Zero Carbon Buildings for All: from Energy Efficiency to Decarbonization

Part I: Project Information

GEF ID
10321

Project Type
MSP

Type of Trust Fund
GET

CBIT/NGI
☐CBIT
☐NGI

Project Title
Zero Carbon Buildings for All: from Energy Efficiency to Decarbonization

Countries
Global

Agency(ies)
UNEP

Other Executing Partner(s):
World Resources Institute

Executing Partner Type
CSO

GEF Focal Area
Climate Change

Taxonomy
Focal Areas, Climate Change, Climate Change Mitigation, Renewable Energy, Financing, Energy Efficiency, Influencing models, Transform policy and regulatory environments, Convene multi-stakeholder alliances,

Strengthen institutional capacity and decision-making, Demonstrate innovative approache, Stakeholders, Type of Engagement, Information Dissemination, Consultation, Partnership, Participation, Civil Society, Academia, Non-Governmental Organization, Communications, Awareness Raising, Private Sector, SMEs, Financial intermediaries and market facilitators, Large corporations, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Gender results areas, Participation and leadership, Capacity, Knowledge and Research, Knowledge Exchange, Innovation, Knowledge Generation, Learning, Capacity Development, Enabling Activities

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 2

Climate Change Adaptation

Climate Change Adaptation 0

Submission Date

8/28/2020

Expected Implementation Start

2/1/2021

Expected Completion Date

1/31/2023

Duration

24In Months

Agency Fee($)

190,000.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
CCM-1-1	Promote innovation and technology transfer for sustainable energy breakthroughs	GET	2,000,000.00	6,938,081.00
		Total Project Cost($)	**2,000,000.00**	**6,938,081.00**

B. Project description summary

Project Objective

Reduce greenhouse gas emissions by supporting market transformations that will facilitate decarbonization of the building sector by linking global market experience, national policy, local action and capacity building.

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
1. National commitments and roadmaps towards zero carbon buildings policies	Technical Assistance	1. Two national governments link NDCs and/or other national strategies with zero carbon buildings and develop approaches to support subnational governments, utilities, the private sector and civil society to accelerate the market transformation towards zero carbon buildings	1.1. Outreach: Outreach activities are performed using tools from the national market and global partners to encourage national governments to adopt public commitments on net zero carbon buildings 1.2 Dialogue: National/local governments, utilities, the private sector and civil society explore how to achieve ZCB commitments through in-country policy dialogues facilitated by the project 1.3 Plan. Long-term national roadmaps, including short/medium-term action plans, linked to the NDCs and/or other national strategies to achieve net zero carbon buildings by	GET	773,579.00	2,331,611.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
2. City strategies towards net zero carbon building implementation	Technical Assistance	2. City governments in two countries use newly gained tools and knowledge to achieve socially, environmentally and economically viable GHG mitigation in buildings to advance towards ZCBs	2.1. Dialogue: In a total of 4 cities (2 in each selected country), stakeholders from the public and private sectors explore options to advance local action towards zero carbon buildings through dialogues facilitated by the project	GET	649,518.00	2,121,097.00
			2.2 Assess: In 3 cities, appropriate methods to quantify social, environmental and economic costs and benefits of ZCB policies and investments are demonstrated to inform local government decisions			
			2.3 Act: In 3 cities, policies and actions to move towards a decarbonized building sector are developed and adoption is initiated			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
3. Pipelines of additional local and national governments for future scaling through platform-wide capacity building and technical assistance	Technical Assistance	3. National, subnational, and city governments, beyond those in components 1 and 2, advance actions towards zero carbon buildings	3.1. Platform: The BEA global platform is enhanced in order to provide capacity building and technical assistance on ZCBs	GET	375,474.00	1,864,716.00
			3.2. Scale: Support provided through the global platform facilitates 6 additional city or subnational governments to make public commitments towards zero carbon buildings			
			3.3. Replicate: Support provided through the global platform enables 3 additional city or subnational governments to develop and initiate implementation of ZCB roadmaps			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Monitoring & Evaluation	Technical Assistance			GET	30,000.00	
			Sub Total ($)		**1,828,571.00**	**6,317,424.00**
Project Management Cost (PMC)						
				GET	171,429.00	620,657.00
			Sub Total($)		**171,429.00**	**620,657.00**
			Total Project Cost($)		**2,000,000.00**	**6,938,081.00**

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Donor Agency	International Finance Corporation	In-kind	Recurrent expenditures	1,472,760.00
Private Sector	Johnson Controls	In-kind	Recurrent expenditures	200,000.00
Civil Society Organization	World Green Building Council	In-kind	Recurrent expenditures	1,378,972.00
Civil Society Organization	World Resources Institute	In-kind	Recurrent expenditures	1,935,692.00
GEF Agency	UNEP	In-kind	Recurrent expenditures	300,000.00
Others	International Energy Agency	In-kind	Recurrent expenditures	1,400,000.00
Civil Society Organization	Consejo Colombiano de Construcci?n Sostenible	In-kind	Recurrent expenditures	150,000.00
Civil Society Organization	WRI Turkey Sustainable Cities	In-kind	Recurrent expenditures	100,657.00
			Total Co-Financing($)	**6,938,081.00**

Describe how any "Investment Mobilized" was identified

The project team has done significant outreach to regional development banks to seek opportunities to leverage this GEF investment. While there is significant alignment of project work with ongoing activities of these development banks, they are not ready to commit ?investment mobilized? until the project itself is underway. The Inter-American Development Bank (IDB), relevant for Colombia, has demonstrated the importance of green buildings by including in their corporate results framework an indicator on the number of projects and governments that are including some key operational manuals including the green building manual. In addition: ? IDB has focused efforts on providing technical support including measures to reduce the consumption of energy and water, the implementation of on-site clean energy and the use of sustainable materials ? all of which are components of building decarbonization. ? Through mechanism such as housing subsidies, the IDB is also incentivizing communities to build their own houses installing water-saving and energy-saving appliances. ? To strengthening green buildings knowledge in the region, IDB has worked with the IFC EDGE program to certify experts who will encourage the construction sector to design and build green. The European Bank for Reconstruction and Development (EBRD), relevant for

Turkey, is a leader in green buildings investment. For example: ? EBRD has a green investment target of 40% by the end of 2020. ? The Turkey Sustainable Energy Financing Facility, TurSEFF, is a programme developed by EBRD to provide financing for resource efficiency and renewable energy investments in the public and private sectors. A team of local and international experts provide support to help prospective borrowers identify and develop resource efficiency and renewable energy projects and prepare successful loan or lease applications under TurSEFF. ? The Turkish Residential Energy Efficiency Financing Facility (TUREEFF), a programme developed by the EBRD (European Bank of Reconstruction and Development) and supported by CTF (Clean Technology Fund) and the EU (European Union), aims to provide finance to residential consumers who wish to invest in energy efficiency projects in their homes. This programme consists of a credit line complemented with technical assistance and investment incentives provided through local financial institutions. ? EBRD?s hospital public-private partnership programme supported the financing of over ?500M in new hospitals, including the inclusion of energy efficiency scope. ? EBRD has engaged at the national level to support Turkey?s national energy efficiency action plan (NEEAP) which includes buildings energy efficiency. ? EBRD is heavily engaged in supporting the commercial sector in greening their buildings portfolio and is engaging with the public sector with the same aim. EBRD has invested ?12 billion over the past 11 years in 302 projects, with 47% of the Bank?s investments during this period qualifying as ?Green?.

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)
UNEP	GET	Global	Climate Change	CC Global/Regional Set-Aside	2,000,000	190,000
				Total Grant Resources($)	**2,000,000.00**	**190,000.00**

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required

☐

PPG Amount ($)

PPG Agency Fee ($)

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)
				Total Project Costs($)	**0.00**	**0.00**

Core Indicators

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)	4105973	7099211	0	0
Expected metric tons of CO?e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)				
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)	4,105,973	7,099,211		
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting	2023	2023		
Duration of accounting	20	20		

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)	20,655,000,000	35712414000.0000000000		

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	400	400		
Male	600	600		
Total	1000	1000	0	0

Part II. Project Justification

1a. Project Description

1a. Changes in project design

Describe any changes in alignment with the project design with the original child project concept note (i.e. changes in component, outcome or output wording, changes in GEF funds allocation per component/outcome, changes in co-finance commitments and allocation per component/outcome, etc.).

No significant changes to the project?s design have been made as compared to the original PIF. Component 2, outcome 2 and all relevant outputs have been reworded to reflect that due to the selection of national engagements in Colombia and Turkey, the local governments that will engage with this project will be ? cities ?, not ? cities and subnational governments ?. (In some of the other potential countries for selection, these could have been states.) In addition, given the short length of this project and the need for ambitious yet realistic goals, outputs focused on implementation have been reworded to note that the project expects to *initiate* implementation or adoption, rather than complete it, within the 2 years.

As written in the PIF	Revised after consultations	Justification
1.3 Plan. Long-term national roadmaps, including short/medium-term action plans, linked to the NDCs and/or other national strategies to achieve net zero carbon buildings by 2050 are developed and **adopted**	1.3 Plan. Long-term national roadmaps, including short/medium-term action plans, linked to the NDCs and/or other national strategies to achieve net zero carbon buildings by 2050 are developed and **adoption is initiated**	Revised language to reflect action implementation or adoption will be initiated during the project period rather than completed.
1.4 Enable: Enabling policies are developed and **adopted** to support subnational governments, utilities, private sector and civil society to accelerate the market transformation towards ZCBs	1.4 Enable: Enabling policies are developed and **adoption is initiated** to support subnational governments, utilities, private sector and civil society to accelerate the market transformation	

As written in the PIF	Revised after consultations	Justification
3.3. Replicate: Support provided through the global platform enables 3 additional city or subnational governments to develop and **implement** ZCB roadmaps	3.3. Replicate: Support provided through the global platform enables 3 additional city or subnational governments to develop and **initiate implementation** of ZCB roadmaps	
Component: 2. **Subnational** strategies towards net zero carbon building implementation	Component: 2. **City** strategies towards net zero carbon building implementation	Revised language to reflect that component 2, its outcome, and its outputs will focus specifically on city engagement, not on other types of subnational governments.
Outcome: 2. **Subnational governments** in two countries use newly gained tools and knowledge to achieve socially, environmentally and economically viable GHG mitigation in buildings to advance towards ZCBs	Outcome: 2. **City** governments in two countries use newly gained tools and knowledge to achieve socially, environmentally and economically viable GHG mitigation in buildings to advance towards ZCBs	
2.1. Dialogue: In a total of 4 **subnational jurisdictions** (2 in each selected country), stakeholders from the public and private sectors explore options to advance local action towards zero carbon buildings through dialogues facilitated by the project	2.1. Dialogue: In a total of 4 **cities** (2 in each selected country), stakeholders from the public and private sectors explore options to advance local action towards zero carbon buildings through dialogues facilitated by the project	
2.2 Assess: In 3 **subnational jurisdictions**, appropriate methods to quantify social, environmental and economic costs and benefits of ZCB policies and investments are demonstrated to inform local government decisions	2.2 Assess: In 3 **cities**, appropriate methods to quantify social, environmental and economic costs and benefits of ZCB policies and investments are demonstrated to inform local government decisions	
2.4 Monitor: In 2 **subnational jurisdictions**, innovative methods for monitoring progress are tested and lessons learned are provided to national ministries for future policy design	2.4 Monitor: In 2 **cities**, innovative methods for monitoring progress are tested and lessons learned are provided to national ministries for future policy design	

As written in the PIF	Revised after consultations	Justification
2.5 Invest. In at least 2 **subnational jurisdictions**, a business model for investing in ZCBs is developed in cooperation with at least one development bank and in consultation with the private sector	2.5 Invest. In at least 2 **cities**, a business model for investing in ZCBs is developed in cooperation with at least one development bank and in consultation with the private sector	
2.3 Act: In 3 **subnational jurisdictions**, policies and actions to move towards a decarbonized building sector are developed and **adopted**	2.3 Act: In 3 **cities**, policies and actions to move towards a decarbonized building sector are developed and **adoption is initiated**	Revised language to reflect focus on cities and that adoption will be initiated rather than completed in the project period.

Changes in funding levels are reflected in the Request for CEO Approval for both the GEF funding and co-financing as noted and explained in the following tables.

Project Component	GEF funding in original PIF	GEF funding in Request for CEO Approval	Comments
1. Component 1: National commitments and roadmaps towards zero carbon buildings policies	850,000	773,579	
2. Component 2: City strategies towards net zero carbon building implementation	750,000	649,518	After selecting Colombia and Turkey as the countries for engagement, the project team was able to assess more accurate project budgets based on the expected costs in those countries. There is a separate line for M&E costs.
3. Component 3: Pipelines of additional local and national governments for future scaling through platform-wide capacity building and technical assistance	300,000	375,474	
Monitoring & Evaluation	---	30,000	
PMC	100,000	171,429	
Total Costs	2,000,000	2,000,000	

The indicative co-financing in the PIF totaled US$ 6,827,600 from 6 co-financiers from civil society organizations, private sector and GEF Agency. This estimate was made based on discussions with co-financiers at the time the PIF was formulated.

The indicative co-financing figures were re-assessed during consultations held during the preparation of the Request for CEO Approval. The partners? co-financing in the Request for CEO Approval reflects their involvement in the project activities. As the project?s official selection of deep engagement cities in Component 2 will be made during early project implementation, additional partner contributions related to activities in those cities and the contributions of local governments and local partners in those cities are not currently included as project co-financing. Rather, these ?deep dive?-related contributions will be considered ?leveraged?, and will be tracked and reported on during the project?s final evaluation. As a result of these consultations, and as reflected in co-financing letters, the co-financing now totals US$ 6,938,081.

Changes in co-financing commitments from partners:

Name of co-financier	Indicative amount at PIF	Committed amount at Request for CEO Endorsement	Explanation for variations
International Finance Corporation	1,863,750	1,472,760	The committed amount from IFC reflects assessment of work over the project period in the selected countries.
World Green Building Council	1,308,000	1,378,972	Reflects additional co-finance for the BUILD UPON project in Europe which includes Turkey as one focus country.
United Nations Environment Programme	20,000	300,000	The committed amount from UNEP adds linkages to work on regional roadmaps for zero-emissions buildings.
World Resources Institute	2,035,850	1,935,692	Slightly adjusted to represent expected co-finance in the project period.
Consejo Colombiano de Construcci?n Sostenible	0	150,000	CCCS, which will be the local lead organization in Colombia, committed co-financing after Colombia was selected as a focus country for the project.

Name of co-financier	Indicative amount at PIF	Committed amount at Request for CEO Endorsement	Explanation for variations
WRI Turkey Sustainable Cities	0	100,657	WRI Turkey Sustainable Cities, which will be the local lead organization in Turkey, committed co-financing after Turkey was selected as a focus country for the project.

Changes in co-financing by Component are summarized in the table below.

Project Component	Co-financing in original PIF	Financing in Request for CEO Approval
Component 1: National commitments and roadmaps towards zero carbon buildings policies	2,024,867	2,331,661
Component 2: City strategies towards net zero carbon building implementation	2,073,867	2,121,097
Component 3: Pipelines of additional local and national governments for future scaling through platform-wide capacity building and technical assistance	2,578,866	1,864,716
PMC	150,000	620,657
Total Co-financing	**6,827,600**	**6,938,081**

1b. Project Description

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

The building sector is a major contributor to global warming. Buildings account for 36% of global final energy use and nearly 40% of energy related of greenhouse gas emissions.[1][1] The buildings sector presents perhaps the world?s best climate mitigation opportunity, but is showing insufficient progress toward 2020 milestones that would put the world on the path towards remaining under 1.5?C warming.[2][2] Buildings are not only off track to meet the 1.5?C target, they are heading in the wrong direction. Emissions from buildings have risen for two years in a row, creeping back to their 2013 peak.[3][3]

Though there has been significant progress on building efficiency by leading countries, cities, and developers, that progress has been more than offset by population growth, urbanization trends, and increases in the overall size and numbers of buildings, thereby increasing final energy demand from buildings.[4][4] The global building stock is set to double by 2060?without dramatic energy efficiency improvements and decarbonization of the energy used in buildings globally, building energy demand will continue to drive massive absolute increases in carbon emissions. 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 1.5-degree pathway. According to the Global Alliance for Buildings and Construction (GlobalABC), building energy intensity will need to fall 30% by 2030 to meet even a 2-degree scenario.

And today, with the global population increasing from 54% urban to over 70% urban by 2050, we risk locking in a high carbon, low-efficiency built environment if cities are not rapidly upgrading building construction and renovation practices.

Buildings are the largest source of demand-side carbon emissions globally and rates of building efficiency improvement are not keeping pace with increases in energy demand, resulting in rapidly increasing emissions. But buildings also offer the biggest, most cost-effective climate mitigation opportunity?the combination of efficiency and on- or off-site renewables generation is emerging as a powerful tool for tackling buildings-related emissions and focusing more on what matters ? carbon ? rather than energy alone. The 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 $GtCO_2$).

In addition, not only are buildings among the largest sources of carbon emissions, improving their energy performance is the cheapest way we have to reduce emissions globally.[5][5] Crucially, improved buildings deliver substantial societal co-benefits, many of which are key to UN Sustainable Development Goals: health, cost of living, economic development, cost of public service provision, and more.[6][6] Efficient buildings powered by clean energy tend to enhance urban resilience through design features such as cool or green roofs, which reduce urban heat islands and surface water runoff.[7][7] Yet, despite the extraordinary potential for improved buildings to drive climate solutions and a more sustainable future, 80% of economically viable energy savings in buildings remain untapped.[8][8]

Thus, to meet Paris Agreement goals, the world?s building stock must be carbon neutral by 2050 ? success here will require an alignment of policy, investment, development and private sector action. However, the world?s policymakers are by and large not pursuing the massive opportunity that buildings present. Much greater ambition around buildings policy will be needed to create the frameworks and send the signals that will inspire private sector action.

2) Baseline scenario and any associated baseline projects

Building Efficiency Accelerator (BEA) program baseline: building on successes

There has never been a greater level of recognition of the role of 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 response to this growing awareness, 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. The Building Efficiency Accelerator partnership, detailed below, was one of six sector-specific Accelerators launched to galvanize action around this goal.

In the first two phases of the BEA, funded in 2016-2019 by the GEF through two USD $2 million grants, the partnership rapidly scaled up action with cities, states, countries and global partner organizations. In the first 2 years, city-partners built stakeholder engagement, identified policy

priorities, and reviewed demonstration project options. The subsequent two years have seen the addition of three national engagements and a formal strategy of national-subnational alignment to enable building efficiency action by cities, building on lessons learned from our partner cities? previous work.

The BEA has worked with cities at two distinct levels of engagement: all cities that partner with the BEA are Network Cities, and a few select cities in each cycle are Deep Dive Cities and receive more significant directly resourced support.

? Network cities (formerly referred to as ?light touch? cities) commit to take action to further stakeholder engagement, policies, and programs on building efficiency. They receive technical support via online resources, webinars, trainings, and one-on-one expert support when available. A local organizational partner in each city acts as the ?city liaison,? connecting city leadership, staff, and local stakeholders to the global BEA network.

? Deep Dive cities benefit from more intensive resources including direct staffing to provide intense support to local partners and partnerships to improve and scale building efficiency policies and programs. Past deep dive cities were selected from the pool of BEA partner cities according to three categories of criteria developed in consultation with BEA partner technical organizations: (1) geographic and climate diversity; (2) political will and BEA capacity; and (3) influence and replicability.[9][9] Each deep dive city:

o has a lead local partner that hired a full-time BEA technical advisor to support the city?s work and stakeholder outreach,

o initiates work through a stakeholder engagement process,

o holds a kick-off workshop,

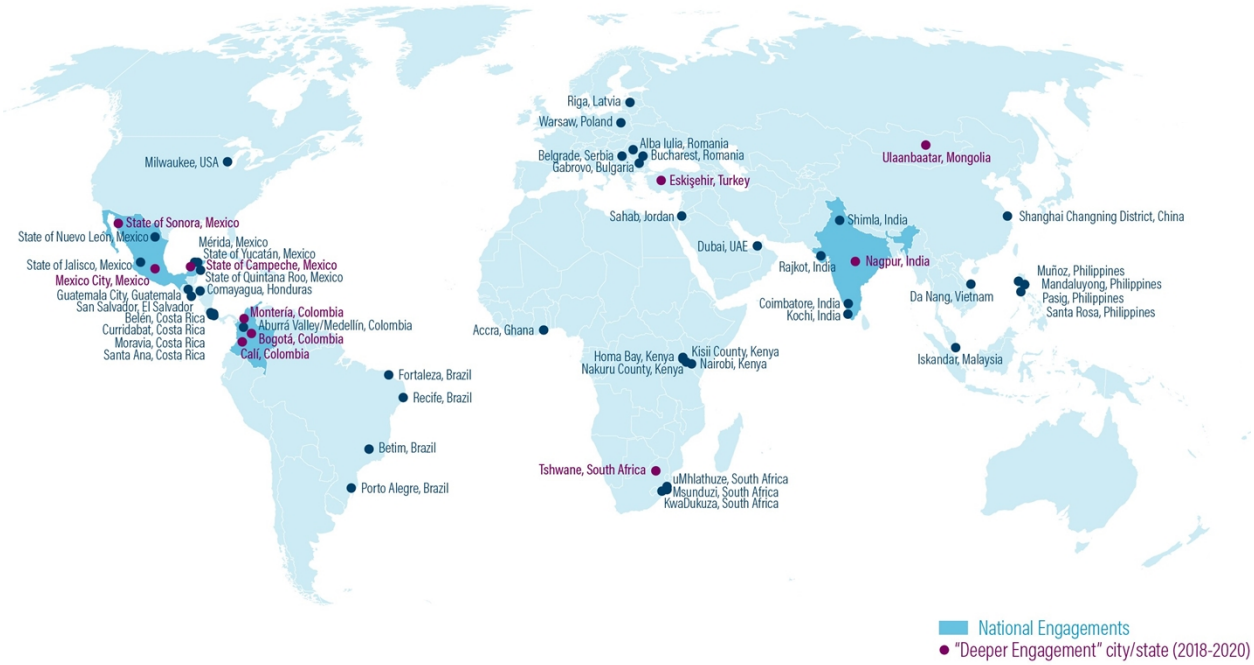
o develops relevant working groups made up of diverse stakeholders to craft specific recommendations for how to move forward, and

o follows a collaboratively-developed and city-approved work plan.

As of August 2020, the BEA includes 55 cities and over 50 partner organizations. Partners are depicted in **Figure 1**. City commitments and progress have been promoted at a number of global events. The partnership?s work has resulted in more than 60 policy and project commitments from cities and states, resulted in a number of new resources and dozens of webinars and trainings, and continues to push city leaders toward implementation. Only cities in GEF-eligible countries receive direct technical

assistance, while cities in wealthier countries provide case studies and leadership based on their progress and help build the critical peer-to-peer network.

Figure 1: BEA Cities as of August 2020



In addition to these network successes, the BEA has specifically seen success in deep dive city engagements. In the ten deep dive cities from previous project phases, for example, there are robust communities which have undertaken a variety of activities and have now brought together their individual work into a facilitated structure. Working groups in each of these cities have now met for anywhere from 6-36 months, first to develop recommendations and align their support for city action, and then to support the development and implementation of those actions. Each active global partner has defined their ?offer? in terms of technical assistance and support for local and international actions. This enables the city partners and the community to know how and where resources are available so that technical issues, tools and policy implementation examples are available. The network of partners is a powerful mechanism which, if supported, can become self-reinforcing.

The program is designed to support city action through the strong capabilities and presence of the public-private collaboration. Many BEA partners, like WRI, ICLEI, GBPN, UNEP and the World Green Building Council, work in-market, and leverage strong city government and national and

relationships. Partners provide a broad set of technical competencies ranging from building design to equipment options to retrofit experience. The BEA partnership leverages and adds additional value by providing a mechanism and process for coordinated, on-the-ground application of the expertise, capacity and relationships along with links to other platforms and networks such as the GlobalABC global platform.

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. 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.

Over the years, the partnership has expanded its technical assistance offer. Many resources and tools organized by thematic ?core offer? topics (retrofits and finance, codes, and targets) and other topics are available, and more are in development by partners. In 2018, the partnership?s ?Direct Technical Assistance? offer was launched, where cities can apply for short-term support to overcome a particular barrier to their work. For example, the BEA is providing assistance to cities to use the Building Efficiency Targeting Tool for Energy Retrofits (BETTER)[10][10], a tool jointly developed by partners Lawrence Berkeley National Laboratory and Johnson Controls. BETTER enables building owners and managers to prioritize efficiency improvements by using monthly building energy consumption data to develop specific, cost-effective recommendations for energy efficiency improvement. The BEA is supporting cities such as Eski?ehir, Turkey to collect the necessary data and analyze the results to prioritize buildings for retrofit within their portfolio.

The BEA has held more than 30 in-person trainings, network workshops, and regional events around the world.

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 custom-designed 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 are now designing and implementing these commitments, working with the partners best suited to provide advice on their selected actions. In several cities, the

stakeholder engagement model used at the outset of the policy process was a new approach which had positive reception and results.

BEA cities progress through five stages as shown in **Figure 2**. The status of each of the 55 BEA cities as of August 2020 is shown in **Table 1**. Only cities in GEF-eligible countries receive direct technical assistance, while cities in wealthier countries provide case studies and leadership based on their progress and help build the critical peer-to-peer network. As the BEA network has matured, cities are moving more quickly from the first stage (Commit) to the second stage (Assess). This reflects the increased knowledge and capacity of local partners, as well as the presence of more examples for new network cities to learn from to accelerate their onboarding into the partnership.

Figure 2: Stages of Progress for BEA Policy and Project Actions

Table 1: Status of 55 BEA Cities by Stage as of August 2020

City	Year Joined	Stage 0: Commit	Stage 1: Assess	Stage 2: Develop	Stage 3: Implement	Stage 4: Improve
Aburr? Valley/Medell?n, Colombia	2016		(policy)	(project)		
Accra, Ghana	2018					
Alba Iulia, Romania	2015					
Bel?n, Costa Rica	2018		(project)	(policy)		
Belgrade, Serbia	2016					
Betim, Brazil	2019					
Bogot?, Colombia*	2016				(project)	(policy)

Bucharest, Romania	2015					
Cali, Colombia	2018				(project)	(policy)
Campeche, Mexico	2018			(policy)	(project)	
Coimbatore, India	2016					
Comayagua, Honduras	2018					
Curridabat, Costa Rica	2019					
Da Nang, Vietnam	2016					
Dubai, UAE	2016			(policy)		(project)
Eski?ehir, Turkey*	2016					
Fortaleza, Brazil	2019					
Gabrovo, Bulgaria	2018					
Guatemala City, Guatemala	2019					
Homa Bay County, Kenya	2020					
Iskandar, Malaysia	2016					
Jalisco, Mexico	2016		(policy)	(project)		
Kisii County, Kenya	2017					
Kochi, India	2019		(policy)	(project)		
KwaDukuza, South Africa	2017					
Mandaluyong, Philippines	2015					
M?rida, Mexico	2017					
Mexico City, Mexico*	2014					

Milwaukee, USA	2014					
Monter?a, Colombia	2019				(project)	(policy)
Moravia, Costa Rica	2019					
Msunduzi, South Africa	2018					
Nagpur, India*	2018					
Nairobi, Kenya	2017					
Nakuru County, Kenya	2019					
Nuevo Le?n, Mexico (State)	2019					
Pasig, Philippines	2017					
Porto Alegre, Brazil	2016					
Quintana Roo, Mexico (State)	2019					
Rajkot, India	2016					
Recife, Brazil	2019					
Riga, Latvia	2016					
Sahab, Jordan	2019					
San Salvador, El Salvador	2019					
Santa Ana, Costa Rica	2019					
Santa Rosa, Philippines	2016					
Science City of Mu?oz	2015					

Shanghai Changning District, China	2018					
Shimla, India	2016					
Sonora, Mexico* (State)	2017					
Tshwane, South Africa*	2016					
Ulaanbaatar, Mongolia*	2017					
UMhlathuze, South Africa	2019					
Warsaw, Poland	2014					
Yucat?n, Mexico (State)	2019	(project)	(policy)			
	Total	**15 (policy)** **16 (project)**	**19 (policy)** **16 (project)**	**10 (policy)** **10 (project)**	**5 (policy)** **9 (project)**	**6 (policy)** **4 (project)**
	Note: Deep Dive cities marked with an asterisk (*)					

The majority of support to network cities in the first two phases of the BEA has been devoted to project and policy preparation steps including:

? supporting cities to convene diverse stakeholders,

? understanding city priorities for building efficiency actions,

? developing a vision of what they want to accomplish, and

? beginning to develop a plan for how to access funding to meet those goals.

While working through these preparatory steps with cities, the BEA identified a number of gaps. Cities lack the time, technical capacity and financial expertise for project preparation to prioritize building efficiency actions, address shortcomings of current contracting mechanisms (such as limits on contract lengths that make ESCO approaches untenable), and understand internal budget constraints. Because

efficiency investments provide a clear financial return, they are prime candidates for external finance. However, without first addressing these primary barriers, cities cannot meet the expectations of investors.

Cities that advance either their project or policy commitment past these pre-development steps to the development or implementation stages (stages 2 and 3) have had access to additional resources that enabled them to graduate beyond the development stage (stage 1) in a shorter time than other cities:

- A set of Deep Dive cities had devoted resources to more quickly accelerate their progress
- A set of wealthier cities have more experience with building efficiency action and more resources to address early stage capacity and budget barriers
- A set of additional cities had clear dedicated resources from the BEA or other local partners (including but not limited to GIZ, GGGI, and The Carbon Trust)

This demonstrates that a lack of dedicated resources is a significant barrier to accelerated action. To address this, phase 2 of the BEA (2018-2019) continued to provide critical support to Deep Dive cities poised for action to quickly accelerate their progress. As a new element, phase 2 of the BEA also initiated ?Leadership Grants? to provide direct technical assistance to network cities, enabling them to receive a burst of support to get through specific barriers to action. This current project will similarly provide deep engagement support to city and national governments to accelerate action and overcome the barrier of a lack of dedicated resources. This current project will also provide direct technical assistance grants to assist network cities to move forward more quickly.

In ?deep dive? cities approved by the BEA Steering Committee, listed in **Table 2**, a full-time BEA technical advisor was hired to support each city?s work and stakeholder outreach. Each deep dive city-initiated work through a stakeholder engagement process, held a kick-off workshop, developed relevant working groups made up of diverse stakeholders to craft specific recommendations for how to move forward, and is following a collaboratively-developed and city-approved work plan. Every deep dive city is in the stage of development or implementation. The cities are also working with the global technical thematic working groups to increase their capacity to pursue their chosen actions, with interactions ranging from training on how to make projects investor-ready to technical advice on topics like benchmarking and building code design. Deep dive cities are working with technical experts to use the GHG Protocol for Cities to track the impacts of their selected policy and project actions.

Table 2: BEA Deep Dive Cities, 2016-2019

City, Country	Duration of BEA Deep Dive	Primary funding source

Belgrade, Serbia	2016-2017	GEF
Bogot?, Colombia	2016-2019	GEF
Cali, Colombia	2019-2020	P4G
Campeche, Mexico	2019-2020	P4G
Da Nang, Vietnam	2016-2017	GEF
Eski?ehir, Turkey	2016-2019	GEF
Mexico City, Mexico	2016-2019	GEF
Monter?a, Colombia	2019-2020	P4G
Nagpur, India	2018-2019	GEF
Rajkot, India	2016-2017	GEF
Sonora (state), Mexico	2018-2019	GEF
Tshwane, South Africa	2018-2019	GEF
Ulaanbaatar, Mongolia	2018-2019	GEF

Through the previous four years of managing the partnership from 2016-2019, the BEA team has learned some key lessons for continuing the success of the partnership.

1. Ambition, clear responsibilities, goals, and accountability are crucial for success. Cities with more ambitious goals tend to achieve more ambitious results. Cities with the clearest delineation of local responsibilities?a point of contact in the city, a lead contact at the local partner organization, and local working group leads?advance the most quickly through the BEA stages of progress.

2. While cities cite finance as a key barrier, many cities are not ready for finance discussions until they have clarity on projects and current city contracting or budgeting constraints. This project pre-development, along with finance, will be a priority for cities continuing into this next phase of the BEA.

3. To build this global partnership into a movement, national government engagement and connections with high-level platforms such as Sustainable Energy for All, the NDCs, and the UNSG Climate Summit provide a critical political link. This elevates city activities in ways they usually cannot access absent an international partnership.

Zero Carbon Buildings for All: Increasing Ambition to Meet Global Goals

Notwithstanding the efforts of the BEA and of other initiatives to advance building energy efficiency, energy efficiency actions to date haven?t been enough to meet a Paris-compatible low-emissions scenario. We are witnessing a slowdown in the rate of energy efficiency investment as a share of total investment in building construction and renovation.[11][11] The necessary interventions to remain under 1.5?C global warming will require $300 billion per year in additional investment in decarbonization. In 2018, buildings-related energy efficiency investment declined by 2% to $140B globally, marking the third consecutive year in which the improvement rate for overall energy efficiency slowed.[12][12]

The climate challenge posed by inefficient, carbon-intensive buildings is growing, just as overall investment and attention to it is decreasing. The problem is not that the technologies and knowledge we need to succeed do not exist?quite the contrary, they exist, they are cost-effective, and they make buildings and cities healthier and more habitable. The problem is that the clear and compelling policy signals that the private sector needs to help shape its investments are lacking.

One road to widespread action and aggregated demand for investment is through national-subnational engagement on building efficiency. Less than ? (one third) of countries have mandatory building energy codes or certifications and only 18 countries have codes targeting existing buildings.[13][13] And while roughly 70% of country nationally determined contributions (NDCs) mention buildings, only 46 call out buildings-related policies as part of their commitment,[14][14] making it a rich area for increased NDC ambition.

A nascent global movement to provide these signals is growing around Zero Carbon Buildings (ZCBs). In May 2018, the Clean Energy Ministerial (CEM-9) issued a Global Call together with the Global Alliance for Buildings and Construction, and the World Green Buildings Council launched their Advancing Net Zero commitment at the Global Climate Action Summit in San Francisco in September 2018. The Global Alliance for Buildings and Construction has also initiated a regional Roadmap process, adapting its Global Roadmap towards a zero-emission, efficient and resilient buildings and construction sector to regional contexts. This movement has already begun to raise the ambition of BEA cities, with several committing to Net Zero Carbon Buildings (NZCB) targets by 2050. This increase in ambition is needed across the BEA network, and beyond the city scale. Because building decarbonization requires national commitment and action alongside coordinated local commitment and action, the BEA is very well-positioned to provide capacity support for this higher level of ambition to

national and local governments, supporting increased ambition levels in the NDC 2020 revision process.

Because of the costs and timescales involved, buildings-related investment and development depends on clear, reliable policy like standards, codes, incentives and credits. The private sector has the technology and know-how to deliver on net-zero carbon buildings (in new buildings and through retrofits, in all building sub-sectors) and wants to make progress? for example, in June 2019 the American Institute of Architects voted ?overwhelmingly? to call on its 94,000 global members to "exponentially accelerate the decarbonization of buildings, the building sector, and the built environment" ? but it needs clear and compelling signals from policymakers that will unlock finance and catalyze scaled market activity. The World Business Council for Sustainable Development and the World Green Building Council, under the umbrella of the Global Alliance for Buildings and Construction, are elaborating science-based targets to lay the groundwork for more ambitious private sector commitments.

A building is net zero carbon when the carbon emissions associated with the building?s annual operational energy is equal to or lower than zero. Though a strength of NZCBs is the flexibility with which they can be realized, a NZCB is typically highly energy-efficient and powered by on-site and/or off-site renewable energy sources with any remaining carbon balance zeroed out by high-quality, certified, local offsets. The proportion of these components will depend on many factors in the building and market in question, but an order of priority is specified below. Zero Carbon Buildings for All will align recognized projects with a cohesive definition agreed-upon by our partners and certification leaders International Finance Corporation (IFC) and World Green Building Council, which specifies that projects will reduce and offset 100% of their operational emissions, including at least 40% energy efficiency savings, as certified after the building has been occupied for at least one year and valid operational data is provided.

NZCBs are highly aligned with ambitious efforts around net- or near-zero energy buildings (NZEBs) but are often more easily achieved. Both share an emphasis on deep energy efficiency improvements, and both comprise the need for remaining energy use to be free of greenhouse gases, but differ by NZCBs (1) focusing on carbon rather than energy as the defining metric, (2) allowing off-site clean energy to be procured and (3) allowing high-quality local offsets.

Research published by WRI in September 2019 provides guidance to national governments on policy pathways to achieve NZCBs and recommends the following order of operations to achieve NZCBs most affordably and sustainably:

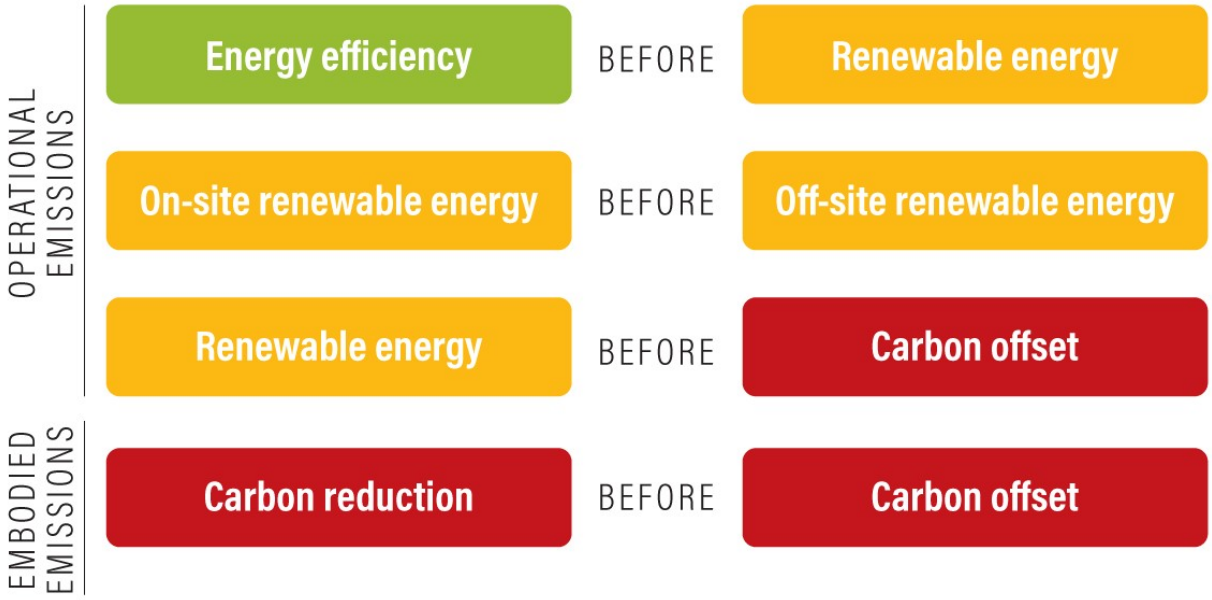


Figure 3: Order of preference for ZCB Components, World Resources Institute 2019.

NZCBs are cost-effective, technically achievable, and politically feasible. They are near- to midterm solutions in the fight against climate change and align strongly with other efforts like power sector decarbonization. What has been missing is appropriate ambition by world leaders, and, as a result, the policy frameworks that unlock market development and investment. Near Zero Energy Buildings (NZEBs) ? which are mandated in California by 2020, in the EU by 2021, and in Canada by 2030 ? are ambitious energy efficiency policies that provide a strong proof of concept for NZCBs.[15][15] WRI research demonstrates that ?a decarbonized building stock is technically attainable and politically feasible in all jurisdictions? and that many countries ? including Kenya, Mexico, and India ? already have the policy frameworks needed to move toward broad roll-out of NZCBs.[16][16] Further, six countries, including Argentina, Mexico and Germany, have committed to develop national strategies to decarbonize their buildings and construction sector.[17][17]

With today?s technology, energy efficiency alone could contribute more than 40% of the global emissions reductions needed to reach global climate goals.[18][18] Breakthroughs in on- and off-site clean energy production (e.g. a 60% reduction in average photovoltaic prices), storage (e.g. 80%

reductions in battery prices), and energy management also make a shift to clean electricity possible for nearly all buildings. Buildings can now generate and store their own carbon-free electricity onsite, or they can procure cheap off-site production and act as a driver of local clean power markets. Buildings can aggregate their clean energy efforts to enable economies of scale for energy generation and storage. These technological and operational innovations optimize building energy loads by time-of-day, offering policy makers and utilities a powerful tool to better manage power sector operations, add more renewables to the grid, and provide safer and more reliable service.

Increased building efficiency decreases energy demand and allows the power sector to advance decarbonization, while pairing deep efficiency improvements with on- or off-site renewables offers an even greater opportunity for accelerating carbon reductions.

It?s clear that the building stock must be net zero carbon by 2050 to meet the goals of the Paris Agreement, but fewer than 1% of buildings are zero carbon today. World Green Building Council estimated that 2,500 such buildings existed worldwide as of 2017.[19][19] By way of contrast, New York City alone has roughly 1 million buildings. To meet our shared climate goals, the world needs radically enhanced ambition and action around net zero carbon buildings.

National Snapshots: Turkey and Colombia

In Turkey, there are opportunities to scale lessons learned through city action via national government engagement. The national government has recently shown global leadership on building efficiency: at the U.N. Climate Action Summit in September 2019, Turkey co-led the Infrastructure, Cities and Local Action (ICLA) track and both joined and announced the Zero Carbon Buildings for All initiative with the support of lead local partner, WRI Turkey. WRI Turkey also contributed to the development of a national energy efficiency action plan with which this program will align. The Ministry of Energy and Natural Resources and the Ministry of Environment and Urbanization have signed on to provide strategic input and collaboration for this project from the national perspective.

With support from GIZ, the national government is also developing roadmaps to nearly zero-energy buildings which will be a key input into a roadmap for decarbonizing buildings. Milestones achieved toward the GIZ NZEB roadmaps, which will contribute to this project as part of its baseline, include the publication of two guidebook, the "Guidebook for Nearly-Zero Energy Buildings" and the "Guidebook for Energy Efficient Renovation of Public Buildings" (These can be found in Turkish at https://lnkd.in/e4ygexP and https://lnkd.in/ehP5GuV). While the NZEB guidebook is quite basic and

contains no guidance on implementation at the subnational level, the renovation guidebook is quite comprehensive. This project will build on both guidebooks but offer a detailed pathway to implementation of expanded decarbonization guidance that goes beyond an NZEB roadmap to address decarbonization of the energy buildings use (through efficiency, electrification, or clean energy), storage, and urban planning.

At the city level, Eski?ehir has continued to progress buildings actions through the BEA platform. The BEA launched its deep dive project in Eskisehir in October 2016 with a kick-off event, the establishment of an advisory board and goals of a formal commitment by the city authority to implement a policy package and pilot project with the aim of improving building efficiency at the city scale. Since then, the Eskisehir Metropolitan Municipality has introduced a local voluntary above-code building energy efficiency program, established an Energy Management Unit, designed a pilot project in compliance with above class B energy standards, conducted five trainings with private sector collaborators, and issued an official decision requiring municipal buildings to meet specific performance criteria. The City has also begun a municipal building inventory and retrofit program including an audit of the Eski?ehir Terminal Bus Station with technical plans for retrofit. On the public awareness front, the City has designed and carried out an energy efficiency awareness campaign in public forums.

So far, the work in Turkey over the past 4 years of BEA engagement has leveraged an estimated US$2.1 million in in-kind and direct investment from the City of Eski?ehir, WRI Turkey, Danfoss, and other partners in the form of work enabled by the BEA including staff time, energy audits and modeling, training program implementation, retrofit of a bus terminal, and the ongoing installation of a 4 GW solar power station. A breakdown of these investments is provided below. This breakdown does not include the BEA team?s influence in the creation of Turkey?s vital new National Energy Efficiency Action Plan, which they found difficult to accurately ?value?.

Action	**Value (USD)**
In-Kind Eski?ehir	200,000
In-Kind WRITRSC	150,000
Energy Audit and Modelling	25,000
Danfoss Co-finance	25,000
Training Program Implementation (In kind support of partners)	80,000
Bus Terminal Retrofit	100,000

4 GW Solar power Station (1 GW installed, rest continues)	1,600,000
Total	**2,180,000**

Without this work, Eski?ehir Metropolitan Municipality might not have established a ?B or Better? Building Energy Performance target for municipal buildings, and new municipal buildings wouldn?t have complied with the higher standards. The Ministry of Environment and Urbanization would not have aimed for an above code energy performance target for their urban regeneration project, as prompted by the City. The Bus Terminal Buildings would not be under retrofit, nor would the development of a 4MW solar power station project have proceeded. Finally, the City of Eski?ehir would not have an Energy Management Department without this program.

More broadly in Turkey outside of the city, building sector professionals would still have the lower technical capacity on energy efficiency building design that they held prior to this program?s training. Public awareness on building efficiency would be lower, and above code targets would not have been included in the Building Sector Chapter of National Energy Efficiency Action Plan. The Turkish Ministry of Environment and Urbanization would not have taken as active a role at the UN Climate Action Summit in 2019 where Turkey co-led the Infrastructure, Cities and Local Action Track, and would not have committed to the Zero Carbon Buildings for All Initiative at the same event.

Please see Section 5, *Incremental/additional cost reasoning* for specific activities in Turkey that are already included in the project baseline.

In Colombia, with local leadership from the Colombia Green Building Council (Consejo Colombiano de Construcci?n Sostenible, CCCS), dialogue on national-subnational alignment on buildings has begun following the progress of four cities with the BEA. All four BEA cities have reached at least the Assess stage (Stage 1) for their policy and project actions. Bogot?, which has benefited from deep engagement with the BEA since 2016, has reached the Implement stage (Stage 3) for their project and Improve (Stage 4) for their policy. In the first phase, from 2016-2017, Bogot? and the CCCS team developed an implementation protocol for the national building code, Resolution 549 of the Ministry of Housing. This resolution was issued in 2015, but was not being completely implemented due to the lack of procedures. CCCS was the lead program partner organization in the country, leading all elements of the project including stakeholder dialogue, supervision of the technical studies, and acting as technical advisor for the Department of Planning of the City of Bogot?. In Phase 2 (2018-2020), the work on the Res. 549 implementation protocol continued, setting a step by step procedure for water and energy efficiency compliance for all new construction projects. The BEA conducted trainings for the

public and private sectors and launched a dialogue with the national government to transfer lessons learned in Bogota across the national scale for the formal update to Res. 549.

Elsewhere in Colombia, the partnership led local dialogues with Phase II partners Cali and Monter?a and supervised technical studies for the development of implementation protocols for Res. 549 in those two municipalities. Each municipal government chose to issue a local resolution for the adoption of that protocol. In Monter?a and Cali, supported by the Cities Climate Action Program with funding from P4G, pilot projects were carried out in auditing public buildings for energy and water retrofits. At the time of this proposal, Cali is in the Assess stage (Stage 1) for both its policy and project, Monter?a has reached the Develop stage (Stage 2), and Aburr? Valley/Medell?n, a Phase I partner, is in the Assess stage (Stage 1) for their policy and Develop stage (Stage 2) for their project. Monter?a and Cali have both received critical support for capacity building, preparing them to adopt and implement new building efficiency programs and policies. All four partner cities have updated building efficiency action plans, and building energy management and retrofit plans are being investigated in Monter?a and Cali.

The work in Colombia has seen substantial outcomes upon which the *Zero Carbon Buildings for All* project will build. In Bogot?, the combined activity for the past four years has fostered local dialogue and consensus between city stakeholders on actions to double energy efficiency rates by 2030. The partnership on the ground has completed a technical study for the implementation protocol of Res. 549 based on energy modeling and ensured through training and capacity building that the city is better equipped to define, adopt and/or further advance building efficiency actions. Planning and funding proposals are underway for the development of a monitoring, reporting, and verification (MRV) system at the national level which each city could utilize. The implementation of Res. 549 enabled by BEA-driven updates, and the planned associated MRV system, will be tools through which the Ministry of Housing will achieve its nationally determined contributions (NDCs) to the Paris Agreement. P The BEA work has created public-private relationships and technical credibility that will enable the pursuit of increasingly ambitious projects ? including this one.

So far, the work in Colombia over the past 4 years of BEA engagement has leveraged an estimated US$865,968 in in-kind and direct investment from the national government and the local governments of Bogota, Cali, and Monteria, consultants, partners, and technical experts and substantial funding from P4G. A breakdown of these investments is provided below.

Year	Stakeholder investments (US$)								
	National government	Bogot? local government	Cali local government	Monter?a local government	Consultants	Partners and technical experts	P4G	Fondo Acci?n	CCCS in-kind

2016	$ 7,200	$ 13,600				$ 5,000			$ 3,750
2017	$ 2,400	$ 30,400			$ 4,800	$ 32,000			$ 13,700
2018		$ 30,400			$ 46,467	$ 32,000			$ 44,848
2019	$ 2,400	$ 40,400	$ 30,400	$ 30,400	$ 16,000	$ 96,000	$ 166,500	$ 2,200	$ 68,275
2020	$ 1,600	$ 5,100	$ 15,100	$ 15,100			$ 76,500	$ 10,000	$ 23,428
Total	$ 13,600	$ 119,900	$ 45,500	$ 45,500	$ 67,267	$ 165,000	$ 243,000	$ 12,200	$ 154,001
Grand Total: $865,968									

Without the completed projects, Bogot?, Monter?a and Cali would lack a city dialogue and awareness from

the construction industry stakeholders in terms of the importance of energy efficiency. The BEA work was crucial in bringing all these stakeholders together to discuss and analyze the best energy efficiency measures for different building typologies for each of the 3 cities.

In addition, the cities would lack a technical study of the current construction practices and appropriateness of different energy efficiency measures for each building typology. Having this information and knowledge was very important to set the basis to create an energy efficiency code for each city, which most new buildings should comply with starting in 2019 per resolution 1874 in Bogot?, resolution 163 in Monter?a, and resolution 4133 in Cali. These energy efficiency codes include a performance compliance path and a prescriptive compliance path, giving different tools to different types of developers and consultants. Without the BEA work these energy efficiency codes that require approximately an improvement of 20%- 25% in new construction, would not have been developed.

Moreover, funded by the BEA work, a complete training program was offered not only to the public sector, but for private sector partners as well. The training was very important to increase the awareness and knowledge of the entire construction industry in terms of energy efficiency and important tools, such as energy modeling.

Finally, the MRV system developed in Bogot?, used data from energy and water usage from utilities databases, the land registry database, and the construction permit database to calculate an energy and water consumption baseline. In addition, the procedures to implement the MRV process was developed and is now in place to assess the impact of Bogot??s Resolution 1874 and assess the impact of other public policy instruments, including an emissions reduction assessment. Without this work, Bogot? would not have a real baseline of energy and water consumption as all former baselines calculated for Bogot? (and for other cities) were based on simulations and aggregated data, not real database processing. This sets a precedent for replication across other cities in Colombia.

Please see Section 5, *Incremental/additional cost reasoning* for specific activities in Colombia that are already included in the project baseline.

Global buildings partnerships and related projects

Along with the many partnerships and platforms of which the BEA is already a part, there are a number of global partnerships moving explicitly toward net zero ambition. Chief among these are run by two BEA partners: the World Green Building Council?s Advancing Net Zero project, which aims to promote and support the acceleration of net zero buildings to 100% by 2050, and C40?s aligned Net Zero Carbon Buildings Declaration.

Another key partnership on reducing emissions in the building and construction sector is the Global Alliance for Buildings and Construction (GlobalABC), whose Secretariat is hosted by the UN Environment Programme. An outcome of COP 21, and with 130 members, including 29 countries, the GlobalABC is a leading global platform gathering governments, the private sector, civil society and intergovernmental and international organizations to increase action towards a zero-emission, efficient and resilient buildings and construction sector. It has a host of knowledge products including reports, webinars and guidelines (for example a guide on how to embed buildings and construction better in NDCs) available to its partners. It channels visibility for the sector and is recognized as a key influencer at international gatherings aimed at addressing urbanization challenges and climate change, such the annual UN climate change conferences and the G20. The GlobalABC?s key goals include:

- Raising ambitions to meet the Paris climate goals. The alliance works to raise the level of ambition in retrofitting existing buildings and future-proofing the investments that will going into new buildings over the next 15 years;

- Mobilizing all actors along the value chain. The alliance encourages policy frameworks that promote both uptake of existing, cost-effective solutions and private sector innovation ? using sustainable public procurement as a lever to create markets and investor security.

The Global Alliance for Buildings and Construction issues an annual Global Status Report that keeps track of progress in the sector and highlights good practice examples. It has embarked on a process to devise regional roadmaps, identifying key steps to put the sector on a sustainable path and garnering political buy-in through a regional consultative process that has to date seen inputs from over 700 stakeholders in the Africa, Latin America and Asia regions. The GlobalABC has also provided guidance on incorporating building sector actions in NDCs, and sparked national alliances in a number of its member countries as well as a capacity support programme for energy efficient buildings (PEEB).

The project implementation will be closely aligned and in cooperation with these above-mentioned partnerships and projects and others, drawing on their respective strengths and networks.

3) Proposed alternative scenario with a description of project components, outcomes, outputs and deliverables

To address the complex human and institutional nature of the barriers identified above, and to contribute to rapid decarbonization of the building sector by 2050, this project seeks to scale the impact of its work by deepening ambition through national and local stakeholders working on policy and through private markets. Its objective is to link local policy action and capacity building with national policies and programs, all supported and informed by private sector market implementation experience. It does so by supporting the rapid increase in ambition for zero carbon new and existing buildings, working with national governments to create policy and program roadmaps to support and enable this ambition, working with cities and sub-national jurisdictions in their pursuit of building improvements, and connecting national and sub-national governments to increase the alignment, ambition and impact of actions to decarbonize buildings.

This project embodies a strong coalition of national and municipal actors aligning on roadmaps, enabling policies, and demonstration programs that will drive the decarbonization of the global building stock. These policies and commitments will send strong and compelling market signals to the private sector, and will mobilize financial and local industry players to deliver a net zero carbon

building sector by mid-century. This will lead to dramatic GHG emissions reductions and deliver a healthier, more productive environments to billions of people.

NZCBs are attainable with widely available technology and commonly understood architectural techniques like integrated or passive design. What has been missing is an injection of national policy ambition (through targets, roadmaps, and enabling policies) and the strong financial and private sector commitments that build off policy.

Cities represent the majority of current and future building stock and have proven to be excellent testing grounds for policy ambition. Ambitious action often takes place in cities but is often not recognized or enabled by national commitments and action plans.

Time and again, barriers to city-level implementation stem from the absence of national enabling policies and financing. To address these barriers, the BEA has worked with cities like Bogot?, Colombia[20][20], Mexico City, Mexico[21][21], and Eski?ehir, Turkey[22][22] to urge their national governments to upgrade national policies on building energy performance. These national actions can then create virtuous feedback loops and ripple effects, with cities ratcheting up their ambition. Just as phase 2 of the BEA (2018-2019) incorporated national engagement alongside city engagement and action, this project will highlight the critical role of national governments in increasing ambition towards building decarbonization, reflecting that in their own national goals such as through increased ambition of NDCs, and coordinating with local governments to support their aligned actions on building decarbonization.

This project seeks to support the development of national roadmaps, which will build upon the global and regional roadmaps of the GlobalABC where possible, that allow municipal experience and ambition to inspire and inform national policy, and national policies that support and amplify local leadership. Further, the initiative will create pathways for national and local leaders to showcase their leadership and innovations and share best practices.

Countries and cities are at different levels of ?readiness? with regards to NZCBs. To build the pipeline of countries and cities that are ready to commit to NZCBs, this project will draw on the Regional

Roadmaps of the GlobalABC and the support of the global network established by the BEA to provide technical assistance on energy efficiency in buildings, along with clean renewable energy solutions, to partner cities and countries (i.e., the outcomes and outputs associated with Component 3, especially output 3.3). Building energy efficiency is the first necessary step towards NZCBs, and as such it is critical to build capacity of cities and countries on building efficiency while simultaneously connecting those partners with examples of cities and countries that are already taking steps to raise their ambition further.

This project builds on the successes, relationships, and network of the Building Efficiency Accelerator and will work with other existing coalitions in the building sector, such as the GlobalABC and the Programme for Energy Efficiency in Buildings (PEEB), to raise ambition to the building sector decarbonization needed to meet the goals of the Paris Agreement and outreach beyond the BEA platform. The project will facilitate the sharing of best practice among partner cities and national governments, leverage in-market experience, support national governments ready to plan their transition to zero carbon buildings, support cities aspiring to accelerate policy and project action, and link national and local government priorities and engagements. The project?s primary technical assistance includes the development of place-based national and local partnerships to develop joint actions of the supply and demand sides of the building decarbonization market, and staffing and in-kind resources to incentivize national and local leaders to prioritize implementation of building decarbonization strategies and enable the policy/project development process to be actively driven forward.

In addition to building on the successes of the Building Efficiency Accelerator, this work plan is designed to feed into and reinforce GEF-7 programming directions. The BEA has an excellent track record as an active global partnership successfully working with cities and, more recently, national governments to accelerate the pace and ambition of local building efficiency action. The work the BEA has done on local-national government alignment, in particular, puts this project in an excellent position to increase ambition from building efficiency to planning for decarbonization of the building sector, a long-term strategy that requires coordination among these levels of government. This national-local government alignment also sets the stage for this global program to connect, alongside the GlobalABC, with GEF child projects that are part of the GEF-6 Global Platform for Sustainable Cities and the GEF-7 Sustainable Cities Impact Programme. While this project has a sectoral focus, it aligns with the Impact Programme?s focus on a strong involvement of subnational actors (including local governments). It also aligns with the Programme?s focus on decarbonizing urbanization. There is especially potential for connecting the GEF Sustainable Cities Impact Programme?s child projects with the countries of deep engagement in this project (component 1), and potentially through the Global Platform for Sustainable Cities where participating countries and cities are interested in taking action on building decarbonization.

Component 1: National commitments and roadmaps towards zero carbon buildings policies

The activities in Component 1 seek to engage national governments as champions of NZCBs, improve coordination between national and subnational governments regarding the building sector, and accelerate national government policy action to enable ZCBs. While cities often lead on building sector action, there are many barriers to city action that are best addressed by national policy and programs. In each selected country, working in partnership between national and local stakeholders will create relevant national solution pathways that can be scaled across the country by local governments. The partnership will support several national governments and ministries to develop national policies and programs to support local government action.

This project will engage with 2 national governments ? Colombia and Turkey ? to prepare them to adopt building sector programs and policies that support accelerated city action on building efficiency. Examples might include national financing programs for local action on building efficiency or decarbonization, national policies or tools on building energy performance benchmarking, engagement with local governments and stakeholders on the development or revision of a national building energy code, or policies that enable an increase in renewable energy penetration on the grid. This element of the project will also aim to increase the ambition of national climate and energy goals, such as the NDCs, including encouraging national governments to better account for city action in their goal tracking. The project will help countries plan how to get to zero carbon in accordance with any existing policies or legislation such as those focusing on nearly zero energy buildings in Turkey.

This GEF project provides resources to an in-country partner for 18-24 months of full-time direct staffing. This component brings together expertise from the national market and global partners to bring about acceleration towards a zero-carbon building sector.

In Colombia and Turkey, the project team will work with the national government to support a commitment to the goal of zero carbon buildings. Through a stakeholder engagement process, the project will convene a coalition of national government (including relevant ministries such as housing, energy, environment, and finance), city governments (particularly BEA partner cities), and national and local stakeholders across sectors (including relevant businesses, utilities, NGOs, and climate actors such as development banks). This coalition will hold at least one initial dialogue workshop and then draft roadmaps to ZCBs through multisectoral engagement. The roadmaps will be informed by modeling analysis to provide an assessment of their feasibility and their ability to achieve the zero-carbon goal, and by the GlobalABC?s regional and global roadmaps. The roadmaps will be followed

by national targets and/or action plans, enabling the national government to identify and select their starting point for implementation of policies and programs to enable transformation of the building sector to zero carbon.

The selection process for national engagements was done based on a set of established criteria. The BEA Steering Committee reviewed information collected on each nominated country, assessed each nominee against the established criteria, and the project team is obtaining commitment from the national government and GEF Operational Focal Point ahead of CEO endorsement of the project. This enabled review of country selection and will enable a faster project start on national engagements. Criteria for selection of national partners included:

- Is a GEF-eligible country and SEforALL high-impact country, and preferably is a member of the GlobalABC or willing to join;
- Political commitment by leadership of one or more ministries, and a political term that will endure for 2 years;
- Willingness to increase the ambition of 2020 NDCs;
- Presence of 2 or more BEA partner cities, or BEA partners have credible plans to quickly obtain additional partner cities to reach a total of 2;
- Significant network of BEA partners and/or partners of linked building sector coalitions engaged in the country at the national and global dialogue level;
- Local governments within the country have significant responsibility for implementing existing building efficiency policies or programs;
- Significant projected growth in building energy demand and significant feasible energy and emissions savings.

Based on an analysis of candidate countries, the BEA Steering Committee approved the following countries (as selected and alternates) for conditional approval as deep engagements for 2020-2022 pending their acceptance of the terms of engagement and completion of initial engagement steps. Likely lead partners for activities in each country, based on existing leadership of BEA activities, are noted in brackets [].

Selected:

•Colombia [Consejo Colombiano de Construcci?n Sostenible, the Colombia Green Building Council]
•Turkey [WRI Sustainable Cities Turkey]
Alternates:

•Costa Rica [Green Building Council Costa Rica]
•India [WRI India]
•Kenya [Kenya Green Building Society]

The BEA coordination team at WRI assessed six countries for selection. These countries were selected for consideration based on one or both of:

•Significant national engagement and subnational activity through the BEA (**Colombia, Costa Rica, India, Mexico, Turkey**)
•Commitment made to the Zero Carbon Buildings for All Initiative launched in September 2019 (**Kenya, Turkey**)

In early November 2019, staff completed a preliminary assessment of each country using these criteria and indicators. The assessment process incorporated desktop research on these geographies, input from BEA partners and other building efficiency stakeholders within and outside these countries, and staff knowledge. On November 12, BEA partners were invited to review the preliminary assessment and to provide additional information to inform the recommendations. Recommendations were based on assessment of the research findings against the established criteria.

Findings and selections are summarized below. To summarize the data, the findings for each category and overall recommendations are indicated using color coding in the table. Green indicates that all major criteria in the category are favorable, yellow indicates that there is one or more area of weakness and red indicates a fundamental concern about the suitability of the candidate country.

Table 3: National Engagement Assessment and Recommendations

Country	GEF Eligible	Impact Potential	Political Will	Delivery Capacity	Overall
Colombia					SELECTED
Costa Rica					ALTERNATE
India					ALTERNATE
Kenya					ALTERNATE

Mexico					
Turkey					SELECTED

Critical, tipping point considerations that led to the choice of the selected and alternate countries are as follows:

•**Colombia** (selected) - Strong engagement from multiple national ministries with the BEA 2019 national-subnational engagement process; Commitment to increase ambition of 2020 NDC, including indication of interest in including buildings measures; Strong engagement on building efficiency implementation from multiple city governments and interest in zero carbon buildings from Bogot?. In addition, Colombia has joined the Three Percent Club for Energy Efficiency, and this project will support the country to reach their 3% Club objectives with regards to the building sector.
•**Turkey** (selected) - Commitment to Zero Carbon Buildings for All, which includes development of a national ZCB roadmap; High engagement on energy efficiency and building efficiency topics (BEP regulation; National EE Plan); National government engagement in support of 2017-19 BEA city activities in Eski?ehir.
•**Costa Rica** (alternate) - High decarbonization ambition through national Decarbonization Plan, which includes buildings as an action area; Strong engagement of both national and subnational governments in BEA in 2019; Small country with slow growth in building energy demand.
•**India** (alternate) - Large building energy demand and significant new construction, but slower recent growth; Complex governance of buildings sector with limited coordination between national and subnational governments; Slow progress in national government engagement in BEA activities in 2018-19 and on expanding and improving building policies, like ECBC.
•**Kenya** (alternate) - High ambition as evidenced by commitment to Zero Carbon Buildings for All, which includes development of a national ZCB roadmap; Limited previous engagement on building efficiency topics; Limited capacity from national and subnational governments to engage with the BEA in 2018-19.

Outcome 1: Two national governments link NDCs and/or other national strategies with zero carbon buildings and develop approaches to support subnational governments, utilities, the private sector and civil society to accelerate the market transformation towards zero carbon buildings

Outputs:

•Output 1.1: Outreach: Outreach activities are performed using tools from the national market and global partners to encourage national governments to adopt public commitments on net zero carbon buildings

This output aims to overcome information barriers preventing national governments from making commitments and taking action on building decarbonization. Government decision-makers generally do not have sufficient information regarding potential pathways to building decarbonization in their specific country context, along with their costs and benefits. One key deliverable of this output will be initial analysis of these pathways, costs, and benefits in Colombia and Turkey.

Another key deliverable will be using this analysis to reach out to relevant national government ministries in Colombia and Turkey to engage them in dialogue on building decarbonization, helping those decision-makers to understand the opportunities and challenges they face. The final deliverable of this output is public commitment from Colombia and Turkey national governments on net zero carbon buildings.

•Output 1.2: Dialogue: National/local governments, utilities, the private sector and civil society explore how to achieve ZCB commitments through in-country policy dialogues facilitated by the project

Policies set by national governments affect all stakeholders involved in building decarbonization, and therefore those policies will benefit from engagement and dialogue with those stakeholders as the policies are planned and developed.

Key deliverables within this output ensure that relevant stakeholder groups are represented in dialogues on national government commitment and policy priorities in the context of building decarbonization. Mapping relevant stakeholders to include in national building decarbonization activities in Colombia and Turkey will ensure inclusion across a diverse set of stakeholders. Convening workshops in Colombia and Turkey will allow these diverse stakeholders to gather and share research and perspectives on how to achieve ZCB commitments and how the national government can enable accelerated local action. Recommendations from these dialogues will provide a multi-stakeholder perspective for national action and leadership.

•Output 1.3: Plan. Long-term national roadmaps, including short/medium-term action plans, linked to the NDCs and/or other national strategies to achieve net zero carbon buildings by 2050 are developed and adoption is initiated

This output is the bridge between commitment and action, providing governments with plans for how to meet long-term ambition to building decarbonization and how to make short-term progress through priority actions. Baseline assessment reports for the buildings sector in Colombia and Turkey will analyze existing priorities, programs, strategies and policies to clarify the starting point for the building

sector. In addition, multi-stakeholder and expert feedback will be compiled to contribute to the baseline understanding.

The baseline assessments will serve as the starting point for long-term national roadmaps and short-term action plans for Colombia and Turkey that will include local government contributions. The goal of this national-subnational coordination is to increase the positive impact of national policy approaches on the ability of local governments to accelerate action on building decarbonization. The final deliverable is to initiate the adoption of these national roadmaps in Colombia and Turkey.

•Output 1.4: Enable: Enabling policies are developed and adoption is initiated to support subnational governments, utilities, private sector and civil society to accelerate the market transformation towards ZCBs

Following from the roadmaps and action plans, this output will establish multi-stakeholder working groups to remove barriers for, draft, and initiate adoption of one or more enabling policies prioritized in their action plans. As with the other elements of national engagement, stakeholders in Colombia and Turkey will include national and local government officials, utilities, private sector, and civil society.

Component 2: City strategies towards net zero carbon building implementation

The activities in Component 2 seek to work in specific markets in the same country as Component 1 ? Colombia and Turkey ? to match expertise, demand to decarbonize the building sector, and opportunities to access new transaction paths and financing. In each of these markets, the partnership provides momentum, visibility, and accountability for all public and private stakeholders involved. The locally-generated solutions that emerge are developed with an eye toward scaling them across the country and adapting them for other markets.

In these ?deep dive? city engagements, this GEF project provides resources to a local partner for 18-24 months of full-time direct staffing, and a facilitated process to bring market participant experiences and expertise to support city policy and project action. This component leverages the most knowledgeable experts in the local market, along with technical expertise from global partners, to help design effective strategies for the acceleration of building efficiency. This input is provided through an open, participatory process to help prioritize and then support the city?s identified goals.

Four ?deep dive? cities (two in each selected country) each hold at least one kick-off workshop, and then work in multisectoral working groups focused on specific topics or activities related to decarbonizing the building sector. The working groups are co-led by city staff and stakeholders, consist of key stakeholders and market actors, and must deliver recommendations to the city identifying barriers and strategies to overcome them for successful policy/project delivery.

To address up front some of the gaps local governments often face, this project will work with the deep dive cities to quantify potential impacts of the selected actions, policies, and investments. Because many cities face enormous barriers due to low data availability, this assessment will be initiated once the dialogues have resulted in prioritized actions towards ZCBs but before the local governments begin taking those actions. The project aims to have 75% of deep dive cites drafting or adopting policies and actions ? or where immediate adoption is not possible, establishing a clear path to adoption ? to move towards net zero carbon buildings within 24 months.

As cities progress through their deep dive engagement, they often face a barrier to advancing their policies and projects when they need investment, financing, or longer term on-the-ground support. This project will aim to support local governments to design an investment program for their demonstration projects on the path towards ZCBs, and to ?match-make? these cities with regional network organizations that have significant, long-term local presence as well as resources to help cities take their next steps. These regional network organizations can provide longer term technical assistance and access to concessional finance to help cities remain on this accelerated path and continue successful program implementation. Such organizations include GIZ, including lessons learned in other geographies through the joint GIZ-ADEME Program for Energy Efficiency in Buildings (PEEB), and regional development banks.

With the additional capacity provided by this project, deep dive cities are well positioned to test new methods for monitoring progress. These methods will build on those used by previous BEA projects, and will provide lessons to other cities and to national ministries to inform future policy design. The methods will to the extent possible build upon the work undertaken by the GlobalABC under its work area on building measurement, data and information.[23][23]

To select deep dive cities by the end of the first month of the project, the project will evaluate candidate cities in Colombia and Turkey, informed by relationships and outreach through the BEA, Accelerators,

SEforALL, and the GEF Sustainable Cities program including the Global Platform for Sustainable Cities. The Project Steering Committee will review information collected on each nominated city, assess each nominee against the established criteria, and obtain formal commitment from the local government before selecting the cities. Proposed criteria, which build on those successfully used for previous deep dive selection, include:

- City size diversity;
- Pre-existing assessments of the opportunities, challenges, and data in-market so that the city is ready for ?acceleration?;
- Opportunities to leverage in-kind or existing local government administrative staff or program resources;
- Support of local government engagement in the project from the national government (including alignment with national priorities including those identified in NDCs);
- Political commitment by the local government leadership, and a political term that will endure throughout the 2-year process;
- A ?lead? local partner present in the city/region to facilitate the working group process and follow up work with the city;
- Strong local presence of the broader project partners and opportunity to link activities to include joint local delivery;
- Opportunities to expand and leverage benefits of decarbonization of the building sector, including by partnering with the District Energy Accelerator to demonstrate how local clean energy solutions and energy efficient buildings combined offer strong sustainability outcomes;
- Possibility for replication by other cities.

The cities and states that are currently part of the BEA in Colombia and Turkey include: Aburr? Valley/Medell?n, Bogot?, Cal?, and Monter?a, Colombia; and Eski?ehir, Turkey. These cities along with others will be considered for deep dive engagement in this project. The input of the national ministries leading the project in each country is now being sought to review and finalize deep dive city selection.

Outcome 2: City governments in two countries use newly gained tools and knowledge to achieve socially, environmentally and economically viable GHG mitigation in buildings to advance towards ZCBs.

Outputs:

? Output 2.1: Dialogue: In a total of 4 cities (2 in each selected country), stakeholders from the public and private sectors explore options to advance local action towards zero carbon buildings through dialogues facilitated by the project

To ensure inclusion of all relevant stakeholders, this output will begin by mapping relevant stakeholders to include in local building decarbonization activities, building on any existing BEA working groups if relevant, and including stakeholders for building energy efficiency, on-site renewable energy and off-site clean energy procurement. The project team will use this mapping as a starting point for invitation lists to kick-off workshops with local stakeholders to gather or share research and perspectives on how to advance local action towards ZCBs. Kick-off workshops will be followed by ongoing multi-stakeholder consultations or working groups discuss specific topics, strategies or activities and provide recommendations for priority local action on building decarbonization.

•Output 2.2: Assess: In 3 cities, appropriate methods to quantify social, environmental and economic costs and benefits of ZCB policies and investments are demonstrated to inform local government decisions

With support from the global project team, multi-stakeholder consultations or working groups will develop approaches for quantifying and projecting potential impacts. These working groups will work across national and city engagements within each country, aiming for aligned approaches in each focus country. The local leads will summarize and disseminate the methodology and results to the broader stakeholder group, including local and national stakeholder working groups.

• Output 2.3: Act: In 3 cities, policies and actions to move towards a decarbonized building sector are developed and adoption is initiated

With input from the multi-stakeholder consultations or working groups, at least 3 of the 4 deep engagement cities will develop detailed implementation plans for selected local actions on building decarbonization, including assessment of risks and barriers. Drafts of selected building decarbonization policies will be prepared with diverse stakeholder input, and adoption of the selected policies will be initiated in at least 3 of the 4 deep engagement cities in Colombia and Turkey.

•Output 2.4: Monitor: In 2 cities, innovative methods for monitoring progress are tested and lessons learned are provided to national ministries for future policy design

With support from the global project team, multi-stakeholder consultations or working groups (including local and national input) will develop methodology for city approaches to monitoring progress in at least 2 of the 4 deep engagement cities. Local leads will prepare and disseminate summarized methodology, results and lessons learned to broader stakeholder groups, including local and national stakeholder consultations or working groups.

•Output 2.5: Invest: In at least 2 cities, a business model for investing in ZCBs is developed in cooperation with at least one development bank and in consultation with the private sector

To complement the policy approaches of the deep engagement cities, multi-stakeholder consultations or working groups including development banks and private sector stakeholders will convene at least twice in at least 2 of the 4 deep engagement cities focusing on business models for investing in ZCBs. Summaries of recommended approaches for scaling up ZCB investment will be prepared and disseminated to the broader stakeholder groups, and the project team will develop an action plan for the approach that is agreed by consensus to be the most promising business model for investing in ZCBs.

Although ZCBs are clearly a new and challenging investment for the financial industry, work is under way globally, regionally, and locally to adapt and test business models for investment. The IFC is a close and consistent partner to the Zero Carbon Buildings for All work, primarily through their EDGE tool which certifies buildings and educates markets about decarbonizing buildings. Even as work continues with this critical tool, there is also an opportunity to move towards IFC investment lines in ZCBs. This project can also bring lessons from EBRD programs like TurSEFF and TUREEFF (referenced in the co-finance section in Part I, Section C) for learning and potential replication in other relevant regions like the Americas through engagement with IDB.

In addition, lead partners in-country have been discussing investment models with local and global private sector and multilateral financiers over the past year, and that work will continue in the new project.

Specifically, in Turkey, the team has seen interest from International Bank for Reconstruction and Development (IBRD), International Finance Corporation (IFC), European Investment Bank (EIB), European Bank of Regional Development (EBRD), KfW, and African Development Bank (AfD), primarily focused on credit lines and framework credits as well as loans and technical consulting for building efficiency and renewable energy investment. The World Bank also runs a public building investment program that operates in Turkey. More than a half dozen local banks have also been collaborating in discussions on loan terms, and there are local and regional ESCO companies offering technical consulting and financing should a business model be agreed upon. Many options are being investigated specifically by the SHURA Energy Transition Center; the team at WRI Turkey plans to build on these best practices and analyses specifically for building sector decarbonization.

In Colombia, the CCCS team has been building financial sector relationships to further energy efficiency goals in the building sector for years. Government banking entities, such as Bancoldex and Findeter, offer a portfolio of green credit options to the market, that have been available since 2019 and that are focused on energy and housing initiatives. Bancoldex offers special credit products for sustainable development and energy efficiency projects, which seeks to support the private sector in its initiatives aimed at reducing the use of non-renewable resources, reducing or recovering liquid and solid waste, reducing emissions and improving air quality. Findeter offers a green credit product focused on sustainable affordable housing projects, which need to receive technical and financial viability from the Colombian Ministry of Housing, City and Territory.

In addition, various commercial banks already have a sustainability work plan, designed in accordance with the expectations and needs of the market, that include sustainability initiatives and goals for their real estate assets. Currently, there are green credit benefits for construction projects in Bancolombia (since 2017), Davivienda (since 2017), and BBVA (since September 2020). These are currently the three banks in the country that offer credit lines with preferential rates aimed at builders and future buyers of green buildings. We expect the number of banks that offer these types of products to grow rapidly in next couple of years. As recently as early October 2020, Banco de Bogot? announced that it was going to offer this same type of benefit for sustainable construction projects, but the details of its products have not yet been shared. By mid-2020, Bancolombia has disbursed $244 million dollars in construction credits and $10 million dollars in credit for future buyers and Davivienda has disbursed a total of $68 million dollars. From BBVA there is no data yet.

According to data from the Financial Superintendency of Colombia, as of September 2020, green bonds issues in the country for projects that help mitigate climate change, which include the green building segment, already exceed $772 million dollars. This same entity has issued a Good Practice Guide for the issuance of green bonds in Colombia, which promotes principles of integrity,

transparency and disclosure, in accordance with the securities market in the country. They also issued Circular 028 of 2020, which is a normative on the subject, and that has the goal of including the recommendations of the Good Practice Guide within the national legal order.

Component 3: Pipelines of additional local and national governments for future scaling through platform-wide capacity building and technical assistance

Component 3 will focus on building pipelines of local and national governments seeking to catalyze decarbonization of the building sector beyond the countries and jurisdictions in components 1 and 2. This will include knowledge management and knowledge transfer products and activities. As in the first four years of the BEA partnership (focused on building energy efficiency), and with the increased ambition in this project to zero carbon buildings (incorporating the procurement of clean renewable energy), this is based on the premise that through public-private collaboration, markets can demonstrate accelerated market development, demonstrate support for broader national policies, and align market efforts with local and national energy and climate goals. Engaging national government ministries to be stewards for local action and encouraging early-stage national-local alignment and collaboration can increase the capacity and accelerate the pace of change at the local level.

In 2020-2022, this project aims to ready 60+ partner cities and countries from the BEA to increase their ambition in the building sector. In these pipelines of local and national governments, building efficiency ? the first critical step towards building decarbonization ? may remain the main focus for scaling up action to implement policies and projects in their jurisdictions. New tools, resources, and capacity supporting the procurement of clean renewable energy will be added to the slate of resources built by the BEA on building energy efficiency. In six of the 60+ local governments beyond the countries and jurisdictions in components 1 and 2, this project will work with the local governments to make public commitments towards zero carbon buildings targets. In three of these, this project will advocate the initiation of assessments on ZCB roadmaps including through the global partnership?s public-private coalitions.

For the 60+ local and national governments in the network, the platform will provide general support to define commitments and goals related to building decarbonization and to advance their progress through assessing, developing, implementing, and improving on their project and policy commitments, also drawing on work of global partners. The platform will assist all cities in assessing and prioritizing actions through technical assistance, decision support tools, peer exchange, and other technical resources. Where possible, in cooperation with global partners, support will also be available to all local and national governments that commit to the platform whether they are ?inspiring? governments

that have been pursuing building decarbonization and are leaders already, or ?aspiring? governments seeking to expand their sectoral focus and build capacity locally to implement and demonstrate action.

The platform will actively engage in knowledge management and knowledge transfer, especially by disseminating tools and resources focused on building energy efficiency created over the past 4 years ? including through training, regional workshops, webinars, case studies/best practice development, wherever possible in cooperation with other initiatives and partnerships ? while also filling gaps that appear given new city commitments, especially those beyond energy efficiency in buildings. Existing tools and resources include:

BEA playbooks on codes, retrofits, and energy performance targets ? These how-to guides, which will be living resources based on case studies from city action around the world, focus on three of the most common building efficiency topics on which local governments prioritize action.

Resource lists by working group topic ? Compilations of dozens of existing tools that are hosted and maintained by global partners are available with technical assistance as needed for city use. These resource lists are hosted on the C2E2 Knowledge Management Site.

Assisting city partners with action planning and prioritization, identifying and implementing programs ? The BEA developed two tool sets for prioritizing actions: an online stakeholder survey indicating the importance and urgency of different building efficiency policies and programs, and an in-person interactive exercise. The global partnership will use these tools and leverage partner expertise to deliver to cities a menu of options.

This project will build on these existing resources to revise templates and tools, and to streamline their delivery to cities based on past successes. This will help cities accelerate more quickly through the initial commitment stages to assessment and development.

Regional thematic, training and capacity building workshops will be planned and delivered to support city activities and share partner experiences. These workshops will be hosted with partner organizations as part of, or alongside, regional and global conferences and events. Following on the successful schedule of events in previous years, these regional events will occur 2-3 times each year on average.

To provide timely topical expertise and regularly engage and support all BEA cities, the team will host webinars at least every 2-3 months to provide real life work and experience from the perspectives of global partners and cities both within the BEA network, and beyond in liaison with other key initiatives. Focused technical assistance will also be provided on a limited basis to network cities leveraging expertise of global partners and bringing in local or global technical assistance organizations such as the U.S. DOE?s Better Buildings Challenge, PEEB, EBRD, and others to engage in technical discussions.

Outcome 3: National, subnational, and city governments, beyond those in components 1 and 2, advance actions towards zero carbon buildings.

Outputs:

•Output 3.1: Platform: The BEA global platform is enhanced in order to provide capacity building and technical assistance on ZCBs

To broaden the scope of technical assistance provided to city partners to the BEA global platform, the project will continue to update existing resource lists for building energy efficiency and will compile resource lists for city use on on-site renewable energy, off-site clean energy procurement, and use of carbon offsets as a short-term last resort. Resources will include case studies highlighting city action and national-subnational collaboration on zero carbon buildings, which the project team will compile from and disseminated across the global network. To make sure the lessons learned from the deep engagements at the national and city level are shared with the BEA global platform, the project team will create a publication highlighting these and hold webinars and, where relevant, in-person regional events to share this information (linked to GlobalABC regional meetings when possible).

•Output 3.2: Scale: Support provided through the global platform facilitates 6 additional city or subnational governments to make public commitments towards zero carbon buildings

To augment the impact of the deep city engagements, the project seeks to scale the good practices from those cities to facilitate additional subnational commitments towards ZCBs. The project team will hold webinars and in-person regional events to disseminate technical assistance to groups of cities and stakeholders on how to move towards ZCBs. Through these events and follow-up, 6 or more additional subnational governments will make public commitments toward zero carbon buildings.

•Output 3.3: Replicate: Support provided through the global platform enables 3 additional city or subnational governments to develop and initiate implementation of ZCB roadmaps

Beyond making commitments, this output seeks to support 3 subnational governments to develop roadmaps towards ZCBs and initiate their implementation. The project will develop written guidance for the scope and process for city or subnational government roadmaps to ZCBs. Subgrants are set aside to support at least 3 additional subnational governments to develop and begin implementation of ZCB roadmaps.

Project Timeline (tentative):

Pre-Implementation Preparation: September 2019 ? December 2020:

•September 2019: Project launch announcement and communications at UNSG Summit in New York.
•Engagement of global BEA partner organizations in development of comparative country and city opportunity assessment.
•Selection of 2 country engagements.
•Solicit applications for deep dive cities in high priority countries, including through nominations from global BEA partner organizations.
•Begin assessment of national policy baselines in preparation for national roadmap development.
•Initiate engagement of relevant national ministries including formal letters of support for the project.

Project Implementation:

Scale Up Initiated: February 2021 - September 2021

•February 2021: Project team meeting to launch expansion phase.
•February 2021: Selection of 4 deep dive cities within 2 country engagements
•Prior to project launch, selection criteria have been drafted and vetted with the Steering Committee and national partner ministries. Selection criteria are primarily based on executing and partners teams? experience with and expertise in success and impact factors for sustainable buildings projects like this one.
•Prior to project launch, expressions of interest have been sought from potential cities in each country
•Prior to project launch, potential cities have been vetted based on agreed-upon selection criteria, and summary memos generated.
•*After project launch*, potential cities with their performance against selection criteria will be reviewed, and recommended cities approved, by national advisory groups including the national ministries involved in the project.

•February -March2021: Local BEA partnership staff leader in place in 2 focus countries and 4 deep dive cities.
•March-June2021: Partnership formation in focus countries and deep dive cities ? stakeholder identification and engagement, multi-stakeholder kickoff workshop, city working groups formed.
•March-September2021: Regional and thematic training and capacity building activities initiated for the global network including kick-off webinars.
•August 2021:
•Local action and strategy recommendations made by deep dive city governments and other stakeholders by local working group in each new deep dive city. Related communications activities.
•National government engagement: development of roadmap and/or action plan underway.
•TBD 2021 (before COP26): At least 1 engaged national governments increases the ambition of their NDC for COP26.

Network and Deep Engagement Facilitation: October 2021 - September 2022

•October 2021 - September 2022:
•Deep dive cities move to implementation of recommendations, development and implementation of policies and projects.
•National governments move to identify and prioritize enabling policies and programs to accelerate transition to ZCBs.
•Regional and thematic training and capacity building activities underway, and likely countries and jurisdictions identified (beyond those in components 1 and 2) to make public commitments towards zero carbon buildings targets and to initiate assessments on ZCB roadmaps.
•January 2022:
•Project midterm assessment is undertaken of co-financing and sustainability plan for continuing efforts in-country after the end of the GEF project funding.

Project Wrap-Up: October- December 2022

•October - December 2022: Summary of lessons learned including sustainability plan for continuing efforts in-country after the end of the GEF project funding.
•December 2022: Project summary report completed and disseminated globally and nationally through BEA and deep dive city partners to policymakers, investors, and thought leaders.

4) Alignment with GEF Focal Area and/or Impact Program strategies

The GEF focal area of Climate Change Mitigation aims to support developing countries and economies in transition toward a low-carbon development path. This project is strongly aligned, as it aims to support developing countries and economies in transition, alongside local governments in those countries, to map their pathways and accelerate action towards a decarbonized building sector.

In addition, this project aligns with the Sustainable Cities Impact Program climate change mitigation strategy to demonstrate mitigation options with systemic impacts for sustainable cities. Through this project, cities demonstrate the feasibility of and political appetite for policies, programs, and pipelines toward Zero Carbon Buildings.

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

Many cities and countries have energy efficiency standards in place for buildings and various policies and incentives for clean renewable energy. However, few cities or countries employ an iterative process to review and revise their building codes together with emerging technology options for energy efficiency improvements, or consider the combined impacts of building energy efficiency and grid decarbonization on the overall emissions of the building sector.

This project aims to raise the bar on government ambition for action towards building decarbonization and provide countries and cities with feedback on the energy consumption and carbon emissions of their building sector. This will begin to allow them to compare building energy consumption and decarbonization patterns between regions and cities and allow national and local administrations to understand where there is room for improvement in energy consumption and decarbonization of their own buildings. This approach builds on the successes of the first two phases of the BEA from 2016-2019, expanding the scope from building efficiency (which remains a core element) to the more ambitious goal of building decarbonization.

The activities of this project are considered to be barrier removal activities. Construction companies and consumers bear the costs of building construction, while national and city administrations may

have an asymmetry of information and be uncertain as to how stringently they can set energy efficiency standards or renewable energy policies without driving up costs. The project will help national and city governments to calibrate their building standards and decarbonization practices with current best practices.

In the *National Snapshots* section beginning on Page 20 in Section 2, we outline the existing and dynamic baseline in the two focus countries. Below is an accounting of activities already included in the baseline, completed before project launch in part from project in-kind.

The baseline for Turkey going into this project?s launch includes the following activities:

? Content of draft Letter of Intent was prepared and presented to the Ministry of Environment and Natural Resources.

? Signature process by GEF Focal point was followed up and completed.

? Meeting with Dr. O?uz Can, Director of Energy Efficiency and Environment, Department at Ministry of Environment and Natural Resources, was held to discuss the involvement and potential role of the Ministry in the project.

? Meeting with Mr. Oran Solak, Director of Climate and Adaptation Department, Ministry of Environment and Urbanization, was held to discuss the involvement and potential role of the Ministry in the project.

? Meeting with Mr. Murat Bayram and his team, Director of Energy Efficiency, Ministry of Environment and Urbanization, was held to discuss the involvement and potential role of the Ministry in the project.

? Stakeholder list was prepared to identify key stakeholders who could contribute to the success of the project.

? Library of policy documents was prepared and documents were reviewed

? Potential project activities were discussed internally and with ministry contacts.

? Deep dive city application form was prepared

? Deep dive city selection criteria were set up

? Meetings were held with Metropolitan Municipalities of Sakarya, Bursa, ?zmir, ?stanbul, Eski?ehir, Gaziantep, Konya, Kayseri to share information on Deep Dive opportunities for this project.

? Project information materials were translated to Turkish and provided to candidate cities

? Application forms submitted by 7 candidate cities were reviewed

? The Zero Carbon Buildings for All project, implemented through the BEA, was announced at the Livable Cities Symposium where Mr. O?uz Can, Director of Energy Efficiency and Environment, Department at Ministry of Environment and Natural Resources, presented near zero energy buildings targets of the ministry.

The baseline for Colombia going into this project?s launch includes the following activities:

? Dialogue and commitment to the project at the national level from the Ministry of Environment and Sustainable development, Ministry of Housing and Territory, Ministry of Energy and Mines, Ministry of Commerce, Industry, and Tourism, Department of National Planning, and Colombia Chamber of Construction.

? Dialogue and commitment to the project in Bogot? from the Secretary of Planning, Secretary of Environment, Secretary of Habitat.

? Dialogue and commitment to the project in Cali from the Department of Planning, Department of Environment, and Department of Interior.

? State of the art of energy efficiency and net zero codes at local level

? Assessment of the national public policy baseline covering initiatives, strategies and regulation from the Ministry of Environment and Sustainable Development, Ministry of Housing and Territory, Ministry of Energy and Mines, Ministry of Commerce, Industry, and Tourism, Department of National Planning.

The actions above will enable the project to start with momentum and grounding in the national and local policy landscape. This project will contribute to a variety of local and national long-term planning exercises. In addition to providing a path forward to Colombia?s and Turkey?s building and construction communities, the program will help cities facing financial difficulties (pre- and post-COVID) to prepare for decarbonization project investment by financial institutions and will engage in other important capacity development. The program will also help the country and cities to plan for the implementation and improvement of existing building sector policies as outlined above.

6) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)

The project results in a total ?Direct GHG emissions savings? of 7,099,211 tCO2 during the project (2021-2022) and in the 20 years following project completion (2023-2042). National commitments account for 6,037,562 tCO2, new city strategies separately contribute 395,032 tCO2 and continuing city strategies contribute an additional 666,617 tCO2.The following paragraphs describe the methodology that was used in the calculations of GHG emissions reduction. In keeping with our conservative assumptions, estimates of ?Indirect Bottom-up Emission Savings? are not included.

Direct GHG Emission Savings

The benefits of all components of the project with quantifiable impacts are calculated using the GEF methodology for Demonstration and Diffusion projects with deep engagement national or city government jurisdictions as the units of analysis. These choices were made because the specific building decarbonization strategies implemented in each jurisdiction will vary considerably. Separate calculations are made to estimate benefits for two major quantifiable components of the project: 1) *National commitments and roadmaps towards zero carbon buildings policies* and 2) *City strategies towards net zero carbon building implementation*. However, the methods for each are identical except for two variations: (1) the level of carbon savings achieved by national versus local governments taking action and (2) the population impacted by those actions.

In this emissions savings calculation, we are not considering additional emissions savings in 2020-2022 from the broader global network of national and city governments convened by the Building Efficiency Accelerator that continue to progress on their building efficiency and decarbonization actions as implemented through Component 3, *Pipelines of additional local and national governments for future scaling through platform-wide capacity building and technical assistance*.

The general assumptions are:

? Policies or roadmaps, as described in outputs 1.3, 1.4 and 2.3, are adopted by relevant national or city governments within the 24-month timeframe of the project.

? Project outcomes include targets that 100% of the national engagement countries (2 countries) and 75% of the deep engagement cities (1 of 2 new cities and 2 of 2 continuing cities) will advance one or more building decarbonization action (policies, programs or projects).

? Half of the urban areas in each country are expected to be impacted by national engagements in this project. Total populations and percent of population in urban areas were obtained for each country

and used in the calculation: Colombia 49.6 mill (81% urban) and Turkey 82.3 mil (75% urban) (2018, UN Population Division).

? An average city population of 2 million within municipal boundaries (counting only the jurisdictional population, not the larger urban area). This is a rough, conservative average size for the types of cities expected to be the focus of the city engagements. For comparison, the average population of current and likely BEA partner cities in Colombia and Turkey is 2.9 million.

? The electricity consumption in buildings per capita for each national urban area and each city matches the average for the country as a whole: 788 kWh/yr/capita for Colombia and 1,512 kWh/yr/capita for Turkey (calculated from 2017 statistics from IEA).

? As a result of the national strategies (Component 1) implemented in participating countries taking actions, the project assumes that, compared to business as usual, deep engagement countries will achieve a 1% reduction in building electricity-related GHG emissions in one-half of urban areas through demand (e.g. efficiency, demand response, storage) or supply (clean energy generation or purchase) interventions. This estimate is based on an approximation of the energy savings achievable annually through implementation of a basic building energy code in new construction. Although the national strategies will include roadmaps to full decarbonization of the building sector, the actions taken within an approximately 24-month engagement will not encompass full decarbonization of the sector but rather initial steps to get there. Business as usual assumes that 10% of the GHG saving activities in the jurisdictions would have happened without the project interventions. No national GHG savings were attributed to previous GEF investments in the BEA.

? As a result of the city strategies (Component 2) implemented in a participating city taking actions, the project assumes that, compared to business as usual, one of the two newly engaged cities will achieve an additional 2% reduction in building electricity-related GHG emissions through demand (e.g., efficiency, demand response, storage) or supply (clean energy generation or purchase) interventions. These savings are additional to the savings estimated for Component 1. Component 1 counts savings from national plans and policies, but are estimated considering only half of the urban area of the country. Given that no two potential cities in either country account for more than half of the total urban area, this makes it impossible to double-count between Components 1 and 2. Component 2 counts savings from additional city plans, programs and policies that result in better than average implementation of national policies and/or implementation of additional sub-national policies. The two continuing-engagement cities will achieve an additional 1.5% reduction in building electricity-related GHG emissions additional to savings already accrued from previous GEF investments due to additional action adoption and implementation in the new project period. These assumptions represent an average of savings that would result even with variations in the specific policies and actions implemented in each city. It is based on a basic building energy code combined with one or more additional decarbonization actions. Business as usual assumes that 10% (the GEF default) of the GHG saving activities in the jurisdictions would have happened without project interventions and are counted as part of the baseline.

? For actions in national and new city engagements that begin implementation by the end of our 24-month engagements, GHG savings will start accruing in 2022 and have a lifetime of 20 years (based

on the default GEF assumption). For continuing city engagements, savings will start accruing in 2021. These savings are accounted to begin accruing after the first or second year of the project due to the lag time between policy adoption and implementation, and from demonstration project initiation to completion. However, based on the design of the GEF tool these savings are not dynamically calculated to grow over time as policies are implemented in additional buildings and savings accumulate over time; instead they are constant for each of the 20 years.

7) Innovativeness, sustainability and potential for scaling up

Two levels of alignment are critical for successful building sector decarbonization: 1) removing barriers to help align markets and policy goals, and 2) leveraging ambitious national initiatives and coordination with local action, including bringing funding from national governments to city action in alignment with national priorities, funding and support.

Since 2016, the BEA has focused on the first of these levels of alignment. Through public-private collaboration in local markets, the project helps the market function more effectively and encourages private investment. This has been successful in BEA partner cities, and the project will continue this approach in 2020-2022 to build a broader set of cities that can be inspirational leaders to peer cities in national, regional, and global settings.

In 2018, the BEA began piloting an innovative approach to support the second level of alignment: supporting ambitious national initiatives to align national priorities and local action. National engagement brings a new scalability to the BEA to complement the local-level leadership that was built in the first phase. Leading cities taking action on building efficiency can work with the national government to develop policies and programs that in turn help other cities within the country to accelerate the pace and ambition of their work on building efficiency. The national governments become change agents, with BEA cities as key advisors regarding what elements are needed in national policy to address local government barriers and needs. Some of these needs include financing and pre-feasibility support, along with technical programs and tools that supplement city capacity on building energy code implementation, benchmarking, and procurement.

In 2020, this project seeks to increase the ambition of both levels of alignment. Rather than focus only on building energy efficiency, raising the ambition to zero carbon buildings enables the team to build on the successful models of the BEA and increase the impact of action over time from stepwise improvement to sector decarbonization. The theory of change remains the same that has been proven over the last 4 years, but the impact increases as cities and countries build on the critical first steps of energy efficiency actions to achieve decarbonization of the building sector.

Policy updates at the local and national levels take time, and the BEA aims to reinforce the benefits of building efficiency and decarbonization programs and policies to sustain momentum. By bringing together diverse stakeholders, we can consolidate and facilitate a common vision and goals within each local or national stakeholder coalition. No single stakeholder is responsible for moving the program forward ? all have some accountability ? and this collective action model helps build towards sustained action.

By scaling up to actively work with a higher level of ambition on both elements of this theory of change?aligning local markets and policy goals, and aligning and engaging national governments with local action?the NZCBs for All work plan is also designed to feed into GEF7 programming. The BEA has a track record as an active global partnership successfully working with cities for 5 years and with national governments and on local-national government alignment for 3 years to accelerate the pace and ambition of local action on buildings. Working with other partnerships, connections to other GEF projects and programmes will be sought, particularly the Global Platform for Sustainable Cities of the GEF-7 Impact Programme on Sustainable Cities.

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[1] International Energy Agency and UN Environment Programme (2018): Global Alliance for Buildings and Construction 2018 Global Status Report Towards a zero-emission, efficient and resilient buildings and construction sector

[2] Tracking Progress of the 2020 Climate Turning Point, 2019, World Resources Institute

[3] IEA ?Tracking Clean Energy Progress? 2019 https://www.iea.org/tcep/buildings/

[4] Ibid.

[5] Global GHG Cost Curve V2.1 beyond BAU ? 2030 by McKinsey & Company

[6] WorldGBC, PRP, Skanska, Grosvenor, Estidama ?The Business Case for Green Buildings?, 2013

[7] Green and low-carbon buildings even help manage mitigation-adaptation tradeoffs, especially in rapidly growing cities. Urban density, for instance, increases the efficiency of urban energy use and

thus reduces power related GHG emissions, but simultaneously worsens urban heat island effects and surface runoff conditions (Gill et al. 2007).

[8] World Bank Energy Sector Management Assistance Program 2019

[9] The full set of 11 criteria are: **Geographic and Climate Diversity:** (1) In a GEF eligible country; (2) Geographic and city size diversity; (3) Feasible energy and emissions savings; **Political Will & BEA Capacity:** (4) Political commitment by the local government leadership, and a political term of the chief executive that will endure 2 years; (5) Ready for ?acceleration? - pre-existing local assessments; (6) A BEA partner present in the city/region to act as local lead to provide staff and facilitate planning and implementation process; (7) Local presence of other BEA partners and opportunities to link city priorities with partner offers for joint local delivery; (8) Support from national government for locality to engage in the BEA (including alignment with national priorities in NDC); (9) In-kind or existing local government administrative staff or resources to be leveraged; **Influence and Replicability:** (10) Possibility for replication by other cities/influence; (11) Opportunities to leverage the broader SEforALL Accelerator Platform, including with city partnership in other Accelerators (e.g., District Energy in Cities Initiative).

[10] A web-based beta version of the tool is available online at: https://better.lbl.gov/

[11] IEA and United Nations Environment Programme, (2018): Global Alliance for Buildings and Construction 2018, Global Status Report: Towards a zero-emission, efficient and resilient buildings and construction sector.

[12] 2019 World Energy Investment, International Energy Agency, https://www.iea.org/wei2019/end-use/

[13] International Energy Agency and UN Environment Programme (2018): Global Alliance for Buildings and Construction 2018 Global Status Report Towards a zero-emission, efficient and resilient buildings and construction sector

[14] Ibid

[15] Zero Energy Building Definitions and Policy Activity: An International Review. International Partnership for Energy Efficiency Cooperation Building Energy Efficiency Taskgroup, 2018.

[16] Accelerating Building Decarbonization: Eight Attainable Pathways to Net Zero Carbon Buildings. September 2019. World Resources Institute

[17] Global Call for Low-carbon, Energy-efficient and Resilient Buildings. Clean Energy Ministerial and Global Alliance for Buildings and Construction, 2018.

[18] Energy Efficiency 2018: Analysis and Outlooks to 2040. International Energy Agency, 2018

[19] From Thousands to Billions: Coordinated Action towards 100% Net Zero Carbon Buildings By 2050. World Green Building Council, 2017.

[20] Case study available at: https://www.wri.org/blog/2018/11/unlocking-climate-action-bogota-city-hall-presidents-desk-and-back-again

[21] Case study available at: https://www.wri.org/our-work/top-outcome/mexico-and-mexico-city-introduce-energy-efficiency-standards-buildings

[22] Case study available at: http://wrirosscities.org/news/eskisehir-turkey-building-efficiency-accelerator-deep-dive

[23] https://www.globalabc.org/about-gabc/work-area/measurement.

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

This is a global project to be funded through the GEF?s global set aside allocation. The countries of focus engagement have been selected, and deep engagement cities will be confirmed in the first month of the project.

Countries/Cities	***Latitude***	***Longitude***
Colombia	*4.5709? N*	*74.2973? W*
Turkey	*38.9637? N*	*35.2433? E*

1c. Child Project?

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

Not applicable.

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations Yes

Indigenous Peoples and Local Communities

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

World Resources Institute (WRI), a global think tank working at the nexus of environment, economic opportunity and human well-being focused on delivering ?ideas into action?, and WRI Ross Center for Sustainable Cities, WRI?s global program working in cities around the world on cross-cutting urban issues, act as the coordinating partner of the BEA. As the managing partner for the BEA, WRI is tasked with facilitating effective engagement among partners to the BEA and leveraging their research, market

presence and engagement, and convening power to address problems in cities around the world through building efficiency solutions.

This project builds on a broad and deep partnership of policymakers, technology supply companies, technical support organizations, associations, and international institutions. The partners each bring their networks and knowledge and act together in a ?learning by doing? model to accelerate action, building efficiency policy commitment and project implementation efforts. Partners to the Building Efficiency Accelerator participate through global engagement and technical assistance as well as participation in deep dive city or national engagements through working groups, workshops, and stakeholder consultations. Additional stakeholders participate in local partnerships in current and prospective network cities.

Many partners are also active members of the Global Alliance for Buildings and Construction. The GlobalABC gathers governments, private sector and international organisations globally and focuses on raising ambitions to meet the Paris climate goals and mobilizing all actors along the value chain to move towards zero-emission, efficient and resilient buildings and construction. Through regional roadmap development and tools, such as the guidance on how to incorporate buildings and construction in NDCs, GlobalABC provides support to governments and facilitates a common vision and language through mutli-stakeholder engagement. Given the critical importance of connecting city action with these national goals, and given the focus of this project on implementation activities, this project is a complementary and integral part of the GlobalABC.

Partners offer specific expertise and activities to support the partnership. These offers range from the International Finance Corporation?s training and technical assistance using the EDGE tool to Green Building Councils? green certification criteria, to ICLEI?s municipal procurement guidance documents. Each partner brings its offer and geographical market knowledge to the benefit of the team and to the cities where the BEA partnership collectively works. World Green Building Council, ICLEI, WRI, GBPN, C40, and national Green Building Councils are all organizations that also have relationships or staff in multiple emerging economies and rapidly growing urban areas, enabling the development of customized engagements that match the needs of local or national stakeholders and competencies of partners. UNEP is a non-resident agency but can leverage its relationships with all UN member countries as well as the UN Country Teams, as well as other projects that have a buildings and construction angle. In addition, in Colombia, UN-Habitat promotes sustainable urban development through technical assistance focused on the design, implementation and evaluation of urban public policies and urban planning instruments, which is closely linked to Colombia?s work on sustainable buildings. In addition to relying on partner networks, this project will continue to work with Sustainable Energy for All teams and the UN Environment-DTU (Danmarks Tekniske Universitet, Technical University of Denmark) Copenhagen Centre for Energy Efficiency (C2E2) in support of engagement for network and deep dive engagements.

Stakeholder main group	**Stakeholder name**	**Existing activities with** **potential to be leveraged**	**Content engagement, contributions to the project (identified by Component)**
NGO	Alliance to Save Energy (ASE)	- As the organizer of the annual Energy Efficiency Global (EE Global) Forum, ASE will support the ZCBs for All project?s outreach and engagement with partners at the global level at this and other - ASE?s thought leadership on energy efficiency worldwide will be a valuable contribution to the project?s strategic planning.	Component 3: Capacity building and technical assistance for the global network
Municipality	Bogot?, Colombia	Ongoing project and policy work through the BEA platform	Component 1: Input to national dialogue from city perspective Component 2: Likely deep engagement city

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component)
NGO	Buildings Performance Institute Europe (BPIE)	BPIE will primarily assist as an expert resource on building performance, including tools and resources, policy mechanisms, and information on building efficiency stakeholders. It will leverage its open source research, analysis, knowledge-sharing and advisory activities to the European Institutions, policy makers in European Union (EU) Member States and neighboring countries, the research community as well as private sector stakeholders and the civil society on specific focus areas: - Renovating the EU building stock - Buildings data - Supporting policies and instruments BPIE is also prepared to leverage the following ongoing activities: - Building efficiency topics and policy implementation. - Monitoring of implementation of building efficiency related policies in Europe; documentation of successful initiatives in case studies for distribution. - Provision of existing resources and tools on BPIE website. - Publish concise reports and fact sheets on a variety of building efficiency topics.	Component 1: Aligned analysis and programs focusing in Turkey Component 3: Capacity building and technical assistance for the global network

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component)
NGO	Business Council for Sustainable Energy (BCSE)	BCSE is very engaged in UNFCCC processes and can support the local-national alignment and NDC discussions. BCSE will leverage its business and government network to expand BEA Partnership, assist cities in engaging stakeholders in local action, and develop and share market research.	Component 1: National government engagement in UNFCCC process and NDCs Component 3: Capacity building and technical assistance for the global network
NGO	C40 Cities Climate Leadership Group	Within the partnership, C40 Cities will leverage their network of climate stakeholders in cities worldwide to expand and strengthen the BEA Partnership and assist with local engagement, information sharing, and stakeholder engagement.	Components 2 and 3: Shared learning on city pathways to ZCBs
Municipality	Cali, Colombia	Ongoing project and policy work through the BEA platform	Component 1: Input to national dialogue from city perspective Component 2: Potential deep engagement city
NGO	CEDBIK-Green Building Council Turkey	Building sector expertise and network of private building sector stakeholders across Turkey	Components 1, 2, and 3: Contributing partner across all work in Turkey
NGO	Colombia Green Building Council (Consejo Colombiano de Construcci?n Sostenible, CCCS)	Building sector expertise and network of private building sector stakeholders across Colombia. Lead for BEA deep-dive cities Bogot?, Cali, and Monter?a, and for national engagement in Colombia	Components 1, 2, and 3: Leading partner for all work in Colombia

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component)
NGO	Copenhagen Centre on Energy Efficiency (C2E2)	C2E2?s activities as the coordinating platform of the SEforALL Global Energy Efficiency Accelerators include: - Capacity building in developing countries - Selected technical assistance projects - Private sector engagement and partner recruitment - Coordination and fostering of synergies with other sector Accelerators under SEforALL - Promotion and communication of BEA activities - Championing energy efficiency	Component 3: Capacity building and technical assistance for the global network
Private Sector	Danfoss	Danfoss will assist with technical expertise and manages the District Energy in Cities Initiative (DES), with which the BEA partners in several partner jurisdictions. - Danfoss is an active participant in the local BEA platform in Turkey - Global energy-saving program at Danfoss - Co-chair of the District Energy in Cities Initiative of SEforALL - Danfoss collaborates with the BEA in DES-BEA jurisdictions	Components 1, 2 and 3: Contributing partner to work in Turkey and for capacity building and technical assistance for the global network

Stakeholder main group	**Stakeholder name**	**Existing activities with** **potential to be leveraged**	**Content engagement, contributions to the project (identified by Component)**
Municipality	Eski?ehir, Turkey	Ongoing project and policy work through the BEA platform	Component 1: Input to national dialogue from city perspective Component 2: Likely deep engagement city
Financial Institution	European Investment Bank (EIB)	Currently lending in Turkey on water resource usage.	Component 1: Potential participant in national roadmap in Turkey Component 2: Explore business models for investing in ZCBs in Turkey

Stakeholder main group	**Stakeholder name**	**Existing activities with** **potential to be leveraged**	**Content engagement, contributions to the project (identified by Component)**
Financial Institution	European Bank for Reconstruction and Development (EBRD)	Work in Turkey focuses on strengthening financial resilience, fostering the knowledge economy, promoting inclusion and accelerating the shift to the green economy. The Turkey Sustainable Energy Financing Facility, TurSEFF, is a programme developed to provide financing for Sustainable Energy and Resource Efficiency investments in the public and private sectors. A team of local and international experts provide support to help prospective borrowers identify and develop Sustainable Energy and Resource Efficiency sub-projects and prepare successful loan or lease applications under TurSEFF TuREEFF (Turkish Residential Energy Efficiency Financing Facility) is a programme developed by the EBRD. A team of local and international experts provides support to help prospective borrowers identify and develop Energy Efficiency Sub-projects and prepare successful loan applications under TuREEFF.	Component 1: Potential participant in national roadmap in Turkey Component 2: Explore business models for investing in ZCBs in Turkey
Private Sector	ERKE	ERKE Sustainable Building Design and Consultancy providing green building consultancy, product sustainability and corporate sustainability services, mechanical, electrical and environmental engineers.	Components 1 and 2: Contributing partner to work in Turkey
NGO	Fondo Acci?n	Provide technical support for Monitoring, Reporting and Verification system with the partnership with CCCS in Colombia during 2020.	Component 2: Technical assistance to Colombian cities

Stakeholder main group	**Stakeholder name**	**Existing activities with** **potential to be leveraged**	**Content engagement, contributions to the project (identified by Component)**
Private Sector	Gensler	Worked with Bogot? city officials to create a roadmap for a sustainable and inclusive Community Center Initiative. Ongoing projects (including Istanbul Financial Center) in Turkey. Gensler is recommending all of their clients build or retrofit to meet net zero carbon standards.	Components 2 and 3: Technical assistance to Colombian cities, and capacity building and technical assistance for the global network
Financial Institution	GIZ (Turkey)	The DKTI Programme for Energy Efficiency in Public Buildings in Turkey has been led by the Ministry of Environment and Urbanisation (MoEU) from 2014 ? 2020.	Component 1: Potential participant in national roadmap in Turkey Component 3: Capacity building and technical assistance for the global network
NGO	Global Buildings Performance Network (GBPN)	Activities to be leveraged: GBPN?s global network will provide policy and technical expertise assisting cities with tools for assessing, measuring, and improving building performance, accessing financing, and designing building codes. GBPN?s Global Knowledge Platform includes: - Policy tool for renovation - Policy tool for new buildings - Building energy performance scenarios - IPEEC & Major Economies Forum Building Energy Codes Portal and network of energy code experts from 23 countries.	Component 3: Capacity building and technical assistance for the global network

Stakeholder main group	**Stakeholder name**	**Existing activities with** **potential to be leveraged**	**Content engagement, contributions to the project (identified by Component)**
Financial Institution	Inter-American Development Bank (IDB)	The IDB Group's Strategy with Colombia 2019-2022 is structured in three strategic pillars: (i) increase the productivity of the economy; (ii) improve the effectiveness of public management; and (iii) promote social mobility and consolidate the middle class.	Component 1: Potential participant in national roadmap in Colombia Component 2: Explore business models for investing in ZCBs in Colombia

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component)
NGO	ICLEI- Local Governments for Sustainability	ICLEI?s many relevant tools and knowledge resources include: Tools and Common Metrics - carbonn? Climate Registry (cCR) ? reporting platform for local and subnational governments, also supporting vertically integrated reporting - ClearPath? energy and emissions management ? online software platform - Solutions Gateway ? Low Carbon Solutions for Urban Development Challenges (guidance to local governments) - 100% Renewable Energy (RE) Cities and Regions Network ? indicators - V-NAMA guidance on vertical integration Sustainability & Low Carbon Planning Support - GreenClimateCities Program ? climate planning process methodology - Promoting Low Emission Urban Development Strategies in Emerging Economy Countries (Urban LEDS) Global Advocacy - ICLEI is the focal point of the Local Government and Municipal Authorities (LGMA) constituency at the UNFCCC - Local Governments Climate Roadmap - Transformative Actions Program (TAP)	Component 3: Capacity building and technical assistance for the global network

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component)
Financial Institution	(Denmark) Investment Fund for Developing Countries (IFU)	IFU has an office in Bogot? and has signed a EUR 15 million loan agreement with LM Wind Power Turkey AS to finance the construction of a new LM Wind Power blade manufacturing plant in Bergama, Turkey.	Components 1 and 2: Potential participant in national roadmaps and to explore business models for investing in ZCBs
Private Sector	Ingersoll Rand	Center for Energy Efficiency and Sustainability (CEES) ? launched in 2010 to drive energy efficiency in the built environment, our products & services, and our facilities. Climate Commitment at Clinton Global Initiative: - 50% reduction in GHG refrigerant footprint of products by 2020 - $500 MM investment in product R&D over next five years to fund long-term GHG emission reductions - 35% reduction in GHG footprint of the company?s office buildings, manufacturing facilities and fleet by 2020.	Components 2 and 3: Research on city pathways to ZCBs, and capacity building and technical assistance for the global network
Multilateral	International Energy Agency	IEA?s Energy Efficiency in the Emerging Economies (E4) program is a global leader in building energy data, tracking progress, and energy efficiency training. The E4 program?s buildings and cities activities include roadmaps, training and implementation. The IEA Global Exchange has capacity to track and share information globally on energy policies and projects.	Components 1 and 3: Participant in national roadmap guidance and development, and capacity building and technical assistance for the global network

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component)
Financial Institution	International Finance Corporation ? Excellence in Design for Greater Efficiencies (EDGE) Program	The EDGE Program primarily manages the EDGE tool, which is used for green building design in more than 100 countries, and which can be used by project focus countries, cities, and BEA cities in building efficiency project planning and implementation.	Components 1 and 2: Support for city use of EDGE, education of stakeholders, and technical training and capacity building of local technical experts
Financial Institution	ILBANK	ILBANK is a state-owned development and investment bank subordinated to the Ministry of Environment and Urbanization. Its main objective is to meet the financing needs of special provincial authorities, municipalities and their affiliated organizations and to provide such administrations with consultancy services and assistance on urban projects of a technical nature.	Components 1 and 2: Participant in national roadmap and explore business models for investing in ZCBs in Turkey
Private Sector	Johnson Controls	Institute for Building Efficiency integrated with WRI Building Efficiency Initiative in 2014. ? Other areas of technical expertise: ? Building Controls ? HVAC systems ? Systems Integration ? District Energy Systems ? Public-Private Partnerships (P3) ? Energy Performance Contracting ? Project Preparation ? Private Sector Engagement	Component 3: Capacity building and technical assistance for the global network

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component)
Civil Society	Lawrence Berkeley National Laboratory (LBNL)	? BETTER tool ? U.S.-China Clean Energy Research Center ? Building Energy Efficiency	Components 2 and 3: Research on city pathways to ZCBs, especially for renovations and targets for existing buildings, and capacity building and technical assistance for the global network
Public Sector ? Colombia	Ministry of Environment and Sustainable Development	? Get support with the stakeholders to advance on net zero carbon buildings action. ? Enabling policy with other national government entities to commit to Net Zero Carbon buildings at the public level.	Component 1: Critical partner in developing and implementing national roadmap in Colombia
Public Sector ? Colombia	Ministry of Housing	Leads implementation of building efficiency regulations	Component 1: Critical partner in developing and implementing national roadmap in Colombia
Public Sector ? Colombia	Unidad de Planeaci?n Minero Energ?tica	Be included as one of the sectorial actions for the compliance of the NDCs and get support with other governments entities to achieve NZCB.	Component 1: Important partner in developing and implementing national roadmap in Colombia
Public Sector ? Turkey	Ministry of Urbanization and Environment	Develop agenda for buildings and climate policy	Component 1: Critical partner in developing national roadmap in Turkey
Public Sector ? Turkey	Ministry of Energy and Natural Resources	Contribute to agenda-setting and lead implementation of buildings and climate policy	Component 1: Critical partner in developing national roadmap in Turkey

Stakeholder main group	**Stakeholder name**	**Existing activities with potential to be leveraged**	**Content engagement, contributions to the project (identified by Component)**
Municipality	Monter?a, Colombia	Ongoing project and policy work through the BEA platform	Component 1: Input to national dialogue from city perspective Component 2: Potential deep engagement city
Civil Society	Pacific Northwest National Laboratory (PNNL)	PNNL has significant expertise on building energy codes. PNNL leadership supports the development and deployment of stronger building energy codes with a focus on adoption, implementation and enforcement. In addition, PNNL leads several market transformation projects as well as technology demonstrations and deployment projects. Through a suite of projects, PNNL helps speed the adoption and implementation of building energy codes and the deployment of energy-efficient technologies to a wide range of stakeholders.	Components 1, 2 and 3: Expertise and technical assistance on building codes at the national and city/subnational level
Private Sector	Saint-Gobain	Technical expertise in: ? Energy Efficiency Solutions ? Multi-comfort construction ? Multi-comfort renovation ? Interior solutions ? Energy efficiency consulting	Component 3: Capacity building and technical assistance for the global network
Private Sector	Schneider Electric	Energy University: A free, online educational sources on energy efficiency and data center topics to help identify, implement, and monitor efficiency improvements within the organization.	Component 3: Capacity building and technical assistance for the global network

Stakeholder main group	**Stakeholder name**	**Existing activities with potential to be leveraged**	**Content engagement, contributions to the project (identified by Component)**
Private Sector	Signify	-Develop off-grid (solar-LED) lighting solutions for cities, homes and buildings -Improve the energy efficiency of its entire products and solutions portfolio by 50% in 2015 (compared to 2009)	Component 3: Capacity building and technical assistance for the global network
Civil Society	SKD -BCSD TURKEY	BCSD Turkey is the local network and partner of World Business Council for Sustainable Development (WBCSD) in Turkey, and it is in a strong cooperation with its parent organization. The Council shares knowledge on sustainability with its members and stakeholders through the activities of its working groups.	Components 1 and 2: Contributing partner to work in Turkey

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component)
IGO	UN Environment Programme District Energy in Cities Initiative Global Alliance for Buildings and Construction	UNEP?s role in several SEforALL Energy Efficiency Accelerators, particularly the District Energy in Cities Initiative and United for Efficiency, will be helpful to assist in platform coordination and collaboration. As the Secretariat of the Global Alliance for Buildings and Construction, UNEP coordinates global work on buildings roadmapping and incorporation of buildings targets and ambition in NDCs. These two areas of expertise in particular are focus areas this project will seek to leverage. Activities to be leveraged: - Global Alliance for Buildings and Construction - UN Environment Sustainable Buildings and Climate Initiative (SBCI) - Sustainable Social Housing Initiative (SUSHI) - 10-Year Framework of Programmes for Sustainable Consumption and Production ? One Planet Network Sustainable Buildings and Construction Co-Lead - The Sustainable Public Procurement guidance documents and materials - GEF-7 Sustainable Cities Impact Programme, for which UNEP is the lead agency.	Components 1 and 3: Participant in national roadmap guidance and development, and capacity building and technical assistance for the global network

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component)
IGO	UN-Habitat	In Colombia, the United Nations Human Settlements Program, UN-Habitat Andean Countries HUB promotes sustainable urban development. Its purpose is to technically assist national and territorial governments and other social and academic actors with actions focused on the design, implementation and evaluation of urban public policies and urban planning instruments, using the best practices and knowledge accumulated in the country and in other parts of the world. UN Habitat?s global work on energy also focuses largely on urban development and sustainable building design, training, and curriculum development ? with a global focus, and particularly in Africa.	Components 2 and 3: Contributing partner to city work in Colombia, and capacity building and technical assistance for the global network
NGO	US Green Building Council (USGBC)	USGBC?s network of LEED professionals and library of resources on building efficiency projects will assist the project by helping cities design projects and access reliably advising and technical assistance. - Membership community of 12,387 organizations (LEED proven providers, education partners, etc.) - Network of LEED professionals in the world - Database of 80,250 registered and certified LEED projects in the world	Component 3: Capacity building and technical assistance for the global network

Stakeholder main group	**Stakeholder name**	**Existing activities with potential to be leveraged**	**Content engagement, contributions to the project (identified by Component)**
Utilities ? Colombia	Utilities include: ? Codensa (Bogot?) ? Empresa de acueducto de Bogot? (Bogot?) ? Electricaribe (Monter?a) ? Veolia (Monter?a) ? Cali (Emcali)	? Get real data from them in order to understand the real Baseline and define real targets for energy efficiency. ? Develop pilots with new technologies that in some cases they have. ? Develop possible incentives for savings and better practices. ? Develop strategies to improve efficiency in the services.	Components 1 and 2: Contributing partner to work in Colombia

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component)
Financial Institution	World Bank Group, Energy Sector Management Assistance Program (ESMAP)	ESMAP will contribute to the project as primarily a source of technical expertise and training assistance, and a source of and platform for knowledge transfer. ESMAP?s report, ?Integrating Gender Considerations into Energy Projects,? will be a key resource in ensuring BEA projects contribute to welfare of all. ESMAP also hosts a ?Gender & Energy? online forum, which BEA partners can access to discover tools and resources on gender considerations in the energy sector. ESMAP also has experience working on energy efficiency in Turkey that will be a useful resource for this project. Services: - Technical assistance and policy advice Knowledge products and knowledge exchange Focus areas: - Clean Energy - Energy Access - Energy Efficient Cities - Energy Assessment and Strategies	Components 1 and 3: Potential participant in national roadmaps, and capacity building and technical assistance for the global network

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component)
NGO	World Business Council for Sustainable Development (WBCSD)	Energy Efficiency in Buildings (EEB)2.0 project: WBCSD?s EEB community and Energy Efficiency Toolkit cam help the BEA Partnership to leverage the private sector?s commitment to and expertise in energy efficiency. In particular markets, WBCSD has laid the groundwork for energy efficiency scale-up and will continue to serve a key role in the local engagement process. Its tools will be available to this project and BEA cities in use for action planning. WBCSD will assist the partnership to recruit and work with private sector companies in various regions.	Component 3: Capacity building and technical assistance for the global network

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component)
NGO	World Green Building Council (WorldGBC)	WorldGBC?s network of building professionals and country-level GBCs, and its library of resources on building efficiency and decarbonization projects, will assist the project in helping cities design projects and access reliable advising and technical assistance. Green Building Councils in the countries where focus countries and cities and BEA platform cities are located will be an irreplaceable resource throughout the entire engagement and action process. WorldGBC?s leadership on building decarbonization through the Advancing Net Zero workstream will be a critical resource in supporting cities and countries with technical and how-to information on creating roadmaps and connecting with other jurisdictions that are undertaking similar ambitious steps. WorldGBC?s regional leadership in Latin America will be crucial in building successful projects and programs in Colombia. Network: 100+ green building councils in five regional networks - Rating and data ? access to information on the market - Advocacy, capacity building and workforce training, and policy dialogue ? working with market stakeholders to articulate a vision and needed actions - Communicating the benefits of green buildings	Component 1, 2, and 3: Participant in national roadmap guidance and development, shared learning on city pathways to ZCBs, and capacity building and technical assistance for the global network

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component)
NGO	World Resources Institute (WRI)	WRI Ross Center for Sustainable Cities Network: - Offices in Brazil, China, Mexico, India, Indonesia, Turkey, USA Buildings Initiative: - Supporting local governments to become leaders in efficiency - Improving building performance analysis, information, and certification - Scaling up business models and finance strategies to deliver efficiency - Integrating buildings as part of an active energy system Clean Energy Investment Accelerator: - Enables private sector purchasers to aggregate demand and deploy clean energy - Develops energy demand aggregation models and using financial tools to grow the clean energy pipeline and unlock access to finance - Works with national and subnational governments to strengthen policy frameworks to increase clean energy investment and deployment	Component 1, 2, and 3: Participant in national roadmap guidance and development, shared learning on city pathways to ZCBs, and capacity building and technical assistance for the global network

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement.

Global stakeholders will be consulted regularly in project execution through monthly BEA partnership calls, regular updates via the Basecamp project management website, regular email newsletters, and knowledge-sharing webinars.

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor;

Co-financier;

Member of project steering committee or equivalent decision-making body; Yes

Executor or co-executor; Yes

Other (Please explain)

Civil society organizations are critical participants in the BEA and in this project, given the stakeholder-driven participatory model that the partnership encourages. The Executing Agency (World Resources Institute) is a global NGO and therefore a part of civil society. In addition, civil society will be represented on the project steering committee through WRI, the World Green Building Council, and other NGOs. Civil society will also be active in on-the-ground implementation in Colombia, Turkey, and the global platform via leading and contributing partners in local and national engagements.

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

Gender analysis:

The energy consumption and emissions of the buildings sector has implications for gender equality. Energy efficiency, one critical component of decarbonization, reduces the energy cost burden to households from their energy bills providing benefits to household budgets, which are often managed by women. Furthermore, programs to decarbonize buildings and improve their energy efficiency can empower women to have a more active role in household and business energy decisions. Energy efficiency and decarbonization of the building sector provide health benefits which disproportionately impact women and children, such as reduced air pollution and increased thermal comfort.[1]

As in many technical fields, the gender balance in the various sectors that make up building decarbonization (including construction, policy, architects, and engineers) skews towards men. This has been reflected in participation in past BEA events including webinars, meetings, and trainings, where participation of women varied from 20% to 70%, with global events having higher participation among women and local events tending to have lower female participation, particularly in certain regions such as South Asia. In the longer term, equalizing this gender imbalance will require concerted efforts of science and technology curricula and education programs, which are beyond the scope of the current project. But there are significant actions we can take within this project to take steps towards improving gender equality and empowering women. This project is expected to contribute to both improving women?s participation and decision making and generating socio-economic benefits or services for women.

Many building decarbonization policies and projects look at solutions from the technical and macro-planning point of view. This leads to involvement of stakeholders with engineering backgrounds and government officials responsible for planning at the national and city level. Other stakeholders, including consumers of energy in local communities, may not always be considered or consulted in the prioritization and decision-making processes. Because of this, gender tends not to be considered at the project prioritization stage.

It is important to bring these voices to the decision-making table. This project will aim to do this by encouraging and guiding local and national engagements to engage civil society organizations at the initial consultation and prioritization stage. This will bring the concerns of women, men, and children to decision-makers for building decarbonization, enabling the local community coalition to address this issue in a way that is locally appropriate.

A gender analysis and projection of gender impact was done at the PIF stage for this project based on the past five years of engagement with the BEA network and what we know about direct beneficiaries

of past projects within the platform, as well as an understanding of the more specific participation of women in the sector in the two primary focus countries of this project.

Since the PIF stage, without a project preparation grant (PPG) and with extremely limited ability to conduct on-the-ground research due to COVID-19, minimal additional analysis has been carried out for this project. We have carried out a literature review which confirmed our understanding that very little in-depth research on the connection between building decarbonization and gender equality has been carried out at any scale or in any geography. The BEA partnership also held a gender and building decarbonization webinar in late 2020 attended by more than 40 stakeholders which explored the experiences of women working in the global buildings community of practice as well as the analytical linkages between gender equity and decarbonization which participants had seen or were interested in exploring (It can be accessed at https://www.youtube.com/watch?v=TcshAqzTo9s&feature=youtu.be&ab_channel=WRIRossCenterforSustainableCities.). Experts from the World Green Building Council, Econoler, the Global Green Growth Institute (GGGI), and WRI?s own gender expert spoke about the data we do have and related topics of importance to cities, like the link between health, decarbonization, and affordable housing. Participants also discussed Q&A and their own inputs. We expect projects like this one to generate new insights that can help direct future research, and plan to do so using the metrics outlined below in the Gender Action Plan.

We have carried out initial analysis of the gender balance of participants and leaders in BEA work in our two focus countries over the past five years. In Turkey, stakeholders involved in planning and action prioritization conversations in the City of Eski?ehir, where most of our work has been concentrated, were about 40% female ? about 10% lower than the BEA network average globally, which hovers around 50%. In both countries, the lead project managers and directors for our BEA work are women, and in each country, at least one city-level point of contact has historically been female. Across our network globally, women have filled the majority of technical and engagement leadership roles. We aim to continue this emphasis on inclusion ad elevation of women?s voices and perspectives in our on-the-ground stakeholder groups and our global project management.

This partnership can also have gender differentiated impacts. In its stakeholder outreach guidance, the project will include recommendations to include civil society organizations that represent women and/or gender equality. Including these stakeholders from the start in local coalitions should help prioritize the renovation or construction of buildings that will impact women (e.g., schools, health facilities, community spaces). In addition, the project will conduct outreach to women engaged in the local coalition platforms to gather feedback on their experience related to gender balance and inclusion in their cities and countries and with the project specifically, as well as reflections on how programs like this one can help advance gender inclusion.

We will host at least one webinar focused on the intersection of building decarbonization and gender under Output 3.1. Additionally, we will host a breakout session focused on gender at a deep dive workshop in at least one city. For gender inclusion, balance in gender representation will be a core consideration in the development of workshops and working groups in deep dive cities, including ensuring significant representation of women as working group leaders, speakers, on panels, and among invitees/participants.

The BEA will further encourage and track women?s participation in trainings, webinars, regional and local events, and local working groups whenever possible. The project will make sure that all knowledge products that are produced in the course of the project avoid gender stereotypes.

Sufficient financial resources will be allocated to support these gender and inclusion related activities, with a focus on the deep dive city engagements in Component 2 and, where possible, the national engagements in Component 1. WRI will provide co-finance via an in-house Gender Specialist to provide advice on gender activities.

Gender Action Plan:

Component 1: National commitments and roadmaps towards zero carbon buildings policies		
Outcome 1: Two national governments link NDCs and/or other national strategies with zero carbon buildings and develop approaches to support, subnational governments, utilities, the private sector and civil society to accelerate the market transformation towards zero carbon buildings.		
	Gender Design Features/activities	Gender output indicators and targets
Output 1.1: Outreach: Outreach activities are performed using tools from the national market and global partners to encourage national governments to adopt public commitments on net zero carbon buildings	Incorporate gender experts and/or women?s groups, and civil society in the initial outreach activities	? **Engage at least one civil society organization representing women and/or gender equality in each of the two countries** ? **# and % of women and men in decision-making positions relating to the activities**

Output 1.2: Dialogue: National/local governments, utilities, the private sector and civil society explored how to achieve ZCB commitments through in-country policy dialogues facilitated by the project	Involve gender experts or women?s groups and civil society in the policy dialogues at the national and local levels	? **# and % of men and women actively participating in consultations, workshops, and dialogues with a target of gender parity across workshops and convenings**
Output 1.3: Plan. Long-term national roadmaps, including short/medium-term action plans, linked to the NDCs and/or other national strategies to achieve net zero carbon buildings by 2050 are developed and adoption is initiated	Involve gender experts or women?s groups and civil society in the working groups and/or interviews in developing the roadmaps and short/medium-term action plans. Include trainings on how to incorporate gender & social equity into the national roadmaps and short/medium term action plans.	? **# and % of men and women actively participating in working groups and/or interviews, with a target of gender parity** ? **# and % of long-term roadmaps, including short/medium-term action plans that include gender, inclusion & social equity considerations**
Output 1.4: Enable: Enabling policies are developed and adoption is initiated to support subnational governments, utilities, private sector and civil society to accelerate the market transformation towards ZCBs	Involve gender experts or women?s groups as working group leaders, speakers, on panels, and among invitees/participants	? **# and % of women actively participating as working group leaders, speakers, on panels, and among invitees/participants, with a target of gender parity**
Component 2: City strategies towards net zero carbon building implementation		
Outcome 2: City governments in two countries use newly gained tools and knowledge to achieve socially, environmentally and economically viable GHG mitigation in buildings to advance towards ZCBs.		
	Gender Design Features/activities	**Gender output indicators**
Output 2.1: Dialogue: In a total of 4 cities (2 in each selected country), stakeholders from the public and private sectors explore options to advance local action towards zero carbon buildings through dialogues facilitated by the project	Involve gender experts or women?s groups and civil society in the policy dialogues in the 4 cities, including stakeholders from the public and private sectors	? **# and % of men and women actively participating in consultations, workshops, and dialogues in all four cities, with a target of gender parity** ? **One city organizes a breakout session focused on gender**

Output 2.2: Assess: In 3 cities, appropriate methods to quantify social, environmental and economic costs and benefits of ZCB policies and investments are demonstrated to inform local government decisions	Include gender experts or women?s groups in the social, environmental and economic costs and benefit analysis of ZCB policies and investments	? **# of gender experts or women?s groups actively participating in assessment** ? **Each city emphasizes equity (social, economic and/or environmental) and inclusion (including gender) in the design of their selected building decarbonization actions** ***(in results framework)***
Output 2.3: Act: In 3 cities, policies and actions to move towards a decarbonized building sector are developed and adoption is initiated	Involve women and gender experts as working group leaders, speakers, on panels, and among invitees/participants	? **# and % of women and gender experts actively participating in local working groups, with a target of gender parity**
Output 2.4: Monitor: In 2 cities, innovative methods for monitoring progress are tested and lessons learned are provided to national ministries for future policy design	Include gender analysis in the progress reporting and lessons learned	? **Include % of women involved in leadership of national and city governments and % represented in ZCB events included in progress reporting and lessons learned**
Component 3: Pipelines of additional local and national governments for future scaling through platform-wide capacity building and technical assistance		
Outcome 3: National, subnational, and city governments, beyond those in components 1 and 2, advance actions towards zero carbon buildings.		
	Gender Design Features/activities	Gender output indicators
Output 3.1: Platform: The BEA global platform is enhanced in order to provide capacity building and technical assistance on ZCBs	Continue gender inclusion efforts of the BEA in training materials and gender tracking at events	? **# of gender experts consulted on training materials; # and % of men and women actively participating at events** ? **At least one annual webinar focused on the intersection of building decarbonization and gender** ***(in workplan)***

Output 3.2: Scale: Support provided through the global platform facilitates 6 additional city or subnational governments to make public commitments towards zero carbon buildings	Assessment of women involved at leadership levels from new partner city or subnational governments	? **# and % of women and men serving in leadership positions of new partner city or subnational governments**
Output 3.3: Replicate: Support provided through the global platform enables 3 additional city or subnational governments to develop and initiate implementation of ZCB roadmaps	Assessment of women involved at leadership levels from new partner city or subnational governments	? **# and % of women and men serving in leadership positions of new partner city or subnational governments**

[1] For more information, see, for example: ?Multiple Benefits of Energy Efficiency: From ?hidden fuel? to ?first fuel?, International Energy Agency, March 2019. https://www.iea.org/reports/multiple-benefits-of-energy-efficiency

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources;

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Does the project?s results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

As a public-private collaboration, the Building Efficiency Accelerator prioritizes private sector engagement together with public sector policy and program action. In previous phases of the BEA, this engagement has largely come through participation in local, regional and global workshops and events, and through provision of analysis via proprietary tools. The Net Zero Carbon Buildings for All project will follow these models of engagement with the private sector, outlined below, and also look for new methods of engagement that align with the increased ambition of building sector decarbonization.

The World Green Building Council (WorldGBC), one of the key partners and co-financiers of this project, is a network of national Green Building Councils (GBCs) made up of businesses and organizations working in the building and construction industry. WorldGBC and the national GBCs in the focus countries and across the BEA platform provide engagement from a crucial set of local private sector partners across the fragmented building and construction sector.

Private sector actors will continue to be key participants in local and national partnership working groups, local workshops, regional workshops, and global events. In the working groups, private sector actors are critical to provide feedback on the priorities, work plans, and implementation of the policies and programs undertaken at the local and national level. Because the private sector designs, constructs, retrofits, and operates most buildings, the active participation and input of private sector actors in the working groups is key to success. Similarly, local and regional workshops provide important opportunities for private sector actors to connect with the broader stakeholder group and public sector officials, become more informed about the proposed projects, programs and work plans, and find opportunities to contribute technical expertise. At global events, private sector partners can connect the local and regional work to the broader sustainability goals of global companies, highlighting case studies of success.

In Colombia and Turkey, the Colombia Green Building Council (CCCS, Consejo Colombiano de Construcci?n Sostenible) and WRI Turkey have developed robust networks of private sector partners including through their leadership of previous BEA projects. From local working groups to regional convenings, CCCS?s ongoing collaboration with CAMACOL (C?mara Colombiana de la Construcci?n, a chamber of construction companies) has brought construction companies like Apiros, Amarilo, Constructora Bolivar and Prodesa to the table in project and policy planning stages. These companies, along with sustainability consultancies and Colombian utilities like Codensa and Empresa, bring deep engagement with practical knowledge and real recommendations for more successful actions to the ZCBs for All project. Similarly, WRI Turkey has established relationships with many private sector partners and associations. Some sit on the National BEA Advisory Board and many of them have supported WRI Turkey and the BEA in capacity building events, providing experts, technical advice, or venues. Existing partnerships with the private sector will increase the speed and depth with which the ZCBs for All project can be implemented in Turkey and Colombia.

In terms of analysis, one example of this in previous phases of the BEA is a tool called the LEAN analysis maintained by private sector partner Johnson Controls. LEAN uses one year of monthly energy bill data for a building to determine the likely retrofit technology options to improve its energy performance. Taken over a portfolio of buildings, this analysis can help building owners prioritize which buildings to retrofit first. With the BEA supporting cities to collect the monthly energy bill data required, Johnson Controls has performed analysis through this proprietary tool to provide the results to cities assessing a set of city-owned buildings and helping them to prioritize a few buildings for

retrofits. In 2018-2019, Johnson Controls further worked with Lawrence Berkeley National Laboratory to develop an open-source version of the LEAN analysis, called the BETTER tool, that is available online for all users. This will make the analytical power of this private sector tool available to all.

In addition to these engagement opportunities, the success of a transition to Zero Carbon Buildings will rely on the availability of financing. In addition to engaging development banks as financiers for public sector projects and programs, this project will aim to engage with private investors most relevant to Colombia and Turkey and their cities of focus. This will be an important component to lead to the scale-up from public sector-led action to broader city-wide adoption of zero carbon building goals and implementation.

5. Risks to Achieving Project Objectives

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

Risk description	Main category	Risk level rating	Risk mitigation Strategy and Safeguards	By Whom / When?

Risk description	Main category	Risk level rating	Risk mitigation Strategy and Safeguards	By Whom / When?
COVID-19 project disruption: reduced or no ability to hold larger in-person convenings and to travel, plus shifting political priorities to manage the linked health and economic crises. (Further COVID risk and opportunity analysis is provided below the table.)	Institutional	Substantial	Through project work with the BEA at the start of the COVID-19 pandemic, the platform including global and local partners have experimented with best practices for remote convenings and other alternatives to in-person events. These best practices will be applied in this project. The scope of the work will also include workforce development and training and curriculum development, two areas that will be able to help countries emerge from the economic impacts of the pandemic. In establishing national decarbonization roadmaps, outlining the expected economic impacts will be critical to show how building decarbonization can help countries rebuild green economies.	Executing Agency (WRI), Project Steering Committee, and Country Leads, ongoing

Risk description	Main category	Risk level rating	Risk mitigation Strategy and Safeguards	By Whom / When?
Political: national or sub-national governments (as appropriate) of the selected countries do not adopt the ZCB policies within the 24-month timeframe of the project (outputs 1.3, 1.4, and 2.3)	Political	Substantial	The selection of the countries and the sub-national jurisdictions within these countries have taken into account the reasonable level of expectation that the policies, once drafted, will be adopted within the timeframe by the countries or sub-national jurisdictions. The project will prioritize countries and sub-national jurisdictions where this level of confidence / commitment is the highest, for example, taking into account as one selection criteria the timing of elections at national and sub-national levels. The project will seek to initiate activities related to the drafting of these policies at the earliest stage possible once the project is approved, to provide the maximum time available for national and sub-national governments to go through their approval processes for the policies.	Executing Agency (WRI) and BEA Steering Committee, November 2019 Executing Agency (WRI) and BEA Steering Committee, November 2019 Executing Agency (WRI), Country and City Leads, project months 1-6.

Risk description	Main category	Risk level rating	Risk mitigation Strategy and Safeguards	By Whom / When?
Competing partner priorities: Partner organizations have many projects and may deprioritize their engagement in Zero Carbon Buildings for All and the BEA.	Organizational	Low	This risk has been successfully mitigated in previous BEA projects through these measures: ? Align activities to ensure that delivery of project content complements and supports partner meetings and objectives around the world. Ensure regular communication. With each partner, discuss and commit clear goals so that the BEA work is supportive to the partner?s mission, goals and activities. ? Actively identify opportunities for each partner?s participation to ensure they derive value from the partnership.	Executing Agency (WRI), ongoing

Risk description	Main category	Risk level rating	Risk mitigation Strategy and Safeguards	By Whom / When?
Partner capacity: Limited resources to support large numbers of network cities simultaneously.	Capacity	Low	This risk remains at a reduced level from previous BEA projects, given that this project focuses most resources on deep engagement countries and cities. For those cities that are a part of the platform but not part of the deep engagement, this risk is particularly salient for network city local partners (city liaisons), who are unfunded, and regional leads, most of whom receive very little funding. ? Subgrants to partner NGOs will provide supplemental resources to their ongoing project commitments and also increase their level of commitment and responsiveness to meeting the needs of ZCB for All and BEA cities. ? Targeted and limited engagement plans, including opportunities for direct technical assistance, will be developed for network cities where possible to help target organizational capacity to relevant markets. ? Additional fundraising to support regional leads and, where possible, city liaisons will help support the broader network.	Executing Agency (WRI), ongoing

Risk description	Main category	Risk level rating	Risk mitigation Strategy and Safeguards	By Whom / When?
City government capacity: Local government staff may not have sufficient time, technical expertise, or political relationships.	Capacity	Medium	? Deep dive engagements are specifically designed to address limited city government capacity. The ZCB for All and BEA partnership will directly provide locally-based staff capacity to work with governments. ? In network cities, look for clear local champions who can help navigate the politics within the city and raise the urgency and benefits of these actions through the appropriate effective channels. (*Example from previous BEA projects: Santa Rosa, Philippines has a Secretary of Environment who is very engaged with the BEA and has raised the profile of building efficiency to the point that the 2018-2019 city budget included an allocation for local adaptation of building codes.*)	City Leads, ongoing Executing Agency (WRI) and Regional Leads, ongoing

Risk description	Main category	Risk level rating	Risk mitigation Strategy and Safeguards	By Whom / When?
Competing government priorities in Colombia: building decarbonization and energy efficiency may be deprioritized relative to other priorities viewed by leaders as more tangible or urgent.	Institutional	Medium	In Colombia, increased political uncertainty emerged in late 2019 that could impact national government action. Strong, sustained engagement at the city level, and existing relationships with technical staff in the national government, should mitigate this political risk. ? Project staffing in national engagements and deep dive cities will ensure clear and active focus on building decarbonization and energy efficiency to actively and regularly engage government stakeholders on efficiency. ? The country selection process assessed the opportunities and challenges in 6 countries, leading to the selection of Colombia. This helps to ensure that building decarbonization and energy efficiency have previously been identified as a priority. ? In-kind contributions will be sought from deep dive cities, such as office or event space and local government champion designated by the Mayor.	Country and City Leads, ongoing Executing Agency (WRI) and BEA Steering Committee, November 2019 Country and City Leads, ongoing

Risk description	Main category	Risk level rating	Risk mitigation Strategy and Safeguards	By Whom / When?
Competing government priorities in Turkey: building decarbonization and energy efficiency may be deprioritized relative to other priorities viewed by leaders as more tangible or urgent.	Institutional	Medium	Despite Turkey not being a party to the Paris Agreement, the country was very active in UN Climate Action Summit activities including developing and committing to the ZCBs for All initiative. Engagement with stakeholders indicates significant interest for national action on building decarbonization and energy efficiency. ? Project staffing in national engagements and deep dive cities will ensure clear and active focus on building decarbonization and energy efficiency to actively and regularly engage government stakeholders on efficiency. ? The country selection process assessed the opportunities and challenges in 6 countries, leading to the selection of Turkey. This helps to ensure that building decarbonization and energy efficiency have previously been identified as a priority. ? In-kind contributions will be sought from deep dive cities, such as office or event space and local government champion designated by the Mayor.	Country and City Leads, ongoing Executing Agency (WRI) and BEA Steering Committee, November 2019 Country and City Leads, ongoing

Risk description	Main category	Risk level rating	Risk mitigation Strategy and Safeguards	By Whom / When?
Political risk: national and local government leaders may be hesitant to take steps viewed as politically risky.	Political	Low	? The ZCB for All and BEA partnership provides a common vision and plan of action. This process is intended in part to mitigate political risk of new actions through coalition building. ? Selection criteria for national engagements and deep dive market engagements prioritize cities that have national government support for local government engagement in building decarbonization.	Executing Agency (WRI), ongoing Executing Agency (WRI) and BEA Steering Committee, November 2019
Leadership change: change in leadership and priorities in national and local government or key local partner organization.	Political	Medium	? Selection criteria for deep dive market engagements prioritizes those countries and cities in which there is political commitment by the local government leadership and a political term that will endure throughout the 2-year process. ? In network cities, continue to engage with city staff that remain despite administration changes to work to re-prioritize building efficiency in the new government. (*In the experience of the BEA?s previous work, about 10 months of stakeholder engagement work at the city staff level was needed to re-engage senior city officials after local government elections.*)	Executing Agency (WRI) and BEA Steering Committee, November 2019 Executing Agency (WRI) and Regional Leads, ongoing

Risk description	Main category	Risk level rating	Risk mitigation Strategy and Safeguards	By Whom / When?
Data challenges: availability and format of energy-related data and market information	Technical	Medium	? The selection criteria for deep dive cities includes the presence of pre-existing assessments of the opportunities/challenges in the markets selected. This will help to ensure that at least basic market data is available and that the city is ready for ?acceleration? rather than starting with network engagement.	Executing Agency (WRI) and BEA Steering Committee, November 2019
Insufficient and incomparable systems for tracking results	Technical	Low	? Systems and standard guidance for tracking and documenting learnings and progress were established in the first phase of the BEA and have been continued to be developed throughout the ongoing program. Issues remain with data availability, comparability, and aggregation between different project sites and timeframes.	Executing Agency (WRI), ongoing
Time lag of results: Major results of the project may not be seen before the end of the project period.	Technical	Medium	? The project team will identify interim goals for each engagement to track progress and leading indicators of project results. ? The project includes both strategy and resources for performance management, knowledge management and information dissemination.	Executing Agency (WRI), January 2020 (project development)
Financial risk: Expected additional co-finance may not be formalized during implementation before the end of the project period.	Institutional	Medium	? The project team has initiated discussion and identified opportunities for collaboration with regional development banks and other financial institutions with active programs in the focus countries/regions. This puts the project in strong position for fast start-up of collaboration and the formalization of co-finance during the project. ? The project team will continue to cultivate close collaboration, for instance through an invitation to EBRD to join the Steering Committee.	Executing Agency (WRI) and country and city leads, ongoing

Risks and Opportunities Associated with the COVID-19 pandemic and associated economic upheaval

WRI has been working on analysis and recommendations at the global level for ?building back better? through energy efficiency and renewable energy. The COVID-19 health crisis and the economic upheaval that has resulted, as well as the extreme weather events which have been concurrent, have underscored the need for sustainable development and redevelopment and for crisis-resilient communities and economies. This focus on health and resilience, as well as an equitable and green recovery through stimulus packages and other policy, provides a significant opportunity to mainstream decarbonization into emerging stimulus and infrastructure plans.

The IEA has suggested that energy efficiency ? a key building block in decarbonizing buildings ? is one of the best sectors to link global environmental benefits with economic recovery. Here are just a few ways energy efficiency programs can help contribute to building back better, according to the IEA?s Sustainable Recovery Plan:

? **Growing economies:** Energy efficiency investments have the potential to increase global economic growth by 1.1% each year, raising the global GDP 3.5% higher in 2023 than it would be otherwise.

? **Creating jobs:** Building back better could save or create nine million jobs per year, with the largest number of new jobs in energy efficiency (35%) and another 25% in power systems, particularly in wind, solar, and electricity grid modernization. Many of these new jobs would be specialized and technical, requiring training programs.

? **Building more resilient and cleaner energy systems:** According to the IEA, if governments choose to build back better by investing in efficiency and renewables, annual energy-related GHG emissions will be 4.5 billion tons lower in 2023 than they would be otherwise. 2019 would be the definitive peak in global emissions, with energy efficiency measures delivering the largest overall emissions reductions.

Global and local project staff are well-prepared to make this case to our on-the-ground partners and the local and national leaders, civil society and private sector stakeholders they plan to engage. Early in the pandemic, Project Director Jennifer Layke made the case for renewable investment in stimulus packages, while more recently WRI colleagues drew on related work decarbonizing US city energy systems to make the case for urban resilience through clean energy. Project Manager Debbie Weyl similarly made the case for energy efficiency investment in buildings as critical stimulus policy for ensuring that buildings support people throughout this crisis and recovery. Our colleagues in the WRI-coordinated Coalition for Urban Transitions continue to put forward excellent data on the power of cities and national-subnational engagement both in decarbonization and crisis management, as in their recent paper on greening the global

recovery through cities. And with an eye toward growing acknowledgment that a clean energy transition is not necessarily a just energy transition, Technical Advisor Eric Mackres and other colleagues have been exploring how justice can be enabled through clean energy.

The project team is prepared to leverage and build on this expertise as we capture opportunities and mitigate risks presented by COVID. In the past year, the strength and resilience of the Building Efficiency Accelerator network was made apparent by the work pushed forward through the pandemic. Although in new engagements work was stalled temporarily by a lack of in-person engagement opportunities (particularly in geographies where face time is vital to relationship building), both new and existing partnerships were continued and even solidified through innovative remote engagement training opportunities. Even as COVID expanded, events moved online and were able to welcome the participation of as many, and in some cases even more, participants than usual. An investment in quality remote engagement meant that stakeholders for whom travel would have been prohibitive, and partners in other geographies, were able to be part of conversations they otherwise would not have been. In deep dive locations and some network city locations, where relationships have been formed over the past 4 years of engagement, work plans have been successfully continued with some modifications to rearrange priorities toward desktop research and training. In summary, despite some setbacks, we have been enormously impressed by how resilient the BEA?s engagement structure has been to this global upset.

In preparation for this upcoming project, we have been in close contact with all of our delivery partners and particularly those in our selected national engagement locations of Turkey and Colombia. Our leads in-country are at this point experienced at remote building sector engagement, having each carried out ongoing engagement remotely since early 2020 if not before, and are comfortable with and confident about their ability to deliver the proposed work plans despite uncertainty about what the next two years will bring in terms of COVID-19. This program focuses primarily on stakeholder-driven policy guidance and implementation, including national-level zero carbon building roadmaps and associated local short-term action plans. It is therefore subject to lower risk from ongoing or new pandemic restrictions that might impact non-essential construction activities than some of the earlier projects might have been, such as the demonstration projects that were central to the two previous Building Efficiency Accelerator projects. Although government officials in some offices have less capacity to engage than previously, which poses a risk, we have found over the past half-year that many others, particularly energy and environment officers that are our key contacts, are more available for engagement due to reduced travel.

In line with the Global Environment Facility?s recent guidance, ?Project Design and Review Considerations in Response to the COVID-19 Crisis and the Mitigation of Future Pandemics,? we note that this program is already centered around a key ?green recovery? strategy in targeting decarbonization pathways and zero-carbon infrastructure as well as enabling policy. The BEA engagement model which this project will utilize contains substantial integrated and cross-institutional planning as highlighted in the

proposal, and equity considerations are being targeted for each country location, with a likely partial focus in Colombia on affordable housing.

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

? Institutional arrangements (refer to Annex K for further details):

World Resources Institute will be the project?s Executing Agency. WRI will be guided by a Project Steering Committee, which will be selected in consultation with the Implementing Agency. This Steering Committee will include members who can provide inputs from the city, national, global and industry perspectives. It will also serve to facilitate coordination with other major efforts in this space.

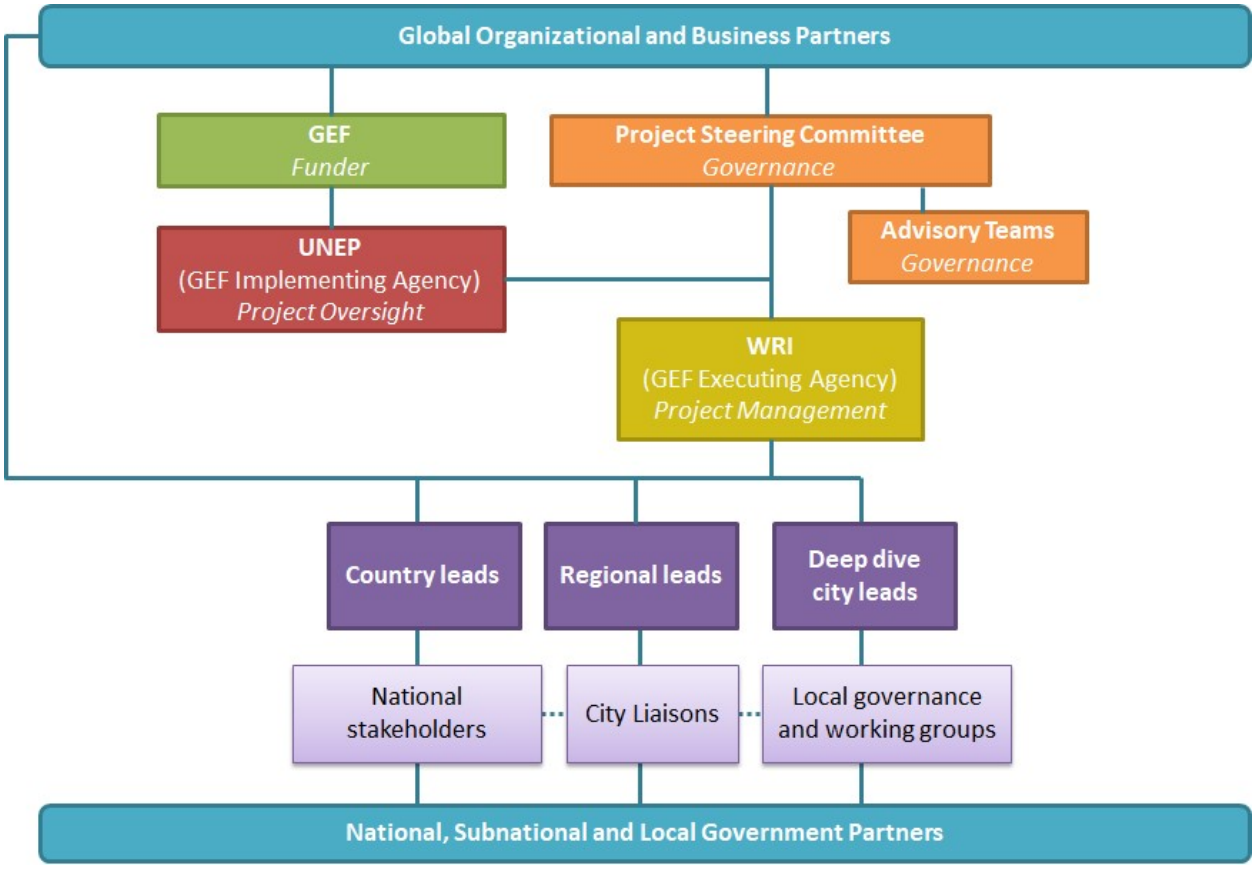
To ensure formal opportunities for partner cities and countries to provide feedback about the progress of the project, the Project Steering Committee will include one representative from Colombia, one representative from Turkey, and one representative from the deep dive cities on a rotating basis. The project team will also create opportunities to bring other representatives of the Project Steering Committee to conversations with partner cities and countries, enabling additional direct feedback and communication.

In addition, the project will employ Advisory Teams that will be led by Steering Committee members and comprise interested global organizational and business partners. Advisory Teams will tackle specific programmatic challenges such as national roadmap experience, approach and methodology; overall national engagement guidance and resources; financing for ZCBs; and measurement methods for ZCBs.

Funding for on-the-ground engagement by country and city leads will be passed through to partner organizations selected for engagement leadership through standardized subgrant and contracting processes. WRI manages subgrant funding passed to partner organizations through thorough partner vetting and risk assessment, detailed quarterly financial reporting, and narrative reporting as determined by the needs of the project ? in this case, through regular check-in calls and biannual written reports. Subgrant partners are vetted based on project needs and priorities, while contractors are subject to competitive procurement and/or as-needed sole source justification. All subgrants are subject to fiscal oversight in line with funder requirements and project documents by WRI?s dedicated Grants & Contracts team. In the case of this engagement-focused project, primary leads will be determined based on the strength of technical expertise and necessary relationships in-location. Following subgrant establishment, funds are transferred to subgrant partners in quarterly installments according to the needs of the scope of work and only after proper financial reporting from the prior quarter.

Other elements of the governance structure provide an inclusive structure for multi-stakeholder oversight and early stage input to project activities. The structure will allow for fast near-term action and build on experiences with the successful structure used through the Building Efficiency Accelerator from 2016-2020 (Figure 4).

Figure 4: Organizational Structure for ZCBs for All BEA project



? Coordination with other initiatives:

This project builds on two back-to-back GEF-funded, UNEP-implemented grants in support of the SEforALL Building Efficiency Accelerator. The partnership has also been supported in Latin America by Partnering for Green Growth and the Global Goals 2030 (P4G) via the World Green Building Council, a strong BEA partner and zero carbon buildings industry leader. This project builds on the work of the BEA by leveraging the coalitions and relationships built over the last 5 years with partner cities and

organizations, and increases the ambition of those national and local governments ready to advance from building energy efficiency ? a critical first step ? to zero carbon buildings.

As outlined above, Component 3 of this project will build a pipeline of national and local governments from the BEA platform (as well as other aligned platforms and networks such as the GlobalABC) ready for this increased ambition primarily by continuing to focus on technical assistance around building energy efficiency while also raising the bar and expectations among city partners in particular to demonstrate that the goal is decarbonization of the building sector.

In addition to building on the strengths of the BEA, this project will coordinate heavily with the World Green Building Council?s Advancing Net Zero commitment, which also aims to promote and support the acceleration of net zero carbon buildings to 100% by 2050. As of January 2020, 34 local governments and 45 businesses and organizations have made this commitment, and this project will coordinate with lessons learned from the early stages of the commitment. Cities that commit to zero carbon buildings through this project will also be able to join the Advancing Net Zero commitment. We expect that with this project achieving national government commitments to net zero carbon, more local governments will see a path to join the Advancing Net Zero commitment, leading to increased scale for both initiatives.

The project will ensure synergies and complementarity with the GlobalABC, given that GlobalABC was launched at COP21 to provide a global platform of platforms, forging a common voice and vision as well as cooperation for collective impact. In this respect, the project will build on the GlobalABC regional Roadmaps and tools such as the NDC Guidance. WRI and other partners are active participants in the Global Alliance for Buildings and Construction, and as such this project will serve to further contribute to the dedicated work area focused on integrating city action into the dialogue around national action on building efficiency, and ensure participation in major global events such as Climate Chance and the COP.

This project was announced as part of the kick off implementation of the Zero Carbon Buildings for All initiative at the UN Secretary General?s Climate Action Summit in September 2019 in New York City. In the development of that proposal, this project has received positive support from a number of multilateral development banks including the IFC, EBRD, IDB, and AfDB, along with private sector champions including Rockwool, Gensler, and BuroHappold. The project will coordinate closely with each of these actors to leverage ongoing programs and potential investment opportunities around building decarbonization.

The implementation team for this project will continue to coordinate with the other Sustainable Energy for All Energy Efficiency Accelerators, especially through the Three Percent Club for Energy Efficiency (also

launched at the UN Climate Action Summit) to ensure that buildings, lighting, industry, appliances, and district energy solutions are presented together and to leverage technical expertise across these communities. In particular, Colombia has joined the 3% Club, and this project will support the country to reach their 3% Club objectives with regards to the building sector. The BEA partnership has regularly interacted with other SEforALL Energy Efficiency Accelerators, and many BEA partner organizations are also partners to other Accelerators. Combining work with these Accelerators has been of benefit to BEA cities such as Warsaw, Belgrade, Bogot? and more.

The Programme for Energy Efficiency in Buildings (PEEB), led by AFD, GIZ and ADEME, is a facility which was launched at COP23. The BEA will consult with the PEEB Secretariat on country and city choices to determine collaboration modalities in cases of overlapping countries of interest.

The GEF Sustainable Cities initiative presents an opportunity for collaboration based on its potential for national-local collaboration, its vital stake in innovative and efficient urban planning through coordination with local governments, and its emphasis on the transformative power of information and of quantifying energy flows through the urban infrastructure so that better decisions may be made.

Finally, the project will communicate on a regular basis (quarterly) with a representative from the Colombia and Turkey UN Country Teams (i.e. the UN Resident Coordinators) to ensure proper coordination with other on-going UN supported national initiatives.

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assesments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

This project incorporates engagement with national governments, along with city governments, to enable more effective and sustained action from local governments and to better enable scaling of results to local governments across a country. The BEA Steering Committee selected two national governments to engage ? Colombia and Turkey ? both of which have had BEA deep dive city engagements since 2016.

In selection of cities and national governments for engagement with this project, the partnership looks at existing national policies, NDCs, UNDAF, countries with NAMA projects in energy efficiency,

commitment to the SDGs, and engagement with other existing technical assistance programs such as ESMAP. This helps us assess how working at the national level can contribute to emissions reductions in buildings. The project prioritizes national and local governments for engagement that have aligned stated priorities on energy efficiency and building energy consumption. Deep dive engagements support local and national governments in countries that are non-annex I parties to the UNFCCC.

Country	**Consistency with NDCs, SDGs, UNDAF**
Colombia	Four Colombian local governments are partners of the BEA ? Aburr? Valley/Medell?n, Bogot?, Cali, and Monter?a. The United Nations Development Assistance Framework (UNDAF) for Colombia (2015-2019) identified Sustainable Development in its social, economic, and environmental dimensions as one of its two strategic pillars guiding the UN?s work in the country, including mitigation and adaptation to climate change. An identified priority area of assistance within this goal was strengthening national and local policies and strategies to achieve comprehensive environmental management and resilience. Colombia?s NDC committed to a 20% reduction of emissions compared to the business as usual scenario (BAU) by 2030. In 2014, the energy sector represented 45% of emissions ? making city action on building efficiency a worthwhile investment. Recently, the Colombian government adopted a set of implementation guidelines for their building efficiency code based on BEA recommendations.

Country	Consistency with NDCs, SDGs, UNDAF
Turkey	The BEA currently has 1 partner local government in Turkey: Eski?ehir. Turkey also led the Infrastructure, Cities, and Local Action track for the UNSG Climate Summit in September 2019. In 2014, the energy sector represented 85% of Turkey?s emissions. In its NDC, Turkey committed to ?up to 21% reduction in emissions from the BAU scenario? by 2030. The city?s policy and project align with the following specific NDC commitments: the commitment to constructing new residential and service buildings in an energy-efficient way in compliance with its own *Energy Performance of Buildings* regulations (which the educational demonstration project can be a good introduction to); to reducing consumption of primary energy sources of new and existing buildings through better design; and to dissemination of Green buildings, passive energy, and zero-energy house design in order to minimize energy demand and ensure local energy production. The United Nations Development Cooperation Strategy (UNDCS) for Turkey (2016-2020) identifies Sustainable, Inclusive Growth and Development as one of four strategic areas of cooperation between the Government of Turkey and the UN. Two relevant outcomes within this strategic area include: ●Improving the legal and policy framework in which relevant government institutions operate, and assuring that institutional capacity and accountability mechanisms create a more enabling (competitive, inclusive and innovative) environment for sustainable, job-rich growth and development for all women and men. ●Improving implementation of more effective policies and practices for all men and women on sustainable environment, climate change, biodiversity by national, local authorities and stakeholders, including resilience of the system/communities to disasters.

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

Knowledge management will be a key component of the ZCB for All project and will build on tools and resources developed for the Buildings Efficiency Accelerator partnership. It will be funded through WRI staff time, particularly through the Global Network and Learning Lead.

Resources and Tools

At both the national and subnational level, our technical assistance work with government staff to prioritize, design, and implement decarbonization policies and programs will build on the large and diverse

resource base of project partners and of the BEA. This includes step-by-step ?playbook? resources which provide guidelines for code development, retrofits, and target-setting ? three areas of work which will be essential to the goals of ZCB for All. In addition, this project benefits from a new but growing body of work on net- and near-zero energy building technology and policy solutions, including the Advancing Net Zero framework and WRI?s recently published *Accelerating Building Decarbonization: 8 Pathways to Attaining Zero Carbon Buildings for All*.

The following materials, tools, and resources were also created for the Building Efficiency Accelerator partnership and remain extremely useful to cities working on building decarbonization, and provide a base to be expanded on as follows:

Resources	**Project plans**
Over 20 recorded BEA webinars on a variety of building efficiency topics.	WRI team and partners will host additional webinar trainings on building decarbonization strategies.
Internal BEA project management website Basecamp, which includes posted resources, message boards, and event calendars to assist with cross-partnership communication	Basecamp will continue to provide a peer-learning forum and resource library for cities and national ministry staff as they move into building decarbonization.
Kick-off workshop agendas, summaries, and city work plans for all deep dive cities, which can be used as blueprints by other cities with similar building efficiency priorities	The extensive case studies, engagement materials, and stakeholder feedback tools employed by the BEA are equally applicable to zero-carbon buildings-related engagement.
BEA city progress summary, outlining the current stage of each BEA city?s policy and project actions, as well as the key goals and outcomes achieved to date in that stage	The BEA Tracking Framework will be modified to suggest ways of working building decarbonization ambition into existing project and policy work plans.

Quantitative assessments for deep dive cities of greenhouse gas mitigation impacts using the GHG Protocol for Cities, BETTER tool, and Codes Calculator, which can provide example guidance for peer cities on how to track their progress	Modify these tools and share best practice in their use to enable other cities to more easily collect the data and perform analysis to track their greenhouse gas mitigation impacts. Enhance the tools or make additional tools accessible to ensure cities and countries have methods to quantify social, environmental and economic costs and benefits.
BEA website (www.BuildingEfficiencyAccelerator.org), outlining city commitments, city progress and achievements, blog posts, participating global partners, and ongoing building efficiency resources	Maintain website with up-to-date information to enable peer learning and sharing of good practices across deep engagement and network cities as well as national government engagements.
Curated building efficiency resources on C2E2?s Knowledge Management System, including topic-specific resource lists and recordings of all previous BEA webinars	These resources will still be deployed to cities working on related topics. For instance, all of our ?codes? material is relevant to a building code that enables or requires zero-carbon technology.
BEA city commitments lists, helping cities connect to peers undertaking similar actions and providing ideas to other cities in the prioritization stage	WRI will work with our existing partner cities to build on their existing work and set new long-term goals that lead to zero carbon. We have already
Investment opportunity summaries, providing examples for peer cities of what types of information and data will be needed to begin conversations with investors for building efficiency actions	New versions of our investment readiness tools will be created for zero-carbon investment, through dialogues with development banks and the private sector.

This project will build on these building-efficiency focused resources by engaging expertise around policy and project approaches for centralized and decentralized renewable energy, as well as the interactions between energy efficiency, storage, and renewable energy.

One key knowledge management resource that will be created through this project will be case studies on national-subnational coordination around building decarbonization. While there has been much discussion about the need for this coordination, especially given the complicated jurisdiction around buildings, this project will mark a unique demonstration of how to build this type of engagement. We will capture lessons as the project progresses through our project-related conversation, grant reports, dialogue notes, and survey and interview research as needed that will feed back into both our ongoing national engagements, and into guidance and resources created for other subnational governments and future engagements.

Key deliverables related to knowledge management are outlined in the workplan in Annex L, including:

Knowledge Products:

? Deliverable 1.1.1: Initial analysis of paths/costs/benefits of decarbonizing buildings in Colombia and Turkey is provided to national stakeholders (month 6)

? Deliverable 1.3.1: Baseline assessment reports for the buildings sector in Colombia and Turkey (month 6)

? Deliverable 2.3.1: Detailed implementation plans for selected local actions on building decarbonization, including assessment of risks and barriers, are created in at least 3 cities in Colombia and Turkey (month 13)

? Deliverable 2.4.3: Summary of methodology, results and lessons learned is prepared and disseminated to broader stakeholder groups, including local and national stakeholder consultations or working groups (month 24)

? Deliverable 3.1.1: Resource list compiled for city use on on-site renewable energy, off-site clean energy procurement, and use of carbon offsets as a short-term last resort (month 4)

? Deliverable 3.1.2: Case studies highlighting city action and national-subnational collaboration on zero carbon buildings are solicited from and disseminated across the global network (months 6-22)

? Deliverable 3.1.3: Lessons learned publication stemming from national and deep dive city engagements (month 22)

? Deliverable 3.3.1: Written guidance developed for scope and process for city or subnational government roadmaps to ZCBs (month 13)

?

Knowledge Sharing Events:

? Deliverable 1.1.1: Initial analysis of paths/costs/benefits of decarbonizing buildings in Colombia and Turkey is provided to national stakeholders (month 6)

? Deliverable 1.2.2: Workshops convened in Colombia and Turkey with diverse national stakeholders to gather or share research and perspectives on how to achieve ZCB commitments and how the national government can enable accelerated local action (month 8)

? Deliverable 2.1.2: Kick-off workshops with local stakeholders gather or share research and perspectives on how to advance local action towards ZCBs (month 4)

? Deliverable 2.5.1: Stakeholder working group on business models for investing in ZCBs, including development banks and private sector stakeholders, is convened at least twice during project period (months 12-16)

? Deliverable 3.1.1: Resource list compiled for city use on on-site renewable energy, off-site clean energy procurement, and use of carbon offsets as a short-term last resort (month 4)

? Deliverable 3.1.2: Case studies highlighting city action and national-subnational collaboration on zero carbon buildings are solicited from and disseminated across the global network (months 6-22)

? Deliverable 3.1.4: Lessons learned shared with the BEA global platform via webinars and, where relevant, in-person regional events, including at least one webinar focused on the intersection of building decarbonization and gender (months 18-24)

? Deliverable 3.2.1: Webinars and in-person regional events held to disseminate technical assistance to groups of cities and stakeholders on how to move towards ZCBs (months 1-24)

In Component 1, knowledge management costs are relatively minimal as this Component is related heavily to engagement and some will be carried out through in-kind contributions from partners. We estimate the baseline and assessment report activities included in C1 amount to about $50,000 of staff time, subgrant funds, and consultant costs. In Component 2, these costs expand as the city-level work includes more detailed generation of knowledge in implementation planning and methodology reports as well as several workshops; we estimate this share to be about $60,000. In Component 3, the majority of the work except the three City Zero Carbon Building Roadmap Subgrants relates to knowledge management, and we conservatively estimate the cost of these deliverables to be about $170,000. This brings the overall estimated knowledge management-related budget for the project to $280,000.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

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

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

The project M&E plan is consistent with the GEF Monitoring and Evaluation policy. The Project Results Framework presented in Annex A includes SMART (specific, measurable, achievable, results-focused, and

time-bound) indicators for each expected outcome as well as end-of-project targets. These indicators, along with the key deliverables and benchmarks included in Annex L, will be the main tools for assessing project implementation progress and whether project results are being achieved. The means of verification to track the indicators are summarized in Annex A.

The M&E plan will be reviewed and revised as necessary during the project inception workshop to ensure project stakeholders understand their roles and responsibilities vis-?-vis project monitoring and evaluation. Indicators and their means of verification may also be fine-tuned at the inception workshop. General project monitoring is the responsibility of the Executing Agency, but other project partners will have responsibilities to collect specific information to track the indicators. It is the responsibility of the Project Manager to inform the Project Steering Committee of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely fashion.

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

Project supervision will take an adaptive management approach. The UNEP Task Manager will develop a project supervision plan at the inception of the project, which will be communicated to the Project Manager and the project partners during the inception workshop. The emphasis of the Task Manager?s supervision will be on outcome monitoring but without neglecting project financial management and implementation monitoring. Progress vis-?-vis delivering the agreed project global environmental benefits will be assessed with the Project Steering Committee at agreed intervals. Project risks and assumptions will be regularly monitored by UNEP. Risk assessment and rating is an integral part of the Project Implementation Reports (PIR). The PIR will be completed by the Project Manager, with the support of the UNEP Task Manager. The quality of project monitoring and evaluation will also be reviewed and rated as part of the PIR. UNEP?s Task Manager will have the responsibility of verifying the PIR and submitting it to the GEF. Key financial parameters will be monitored bi-annually to ensure cost-effective use of financial resources.

Given the short duration of the project (24 months) and the need for the project to focus on concerted delivery of outcomes, no Mid-Term Evaluation (MTE) will be undertaken. However, if the project is rated as being at risk or if deemed needed by the Task Manager, he/she may decide to conduct a Mid-Term Review (MTR). This review will include all parameters recommended by the GEF Evaluation Office for

Terminal Evaluations (TE) and will verify information gathered through the GEF tracking tools, as relevant. The review will be carried out using a participatory approach whereby parties that may benefit or be affected by the project will be consulted. Such parties were identified during the stakeholder analysis (see previous section *2. Stakeholders* and Annex K). Members of the project Steering Committee could be interviewed as part of the MTR process and the Project Manager will develop a management response to the review recommendations along with an implementation plan. Results of the MTR will be presented to the Project Steering Committee. It is the responsibility of the UNEP Task Manager to monitor whether the agreed recommendations are being implemented.

In-line with UNEP Evaluation Policy and the GEF?s Monitoring and Evaluation Policy the project will be subject to a Terminal Evaluation.

The Evaluation Office will be responsible for the Terminal Evaluation (TE) and will liaise with the Task Manager and Executing Agency(ies) throughout the process. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP, the GEF, executing partners and other stakeholders.

The direct costs of the evaluation will be charged against the project evaluation budget. The Terminal Evaluation will be initiated no earlier than six months prior to the operational completion of project activities and, if a follow-on phase of the project is envisaged, should be completed prior to completion of the project and the submission of the follow-on proposal. Terminal Evaluations must be initiated no later than six months after operational completion.

The draft TE report will be sent by the Evaluation Office to project stakeholders for comment. The Evaluation Office will share formal comments on the report in an open and transparent manner. The project performance will be assessed against standard evaluation criteria using a six-point rating scheme. The final determination of project ratings will be made by the Evaluation Office when the report is finalised and further reviewed by the GEF Independent Evaluation Office upon submission. The evaluation report will be publicly disclosed and may be followed by a recommendation compliance process.

M&E Budget and Workplan

M&E Activity	Description	Responsible Parties	Timeframe	Indicative budget (USD)

M&E Activity	Description	Responsible Parties	Timeframe	Indicative budget (USD)
Inception Workshop (IW)	Report prepared following the IW; which includes: - A detailed workplan and budget for the first year of project implementation, - An overview of the workplan for subsequent years, divided per component, output and activities. - A detailed description of the roles and responsibilities of all project partners - A detailed description of the PMU and PSC, including an organization chart - Updated Procurement Plan and a M&E Plan, Gender Action Plan - Minutes of the Inception Workshop	Execution: PM Support: PMU	1 report to be prepared following the IW, to be shared with participants 4 weeks after the IW (latest)	GEF: as part of PM budget
Steering Committee Meeting	Prepare minutes for every Steering Committee Meeting.	Execution: PM Support: PMU	At least 1 per year Minutes to be submitted 1 week following each PSC meeting	GEF: as part of PM budget

M&E Activity	Description	Responsible Parties	Timeframe	Indicative budget (USD)
Half-yearly progress report	Part of UN Environment requirements for project monitoring. - Narrative of the activities undertaken during the considered semester - Analyzes project implementation progress over the reporting period; - Describes constraints experienced in the progress towards results and the reasons.	Execution: PM Support: PMU	Two (2) half-yearly progress reports for any given year, submitted by July 31 and January 31 (latest)	GEF: as part of PM budget
Quarterly expenditure reports	Detailed expenditure reports (in excel) broken down per project component and budget line, with explanations and justification of any change	Execution: PM and Financial Officer Support: PMU	Four (4) quarterly expenditure reports for any given year, submitted by January 31, April 30, July 31 and October 31 (latest)	GEF: as part of PM budget
Project Implementation Review (PIR)	Analyzes project performance over the reporting period. Describes constraints experienced in the progress towards results and the reasons. Draws lessons and makes clear recommendations for future orientation in addressing the key problems in the lack of progress. The PIRs shall be documented with the evidence of the achievement of end-of-project targets (as appendices).	Execution: PM and TM Support: PMU	1 report to be prepared on an annual basis, to be submitted by 15 July latest	GEF: as part of PM budget

M&E Activity	Description	Responsible Parties	Timeframe	Indicative budget (USD)
Annual Inventory of Non-expendable equipment	Report with the complete and accurate records of non-expendable equipment purchased with GEF project funds	Execution: PM Support: PMU	1 report per year as at 31 December, to be submitted by 31 January latest	GEF: as part of PM budget
Co-financing Report	Report on co-financing (cash and/or in-kind) fulfilled contributions from all project partners that provided co-finance letters.	Execution: PM Support: co-finance partners	1 annual report from each co-finance partner, and 1 consolidated report, to be submitted by 31 July latest	GEF: as part of PM budget
Medium-Term Review (MTR) *Optional*	The purpose of the MTE or MTR is to provide an independent assessment of project performance at mid-term, to analyze whether the project is on track, what problems and challenges the project is encountering, and which corrective actions are required so that the project can achieve its intended outcomes by project completion in the most efficient and sustainable way. It will verify information gathered through the GEF tracking tools.	Execution: Independent Evaluator / TM Support: PM, PMU	At mid-point of project implementation if deemed needed by the Task Manager	GEF: US$ 10,000

M&E Activity	Description	Responsible Parties	Timeframe	Indicative budget (USD)
Final Report	The project team will draft and submit a Project Final Report, with other docs (such as the evidence to document the achievement of end-of-project targets). Comprehensive report summarizing all outputs, achievements, lessons learned, objectives met or not achieved structures and systems implemented, etc. Lays out recommendations for any further steps to be taken to ensure the sustainability and replication of project outcomes.	Execution: PM Support: PMU	Final report to be submitted no later than three (3) months after the technical completion date	GEF: as part of PM budget
Terminal Evaluation (TE)	Further review the topics covered in the mid-term evaluation. Looks at the impacts and sustainability of the results, including the contribution to capacity development and the achievement of global environmental goals.	Execution: Independent Evaluator / TM Support: PM, PMU	Can be initiated within six (6) months prior to the project?s technical completion date	GEF: US$ 20,000
TOTAL M&E COST			**GEF: US$ 30,000 + part of PM budget**	

10. Benefits

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

The Project aims to achieve the following socioeconomic benefits:

1) Market transformation through:

Catalyzing public-private collaborations and encouraging private investment. The project will support market transformation efforts around the world to demonstrate the power of public-private and national-subnational engagement to develop and implement strategies to decarbonize building operations.

Providing countries and cities with information on energy consumption and GHG intensity of their building sector enabling them to improve energy efficiency and increase the share of clean energy in buildings. This information will begin to allow for comparison of energy consumption and emissions patterns between buildings and thereby allow government and the private sector to understand where there is room for improvement in the energy use and supply of their buildings.

2) Cost savings to businesses, households and the public sector resulting from avoided energy bill costs, affordable procurement of clean energy, and reduced energy supply and infrastructure needs.

3) Economic development through job creation related to building construction and clean energy and improved resilience and energy security from increased energy productivity and diversified energy supply.

4) Environmental and health improvements through improving using of local and national clean and renewable resources and energy efficiency, improving outdoor and indoor air quality, and improving comfort, productivity and quality of life within buildings.

5) Social development through more sustainable and equitable urbanization patterns, improving urban livelihoods, more knowledgeable city governance, and improved delivery, access, quality and affordability of urban energy services.

The Project has included gender considerations and the perspective of women in the project design, which will help to mitigate risks to the project and generate building decarbonization actions that are more locally appropriate and effective. The Project includes consideration of gender-related impacts, gender-related education and gender inclusion as strategies.

In collecting data, the project will disaggregate information by sex, as previously noted. The project will track gender of participants in stakeholder groups, workshops, project staff and working groups. Gender as

a topic will be addressed in the project team and stakeholder meetings, to help identify other areas where gender goals could be established.

The project team will be supported by WRI?s gender advisor (as in-kind co-finance), a staff person who will help with development and implementation of the gender-related project elements.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
	Low		

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

This is likely a low risk project.

It is good that the project considers advising social, environmental and economic assessments of the potential impacts of policies and investments are undertaken, demonstrating methods for assessing costs and benefits. It would be useful to include such measures as part of the key project activities.

SS 8 and 9: Demand-driven changes can be considered as well as the supply-side improvement of energy efficiency in buildings. Special attention should be given to low income housing and cheap, locally available and sustainable building materials that can help improving labor and local economy.

Consider creating job and business opportunities for women and minorities by bringing their perspectives (their needs and roles).

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
ZCB_ESERN_2020.08.28	**CEO Endorsement ESS**	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Project Objective	Objective level Indicators	Baseline	End of project Target	Means of Verification	Assumptions & Risks	UN Environment MTS reference
Reduce greenhouse gas emissions by supporting market transformations that will facilitate decarbonization of the building sector by linking global market experience, national policy, local action and capacity building.	Indicator A: #tCO_2eq avoided by the project through building decarbonization (direct and 20 years post-project direct emissions reductions)	Baseline A: Moderate tCO_2eq avoided in continuing deep engagement cities, and 10% of expected savings happening as business as usual. Details in CEO Endorsement Document narrative.	End-of-project target A: 7,099,211 tCO_2e avoided (direct during the project (2020-2022) and direct in the 20 years following project completion (2023-2042))	Energy and climate impacts articulated using GHG Protocol Standards and other internationally recognized standards.	Cities may be unable to achieve proposed emissions reductions most of which occur after the project completion	UNEP MTS 2018-2021 Climate Change Objective: Countries increasingly transition to low-emission economic development and enhance their adaptation and resilience to climate change
Project Outcomes	**Outcome level Indicators**	**Baseline**	**End of project Target**	**Means of Verification**	**Assumptions & Risks**	**MTS Expected Accomplishment**
Outcome 1: Two national governments link NDCs and/or other national strategies with zero carbon buildings and develop approaches to support subnational governments, utilities, the private sector and civil society to accelerate the market transformation towards zero carbon buildings	Indicator 1.1: The # of relevant ministries in the Colombia national government engaged in linking ZCBs with NDCs and/or national energy strategy	Baseline 1.1: Two ministries in Colombia are engaged on building decarbonization but the topic is not directly connected in the NDC or other national climate or energy strategy. The Ministry of Housing is starting to implement a building efficiency regulation, but it is not linked to and does not aim for decarbonization. The Ministry of Environment is engaged on decarbonization and considering including building actions.	4 ministries (Environment, Housing, Energy, Industry) are participating in efforts to apply building decarbonization as part of their NDCs and/or national energy strategy	Monitoring and tracking by WRI project team and partners based on dialogue reports	Commitments may be delayed in some countries due to various interests involved, political cycles and/or bureaucratic reasons.	Expected Accomplishment (b): Countries increasingly adopt and/or implement low greenhouse gas emission development strategies and invest in clean technologies
	Indicator 1.2: The # of relevant ministries in the Turkey national government engaged in linking ZCBs with NDCs and/or other national climate or energy strategy	Baseline 1.2: National climate and energy strategies, jointly managed through the Ministry of Environment & Urbanization and Ministry of Energy & Natural Resources, engage with building energy efficiency, nearly zero-energy buildings, and reducing environmental impact of the building sector, but they do not explicitly focus on building decarbonization.	2 ministries (Energy & Natural Resources and Environment & Urbanization) are participating in efforts to apply building decarbonization as part of their NDCs and/or other national climate or energy strategy	Monitoring and tracking by WRI project team and partners; draft roadmap documents	Actions may be delayed in some countries due to various interests involved, political cycles and/or bureaucratic reasons.	
	Indicator 1.3: # national governments and/or finance institutions tracking the amount of funding/financing for building decarbonization policies or investments in each country	Baseline 1.3: 1 finance institution (EBRD) tracks the amount of funding/financing for building decarbonization investments	2 national governments (Colombia and Turkey) and 2 finance institutions track the amount of funding/financing for building decarbonization investments	Monitoring and tracking by WRI project team and partners	Tracking will require clear definitions or approaches for governments or financial institutions to determine what policies and investments meet qualifying criteria for building decarbonization.	
Outcome 2: City governments in two countries use newly gained tools and knowledge to achieve socially, environmentally and economically viable GHG mitigation in buildings to advance towards ZCBs.	Indicator 2.1: # of cities in two focus countries (Turkey and Colombia) that progress action on building decarbonization by at least one stage (Commit; Assess; Develop; Implement; Improve)	Baseline 2.1: 3 cities in two focus countries (Turkey and Colombia) are taking existing actions on building efficiency but not the other elements of building decarbonization.	End-of-project target 2.1: At least 4 cities in two focus countries (Turkey and Colombia) have submitted a policy for adoption on building decarbonization	Monitoring and tracking by WRI project team and partners; BEA Tracking Progress Framework	Progression of actions may be delayed in some cities due to various interests involved, political cycles and/or bureaucratic reasons.	Expected Accomplishment (b): Countries increasingly adopt and/or implement low greenhouse gas emission development strategies and invest in clean technologies
	Indicator 2.2: # of cities emphasizing equity (social, economic and/or environmental) and inclusion (including gender) in the design of their selected building decarbonization actions	Baseline 2.2: 3 cities track gender participation in events. 1 city has made efforts to emphasize equity and inclusion in the design of their selected building decarbonization actions: Bogotá included social housing in its building energy efficiency regulation.	End-of-project target 2.2: At least 2 cities emphasize equity (social, economic and/or environmental) and inclusion (including gender) in the design of their selected building decarbonization actions	Monitoring and tracking by WRI project team and partners; BEA Tracking Progress Framework		
Outcome 3: National, subnational, and city governments, beyond those in components 1 and 2, advance actions towards zero carbon buildings.	Indicator 3.1: # of existing BEA subnational or city governments (beyond those in component 2) that progress building decarbonization actions by at least one stage (Commit; Assess; Develop; Implement; Improve)	Baseline 3.1: 34 subnational or city governments have actions underway on one element of building decarbonization (building efficiency) in the Assess stage or beyond, and 20 subnational governments are in the Commit stage. *This baseline will be updated to reflect the status of subnational action in July 2020 to avoid any overlaps with previous projects.*	End-of-project target 3.1: At least 10 subnational or city governments progress building efficiency or other elements of building decarbonization by at least one stage via new building decarbonization commitments or advancing existing building efficiency actions	Monitoring and tracking by WRI project team and partners; BEA Tracking Progress Framework	Actions may not be developed within proposed time frame due to various interests involved or and/or bureaucratic reasons	Expected Accomplishment (b): Countries increasingly adopt and/or implement low greenhouse gas emission development strategies and invest in clean technologies
	Indicator 3.2: # of national governments (beyond those in component 1) that progress building decarbonization actions by at least one stage (Commit; Assess; Develop; Implement; Improve)	Baseline 3.2: 2 national governments have begun engagement on building decarbonization: - Kenya committed to the Zero Carbon Buildings for All initiative - Costa Rica has held initial dialogue between the national government and building sector stakeholders	End-of-project target 3.2: At least 1 national government progresses building decarbonization by at least one stage	Monitoring and tracking by WRI project team and partners; BEA Tracking Progress Framework	Actions may not be developed within proposed time frame due to various interests involved or and/or bureaucratic reasons	Expected Accomplishment (b): Countries increasingly adopt and/or implement low greenhouse gas emission development strategies and invest in clean technologies

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

Below are the responses to project reviews on the PIF:

GEF Secretariat Review for Medium Sized Project ? GEF - 7
Basic Information

GEF ID
10321
Countries
Global

Project Title
Zero Carbon Buildings for All: from Energy Efficiency to Decarbonization
GEF Agency(ies)
UNEP

Agency ID
GEF Focal Area(s)
Climate Change

Program Manager
Filippo Berardi

PIF
Part I ? Project Information
Focal area elements

1. Is the project/program aligned with the relevant GEF focal area elements in Table A, as defined by the GEF 7 Programming Directions?
Secretariat Comment at PIF/Work Program Inclusion
(*note on review process for this project: given the urgency of the preparation in advance of the UNSG Climate Summit in Sept 2019, the review was initiated off-line before the portal submission. For simplicity, all comments are included in this portal box, even is referring to other sections*)

NEW COMMENTS as of 08/28/2019

1. A specific number of countries (i.e. #2) is missing from the description of project outcome 1.1. in Table B. Please add this

2. Please fill in Table E for the PPG amount. Right now it is showing blank.

3. If you have this number available, please input the value at PIF level for core indicator 6.3

4. ?*Building Efficiency Accelerator program baseline: building on success*? section: please add the acronym ?BEA? in parenthesis after the first time the Building Efficiency Accelerator is mentioned.

5. Figure 1. Can this be revised to include the 10 new cities? The figure says it is updated as of July 2019.

6. Can cities that have received financial support from the GEF be marked in the picture? Right now the deep dive cities are marked, but there is no distinction between the GEF network cities and non GEF network cities.

7. Same comment as above goes for Table 1.

8. Also, Table 1 caption mentions that the BEA has 51 cities, while the word document provided mentions 46 cities as of July 2019. Is this a typo?

9. ?*Zero Carbon Buildings for All: Increasing Ambition to Meet Global Goals?* section: the first sentence states that EE actions to date haven?t been enough. The third sentence states that ?The *necessary* interventions will require $xxx??. Enough and Necessary should be specified vs. a specific benchmark. If this is referring to a Paris-compatible low-emission scenario, please specify so. Otherwise it sounds vague.

10. In the section about the alternative scenario, the GEF-6 cities platform is referred to as ?Global Program on Sustainable Cities?. The correct name is ?Global Platform for Sustainable Cities?. Please rectify.

11. Component 2, with regards to deep dive cities selection, mentions that ?the project will solicit nominations from a pool of candidates cities within a set of countries likely to be considered for national engagements??. Please clarify is the intent is to launch cities selection at the same time as conducting national selection? This part looks inconsistent with the first one of the selection criteria listed, which would appear to suggest that cities will be selected within countries which have already been selected for the national-level engagement.

12. Component or activities related to the financing of knowledge management and knowledge transfer products are missing or it is unclear what source of funding will be used to finance the knowledge management activities. In the BEA logframe, the KM and the M&E activities received ad hoc funding. Please clarify where funding is expected to be drawn to finance these activities for this new MSP.

13. Section 7 ? consistency with national priorities: this section does not include Argentina, while Argentina is previously listed with the other 4 countries as likely candidate for the national level components (with India, Mexico, Turkey and Colombia). Please either include Argentina or remove it from the previously presented list of likely candidates.

The following comments were discussed and addressed and/or responded to by the agency in the PIF that was submitted to the portal.

GEFSEC comments on Aug 5th (on CO2 ERs calculations):
The suggested approach regarding the qualification between direct and indirect emissions is described below:

1. At PIF level, and in the absence of a final selection of the participating countries, the generic assumptions made in the PIF on country/city sizes and population are acceptable. Once we have the countries selected, before the CEO endorsement request is finalized, such assumptions should be adjusted.
2. In terms of ?direct? vs. ?consequential? emissions (as per most recent GEF terminology - formerly ?indirect?), the key is whether we consider that adoption of the drafted policies is included or not in the logframe. At it stands, the PIF?s outputs include that policies are ?drafted? for adoption. The project?s outcomes do not explicitly include ?policy adopted? as a key expected outcome. Therefore, as it stand, the results of the policies being adopted would be outside the project?s logframe, therefore, in case the policies are adopted, the emission reductions resulting from them should be considered ?consequential?.
3. If, however, logframe is revised to have ?policies adopted? listed as the project?s key outcome, then the emission reductions could be considered direct, as they would be stemming directly from

policies whose adoption was included explicitly in the project?s logframe. Policy *adopted* would be a project outcome, policy *drafted for adoption* would be a project output).
4. Considering that the project does not have full control on policy adoption, which depends on additional factors, the PIF could then clearly include in the risk section the risk of the policies not being adopted by the city/national government, due to circumstances not controlled by/external to the project.
5. The selection of the countries will have to take into account the reasonable level of expectation that the policy, once drafted, will in fact be adopted by the country. It goes without saying that we should prioritize countries where this level of confidence/commitment is the highest.
Response from the project design team (Aug 6th, 2019): Thank you very much for this extremely thoughtful and helpful suggestion. We have made the changes as you?ve suggested to incorporate policy adoption into the logframe, include this in the risk section, and indicate the resulting expected direct emissions reductions.

GEFSEC comments July 31st:

With regards to my comment on clearly defining the boundaries between previous iterations of the GEF funding to the BEA and the NZCB MSP, my may point was with regards to the new funding which would be made available with the new MSP. While it is perfectly fine and advisable to build on and reinforce what has already been done, we also need to ensure that the new funds are clearly directed to the new project, and if there is a proposal to use some of the funding to keep financing costs related to the ?old? BEA(s) this is clearly outlined and submitted to the GEFSEC as part of the formal review process. I suppose this will be clarified with the submission of the detailed proposed budget.

With regards to the co-financing, we can surely structure a project that includes more than the countries funded with GEF resources, and cover the activities within the other countries with co-financing. As long as the project uses the same theory of change and organizational structure and modalities, global environmental benefits obtained from the whole project would be considered outcome of the GEF intervention.

GEFSEC comments to second draft - July 26th 2019

There is still some level of confusion in terms of where the boundaries of the BEA end and the new NZCB project starts. This is still evident in the knowledge management section, in the implementation arrangements and to some extent, in terms of funding, it also emerges in the section of the document where it is said that this new project will ?maintain? the existing BEA network by continuing to provide technical assistance to partner cities. We need to be clear about which budget lines, within which components/outputs, will be used to finance activities that go beyond the new countries and new jurisdictions identified as key outcomes of the new project. Specific comments in this direction have been included in the word text.

Response from project design team (July 26): I think the confusion stems from this being both a continuation of the BEA ? in that energy efficiency is the critical first step towards NZCBs ? and something that goes beyond the historic scope of the BEA. Therefore we are building on the BEA structure (i.e., the knowledge management and tools, and the BEA governance structure) despite the scope expanding beyond efficiency. We can state this more clearly in the PIF, which I think will then clarify a number of your questions along these lines.

GEFSEC Comments to first draft of ZCB Proposal ? July 2nd 2019

1. The log-frame (Table B) lists 2 countries and 3-4 sub-national jurisdictions. The PPT which was originally shared with the GEF mentions 5 countries. Our understanding is that the project would secure cofinancing to be able to cover for the level of ambition presented in the PPT.

a. $1 million per country appears to be too expensive for what is outlined. The roadmapping and knowledge materials should be readily adaptable to multiple additional countries, and workshops in local jurisdictions are time-consuming but shouldn?t be too expensive financially.

[Response from project design team: *we note as to your first comment about the scope of the work ? our initial presentation that noted work in 5 countries plus 10 or so cities was budgeted at USD $5 million. With this draft PIF, we have scaled the ambition back to what is possible within the USD $2 million of the project (2 countries plus 4 deep engagement cities, which require separate local technical advisors and therefore separate resources/budget). We are indeed actively fundraising for additional resources so that we can work with additional countries, but for this particular project we believe that is the scope we can manage well within the resources provided. We will share a draft budget to explain this further.*]

b. If the overall goal mentioned in the PPT is five countries, will co-financing pay for the other 3 countries? That should be mentioned in the PIF.

c. Even with a 2:3 co-financing ratio, which would be needed to get to the number of countries initially included in the PPT, are worried that the co-financing ration remains pretty low for a GEF project. The co-financing levels achieved with the previous accelerators is around 1:7.

d. 1.1.5: this point should be strengthened. It is important to demonstrate a firmer commitment to a pathway for policy ?adoption? as much as possible, not just policy ?identified and prioritized.?

2. As an overall editorial comment: each project component described from pag 12 onwards repeat the component outputs already listed in Table B. The reviewer has therefore to read it twice and make sure the text is consistent. This adds to the overall length of the PIF without adding any new information.

3. Project justification: it mentions that buildings are the ?largest sources of carbon emissions globally?, perhaps that should be qualified as ?demand-side emissions? otherwise it may be confusing vs energy generation.

4. The project description is very thorough on the ZCB concept, but it takes until page 8 to mention the GEF/BEA. The PIF would be stronger if it mentioned the successful BEA earlier; it comes almost at the end of the ?baseline program? section, whereas it could be presented upfront as the foundations on which this new -even more ambitious- initiative builds. Results from the BEA are also presented in section 7 (page 20) and should be more frontloaded.

5. Some narrative should be added as of why we are moving from city level to national action, and how that fits in the process to revise NDCs and increase ambition.

6. The PPT originally provided delivers a strong argument for ZCB. But the PIF should be more articulate about how the GEF funded BEA accelerator, in the various iterations, has been successful and is the right mechanism to host/launch the ZCB effort. The ZCB effort could be presented as the element that raises the ambition of the support available to countries through the accelerators package, which in turns links with the increased level of ambition in the NDC 2020 revision process.

7. Table 1 is a critical summary snapshot of the 45 BEA cities so far. What is missing is an indicator of the GEF recipient status. For example, Dubai is advanced, but not a result of GEF investments. Indication of coverage under the GEF projects should be explicit and added for both Figure 1 and Table 1. This could be as simple as an asterisk for each GEF city and country.

8. As a related but separate point to the above, in cases where there is limited advancement to later stages in cities/countries previously supported by the GEF, an explanation of the reasons/barriers

encountered, and lessons learned should be provided. It should also be explained how these lessons, where relevant, are being incorporated in the design of the new proposal.

9. The PIF is silent on what happens to the existing efforts under BEA, including the partnerships in progress. Recognizing that countries can be at very different levels of ?readiness? with regards to ZCB, what will be the relationship with countries that are not ready for the ZCB but still want to benefit from the BEA?

10. The PIF should discuss alignment with GEF?s Sustainable Cities Impact Program. The Global Platform for SC and the paragraph on page 12 is a start, but should be expanded. Even though the SC IP is still under development, GEF-7 Programming Directions clearly outline its level of ambition and this should be reflected in the PIF and clearly linked with the activities proposed. We can provide specific inputs on the text for this section once the next draft is provided.

11. Component 1

a. Selection of countries in Component 1. The country scope and selection process are partially discussed on page 13. If BEA partner cities are required for national country selection, that narrows down the country selection quite a bit. Can you please provide a list of countries that would potentially fit those criteria ? how many countries are that would make the cut? If the minimum threshold of 3 cities going to be applied independently of the size of the country?

12. Component 2

a. Selection of cities in component 2. Are the deep dive cities going to be necessarily selected in the countries identified under component 1?

b. The implication in component 1 is that a country already had 3 BEA cities in it. The detailed list of criteria for city selection in component 2 implies that those 3 BEA cities won?t be automatically chosen. Therefore, why should having 3 BEA cities be a criterion for country selection. This would need to be explained.

c. 2.1.6 references development banks. However, the threshold is pretty low here (?discussion have been initiated?) and this could be very easily achieved even before starting the implementation of the project. More specificity and ambition are needed in terms of linking up with MDBs/NDBs/Financiers.

d. The PPT originally presented made a strong argument that financing of ZCB has low premium. Therefore, private investment may also be a good source for financing. Is 2.1.6 meant to be exclusive to development bank partners? If so, what are they providing as commitment to the process?

13. Component 3. This appears to be the global component, but the way it is presented in Table B is confusing. At first read, it appears to be a further deep relationship within the 2 countries identified in Components 1 and 2. The description of component 3 in text is clearer, but still needs explication.

a. The cities under component 3 appear to be ?new? cities for the network (not previously light touch). However, are the six city and three city output metrics in component 3.1.1 and 3.1.2 different cities from the cities in components 1 and 2?

14. Timeline

a. Launch of the project by March seems ambitious, as the CEO Approval document will need to be ready by January, so we will need to see the timeline for the PPG. Not impossible, but probably very tight.

b. The timeline doesn?t seem to mention the component 3 global outreach/new cities in the network. This could be added.

c. Also, there should be mention of a sustainability plan, for how to ensure that the efforts in the countries selected continue after the end of the GEF funding.

15. Section 5

a. Should reinforce the argument that a successful BEA phase 1 and 2 is a strong foundation for this ZCB project.

16. Section 6

a. GHG emission reductions estimate: clarification should be provided and clearly outlined regarding how the methodology will avoid double-counting GEF funded investments in existing BEA city partners, for which we have already claimed a GHG benefit.

b. The section on coordination mentions that ?positive support? have been received by a number of MDBs regarding this proposal. While no formal commitments are required at PIF stage from co-financiers, the type of support received both in terms of financial and non-financial aspects needs to be explained in much further details. An estimate of co-financing will need to be included. This will link up with the description of private sector engagement once that section is completed.

17. Section 7: the list of countries should be checked considering the latest developments from the Abu Dhabi meetings. New countries may have emerged as interested or good candidates (Kenya?) and could be included as the list if tentative.

18. Section 8 does a good job in outlining what has been done in the BEA?s iterations. Some forward looking content for this section is needed as well.

Agency Response

UNEP responses to new GEF Sec comments as of 08/28/2019:

1. Two countries have now been added in the description of project outcome 1.1. in Table B.

2. The project development team is not requesting for a Project Preparation grant.

3. The number for core indicator 6.3 (Energy saved: 20,655,000,000 MJ) has been added to the PIF.

4. The BEA acronym has been added in parenthesis after the first time the Building Efficiency Accelerator is mentioned.

5. Figure 1 has been updated to include all 52 current cities (updated as of September 2019).

6. The GEF supports the whole global network, so all cities in the picture are GEF network cities.

7. Same answer as above. The GEF supports the whole global network, so all cities in Table 1 are GEF network cities.

8. The BEA now has 52 cities ? we?ve been adding them quickly. Table 1 has been updated accordingly. Appendix A has also been updated accordingly.

9. The ?*Zero Carbon Buildings for All: Increasing Ambition to Meet Global Goals?* section has been edited to clarify that it is referring to a Paris-compatible low-emission scenario.

10. In the alternative scenario section, the GEF-6 cities platform has been corrected to be referred to as ?Global Platform for Sustainable Cities?.

11. We have now clarified in the PIF that the pool of cities will come from the countries selected for national engagements.

12. We have now clarified in the PIF that Component 3 will include knowledge management and knowledge transfer products and activities. In particular, Output 3.1.1 will cover this, focusing on the BEA global platform. The specific budget for these activities will be determined during the detailed development of the project?s CEO Endorsement Document.

13. Argentina has now been removed from the previously presented list of likely candidates.

Indicative project/program description summary

2. Are the components in Table B and as described in the PIF sound, appropriate, and sufficiently clear to achieve the project/program objectives and the core indicators?
Secretariat Comment at PIF/Work Program Inclusion
yes.

Agency Response

Co-financing

3. Are the indicative expected amounts, sources and types of co-financing adequately documented and consistent with the requirements of the Co-Financing Policy and Guidelines, with a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized?
Secretariat Comment at PIF/Work Program Inclusion

Agency Response

GEF Resource Availability

4. Is the proposed GEF financing in Table D (including the Agency fee) in line with GEF policies and guidelines? Are they within the resources available from (mark all that apply):

Secretariat Comment at PIF/Work Program Inclusion

yes.

Agency Response

The STAR allocation?

Secretariat Comment at PIF/Work Program Inclusion

n/a

Agency Response

The focal area allocation?

Secretariat Comment at PIF/Work Program Inclusion

n/a

Agency Response

The LDCF under the principle of equitable access

Secretariat Comment at PIF/Work Program Inclusion

n/a

Agency Response

The SCCF (Adaptation or Technology Transfer)?

Secretariat Comment at PIF/Work Program Inclusion

n/a

Agency Response

Focal area set-aside?
Secretariat Comment at PIF/Work Program Inclusion
yes, this is ok.

Agency Response

Impact Program Incentive?
Secretariat Comment at PIF/Work Program Inclusion
n/a

Agency Response

Project Preparation Grant

5. Is PPG requested in Table E within the allowable cap? Has an exception (e.g. for regional projects) been sufficiently substantiated? (not applicable to PFD)
Secretariat Comment at PIF/Work Program Inclusion
yes. however please note comment to table E.

Agency Response

The project development team will not request for a Project Preparation Grant.

Core indicators

6. Are the identified core indicators in Table F calculated using the methodology included in the correspondent Guidelines? (GEF/C.54/11/Rev.01)
Secretariat Comment at PIF/Work Program Inclusion
yes, however please note comment to core indicator 6.3

Agency Response

The figure for core indicator 6.3 (Energy saved: 20,655,000,000 MJ) has now been added to the PIF.

Project/Program taxonomy

7. Is the project/ program properly tagged with the appropriate keywords as requested in Table G?

Secretariat Comment at PIF/Work Program Inclusion

yes.

Agency Response

Part II ? Project Justification

1. Has the project/program described the global environmental / adaptation problems, including the root causes and barriers that need to be addressed?

Secretariat Comment at PIF/Work Program Inclusion

yes.

Agency Response

2. Is the baseline scenario or any associated baseline projects appropriately described?

Secretariat Comment at PIF/Work Program Inclusion

yes.

Agency Response

3. Does the proposed alternative scenario describe the expected outcomes and components of the project/program?

Secretariat Comment at PIF/Work Program Inclusion

yes.

Agency Response

4. Is the project/program aligned with focal area and/or Impact Program strategies?

Secretariat Comment at PIF/Work Program Inclusion

yes.

Agency Response

5. Is the incremental / additional cost reasoning properly described as per the Guidelines provided in GEF/C.31/12?

Secretariat Comment at PIF/Work Program Inclusion

yes.

Agency Response

6. Are the project?s/program?s indicative targeted contributions to global environmental benefits (measured through core indicators) reasonable and achievable? Or for adaptation benefits?

Secretariat Comment at PIF/Work Program Inclusion

yes.

Agency Response

7. Is there potential for innovation, sustainability and scaling up in this project?

Secretariat Comment at PIF/Work Program Inclusion

yes.

Agency Response

Project/Program Map and Coordinates

Is there a preliminary geo-reference to the project?s/program?s intended location?

Secretariat Comment at PIF/Work Program Inclusion

not applicable as the project locations will be determined after PIF approval.

Agency Response

Stakeholders

Does the PIF/PFD include indicative information on Stakeholders engagement to date? If not, is the justification provided appropriate? Does the PIF/PFD include information about the proposed means of future engagement?

Secretariat Comment at PIF/Work Program Inclusion

yes.

Agency Response

Gender Equality and Women?s Empowerment

Is the articulation of gender context and indicative information on the importance and need to promote gender equality and the empowerment of women, adequate?

Secretariat Comment at PIF/Work Program Inclusion

yes.

Agency Response

Private Sector Engagement

Is the case made for private sector engagement consistent with the proposed approach?

Secretariat Comment at PIF/Work Program Inclusion

yes.

Agency Response

Risks

Does the project/program consider potential major risks, including the consequences of climate change, that might prevent the project objectives from being achieved or may be resulting from project/program implementation, and propose measures that address these risks to be further developed during the project design?

Secretariat Comment at PIF/Work Program Inclusion

yes, risks have been listed, including the significant risk of government adoption of the drafted policies, which could result into a reduction of the emission reduction actually generated by the project, as compared to those expected at project approval.

Agency Response

Coordination

Is the institutional arrangement for project/program coordination including management, monitoring and evaluation outlined? Is there a description of possible coordination with relevant GEF-financed projects/programs and other bilateral/multilateral initiatives in the project/program area?

Secretariat Comment at PIF/Work Program Inclusion

yes.

Agency Response

Consistency with National Priorities

Has the project/program cited alignment with any of the recipient country?s national strategies and plans or reports and assessments under relevant conventions?

Secretariat Comment at PIF/Work Program Inclusion

yes, please note question on inclusion of Argentina in this section.

Agency Response

Argentina has now been removed from the previously presented list of likely candidates.

Knowledge Management

Is the proposed ?knowledge management (KM) approach? in line with GEF requirements to foster learning and sharing from relevant projects/programs, initiatives and evaluations; and contribute to the project?s/program?s overall impact and sustainability?

Secretariat Comment at PIF/Work Program Inclusion

yes, but please note question above on availability of a specific budget for knowledge management activities.

Agency Response

We have now clarified in the PIF that Component 3 will include knowledge management and knowledge transfer products and activities. In particular, Output 3.1.1 will cover this, focusing on the BEA global platform. The specific budget for these activities will be determined during the detailed development of the project?s CEO Endorsement Document.

Part III ? Country Endorsements

Has the project/program been endorsed by the country?s GEF Operational Focal Point and has the name and position been checked against the GEF data base?

Secretariat Comment at PIF/Work Program Inclusion

not applicable at PIF level, as this project uses global CCM set aside.

However, LoEs will be required from the countries that will be selected for the national and subnational components, once they are selected and before CEO Endorsement.

Agency Response

Comment taken. The project development team will ensure LoEs are collected before CEO Endorsement.

GEFSEC DECISION RECOMMENDATION

Is the PIF/PFD recommended for technical clearance? Is the PPG (if requested) being recommended for clearance?

Secretariat Comment at PIF/Work Program Inclusion

Not yet, please address the remaining comments before final clearance.

ADDITIONAL COMMENTS

Additional recommendations to be considered by Agency at the time of CEO endorsement/approval.

Secretariat Comment at PIF/Work Program Inclusion

Letters of Endorsement from the countries where GEF-funded activities will take place will have to be obtained.

Review Dates

	Agency Response
First Review	
Additional Review (as necessary)	
Additional Review (as necessary)	
Additional Review (as necessary)	
Additional Review (as necessary)	

Below are the responses to project reviews on the CEO Endorsement request:

Zero Carbon Buildings for All: from Energy Efficiency to Decarbonization

GEF Secretariat Review for Medium Sized Project ? GEF - 7

Basic Information

GEF ID

10321

Countries

Global

Project Title

Zero Carbon Buildings for All: from Energy Efficiency to Decarbonization

GEF Agency(ies)

UNEP

Agency ID

UNEP: 01747

GEF Focal Area(s)

Climate Change

Program Manager

Filippo Berardi

PIF

CEO Endorsement

Part I ? Project Information

Focal area elements

1. Does the project remain aligned with the relevant GEF focal area elements as presented in PIF (as indicated in table A)?

Secretariat Comment at CEO Endorsement Request

This item is cleared.

Yes.

Agency Response

Project description summary

2. Is the project structure/ design appropriate to achieve the expected outcomes and outputs as in Table B and described in the project document?

Secretariat Comment at CEO Endorsement Request

PPO comments: 17 Dec 2020:

1. Expected Implementation Start need to be adjusted to a more realistic date

2. Co-financing from IFC should be labeled as ?Donor Agency? as source (part of the WBG) instead of ?Others?

This item is cleared (PM review).

Review round 12/08/20:

All previous comments were addressed by the agency.

Comments 09/22/20.

The project structure and design are appropriate to achieve the expected outcomes, in line with the approved PIF. However, please note the comments below:

Project Budget: in line with the revised GEF Project Cycle Guidelines, please note the following requirements which are applicable to all first submissions of PIFs/CEO ERs from July 20th, 2020:.

A) General remarks:

1. Budgets provided by Agencies should show clear distinction between: i) PMC activities, ii) monitoring and evaluation activities, iii) project budget activities, and iv) which entity makes use of GEF financing to undertake them.

2. An indicative template is included in the Updated Guidelines - once completed, the Agency needs to submit it at the time of CEO Endorsement/Approval as an annex in the Portal. Note that Agencies received an excel format for them to carry out their calculations accurately - the final version of the excel format needs to be uploaded in the section ?Documents? in Portal. If the excel version is not uploaded, we cannot follow the calculations, reason why the project needs to be returned.

B) Additional guidance to prepare the budget:

1. the budget should include indication of the co-financing to each budget line.

2. total project financing amount of the budget table matches with totals of table A, B, and D.

3. sub-totals of components match with corresponding components in table B, including PMC and M&E.

4. sub-total of M&E matches with the M&E budget in the Portal and in the Project Document, as well as it is within the recommended threshold as specified in the Guidelines (5% of the GEF-funded part of project financing for projects up to USD 5 mil).

5. PMC are within the threshold or 5% of GEF project financing and there should be ?proportionality? between PMC covered by the GEF funding vs co-financing.

6. costs associated with the execution of the project are covered by the GEF portion *and* the co-financing portion of the PMC.

7. Project staff costs (e.g. Project Director/Manager, Coordinator, any admin/procurement staff, etc.) should be covered with PMC until reaching the allowable threshold (5% for GEF and a proportional amount from co-financing), and only after can be charged to project components other than PMC. In this case there should be a clear link (in the case of good or services) or Terms of Reference (in the case of project staff) describing unique outputs/deliverables linked to the respective components as opposed to general project execution.

Agency Response

22 December, 2020:

1. Expected Implementation Start has been adjusted to 1 February 2021.

2. Co-financing label for IFC has been changed to ?Donor Agency? as source (part of the WBG) instead of ?Others?

26 November, 2020:

<u>Project budget:</u>

UNEP understands, based on discussions between UNEP?s GEF Coordinator and the GEF?s Director of Strategy and Operations, that projects that had previously negotiated their budgets with executing agencies and partners and had already undergone internal quality assurance processes, would not be required to change the budget template at this point. Moreover, UNEP prefers to continue using its budget template for project implementation to be aligned with its management informatic system (UMOJA). However, we understand the GEF aim of budget standardization to facilitate its review and we have added an additional budget using the GEF template format in the CEO Endorsement request as well.

<u>A) With regards to the general remarks:</u>

1. The budget provided in the CEO Endorsement Document and uploaded on the Portal shows a clear distinction between Project Management costs, Monitoring & Evaluation costs, substantive project Components costs and an extra column showing which entity makes use of the GEF funds.

Note: WRI will be making use of the entire GEF grant for this project, with the exception of the budget planned for the Mid-Term Evaluation and the Terminal Evaluation (US$ 30,000) that will be used by the UNEP Evaluation Office.

2. Please refer to our response above on the project budget. The excel version of the project budget has been uploaded on the ?Documents? section of the Portal.

B) With regards to the additional guidance:

1) There was agreement from the GEF following these comments that the co-financing budget was sufficient as it currently has been submitted.

2) Tables A, B, and D match the total project financing amount of the budget table.

3) Sub-totals of components match the corresponding components in Table B.

4) The sub-total of M&E matches the description in the project document (Part II, Section 10).

5) PMC is within 10% of the project financing (the limit for a MSP) and it is proportional for GEF grant and cofinance.

6) Costs associated with project execution are covered by both the GEF costs and WRI co-financing for the PMC.

7) Project staff costs are now covered in PMC up to nearly the 10% threshold, and then in project components. Terms of Reference for project staff describing unique outputs/deliverables are provided in Annex H with clear linkages to project components.

3. If this is a non-grant instrument, has a reflow calendar been presented in Annex D?

Secretariat Comment at CEO Endorsement Request

N/A

Agency Response

Co-financing

4. Are the confirmed expected amounts, sources and types of co-financing adequately documented, with supporting evidence and a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized, and a description of any major changes from PIF, consistent with the requirements of the Co-Financing Policy and Guidelines?

Secretariat Comment at CEO Endorsement Request

This item is cleared.

yes, all organizations expected to provide co-financing volumes have submitted written confirmation letters.

Agency Response

GEF Resource Availability

5. Is the financing presented in Table D adequate and does the project demonstrate a cost-effective approach to meet the project objectives?

Secretariat Comment at CEO Endorsement Request

This item is cleared.

Yes, the financing presented in Table D is consistent with what presented in the PIF.

Agency Response

Project Preparation Grant

6. Is the status and utilization of the PPG reported in Annex C in the document?

Secretariat Comment at CEO Endorsement Request

N/A - no PPG was requested for this MSP.

Agency Response

Core indicators

7. Are there changes/ adjustments made in the core indicator targets indicated in Table E? Do they remain realistic?

Secretariat Comment at CEO Endorsement Request

This item is cleared.

The changes in the core indicators targets presented in Table E are reasonable, and attributable to the fact that the expected GHG reduction impacts are now calculated with respect to the two specific countries that have ben selected.

Agency Response

Part II ? Project Justification

1. Is there a sufficient elaboration on how the global environmental/ adaptation problems, including the root causes and barriers, are going to be addressed?

Secretariat Comment at CEO Endorsement Request

This item is cleared.

Yes, this is consistent with the PIF, as approved.

Agency Response

2. Is there an elaboration on how the baseline scenario or any associated baseline projects were derived?

Secretariat Comment at CEO Endorsement Request

This item is cleared:

review: 12/08/2020

Comments 09/20/2020:

Yes, the elaboration of the baseline is provided and in line with what approved at PIF level. However, the information included in relation to Colombia and Turkey in the section titled "Zero Carbon Buildings for All: increasing ambition to meet global goals" is insufficient to draw a clear picture of the baseline for the two countries and associated cities which have been selected for the project's deep dive engagements. Please consider and address the comments below with appropriate information in the CEO ER:

1. Clearly outline what was done, in detail, in both countries, at both national and local level, including activities implemented and results obtained (reasonably attributable to the project), including an estimation of the investments that have leveraged by the policy dialogue, technical support and regulatory work. (Existing baseline)

2. Clearly elaborate a narrative describing the prospective and dynamic results to be reasonably expected in the near/medium term as a consequence of the existing BEA activities in the two countries and relative cities, versus what would have happened without the existing activities (Dynamic/projected baseline).

3. with respect to Turkey, the section titled "Zero Carbon Buildings for All: increasing ambition to meet global goals" mentions that the with support of GIZ "the national Government is developing roadmaps towards nearly zero-energy building":

3.a. Please clarify how this initiative relates to the GEF/UNEP/WRI project and what are any overlap to be avoided/synergies to be maximized.

3.b. Also, it should be cleared which activities should already be considered in the baseline, and not as part of the project.

Agency Response

26 November, 2020:

1. 1.We have elaborated as requested on the in-country existing baseline, results, and leveraged investments in *Part II, Section 1b ?Project Description?, Subsection 2 ?Baseline scenario?*, in a new subtitled section ?National Snapshots: Turkey and Colombia? (p 20-22).

2. 2.We have elaborated as requested on the dynamic/projected baseline, and impact of activities thus far. This can be found in *Part II, Section 1b ?Project Description?, Subsection 2 ?Baseline scenario?*, in a new subtitled section ?National Snapshots: Turkey and Colombia? (p 20-22). As outlined in the CEO Endorsement Document, deep engagement cities will be selected during month 1 of the project. 2-3 of the 4 selected cities are expected to be continuing cities from previous BEA projects, so we have included information about local action in BEA cities in Colombia and Turkey. We have also included an accounting of the completed in-country activities that should be considered part of the project baseline.

3.With respect to the Turkey national roadmap to nearly-zero energy buildings (NZEBs), being developed with support from GIZ,

a. We have clarified that it will be a key input to a roadmap for decarbonizing buildings (please refer to the National snapshots section, p. 21). NZEB roadmaps tend to focus on the operational phase of a building, whereas building decarbonization can also include embodied carbon in the construction phase (such as the carbon intensity of building materials).

b. We have elaborated to explain that decarbonizing buildings includes consideration of decarbonizing the energy buildings will use (through electrification and/or clean energy, including offsite procurement of clean energy), storage, urban planning, and other elements that likely to go beyond an NZEB roadmap. Please refer to the National snapshots section as well (p.21).

3. Is the proposed alternative scenario as described in PIF/PFD sound and adequate? Is there sufficient clarity on the expected outcomes and components of the project and a description on the project is aiming to achieve them?

Secretariat Comment at PIF/Work Program Inclusion

This item is cleared:

review: 12/08/2020

Comments 09/20/2020:

1. Component 1: in the section relative to the selection of the two countries, it is mentioned that Colombia and Turkey are "recommended". This should be corrected to "selected" since the letters of non objections have been obtained. OK

2. Component 2: It is unclear whether the deep dive cities have been selected or not. At CEO ER stage, the project location should be clarified, and the baselines and projected activities for each city should be clearly outlined. The document mentions that cities *will* be selected (see under component 2 for instance), but in several sections it seems to assume that 3 cities in Colombia and one in Turkey - all of which existing BEA cities - will be selected. The project map signals that the cities would have already been selected. This is confusing and should be clarified. OK

3. The section describing the city selection process should include a timeline and an indication of any steps needed to complete the selection, and any implications on this additional time needed on the project implementation schedule. OK

4. Output 2.1 refers to a total of 4 cities, 2 for each selected country. However, this is contradicted in other parts of the document. Needs clarification. Also, if only one city is selected in Turkey, there needs to be explanation on why and how this is going to affect the feedback loop between national and sub-national actors which the project's theory of change is built on. OK

5. Output 2.4: This is vague: what does "innovative methods for monitoring process" mean in this context. Also, why would this only be applied in 2 of the 4 cities? OK

6. Output 2.5: More progress would have been expected on this after more than 1 year of project design (from PIF approval). This remains a weak point of this project and needs strengthening/more attention. The language remains exactly the same as in the PIF - what was done to further engage financial

institutions to ensure their active participation to the project and to build the foundations for their possible financial participation in the ZCB sector in the two countries? OK

Agency Response

26 November, 2020:

1. Component 1: Colombia and Turkey are now indicated to have been selected, rather than recommended (p 28).

2. Component 2: This has been modified to clarify that deep dive cities will be selected by the end of the first month of project implementation (p 31). The project map has been edited to only show the selected countries to reduce confusion (p 43 and Annex E).

3. The section describing the city selection process has been modified to indicate that the selection will be made in the first month of the project (p 31). This will not add any time to the implementation schedule and is also noted in the Project Timeline (p 36-37) at the end of the *Alternative Scenario* section.

4. As indicated in Output 2.1, there will be a total of 4 cities, 2 for each selected country. Points in the document which reference other numbers of cities and which may be causing confusion fall into two categories: (1) references to *existing BEA cities in selected countries*, or (b) *project outputs which target 3 of 4 deep dive cities to achieve a particular milestone.* The latter is because we do not expect all four selected deep engagements to make equal progress throughout the project timeline, and certain more ambitious outputs aim to be achieved in 3 cities within the time frame rather than all four.

5. Output 2.4: The methods for monitoring progress are not pre-defined: they will be co-created with cities and national governments, and developed by multi-stakeholder working groups that also bring in global expertise, to be appropriate for the local context. The specific topic(s) for monitoring and the specific context will depend on the cities selected. However, examples of potential innovative monitoring methods might be involving the public or using big data or unusual data collection methods.

This is being assumed to be applied in 2 of the 4 deep engagement cities to account for different rates of progress in different cities ? within a 2 year timeframe, we do not expect that all 4 cities will advance at the same pace or to the same degree, and therefore we do not expect that all 4 cities would be able to achieve this within the 2 year timeframe of the project given that the development of a monitoring mechanism for the progress against targets would be carried out after definition of -- and the start of implementation of ? those targets and associated action plans.

6. Output 2.5: We have added more country-specific information under Output 2.5 in the *?Proposed alternative scenario?* section (p 33-34) on high-level global opportunities as well as specific information from Colombia and Turkey that reflects engagement of financial institutions and reflect pathways for their participation in the ZCB sector and in the project.

4. Is there further elaboration on how the project is aligned with focal area/impact program strategies?

Secretariat Comment at CEO Endorsement Request

This item is cleared.

Yes, this is well aligned with the GEF CCM focal area, especially regarding Objective 1, and entry point 3: Accelerating energy efficiency adoption (CCM-1-3).

Agency Response

5. Is the incremental reasoning, contribution from the baseline, and co-financing clearly elaborated?

Secretariat Comment at CEO Endorsement Request

This item is cleared:

review: 12/08/2020

Comments 09/20/2020:

- As discussed above in this review sheet, the incremental reasoning with respect to the existing BEA activities in the cities and countries selected needs strengthening. Please refer to the more specific comments above.

Agency Response

26 November, 2020:

We have elaborated as requested on the in-country existing baseline, dynamic/projected baseline, and impact of activities thus far. This can be found in *Part II, Section 1b ?Project Description?, Subsection 2 ?Baseline scenario?*, in a new subtitled section ?National Snapshots: Turkey and Colombia? (p 20-22) as well as in *Part II, Section 5) Incremental / additional cost reasoning* (p 38).

6. Is there further and better elaboration on the project?s expected contribution to global environmental benefits or adaptation benefits?

Secretariat Comment at CEO Endorsement Request

This item is cleared:

review: 12/08/2020

Comments 09/21/2020:

The project's contribution in terms of global environmental benefits is sufficiently elaborated. However, please consider the comment below:

1. Please elaborate on whether the risk of double counting emission reductions impacts at national level and at city level have been taken into account. in other words, please clarify that positive GHG reduction results at city level are discounted from the overall results at national level (i.e. city results are not counted twice).

Agency Response

26 November, 2020:

City level actions intentionally provide additional emissions reductions on top of the national emissions reductions, so these are not double counted. Component 1 counts savings from national plans and policies and are estimated using only half of the urban area of each country ? this latter ensuring that double counting will not occur. Components 2 & 3 count savings from city plans, programs and policy ? leading to better implementation of national policies and/or implementation of additional policies.

We have further elaborated on the methodology and specific savings from the national and local levels in Section 6) Global environmental benefits (p 40).

7. Is there further and better elaboration to show that the project is innovative and sustainable including the potential for scaling up?

Secretariat Comment at CEO Endorsement Request

This item is cleared.

Yes, this section is satisfactory and consistent with the PIF, as approved.

Agency Response

Project Map and Coordinates

Is there an accurate and confirmed geo-referenced information where the project intervention will take place?

Secretariat Comment at CEO Endorsement Request

This item is cleared.

Yes, this is consistent with the PIF, as approved.

Agency Response

Child Project

If this is a child project, is there an adequate reflection of how it contributes to the overall program impact?

Secretariat Comment at CEO Endorsement Request

N/A

Agency Response

Stakeholders

Does the project include detailed report on stakeholders engaged during the design phase? Is there an adequate stakeholder engagement plan or equivalent documentation for the implementation phase, with information on Stakeholders who will be engaged, the means of engagement, and dissemination of information?

Secretariat Comment at CEO Endorsement Request

This item is cleared.

Yes, this section is well developed.

Agency Response

Gender Equality and Women?s Empowerment

Has the gender analysis been completed? Did the gender analysis identify any gender differences, gaps or opportunities linked to project/program objectives and activities? If so, does the project/program include gender-responsive activities, gender-sensitive indicators and expected results?

Secretariat Comment at CEO Endorsement Request

Comment from PPO: Dec 17, 2020:

While, the CEO Endorsement includes a sound gender action plan, there is little evidence that UNEP has carried out any additional gender analyses to inform the project design. The GEF Policy on Gender Equality, requires that (at or prior to CEO Endorsement/ Approval) Agencies provide ? Gender Analysis or equivalent socio-economic assessment that identifies and describes any gender differences, gender differentiated impacts and risks, and opportunities to address gender gaps and promote the empowerment of women that may be relevant to the proposed activity. While it could be understandable that there might have been some challenges for UNEP to carry out an in-depth gender analysis during the PPG phase due to Covid or other issues, this is not described. Please provide further information on any analysis conducted or provide a detailed justification of the reason why a gender analysis has not been carried out at this stage including elaboration on any planned efforts to better understand gender dimensions to support gender responsive implementation of the project.

Agency Response

Information has been added on the gender section. It indicates how the analysis was carried out at the PIF stage, which informed the design, and how without a project preparation grant (PPG) and with limited ability to conduct on-the-ground research due to COVID-19, minimal additional analysis has been carried out for this project during the CEO Endorsement request development. Primarily, this is due to two factors: (1) there is limited understanding of building decarbonization-gender equity linkages globally, and (2) the short time frame of this project, which will allow us to demonstrate impact on direct beneficiaries and participants but not to measure the long-term impacts to construction industry gender equity resulting from the inclusive stakeholder processes that will feed into the national roadmaps.

Private Sector Engagement

If there is a private sector engagement, is there an elaboration of its role as a financier and/or as a stakeholder?

Secretariat Comment at CEO Endorsement Request

This item is cleared.

Yes, engagement with the private sector have been adequately outlined. Additional engagement with private sector, including as prospective co-financiers is expected to be developed during project implementation and documented through PIRs and other monitoring tools.

Agency Response

Risks to Achieving Project Objectives

Has the project elaborated on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved? Were there proposed measures that address these risks at the time of project implementation?

Secretariat Comment at CEO Endorsement Request

This item is cleared:

review: 12/08/2020

Comments 09/21/2020:

the risk section is well developed. However, please consider the guidance recently issued by GEF Secretariat for agencies regarding COVI-19:

"**Project Design and Review Considerations in Response to the COVID-19 Crisis and the Mitigation of Future Pandemics",** of August 27, 2020.

There is an opportunity to use this project to further promote energy efficiency in the building sector in the selected geographies, and including through full building decarbonization, as a tool to relaunch economies after the covid-related slowdown and create jobs. IEA analysis has suggested that EE is one of the best sectors to link global environmental benefits with economic recovery.

1. In line with the new Guidance from the GEF, projects should clearly highlight both risks and opportunities in response to the COVID crisis. We suggest creating a new section related to this,

covering both risks (risks can also remain included in the risk section) and opportunities and including some indication of how the project will work through its international and local (human) resources to ensure that building efficiency and building decarbonization remain high on the priorities of the beneficiary governments and appropriate support can be provided as technical inputs in the respective recovery plans.

Agency Response

26 November, 2020:

1. Deeper assessment of the risks and opportunities associated with the COVID-19 pandemic and associated economic upheaval has been added in *Part II, Section 5: Risks* below the Risks table (p 66-68).

Coordination

Is the institutional arrangement for project implementation fully described? Is there an elaboration on possible coordination with relevant GEF-financed projects and other bilateral/multilateral initiatives in the project area?

Secretariat Comment at CEO Endorsement Request

This item is cleared:

review: 12/08/2020

Comments 09/21/2020:

1. Approximately 50% of the total GEF resources are proposed to be disbursed locally through subgrants. This execution arrangement is not sufficiently detailed in the project institutional arrangements. More information and detail is needed to explain the expected mechanism to channel resources via such sub-grants, including, in particular, how the execution of such subgrants will be supervised to ensure continued compliance with the GEF minimum fiduciary standards.

Agency Response

26 November, 2020:

Explanation has been added with respect to subgrant and contracting mechanisms in Part II, Section 6: Institutional Arrangement and Coordination (p 68).

Consistency with National Priorities

Has the project described the alignment of the project with identified national strategies and plans or reports and assessments under the relevant conventions?

Secretariat Comment at CEO Endorsement Request

This item is cleared.

Consistency with national priorities, including their NDCs, is adequately outlined.

Agency Response

Knowledge Management

Is the proposed ?Knowledge Management Approach? for the project adequately elaborated with a timeline and a set of deliverables?

Secretariat Comment at CEO Endorsement Request

This item is cleared:

review: 12/08/2020

Comments 09/21/2020:

1. Please provide a detailed budget by output, including activity and sub-activity, so that it can be clearly understood and documented what is the budget that is set aside for knowledge management products and services. The budget as provided does not allow this analysis.

2. While the section includes mention of expected knowledge products/outputs that will be generated, it is not clear which products have been budgeted for. Please ensure there is clear indication of what is budgeted, and how that is linked to the products/outputs listed in the project workplan and deliverables (by output).

Agency Response

26 November, 2020:

More detail has been provided in Part II, Section 8: Knowledge Management to indicate specific deliverables, timelines from the work plan, as well as expected reference to budget lines and allocation by Component (p 71-72).

Environmental and Social Safeguard (ESS)

Are environmental and social risks, impacts and management measures adequately documented at this stage and consistent with requirements set out in SD/PL/03?

Secretariat Comment at CEO Endorsement Request

This item is cleared.

Environmental and social risks and impacts are adequately assessed and documented in the project's ENVIRONMENTAL, SOCIAL AND ECONOMIC REVIEW NOTE (ESERN), included in Annex P to the CEO ER.

Agency Response

Monitoring and Evaluation

Does the project include a budgeted M&E Plan that monitors and measures results with indicators and targets?

Secretariat Comment at CEO Endorsement Request

Additional Comments from PPO Dec 17, 2020:

1. M&E Plan must be included in both ?Portal and Project Document.

2. The cost relative to the Project Manager is partially allocated to components, as well as to PMC, however the TOR only reflect coordination activities. Please include in the TOR the contribution of this position to the specific components to which her/his salary is charged.

This item is cleared.

The project includes a budgeted M&E plan.

Agency Response

December 2020:

1. The M&E table has been added in the Portal Section 9. Monitoring and Evaluation, and it is also in the UNEP Project Document Package (Annex J M&E Budget and Workplan).

2. The PM list of activities in the Institutional Arrangements (Annex K) has been revised to include both the coordination activities and technical responsibilities of this project manager role. Please refer also to the detailed Terms of References in Annex H of the UNEP Project Document Package. In addition to managerial tasks, the Project Manager will be responsible for the following technical deliverables:

? 1.1.3 Public commitment from Colombia and Turkey national governments on net zero carbon buildings

? 2.5.1 Stakeholder working group on business models for investing in ZCBs, including development banks and private sector stakeholders, is convened at least twice during project period

? 3.1.3 Lessons learned publication stemming from national and deep dive city engagements

? 3.2.2 6 or more additional subnational governments make public commitments toward zero carbon buildings

? 3.3.1 Written guidance developed for scope and process for city or subnational government roadmaps to ZCBs

3.3.2 3 or more additional subnational governments develop and begin implementation of ZCB roadmaps

Benefits

Are the socioeconomic benefits at the national and local levels sufficiently described resulting from the project? Is there an elaboration on how these benefits translate in supporting the achievement of GEBs or adaptation benefits?

Secretariat Comment at CEO Endorsement Request

This item is cleared.

The project's socio economic benefits are spelled out in the corresponding section of the CER ER.

Agency Response

Annexes

Are all the required annexes attached and adequately responded to?

Secretariat Comment at CEO Endorsement Request

This item is cleared:

review: 12/08/2020: the revised budget was submitted to the document section of the portal.

Comments 09/21/2020

1. the project budget needs to be prepared according to the new GEF Project Cycle guidance, and uploaded on the portal.

Agency Response

26 November, 2020:

1. As mentioned earlier, based on discussions between UNEP?s GEF Coordinator and the GEF?s Director of Strategy and Operations, UNEP understands that projects that had previously negotiated their budgets with executing agencies and partners and had already undergone internal quality assurance processes, would not be required to change the budget template at this point. However, the project includes now the budget in two formats to comply with UNEP and GEF templates.

Project Results Framework

Secretariat Comment at CEO Endorsement Request

This item is cleared:

review: 12/08/2020:

Comments 09/21/2020

1. Project Result Framework: The PRF falls short of including key expected project outputs indicators. It does not mention the minimum number of policies (in broad sense, from MEPs, to certifications, to legislative acts that support, enable or require increased energy efficiency) that are expected to be supported in the design phase, adopted, and implemented. "# of policy developed" and "# of policies for which adoption is initiated" are key indicators and should be included in the PRF (outputs: 1.3, 1.4, 2.3, 3.3).

Agency Response

26 November, 2020:

1. While the project results framework focuses on outcome-level indicators, the ?Alternative scenario? section of the CEO Endorsement Document and the Workplan (Annex L) include a detailed list of project deliverables that serve as output-level indicators. The Workplan even provides information on the timeline for each deliverable:

- Under Output 1.3, Deliverable 1.3.4 is formulated as follows: ?National roadmap adoption is initiated in Colombia and Turkey?, meaning that a total 2 national roadmaps (1 per country) will have their adoption initiated by month 22 of the project?s implementation.

- Under Output 1.4, Deliverable 1.4.3 is formulated as follows: ?Adoption of selected policies is initiated in Colombia and Turkey?, meaning that a total of 2 national policies (1 per country) will have their adoption initiated by month 24 of the project?s implementation.

- Under Output 2.3, Deliverable 2.3.3 is formulated as follows: ?Adoption of selected policies is initiated in at least 3 cities in Colombia and Turkey.?, meaning that a total of 3 city policies will have their adoption initiated by month 22 of the project?s implementation.

- Under Output 3.3, Deliverable 3.3.2 is formulated as follows: ?3 or more additional subnational governments develop and begin implementation of ZCB roadmaps?, meaning that at least 3 cities/subnational governments will have developed and started the implementation of their ZCB roadmaps by month 24 of the project?s implementation.

GEF Secretariat comments

Secretariat Comment at CEO Endorsement Request

N/A

Agency Response

Council comments

Secretariat Comment at CEO Endorsement Request

N/A

Agency Response

STAP comments

Secretariat Comment at CEO Endorsement Request

N/A

Agency Response

Convention Secretariat comments

Secretariat Comment at CEO Endorsement Request

N/A

Agency Response

Other Agencies comments

Secretariat Comment at CEO Endorsement Request

N/A

Agency Response

CSOs comments

Secretariat Comment at CEO Endorsement Request

N/A

Agency Response

Status of PPG utilization

Secretariat Comment at CEO Endorsement Request

N/A

Agency Response

Calendar of expected reflows (if NGI is used)

Secretariat Comment at CEO Endorsement Request

N/A

Agency Response

Project maps and coordinates

Secretariat Comment at CEO Endorsement Request

Included in the CEO ER.

Agency Response

Termsheet, reflow table and agency capacity in NGI Projects

Does the project provide sufficient detail in Annex A (indicative termsheet) to take a decision on the following selection criteria: co-financing ratios, financial terms and conditions, and financial

additionality? If not, please provide comments. Does the project provide a detailed reflow table in Annex B to assess the project capacity of generating reflows? If not, please provide comments. After reading the questionnaire in Annex C, is the Partner Agency eligible to administer concessional finance? If not, please provide comments.

Secretariat Comment at CEO Endorsement Request

N/A

Agency Response

GEFSEC DECISION

RECOMMENDATION

Is CEO endorsement recommended? (applies only to projects and child projects)

Secretariat Comment at CEO Endorsement Request

12/08/20:

The CEO ER is being recommended for technical clearance.

09/21/2020:

The Agency is requested to address the comments in this review sheet and resubmit.

Review Dates

	Response to Secretariat comments
First Review	

	Response to Secretariat comments
Additional Review (as necessary)	
Additional Review (as necessary)	
Additional Review (as necessary)	
Additional Review (as necessary)	

ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

Not applicable. No PPG requested for this project.

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

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

Not applicable.

ANNEX E: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.

The countries of focus engagement have been selected; and deep engagement cities will be confirmed in the first month of the project.

Countries/Cities	***Latitude***	***Longitude***

Colombia	*4.5709? N*	*74.2973? W*
Turkey	*38.9637? N*	*35.2433? E*

ANNEX F: Project Budget Table

Please attach a project budget table.

The project budget can also be found in the Annex I-1 of the PDF version of the CEO Endorsement Document, as well as in Excel format both uploaded on the Portal.

Umoja budget class		GEF budget categories	Code	Budget line description	Comp. 1 / Total	Comp. 2/ Total	Comp. 3/ Total	Subtotal	M&E Tot	PMC Tot	Project Grant Total	Project Grant Total	Entity using
010 - Staff & Personnel (Including Consultants)													
	010	Salary and benefits	0101	Project Director	50,273	-	-	50,273	-	-	50,273	50,273	
	010	Salary and benefits	0102	Project Manager	37,470	31,303	52,978	121,757	-	69,581	191,338	191,338	
	010	Salary and benefits	0103	Deep Engagement Lead	82,205	70,959	-	153,208	-	-	153,208	153,208	
	010	Salary and benefits	0104	Communications Expert	6,736	6,736	-	13,472	-	-	13,472	13,472	WRI
	010	Salary and benefits	0105	Technical Expert	49,114	35,969	32,498	117,581	-	-	117,581	117,581	
	010	Salary and benefits	0106	Global Network and Learning Lead			70,999	70,999	-	-	70,999	70,999	
	010	Salary and benefits	0107	Project Coordinator						50,819	50,819	50,819	
	010	Salary and benefits	0108	Grants & Agreements Costs	34,325	24,834	23,638	82,797	-	8,736	91,533	91,533	
	010	International Consultants	0191	Mid-Term Review (optional)					10,000	-	10,000	10,000	UNEP
	010	International Consultants	0192	Terminal Evaluation					20,000	-	20,000	20,000	
		Sub-total Staff & Personnel (including Consultants)			*260,127*	*168,847*	*180,113*	*610,087*	*30,000*	*129,136*	*769,223*	*769,223*	
120 - Contract Services													
	120	Contractual services - Company	1201	Communications contracts: translation, publication, etc	14,959	-	-	14,959	-	-	14,959	14,959	
	120	Trainings, Workshops, Meetings	1202	Conference Costs	-	-	14,836	14,836	-	-	14,836	14,836	
	120	Contractual services - Company	1280	Independent financial audits	-	-	-	-	-	10,000	10,000	10,000	
		Sub-total Contract Services			*14,959*	-	*14,836*	*29,795*	-	*10,000*	*39,795*	*39,795*	
125 - Operating & Other Costs													
	125	Other Operating Costs	1251	Occupancy	9,035	7,895	10,282	27,212	-	10,138	37,350	37,350	
	125	Other Operating Costs	1252	Communications	6,048	3,276	3,593	12,917	-	3,746	16,663	16,663	
	125	Other Operating Costs	1253	Research Materials & Quality Assurance	7,404	3,836	5,270	16,510	-	5,345	21,855	21,855	
	125	Other Operating Costs	1254	Other Direct Costs	1,408	5,493	1,567	8,474	-	3,104	11,578	11,578	
	125	Other Operating Costs	1255	Project-Related Electronic Network	12,478	12,072	12,812	37,362	-	7,464	44,826	44,826	
		Sub-total Operating & Other Costs			*36,373*	*32,578*	*33,524*	*102,475*	-	*29,796*	*132,271*	*132,271*	
130 - Supplies, Commodities & Materials													
	130	Office supplies	1301	Project-Related Office Services & Supplies	8,414	6,292	5,989	20,695	-	2,497	23,192	23,192	
		Sub-total Supplies, Commodities & Materials			*8,414*	*6,292*	*5,989*	*20,695*	-	*2,497*	*23,192*	*23,192*	
140 - Transfers & Grants to Implementing Partners													
	140	Sub-contract to executing partner	1401	National Engagement Subgrant 1: Colombia	210,000	-	-	210,000	-	-	210,000	210,000	
	140	Sub-contract to executing partner	1402	National Engagement Subgrant 2: Turkey	210,000	-	-	210,000	-	-	210,000	210,000	WRI
	140	Sub-contract to executing partner	1403	Deep Dive City Subgrant 1: Colombia		100,000	-	100,000	-	-	100,000	100,000	
	140	Sub-contract to executing partner	1404	Deep Dive City Subgrant 2: Colombia		100,000	-	100,000	-	-	100,000	100,000	
	140	Sub-contract to executing partner	1405	Deep Dive City Subgrant 3: Turkey		100,000	-	100,000	-	-	100,000	100,000	
	140	Sub-contract to executing partner	1406	Deep Dive City Subgrant 4: Turkey		100,000	-	100,000	-	-	100,000	100,000	
	140	Sub-contract to executing partner	1407	City Zero Carbon Building Roadmap Subgrant 1			10,516	10,516	-	-	10,516	10,516	
	140	Sub-contract to executing partner	1408	City Zero Carbon Building Roadmap Subgrant 2			10,516	10,516	-	-	10,516	10,516	
	140	Sub-contract to executing partner	1409	City Zero Carbon Building Roadmap Subgrant 3			10,516	10,516	-	-	10,516	10,516	
	140	Sub-contract to executing partner	1410	Regional Lead Subgrant 1: Latin America			24,857	24,857	-	-	24,857	24,857	
	140	Sub-contract to executing partner	1411	Regional Lead Subgrant 2: Africa		-	24,857	24,857	-	-	24,857	24,857	
	140	Sub-contract to executing partner	1412	Regional Lead Subgrant 3: South Asia		-	21,369	21,369	-	-	21,369	21,369	
	140	Sub-contract to executing partner	1413	Regional Lead Subgrant 4: Southeast Asia			21,369	21,369	-	-	21,369	21,369	
	140	Sub-contract to executing partner	1414	Grants & Agreements Subgrant Expenses	21,672	20,640	6,192	48,504	-	-	48,504	48,504	
		Sub-total Transfers & Grants to Implementing Partners			*441,672*	*420,640*	*130,192*	*992,504*	-	-	*992,504*	*992,504*	
160 - Travel													
	160	Travel	1601	Staff Travel	12,034	20,161	10,820	43,015	-	-	43,015	43,015	
		Sub-total Travel			*12,034*	*20,161*	*10,820*	*43,015*	-	-	*43,015*	*43,015*	
		Project Total			773,579	649,518	375,474	1,798,571	30,000	171,429	2,000,000	2,000,000	

YEARLY UNEP (UMOJA FORMAT) BUDGET FOR GEF GRANT

Project Components	Umoja budget class	Budget line number	Budget line description	2021	2022	2023	Total	Entity using the funds
Component 1: National commitments and roadmaps towards zero carbon buildings policies	010 - Staff & Personnel (Including Consultants)	0101	Project Director	33,364	16,909		50,273	
	010 - Staff & Personnel (Including Consultants)	0102	Project Manager	25,332	12,138		37,470	
	010 - Staff & Personnel (Including Consultants)	0103	Deep Engagement Lead	51,964	30,245		82,209	
	010 - Staff & Personnel (Including Consultants)	0104	Communications Expert	5,293	1,443		6,736	
	010 - Staff & Personnel (Including Consultants)	0105	Technical Expert	32,594	16,520		49,114	
	010 - Staff & Personnel (Including Consultants)	0108	Grants & Agreements Costs	21,869	12,456		34,325	
			Sub-total Staff & Personnel (including Consultants)	***170,416***	***89,711***		***260,127***	
	120 - Contract Services	1201	Communications contracts: translation, publication, etc	9,099	5,860		14,959	
			Sub-total Contract Services	***9,099***	***5,860***		***14,959***	
	125 - Operating & Other Costs	1251	Occupancy	4,924	4,111		9,035	
	125 - Operating & Other Costs	1252	Communications	3,324	2,724		6,048	
	125 - Operating & Other Costs	1253	Research Materials & Quality Assurance	4,876	2,528		7,404	
	125 - Operating & Other Costs	1254	Other Direct Costs	1,000	408		1,408	
	125 - Operating & Other Costs	1255	Project-Related Electronic Network	8,412	4,066		12,478	
			Sub-total Operating & Other Costs	***22,536***	***13,837***		***36,373***	
	130 - Supplies, Commodities & Materials	1301	Project-Related Office Services & Supplies	5,541	2,873		8,414	
			Sub-total Supplies, Commodities & Materials	***5,541***	***2,873***		***8,414***	
	140 - Transfers & Grants to Implementing Partners	1401	National Engagement Subgrant 1: Colombia	105,000	105,000		210,000	
	140 - Transfers & Grants to Implementing Partners	1402	National Engagement Subgrant 2: Turkey	105,000	105,000		210,000	
	140 - Transfers & Grants to Implementing Partners	1414	Grants & Agreements Subgrant Expenses	10,836	10,836		21,672	
			Sub-total Transfers & Grants to Implementing Partners	***220,836***	***220,836***		***441,672***	
	160 - Travel	1601	Staff Travel	9,034	3,000		12,034	
			Sub-total Travel	***9,034***	***3,000***		***12,034***	
			Total Component 1	**437,462**	**336,117**		**773,579**	WRI
Component 2: City strategies towards net zero carbon building implementation	010 - Staff & Personnel (Including Consultants)	0102	Project Manager	16,864	14,445		31,309	
	010 - Staff & Personnel (Including Consultants)	0103	Deep Engagement Lead	38,667	32,332		70,999	
	010 - Staff & Personnel (Including Consultants)	0104	Communications Expert	4,812	1,924		6,736	
	010 - Staff & Personnel (Including Consultants)	0105	Technical Expert	16,927	19,042		35,969	
	010 - Staff & Personnel (Including Consultants)	0108	Grants & Agreements Costs	13,484	11,350		24,834	
			Sub-total Contract Services	***90,754***	***79,093***	-	***169,847***	
	125 - Operating & Other Costs	1251	Occupancy	4,283	3,612		7,895	
	125 - Operating & Other Costs	1252	Communications	1,800	1,476		3,276	
	125 - Operating & Other Costs	1253	Research Materials & Quality Assurance	2,006	1,830		3,836	
	125 - Operating & Other Costs	1254	Other Direct Costs	2,908	2,591		5,499	
	125 - Operating & Other Costs	1255	Project-Related Electronic Network	6,622	5,450		12,072	
			Sub-total Operating & Other Costs	***17,619***	***14,959***		***32,578***	
	130 - Supplies, Commodities & Materials	1301	Project-Related Office Services & Supplies	3,416	2,876		6,292	
			Sub-total Supplies, Commodities & Materials	***3,416***	***2,876***		***6,292***	
	140 - Transfers & Grants to Implementing Partners	1403	Deep Dive City Subgrant 1: Colombia	50,000	50,000		100,000	
	140 - Transfers & Grants to Implementing Partners	1404	Deep Dive City Subgrant 2: Colombia	50,000	50,000		100,000	
	140 - Transfers & Grants to Implementing Partners	1405	Deep Dive City Subgrant 3: Turkey	50,000	50,000		100,000	
	140 - Transfers & Grants to Implementing Partners	1406	Deep Dive City Subgrant 4: Turkey	50,000	50,000		100,000	
	140 - Transfers & Grants to Implementing Partners	1414	Grants & Agreements Subgrant Expenses	10,320	10,320		20,640	
			Sub-total Transfers & Grants to Implementing Partners	***210,320***	***210,320***		***420,640***	
	160 - Travel	1601	Staff Travel	12,580	7,581		20,161	
			Sub-total Travel	***12,580***	***7,581***		***20,161***	
			Total Component 2	**334,689**	**314,829**		**649,518**	WRI

Component 3: Pipelines of additional local and national governments for future scaling through platform-wide capacity building and technical assistance	010 - Staff & Personnel (Including Consultants)	0102	Project Manager	27,544	25,434		52,978	
	010 - Staff & Personnel (Including Consultants)	0105	Technical Expert	15,472	17,026		32,498	
	010 - Staff & Personnel (Including Consultants)	0106	Global Network and Learning Lead	38,667	32,332		70,999	
	010 - Staff & Personnel (Including Consultants)	0108	Grants & Agreements Costs	12,883	10,755		23,638	
			Sub-total Staff & Personnel (including Consultants)	***94,566***	***85,547***		***180,113***	
	120 - Contract Services	1202	Conference Costs	9,511	5,325		14,836	
			Sub-total Contract Services	***9,511***	***5,325***		***14,836***	
	125 - Operating & Other Costs	1251	Occupancy	5,380	4,902		10,282	
	125 - Operating & Other Costs	1252	Communications	1,958	1,635		3,593	
	125 - Operating & Other Costs	1253	Research Materials & Quality Assurance	2,872	2,398		5,270	
	125 - Operating & Other Costs	1254	Other Direct Costs	851	716		1,567	
	125 - Operating & Other Costs	1255	Project-Related Electronic Network	6,903	5,909		12,812	
			Sub-total Operating & Other Costs	***17,964***	***15,560***		***33,524***	
	130 - Supplies, Commodities & Materials	1301	Project-Related Office Services & Supplies	3,264	2,725		5,989	
			Sub-total Supplies, Commodities & Materials	***3,264***	***2,725***		***5,989***	
	140 - Transfers & Grants to Implementing Partners	1407	City Zero Carbon Building Roadmap Subgrant 1	5,258	5,258		10,516	
	140 - Transfers & Grants to Implementing Partners	1408	City Zero Carbon Building Roadmap Subgrant 2	5,258	5,258		10,516	
	140 - Transfers & Grants to Implementing Partners	1409	City Zero Carbon Building Roadmap Subgrant 3	5,258	5,258		10,516	
	140 - Transfers & Grants to Implementing Partners	1410	Regional Lead Subgrant 1: Latin America	17,000	7,857		24,857	
	140 - Transfers & Grants to Implementing Partners	1411	Regional Lead Subgrant 2: Africa	17,000	7,857		24,857	
	140 - Transfers & Grants to Implementing Partners	1412	Regional Lead Subgrant 3: South Asia	14,000	7,369		21,369	
	140 - Transfers & Grants to Implementing Partners	1413	Regional Lead Subgrant 4: Southeast Asia	14,000	7,369		21,369	
	140 - Transfers & Grants to Implementing Partners	1414	Grants & Agreements Subgrant Expenses	4,128	2,064		6,192	
			Sub-total Transfers & Grants to Implementing Partners	***81,902***	***48,290***		***130,192***	
	160 - Travel	1601	Staff Travel	6,427	4,393		10,820	
			Sub-total Travel	***6,427***	***4,393***		***10,820***	
			Total Component 3	**213,634**	**161,840**		**375,474**	WRI
Monitoring and Evaluation	010 - Staff & Personnel (Including Consultants)	0191	Mid-Term Evaluation / Mid-Term Review	10,000			10,000	
	010 - Staff & Personnel (Including Consultants)	0192	Terminal Evaluation	-		20,000	20,000	
			Sub-total M&E	***10,000***	***-***	***20,000***	***30,000***	
			Total M&E	**10,000**	**-**	**20,000**	**30,000**	UNEP
Project Management Costs (PMC)	010 - Staff & Personnel (Including Consultants)	0102	Project Manager	41,400	28,181		69,581	
	010 - Staff & Personnel (Including Consultants)	0107	Project Coordinator	34,525	16,294		50,819	
	010 - Staff & Personnel (Including Consultants)	0108	Grants & Agreements Costs	5,821	2,915		8,736	
			Sub-total Staff & Personnel (including Consultants)	***81,746***	***47,390***		***129,136***	
	120 - Contract Services	1280	Independent financial audits	5,000	5,000		10,000	
			Sub-total Contract Services	***5,000***	***5,000***		***10,000***	
	125 - Operating & Other Costs	1251	Occupancy	5,966	4,172		10,138	
	125 - Operating & Other Costs	1252	Communications	1,788	1,958		3,746	
	125 - Operating & Other Costs	1253	Research Materials & Quality Assurance	3,130	2,215		5,345	
	125 - Operating & Other Costs	1254	Other Direct Costs	1,267	1,837		3,104	
	125 - Operating & Other Costs	1255	Project-Related Electronic Network	4,279	3,185		7,464	
			Sub-total Operating & Other Costs	***16,428***	***13,368***		***29,796***	
	130 - Supplies, Commodities & Materials	1301	Project-Related Office Services & Supplies	1,758	739		2,497	
			Sub-total Supplies, Commodities & Materials	***1,758***	***739***		***2,497***	
			Total PMC	**104,932**	**66,497**		**171,429**	WRI
			Project Grand Total	**1,100,717**	**879,283**	**20,000**	**2,000,000**	