the project at Mongolia - Energy Performance Building Retrofitting (nama-facility.org)

[^20]:    48 See details on the programme at https://www.iea.org/reports/globalabc-regional-roadmap-for-buildings-and-construction-in-latin-america-2020-2050

[^21]:    ${ }^{49}$ See KwaDukuza, South Africa| Building Efficiency Accelerator

[^22]:    ${ }^{50}$ See examples of stories on progress shared at https://buildingefficiencyaccelerator.org/news/green-upgrading-in-informalsettlements/

[^23]:    ${ }^{51}$ Details on funding for this project are obtained from: https://www.unep.org/gef/projects/zero-carbon-buildings-all-energy-efficiency-decarbonization

[^24]:    ${ }^{52}$ See report on planned investment in news item on: TURKEY TO INVEST IN ENERGY EFFICIENCY (conexioconsulting.com)
    ${ }^{53}$ See https://furtherafrica.com/2022/09/21/kenya-secures-us150m-in-ifc-funding-for-smart-energy-projects/
    ${ }^{54}$ See https://blogs.worldbank.org/ppps/transforming-indias-energy-efficiency-market-unlocking-potential-private-escos

[^25]:    ${ }^{55}$ See UNSDG |Human Rights-Based Approach
    ${ }^{56}$ See United Nations Declaration on the Rights of Indigenous Peoples |United Nations For Indigenous Peoples

[^26]:    ${ }^{57}$ The project received a low-risk rating across: SS 1: Biodiversity, natural habitat and Sustainable Management of Living Resources; SS 2: Resource Efficiency, Pollution Prevention and Management of Chemicals and Wastes; SS 3: Safety of Dams (or

[^27]:    other infrastructure); SS 4: Involuntary resettlement; SS 5: Indigenous peoples; SS 6: Labor and working conditions; SS 7: Cultural Heritage; SS 8: Gender equity and SS 9:Economic Sustainability

[^28]:    ${ }^{58}$ The GEF is currently operating under the seventh replenishment period of the GEF Trust Fund covering the period July 1, 2018 to June 30, 2022. The GEF Portal Reporting Guide for FY20 Reporting Process indicates that GEF-6 projects that have yet to map existing indicators to GEF-7 Core Indicators need to do so at MTR stage or (if already there) at the time of the TE. (i.e. not GEF projects approved before GEF-6)
    ${ }^{59}$ This is not applicable for Enabling Activities

[^29]:    ${ }^{60}$ This does not apply for Enabling Activities

[^30]:    ${ }^{61}$ D. Urge-Vorsatz et al., "Towards Sustainable Energy End-Use: Buildings.," in Global Energy Assessment, vol. Chapter 10 (Laxenburg, Austria, Cambridge, United Kingdom and New York, NY, USA.: IIASA and Cambridge University Press, 2012).
    ${ }^{62}$ D. Urge-Vorsatz et al., Best Practice Policies for Low Energy and Carbon Buildings. A Scenario Analysis (Budapest, Hungary: Research report prepared by the Center for Climate Change and Sustainable Policy (3CSEP) for the Global Best Practice Network for Buildings, May 2012), http://www.globalbuildings.org/global-projects/.
    ${ }^{63}$ IEA (2015) Energy Technology Perspectives 2015.

[^31]:    ${ }^{64}$ Building Efficiency Accelerator, Appliances and Equipment Accelerator, District Energy in Cities Initiative, Global Fuel Economy Initiative, Industrial Energy Accelerator and Efficient Lighting Accelerator.
    ${ }^{65}$ The six Phase 1 "deep-dive" cities were: Bogotà (Colombia), Rajokot Municipal Corporation (India), Mexico City (Mexico), Belgrade (Serbia), Eskişehir (Turkey), Da Nang City (Vietnam)

[^32]:    ${ }^{66}$ The Executing Agency (WRI) managed to finish the activities in September 2020.
    ${ }^{67}$ As per GEF policy, for MSP projects that are less than 4 years of implementation, Mid Term Evaluations are optional. They can however be triggered by the Task Manager in case the project is in a difficult situation (cf PART II, section C of the CEO Endorsement Document). Since this project was not facing any challenges, no MTE was triggered.

[^33]:    ${ }^{70}$ This is not applicable for Enabling Activities

[^34]:    ${ }^{71}$ UNEP's Medium Term Strategy (MTS) is a document that guides UNEP's programme planning over a four-year period. It identifies UNEP's thematic priorities, known as Sub-programmes (SP), and sets out the desired outcomes, known as Expected Accomplishments (EAs), of the Sub-programmes. https://www.unenvironment.org/about-un-environment/evaluation-office/our-evaluation-approach/un-environment-documents
    ${ }^{72}$ http://www.unep.fr/ozonaction/about/bsp.htm
    ${ }^{73}$ This sub-category is consistent with the new criterion of 'Coherence' introduced by the OECD-DAC in 2019.
    74 A project's inception or mobilization period is understood as the time between project approval and first disbursement. Complementarity during project implementation is considered under Efficiency, see below.

[^35]:    ${ }^{75}$ In some instances, based on data collected during the evaluation process, the assessment of the project's design quality may change from Inception Report to Main Evaluation Report.
    ${ }^{76}$ Note that 'political upheaval' does not include regular national election cycles, but unanticipated unrest or prolonged disruption. The potential delays or changes in political support that are often associated with the regular national election cycle should be part of the project's design and addressed through adaptive management by the project team. From March 2020 this should include the effects of COVID-19.
    $\pi$ Outputs are the availability (for intended beneficiaries/users) of new products and services and/or gains in knowledge, abilities and awareness of individuals or within institutions (UNEP, 2019)
    ${ }^{78}$ In some cases 'project management and supervision' will refer to the supervision and guidance provided by UNEP 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 UNEP.
    ${ }^{79}$ Outcomes are the use (i.e. uptake, adoption, application) of an output by intended beneficiaries, observed as changes in institutions or behavior, attitude or condition (UNEP, 2019)
    ${ }^{80}$ All submitted UNEP project documents are required to present 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 formal changes made to the project design.

[^36]:    ${ }^{81}$ The terms catalytic effect, scaling up and replication are inter-related and generally refer to extending the coverage or magnitude of the effects of a project. Catalytic effect is associated with triggering additional actions that are not directly funded by the project - these effects can be both concrete or less tangible, can be intentionally caused by the project or implied in the design and reflected in the TOC drivers, or can be unintentional and can rely on funding from another source or have no financial requirements. Scaling up and Replication require more intentionality for projects, or individual components and approaches, to be reproduced in other similar contexts. Scaling up suggests a substantive increase in the number of new beneficiaries reached/involved and may require adapted delivery mechanisms while Replication suggests the repetition of an approach or component at a similar scale but among different beneficiaries. Even with highly technical work, where scaling up orreplication involves working with a new community, some consideration of the new context should take place and adjustments made as necessary.

[^37]:    ${ }^{82}$ Complementarity with other interventions during project design, inception or mobilization is considered under Strategic Relevance above.
    ${ }^{83}$ SMART refers to results that are specific, measurable, achievable, relevant and time-oriented. Indicators help to make results measurable.

[^38]:    ${ }^{84}$ As used here, 'sustainability' means the long-lasting maintenance of outcomes and consequent impacts, whether environmental or not. This is distinct from the concept of sustainability in the terms 'environmental sustainability' or 'sustainable development', which imply 'not living beyond our means' or 'not diminishing global environmental benefits' (GEF STAP Paper, 2019, Achieving More Enduring Outcomes from GEF Investment)

[^39]:    ${ }^{85}$ For GEF funded projects, a rating will be provided for the Project Management and Supervision of each of the Implementing and Executing Agencies. The two ratings will be aggregated to provided an overall rating for Quality of Project Management and Supervision

[^40]:    ${ }^{86}$ The Evaluation Office notes that Gender Equality was first introduced in the UNEP Project Review Committee Checklist in 2010 and, therefore, provides a criterion rating on gender for projects approved from 2010 onwards. Equally, it is noted that policy documents, operational guidelines and other capacity building efforts have only been developed since then and have evolved over time. https://wedocs.unep.org/bitstream/handle/20.500.11822/7655/-Gender_equality_and_the_environment_Policy_and_strategy-
    2015Gender_equality_and_the_environment_policy_and_strategy.pdf.pdf?sequence=3\&isAllowed=y
    ${ }^{87}$ For the review of project concepts and proposals, the Safeguard Risk Identification Form (SRIF) was introduced in 2019 and replaced the Environmental, Social and Economic Review note (ESERN), which had been in place since 2016. In GEF projects safeguards have been considered in project designs since 2011.

[^41]:    ${ }^{88}$ India was chosen for the evaluation field mission because of its participation in this project ( 2 cities including 1 "deep-dive" city) as well as its involvement in the GEF ID 9320 "Increasing Investments in District Energy Systems in Cities - a SE4All Energy Efficiency Accelerator" project ( 7 cities involved including 1 "deep-dive" city).

[^42]:    ${ }^{89}$ During the Inception Phase of the evaluation process a TOC at Evaluation Inception is created based on the information contained in the approved project documents (these may include either logical framework or a TOC or narrative descriptions), formal revisions and annual reports etc. During the evaluation process this TOC is revised based on changes made during project intervention and becomes the TOC at Evaluation.

[^43]:    ${ }^{92}$ In some cases 'project management and supervision' will refer to the supervision and guidance provided by UNEP 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 UNEP.

