Annex A

NAME OF PROGRAM:
SUSTAINABLE CITES INTEGRATED APPROACH PILOT
Child Project Concept Note

PART I: PROJECT INFORMATION[1]

Project Title:	Sustainable Cities IAP - Global Knowledge Platform
Country:	N/A
GEF Agency(ies):	WB (select) (select)
Other Executing Partner(s):	
Integrated Approach Pilot	IAP-Sustainable Cities ☒

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]:

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	**Trust Fund**	**(in $)**	
		GEF Project Financing	**Co-financing**
IAP Sustainable Cities	GEFTF	9,024,312	5,400,000
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
Total Project Cost		9,024,312	5,400,000

B. CHILD PROJECT DESCRIPTION SUMMARY

Project Objective: To provide a range of support services and capacity building for cities participating in the IAP program, in addition to knowledge management and global engagement functions.				
Project Components	**Financing Type[3]**	**Project Outcomes**	**(in $)**	
			GEF Project Financing	**Co-financing**
Tools and Metrics	TA	To promote evidence-based planning by providing participating cities with options for different metric systems and decision support tools.	1,153,097	1,150,000
Sustainability Planning Support	TA	To provide participating cities with guidance and hands-on support on evidence-based sustainability planning, with a particular focus on helping cities to prepare and validate plans and planning processes.	2,450,000	500,000
Knowledge	TA	To ensure the exchange and	1,500,000	

[1] This Concept Note is intended to convey whatever preliminary information exists at this stage on a child project and that is indicative of how it will contribute to the overall Program.

[2] When completing Table A, refer to the Program Results Framework, which is already mapped to the relevant *Focal Area Results Framework* in the *GEF-6 Programming Directions*.

[3] Financing type can be either investment or technical assistance.

Management		dissemination of knowledge at three different levels: at the programmatic level between different SC-IAP cities, at the national level between SC-IAP cities and other urban areas within their respective countries, and at the international level between participating IAP cities and other localities from around the world.		
Capacity Building	TA	To boost local capacity to deliver on their sustainability plan through targeted support focused on urban governance and financial management.	1,150,000	3,750,000
Financing sustainability	TA	To support participating cities identify and access sources of finance and other technical expertise necessary for the implementation of sustainability plans.	1,150,000	
Global Engagement Facility	TA	To provide technical assistance and support to non IAP cities in other parts of the world to engage on the sustainability principles promoted by the IAP program.	1,170,000	
		Subtotal	8,573,097	5,400,000
		Project Management Cost (PMC)[4] GEFTF	451,215	
		Total Project Cost	9,024,312	5,400,000

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust

C. CO-FINANCING FOR THE PROJECT BY SOURCE, BY TYPE AND BY NAME

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount ($)
GEF Agency	World Bank	Investment	5,400,000
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
Total Co-financing			5,400,000

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

GEF	Trust	Country/	Focal Area	Programming	(in $)

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

Annex A

Agency	Fund	Regional/ Global		of Funds	GEF Project Financing (a)	Agency Fee (b)[b)]	Total (c)=a+b
WB	GEFTF	Global Sustainable Cities Incentive (set-aside)	IAP	IAP-Cities	9,024,312	812,188	9,836,500
(select)	(select)	☐	(select)	(select as applicable)			0
(select)	(select)	☐	(select)	(select as applicable)			0
(select)	(select)	☐	(select)	(select as applicable)			0
(select)	(select)	☐	(select)	(select as applicable)			0
Total GEF Resources					9,024,312	812,188	9,836,500

a) No need to fill this table if it is a single Agency, single Trust Fund, single focal area and single country project.
b) Refer to the Fee Policy for GEF Partner Agencies.
c) If Multi-Trust Fund project :PMC in this table should be the total amount; enter trust fund PMC breakdown here ( )

PART II: PROJECT JUSTIFICATION

PROJECT OVERVIEW

A.1. Project Description:

The Global Platform will provide a range of support services to cities participating in the IAP program, complementing and supplementing those to be provided by the implementing agencies. Six types of activities are envisioned, all of which aim to help deliver the IAP program goal of improving the depth, breadth, and quality of local sustainability planning efforts and investment decisions. These services will help cities benchmark their performance, track implementation progress and aid with knowledge curation and sharing, institutional capacity building, and program implementation. IAP cities may vary in their use of these resources – some services will necessarily be employed by all participants to ensure uniformity across the program, while others may only be used by participants requiring specialized expertise or assistance. In all cases, the overarching purpose of the Global Platform is to help the Sustainable Cities program be much more than simply the sum of its parts. It will help cross-fertilize ideas between implementing agencies (and the IAP cities they are supporting), and build connections to ensure information is flowing to/from other cities and other related sustainability initiatives.

Some elements of the platform will involve systems or services that are already commonly employed by cities around the world seeking to improve local sustainability. Others will be developed anew and tailored for the specific use of IAP program participants. Because cities find themselves in quite varied circumstances, and because the child projects described above cover such a wide array of topics, the Global Platform employs a flexible structure that embraces the unique circumstances, needs, and priorities of different participants. A large number of different agencies and city networks have been consulted in the process of designing the Global Platform (see stakeholders section below) and this consultative approach will live on once the Global Platform is operational, reflecting the IAP program's philosophy of collaboration and coordination with a wide range of stakeholders who can strengthen (or be strengthened by) the work underway in IAP cities.

Platform services will be directly provided by WBG staff or third-party contractors and partner organizations with expertise in the field. Given the specialized nature of some of these services, some may be sole-sourced to organizations with recognized competency in that field, while other service providers will be selected through a competitive bidding process that follows standard World Bank Group procurement guidelines. A detailed strategy outlining the WBG's intentions regarding program design (including which services are to be subcontracted) will be prepared over the next 6 months, after the WBG team has sufficient time to consult with the different implementing agencies and participating cities about their goals and needs. Once this stocktaking assessment is completed, the WBG team will then engage with various agencies and technical assistance organizations, city networks, and service providers to discuss potential offerings and delivery modalities that will deliver the greatest value for money to the IAP program.

Detailed below is an indicative description of the activities and services to be provided under the auspices of the Global Platform—noting that this is a multi-year program and the nature of services will necessarily evolve over time and in response to demand from country-based child-projects. The work undertaken under each category shall serve the participating IAP cities but, to the extent possible and where appropriate, the outputs will be shared as good practice/work modules/experiences with a larger universe of cities. Moreover, rather than re-creating the wheel, where appropriate services offered under each category will draw upon the considerable array of activities and international expertise that already exist to promote integrated sustainability planning, including technical tools and metrics, known programs and knowledge, country related technical assistance, case studies and guides.

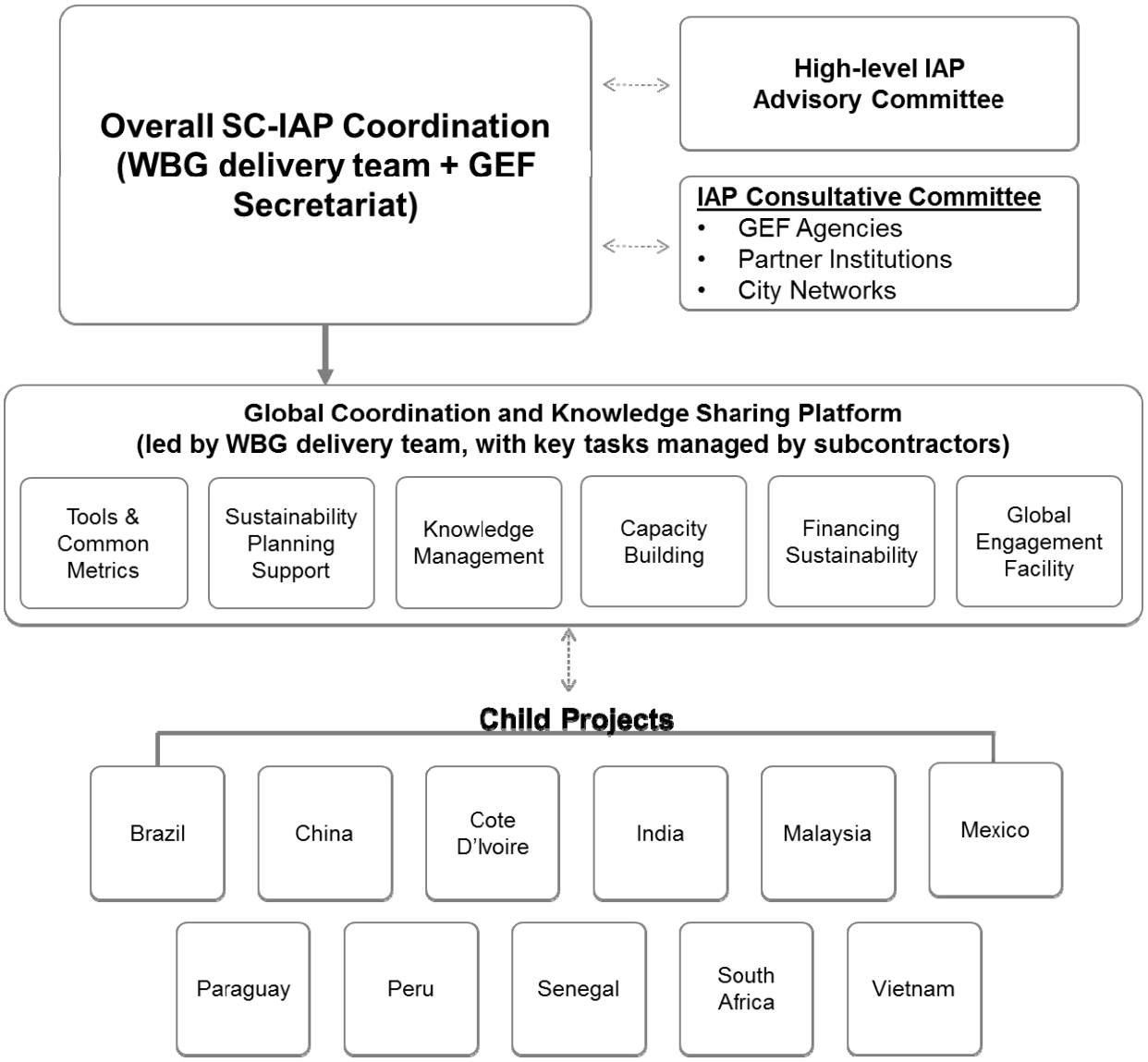


FIGURE 1: PROGRAM STRUCTURE

1. Tools & Metrics

The services provided under this category will help IAP cities build upon information they may already collect, thus strengthening their ability to systematically monitor sustainability considerations relevant to their long term growth and advancement. Guidance about analytic and other decision support tools will also be provided to help participants ensure they are using approaches appropriate for their local context and needs. As appropriate, the Global Platform will liaise with individual implementing agencies and their child projects to ensure there is coordination on tool and data selection, and to ensure that information about boutique approaches employed by different implementing agencies is shared across the entire IAP program.

Tools

A huge array of tools exist to help cities think through a range of issues from low carbon development and resilience to resource efficiency and biodiversity. These tools come in a variety of different levels of complexity and can focus on different stages in the sustainability planning process. They may also focus on different geographic scales, from tools most relevant at the urban scale to those that focus more on linkages with broader metropolitan, national, or

global relevance. The World Bank will work with implementing agencies and other partners to identify a number of tools that will be included as part of the various workshops and trainings. This will include identifying any tools that cities may find useful in fulfilling the minimum reporting requirements of the IAP program. At the same time, the program will not be prescriptive in its choice of tools and efforts will be made to raise awareness about the value of a wide range of different decision support tool platforms. IAP participants will also be surveyed on tools they find to be helpful in supporting their various sustainability planning efforts.

Activities/services to be provided by the Global Platform

- Awareness-raising
    - Workshops to introduce cities to a select number of different analytic and decision support tools that will assist in sustainability planning efforts
    - Connect cities with resources on existing tools, such as the online Climate Smart Planning Platform, which provides a central database of more than 320 tools and datasets from 58 organizations, including user reviews.
- Training/technical assistance
    - Webinar trainings and in-person workshops on different sector-specific tools
    - City-specific training programs
    - Technical assistance in obtaining data required to run certain analytic tools
- Tool procurement, modification, and data collection
    - Certain tools can be costly, especially if they need to be customized for a local context. To the extent it is necessary, the IAP program may devote some resources to commission new planning or decision support tools for use by participating cities and/or cover the cost of existing tools. (Some cost sharing by IAP cities may be required depending on the tool.)
- Community of practice
    - Linked to Knowledge Management services provided under the Global Platform, a community of practice will be created to enable participating cities to share information on tool selection and use.

Metrics

Data is an essential part of evidence-based sustainability planning and a number of different indicator systems exist to track various metrics at the city level. In addition, several organizations (including IAP implementing agencies) are currently in the process of launching work on new reporting standards and reporting systems that could be employed by SC-IAP cities. No single system is totally comprehensive in terms of capturing the full range of sustainability information germane to a city, and a priority will be placed on systems that serve as a supplement to performance information already tracked by participating cities. Attention will also be paid to how cities can make use of data they collect, with further links to other Global Platform activities. In all cases, there will be close coordination with the IAP implementing agencies, participating IAP cities, and other partners to identify a number of indicator tracking and reporting systems that will be included as part of the various workshops and trainings.

Activities/services to be provided by the Global Platform

- Awareness-raising
    - An advanced metrics workshop will be held to expose cities to a range of different indicator sets potentially relevant to their sustainability planning efforts.
    - Links to resources on different indicator sets will be made available through the online SC-IAP platform (see Knowledge Management category)
- Training/technical assistance
    - Training and technical assistance support will be provided to IAP cities on data collection strategies, methods for validating the information reported, and different mechanisms available to share data with other cities around the world. Efforts will focus both on metrics mandated by the IAP results frameworks and other indicator systems participating cities already use or may wish to employ as part of their ongoing sustainability planning activities.
    - Specific, consultant led trainings on different systems and processes relevant to data, analytics, or other tools. Service providers could be identified and made available to participating IAP cities depending on their specific needs. (There would necessarily be some cost sharing involved, with the bulk of any fees covered directly by the cities as part of their overall program budget.)
    - A range of support activities will be provided related to the Global Protocol for Community Scale

GHG Emissions (GPC), which cities are required to report on as part of the program. This will include a workshop and hands-on technical assistance training, the certification of (lead) implementing agency representatives to ensure high levels of knowledge on how to prepare these inventories, and other data collection support.

- Indicator development
    - To the extent it is necessary, the IAP program may devote some resources to conduct research on other summary indicators that speak to multiple facets of a city's sustainability.

2. Sustainability Planning Support

As the child project descriptions above make clear, many of the cities entering the IAP program have already been engaged in some type of planning activities related to one or more aspects of sustainability. However, even in cities with comprehensive planning approaches, there is always room for improvement. This can be achieved by improving the quality and quantity of analytic work undertaken through the use of GIS or other tools closely linked to urban sustainability topics; expanding the number of areas of thematic focus (e.g. biodiversity, urban metabolism); increasing the level of planning ambition; strengthening stakeholder engagement across multiple tiers of government, the private sector, and civil society; improving linkages with regional and national level planning; translating plans into action; or engaging in more systematic tracking of local progress. In other words, regardless of a city's starting point when entering the IAP program, it is expected that the services and activities offered under this Platform segment will help broaden the scope, deepen the ambition and more fully embed sustainability planning efforts into policy and operations at the local level.

In doing so, the SC-IAP will naturally build on existing work of the GEF and implementing agencies on sustainability planning and support, while also enabling cities themselves to play an active role in setting the agenda by identifying priorities and articulating their own vision of urban sustainability.

Activities/services to be provided by the Global Platform

- Kickoff workshop
    - A kickoff workshop featuring renowned planners and planning agencies will engage participating cities in the articulation of a holistic vision of urban sustainability that will underlie the IAP program.
- Written guidance and other resources
    - Appropriate written guidance will be identified or developed and provided to all IAP cities to articulate the program's approach to sustainability planning,
    - Other resources, including case studies, videos, and webinars will be made available through the SC-IAP's online platform (see Knowledge Management services below)
- Review of plans, documents and processes
    - IAP cities will be eligible for expert review of their sustainability plans and processes, including: overall vision; choice of performance indicators; robustness of evidence base; quality of stakeholder engagement; prioritization and ambition of actions; degree of political support and co-ordination; assignment of responsibilities; identification of resources; adequacy of the monitoring, reporting and verification system, and so on.
- Expert charrette
    - On a periodic basis, IAP cities will be expected to publicly present updates on their progress to a 'blue-ribbon' panel of leading urban planning theorists, designers, and other practitioners. Such meetings will give these experts the opportunity to ask questions and provide immediate feedback about what has been done well, where more work is required, and model initiatives or programs each city can look to for inspiration or insight.
- Other training and workshops
    - Facilitated sessions on stakeholder engagement, highlighting the importance of involving civil society in sustainability planning.
    - Other types of planning support will likely be required by IAP cities, particularly those where limited technical competency exists to conduct scientific, engineering, spatial (GIS) or economic analyses relevant to planning or implementation efforts. Those topics not adequately covered under the tools and metrics segment of the Platform will be covered here.
- Media/communications, outreach, stakeholder engagement
    - Media/communications support is likely to prove valuable to help IAP cities get out the word about

their comprehensive planning efforts, or to promote the successful implementation of different aspects of these plans—including social media campaigns, op-eds, infographics and so on to make urban sustainability intelligible and engaging to a broader audience. (Note that this is also linked to Knowledge Management services below)

3. Knowledge Management

The knowledge management system to be developed for this initiative will encourage the systematic creation, sharing, learning, enhancement and dissemination of knowledge among participants and others who could benefit from information about the IAP. The platform will focus on knowledge exchange at three different levels: at the programmatic level between different SC-IAP cities, at the national level between SC-IAP cities and other urban areas within their respective countries, and at the international level between participating IAP cities and other localities from around the world. The exact nature of these services will be developed in close collaboration with implementing agencies to ensure it supplements the knowledge support systems they are planning to develop for their project.

Activities/services to be provided by the Global Platform

- Web portal
    - A website will be developed (possibly as a standalone platform or building on another existing related website) to promote knowledge sharing about urban sustainability topics. Note that this website is envisaged less as a goal in itself, but rather as a *means* to achieving the program's knowledge management goals.
    - The exact features of the site will be determined in collaboration with program participants, but it is likely that some information will be publicly available to all users interested in the issue, while other features on the site would sit behind a firewall with access limited to IAP program participants. The private area of the site will help serve as a means of communication between participating cities, including hosting communities of practice and forums. The public area of the site will serve as a way to broadcast the activities and achievements of the SC-IAP to the rest of the world.
    - Another feature will be a library of relevant resources (case studies, links, guidance, tools, videos etc.) organized broadly around the other Global Platform categories (particularly tools and metrics, sustainability planning, capacity building, and implementation support). This may be accompanied by an "ask the expert" section where participants can pose questions and get answers from subject experts.
    - E-Newsletters will also be prepared and disseminated on a periodic basis to highlight progress to date, emerging lessons learned, and to share announcements about the IAP program.
    - The private area of the site is likely to include a dashboard which can be used to report, visualize and track local city data in participating cities.
- Global annual meeting
    - Every year, a global meeting of all IAP cities will be convened to discuss the current status of the program, share knowledge between cities and implementing agencies, and focus on skill development activities. In general, meetings will likely be timed to coincide with other major city-network or sustainability events, which the SC-IAP could consider co-sponsoring
    - Content will be shaped by input from implementing agencies and participant cities but will likely include some or all of the following:
        - Keynote speech by recognized leaders/innovators on urban sustainability;
        - Progress update from participant cities;
        - Awards to recognize city achievements in a number of categories
        - Networking opportunities
- National meetings
    - Many child projects already have an express goal of convening meetings to share what they are learning with other sub-national governments and stakeholders within their country. Such meetings will also help promote better policy and funding co-ordination between local, regional and national governments and external financing partners.

4. Capacity Building

The majority of the Global Platform activities have sustainability considerations as their core focus. We know from experience, however, that there are often other institutional considerations at play that -- if not addressed – will prevent sustainability planning or implementation efforts from succeeding. For example, many local authorities have difficulty retaining employees given their low government salary structure. Other cities are at the center of a large urban agglomeration, and are constantly buffeted by decisions made by surrounding local authorities. Weak financial management practices are a significant problem in many cities, limiting their access to the private capital that is essential to pay for necessary infrastructure upgrades or expansion.

To help cities address these problems, one category of Global Platform will focus on these other types of capacity building activities. The exact menu of services to be offered will be developed in close consultation with implementing agencies and the IAP cities themselves. At a minimum, however, the Platform will include activities designed to support improved financial management practices in IAP cities. The Platform will also include some type of engagement with the MetroLab program, which focuses on how cities can think strategically about the role regional solutions can play in addressing many pressing local problems.

Activities/services to be provided by the Global Platform

- Guidance/training on mobilization of own-source revenues
- Guidance/training on improved debt-management practices
- Guidance/training on capital budget development and the strategic prioritization of infrastructure spending
- Guidance/training on metropolitan scale solutions to basic infrastructure services and investments

5. Financing Sustainability

Once local authorities complete some or all of their sustainability planning work, they will want to move swiftly towards implementation, likely requiring some type of financial assistance from the WBG, the implementing agency, other development aid institutions, or the private sector. In other cases, IAP cities may already have 'shovel-ready' sustainability projects in need of feasibility studies or transaction advisory support. To facilitate such assistance, the WBG delivery team will work closely with the implementing agency and relevant country/regional colleagues at different development aid institutions to bring them into the process early on, so they are familiar with the goals and likely outcomes of the local IAP planning effort.

Activities/services to be provided by the Global Platform

- Short-term technical assistance and expertise, e.g.
    - feasibility studies;
    - assessment of costs of city-scale sustainability options;
    - identification of financing sources;
    - detailed design and bid document preparation for infrastructure and other projects;
    - transaction advisory support for infrastructure and other projects that could invite private sector participation.

6. Global Engagement Facility

Because the Sustainable Cities IAP is a pilot program, resources are necessarily limited and will be prioritized to benefit participating cities. However, to ensure that this program delivers global value, some resources will be allocated for different types of technical assistance services to be provided on a first come, first served basis. The aim is to help these cities improve sustainability planning practices such that they are more likely to be able to participate in similar programs in the future. These services to be made available will be fully fleshed out upon consultation with different implementing agencies, as they may be interested in liking some of their own program work to the IAP program. It is likely, however, that resources made available under this category would include local government official participation in different capacity building programs run as part of the Global Platform, support for studies that are the necessary foundations of future planning work (e.g. local GHG emission studies, climate risk studies, ecosystem services studies, etc.), or pre-feasibility study planning support for cities ready to move forward with sustainability-related investments. The World Bank will coordinate with implementing agencies on eligibility or the delivery of different activities.

Activities/services to be provided by the Global Platform

- Short-term technical assistance and expertise, potentially including:
  - Different types of planning studies, or deal preparation and transaction support services;
  - Participation in training or other capacity building programs
  - Development of pre-feasibility and feasibility studies;

A.2. Stakeholders. Will project design include the participation of relevant stakeholders from civil society and indigenous people? (yes ☒ /no☐) If yes, identify key stakeholders and briefly describe how they will be engaged in project design/preparation:

A basic tenet of the IAP program is to ensure broad engagement with stakeholders across a city, as a means of ensuring their perspectives are accounted for during the planning and decision making process. Guidance and technical assistance will be provided to IAP cities to support efforts to ensure that planning processes are inclusive, formal and ongoing in nature, and formally embedded into various planning or decision making processes.

At the program level, a wide range of city-based institutions and other GEF agencies have been involved in consultative meetings to shape the design of the Sustainable Cities IAP, including colleagues at the World Bank, the UN Secretary General's office, the office of UN Special Envoy for Cities and Climate Change Michael Bloomberg, the Rockefeller Foundation, 100 Resilient Cities, the C40 Cities network, the Compact of Mayors, the City Climate Finance Leadership Alliance, IIASA, the Clinton Foundation, the World Business Council on Sustainable Development, the World Federation of Engineering, United Nations Human Settlements Program (UN-HABITAT), ICLEI- Local Governments for Sustainability, World Resources Institute (WRI), the World Council on City Data (WCCD), the Urban Climate Change Research Network (UCCRN), and other institutions. GEF agencies consulted as part of this program include the Asian Development Bank (ADB), Inter-American Development Bank (IDB), European Bank for Reconstruction and Development (EBRD), the Food and Agriculture Organization of the UN (FAO), United Nations Environment Program (UNEP), United Nations Industrial Development Organization (UNIDO), World Wildlife Fund (WWF), and Conservation International (CI).

Going forward, the IAP program will build strong relationships with organizations well positioned to provide topical, regional, or global support to IAP cities and implementing agencies. The goal will be to draw on their expertise, link to their other related initiatives, and ensure they are aware of the goals and progress of the IAP program.

A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

A range of risks at the project level are addressed in both the PFD and individual child projects. Yet risks also exist at the program level, given the diversity of projects undertaken and the IAP's ambitious goal of enhancing the planning and implementation efforts in participating cities. The program structure has specifically been crafted to address these issues, however, seeking to minimize risks wherever possible:

Program-level risks	**Rating**	**Risk mitigation measures**
Global Platform and overall program resources spread thin given length of program and number of cities involved	L	Extensive engagement with implementing agencies and extended network of regional and global initiatives focused on urban sustainability, as a way of ensuring coordination and extending the IAP's limited resources.
Co-ordination of large number of child projects	L	The World Bank IAP Program delivery team will meet with GEFSEC on a biweekly basis to discuss the overall status and direction of the program. On a monthly basis, a steering committee call involving the GEFSEC and all implementing agencies will be convened by the World Bank to discuss program updates, promote coordination between the implementing agencies/child projects and the Global Platform, and monitor the status of the sustainability planning and project work underway in each IAP city. On an annual basis, there will be a meeting/conference to which all IAP participants will be expected to participate, focusing on relaying or obtaining feedback on program-related information and sharing insights between

		participants. To enhance connections to the large number of sustainable city focused initiatives underway around the world, two different advisory committees will be formed involving city networks, technical experts, and others with experience on urban sustainability topics.
Fail to see results within the program lifetime, or results are "negative" as a result of exogenous factors (e.g. population/economic growth leads to higher emissions at city-wide level)	H	Recognizing that changes in planning processes take time, the IAP results framework includes reporting on institutional changes (data tracking, stakeholder engagement practices, breadth and depth of planning work, etc.) that occur during the life of the program. The IAP also prioritizes support on project finance that will aid cities with shovel-ready projects that can deliver results quickly. Finally, the IAP's child project selection was partly based on the extent to which participants exhibited an awareness and willingness to engage with a broad range of stakeholders who can support the successful delivery of their sustainability agenda.
Alignment between child projects and overall program goals	M	Given the wide range of issues to be tackled by the different IAP cities, the results framework and Global Platform structure both provide the necessary leverage to ensure that the child projects all make progress in improving local sustainability planning and implementation efforts. The results framework requires participants to report on changes the institutional environment that increase the scope, level of ambition, or formal integration of sustainability considerations into local administrative or operating practices. The Global Platform focuses on how to do this, sharing insights, best practices, and analytic frameworks that clarify the extent to which progress has been made, allowing for mid-course corrections to ensure the program remains on track.

A.4. Coordination. Outline the coordination with other relevant GEF-financed and other initiatives:

Institutional Structure

The World Bank Group (WBG) team will be responsible for the overall design and coordination of the SC-IAP. The World Bank IAP Program delivery team will meet with GEFSEC on a biweekly basis to discuss the overall status and direction of the program.

On a monthly basis, a steering committee call involving the GEFSEC and all implementing agencies will be convened by the World Bank IAP Program delivery team to discuss program updates, promote coordination between the implementing agencies/child projects and the Global Platform, and monitor the status of the sustainability planning and project work underway in each IAP city. These meetings will also help ensure coordination between the IAP and other national/regional/global initiatives various implementing agencies are operating that focus on urban sustainability.

On an annual basis, there will be an annual meeting/conference to which all IAP participants will be expected to participate. These meetings shall focus on relaying or obtaining feedback on program-related information, the sharing of information between participants, and targeted workshops on different sustainability planning topics. These meetings shall rotate among IAP cities to ensure that all IAP participants are exposed to different sustainability strategies/projects being pursued by the host city.

To enhance connections to the large number of sustainable city focused initiatives underway around the world, two different advisory committees will be formed. Both will play an essential knowledge partnership function for the IAP program, providing strategic input on the structure and operation of the IAP and outreach on behalf of the program (see Figure 1) to cities and to these other sustainable city initiatives. One High-Level IAP Advisory Committee will be composed of individuals globally recognized for their expertise on these issues, while the IAP Consultative Committee shall be composed of representatives from city networks and other more technically-focused institutions which regularly interact with local authorities or sovereign ministries on urban sustainability matters.

Input from both groups shall be purely advisory in nature. Engagement with both groups will occur on an as-needed basis, with more frequent engagement anticipated for the IAP Consultative Committee. At a minimum, meetings will be held with each group twice per year.

Monitoring and Evaluation

The goal of the IAP program is to promote among participating cities an approach to urban sustainability that is guided by evidence-based, multi-dimensional, and broadly inclusive planning processes that balance economic, social, and environmental resource considerations. Regardless of a city's starting point on entering the program, it is expected that the services and activities offered under this bucket will help broaden the scope, deepen the ambition and more fully embed sustainability planning into local government systems and policies. To track the extent to which the program is successful in achieving its stated goal, a flexible monitoring and evaluation framework is needed to track progress.

The WBG shall follow a two tiered approach to monitoring and evaluation of the SC-IAP program. The exact details and process to be followed over the life of the process shall be developed communally between the GEFSEC, the WBG, and the various implementing agencies.

First, there will be baselining and an annual updating of circumstances on the ground in participating IAP cities. The tracking will be both qualitative and quantitative in nature. The qualitative factors will focus on the institutional environment or planning systems in place in each city. To the extent these circumstances change (e.g. new rules/policies are issued, other programs or investments undertaken) then they may reflect progress resulting from the IAP program. Both the C40/CDP and ICLEI/MIT have developed survey instruments that will be helpful starting points for this type of assessment. Rating systems employing a 1-10 scoring system will be employed for the qualitative assessment, and clear guidance will be developed to support the implementing agencies who will be responsible for conducting the baselining and annual updating process.

Quantitative performance metrics focused on more traditional measures of environmental sustainability are also fundamental to this program. As noted in Section B above, all participating cities will report on a common core of KPIs. These will be fleshed out in collaboration with cities and implementing agencies during the PPG phase of the project, but will at least include metrics related to GHG emissions. In addition, cities will be encouraged to report on other metrics that speak to local and global benefits, supported through services provided through the Global Platform under Tools and Metrics.

The post-program evaluation strategy will look both at these performance indicators and other gauges of the IAP's impact. IAP program participants will also be surveyed about the value of different Global Platform services.

Finally, the WB delivery team will extrapolate lessons across SC-IAP cities, commenting on any policy implications that are observable (despite the short time frame) and how the IAP program might be improved in the future.

Annex A

NAME OF PROGRAM:

SUSTAINABLE CITIES INTEGRATED APPROACH PILOT

Child Project Concept Note

PART I: PROJECT INFORMATION[1]

Project Title:	Promoting Sustainable Cities in Brazil through integrated urban planning and innovative technologies investment
Country(ies):	Brazil
GEF Agency(ies):	UNEP
Other Executing Partner(s):	Ministry of Science, Technology and Innovation (MCTI)
GEF Focal Area(s):	IAP Sustainable Cities

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]:

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	**Trust Fund**	**(in $)**	
		GEF Project Financing	**Co-financing**
IAP Sustainable Cities	GEFTF	4,587,156	34,750,000
BD-4 Program 9	GEFTF	3,669,725	25,500,000
CCM-2 Program 3	GEFTF	14,378,899	132,750,000
Total Project Cost	**GEFTF**	**22,635,780**	**193,000,000**

B. CHILD PROJECT DESCRIPTION SUMMARY

Project Objective: Test integrated and sustainable urban planning approaches in two selected cities in Brazil to demonstrate the benefits, and foster uptake by other cities through the Knowledge Platform

Project Components	**Financing Type[3]**	**Project Outcomes**	**(in $)**	
			GEF Project Financing	**Co-financing**
Integrated Planning Pilots	TA	A comprehensive, evidence-based integrated and sustainable planning approach is adopted by Recife and Brasilia.	5,350,000	25,000,000
Integrated Investment Pilots	Inv	Cities' investments demonstrate the benefits resulting from integrated and sustainable planning.	8,035,780	116,000,000
Knowledge Platform	TA	The tested integrated and sustainable planning methodologies are promoted by Government and Sustainable Cities Programme to 300 Brazilian cities as the reference for integrated urban planning.	8,000,000	44,500,000
		Subtotal	21,385,780	185,500,000
		Project Management Cost (PMC)[4] (select)	1,250,000	7,500,000
		Total Project Cost	**22,635,780**	**193,000,000**

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust

[1] This Concept Note is intended to convey whatever preliminary information exists at this stage on a child project and that is indicative of how it will contribute to the overall Program.

[2] When completing Table A, refer to the Program Results Framework, which is already mapped to the relevant *Focal Area Results Framework* in the *GEF-6 Programming Directions*.

[3] Financing type can be either investment or technical assistance.

[4] For GEF Project Financing up to $2 million, PMC could be up to10% of the subtotal; above $2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

C. CO-FINANCING FOR THE PROJECT BY SOURCE, BY TYPE AND BY NAME

Sources of Co-financing	Name of Co-financier	Type of Cofinancing	Amount ($)
Federal Government	Ministry of Science, Technology and Innovation (MCTI)	In-kind	47,500,000
Federal District	Government of Federal District (GDF) - Brasilia	Investment	55,000,000
Municipal Government	Municipality of Recife (PPA)	Investment	76,000,000
CSO	Sustainable Cities Programme	In-kind	14,000,000
Int. Organisation	UNEP	In-kind and cash (50%/50%)	500,000
Total Co-financing			**193,000,000**

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

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in $)		
					GEF Project Financing (a)	Agency Fee (b)[b)]	Total (c)=a+b
UNEP	GEFTF	Global Sustainable Cities Incentive (set aside)	IAP	IAP-Cities	4,587,156	412,844	5,000,000
UNEP	GEFTF	Brazil	BD	BD – IAP Cities	3,669,725	330,275	4,000,000
UNEP	GEFTF	Brazil	CCM	CCM – IAP Cities	14,378,899	1,294,101	15,673,000
Total GEF Resources					**22,635,780**	**2,037,220**	**24,673,000**

a) No need to fill this table if it is a single Agency, single Trust Fund, single focal area and single country project.

b) Refer to the Fee Policy for GEF Partner Agencies.

c) If Multi-Trust Fund project :PMC in this table should be the total amount; enter trust fund PMC breakdown here ( )

PART II: PROJECT JUSTIFICATION

PROJECT OVERVIEW

A.1. PROJECT DESCRIPTION. BRIEFLY DESCRIBE:

1. Proposed city or metropolitan area for IAP.

Government of the Federal District (Brasilia) and Recife.

2. Population of target cities or metropolitan areas:

Current population		Projected population in 2050[1]
Brasilia	2,852,372	5,155,538
Recife	1,608,488	4,787,886

3. Brief description of context and baseline scenario.

Rapid urbanization led Brazil to an increase from only 30 percent in urban population in the 1940s, to more than 80 percent in urban population in 2010. Within Brazil, major challenges in the rapid urbanization process are linked to urban sprawl and illegal settlements, poor coverage of basic sanitation systems (sewage and water supply), and urban transport and traffic jams amongst others. Another issue of concern is climate change. Brazil's GHG emissions are fueled in part, by the country's rapid urbanization. Cities in Brazil contribute directly (e.g. through motor vehicles) and indirectly (e.g. production of goods and services that are consumed within urban boundaries) to GHG emissions (UNEP, 2013).

In the last 15 years, Brazil has advanced significantly in creating legislation that requires planning and management instruments for short, medium and long term; master plans, pluriannual plans, mobility plans, sustainability plans, target plans and a national plan for climate change. While some cities have spontaneously adopted sustainable and integrated planning approaches, they are not wide spread in Brazil. Despite existing enabling legislation and some good examples, there is still an absence of a more prescriptive guidance/methodology for integrated urban planning and a lack of awareness and knowledge of urban planners of the benefits of comprehensive, integrated and sustainable urban planning.

Recife and Brasilia will be the target cities for this project. Both cities are receptive to the concepts of sustainability and integration, and are in the process of reviewing a number of their urban plans. This project will help them to spread integrated urban planning more quickly than would be the case otherwise.

4. Brief description of priorities for IAP support.

The aim of the project is to establish a Knowledge Platform (building upon existing structures) to facilitate the implementation and replication of successful urban sustainability policies in Brazil. The project will test integrated and sustainable urban planning approaches in two selected cities in Brazil to demonstrate the benefits, and foster uptake by other cities through the Knowledge Platform. In order to do this, the project would be conducting two types of pilot exercises in two Brazilian cities, Recife and Brasilia, which results and lessons learned will feed into the enhancement of the Knowledge Platform. The first pilot (Component 1) would focus on the process of integrated sustainable urban planning. The second type of pilot (Component 2) would support the use of innovative technologies to facilitate investment integration across key sectors.

Component 1: Integrated planning pilots

This component aims to test and refine an integrated approach of urban planning based on existing methodologies and tools, including the Global initiative of efficient use of resources in Cities developed by UNEP. This approach will be harmonised with the indicators of the Sustainable Cities Programme and with the IAP indicators sustainable cities of the GEF. It will also support cities' efforts in expanding and updating their observatories.

The objective of this component is also to cooperate institutionally with the municipal authorities of both Recife and Brasilia in the development of evidence based integrated planning focusing on the multidimensional aspects of sustainability in the preparation of strategic plans, land use plans, climate change plans, mobility plans and master plans.

[1] Please refer to Table 2: The World's Largest Cities in 2050, which can be found in the background paper of the August 2014 Sustainable Cities IAP consultative meeting (http://www.thegef.org/gef/CC/sustainable-cities).

Recife: the municipality of Recife has created the Recife Agency for Innovation and Strategy (ARIES), with the objective of outlining and promoting innovative, sustainable and strategic ways for city development up to 2037, when the city will complete 500 years. This strategic plan is called: "Recife 500 years, the city we want". This plan will be built across five areas: Inclusion and Human Development, Economic Development, Urban Space and Mobility, Environmental Sustainability and Public Services. The aim is that Recife will emerge as a regional center in Latin America, and will be recognised for its excellence in modern services, quality of life, and sustainability actions.

In parallel to this process, the master plan of Recife will undergo a revision process supported by studies to that will contribute to elaborate the city new master plan for 2019-2029. In addition, Recife intends to start in 2015 the detailed design of its urban mobility plan, which will be later integrated into the city's master plan, together with the sustainable low carbon strategy (from 2014 with goals to reduce GHG emissions by 2020), and a to-be-developed resilience plan.

This component will support Recife in undertaking all needed studies and assessment to provide evidence-based data and inputs for the development and revision of all above-mentioned plans.

The main GEF financed deliverables of this component are:

- City diagnosis to identify problems in an integrated way
- City expanded and updated observatory
- Revised Strategic plan Recife 2037
- A revised, integrated and comprehensive sustainable Urban Mobility Plan integrated in the City Master Plan
- Climate change sectoral assessments and studies to provide inputs to the above plans (including a smart grid assessment, with spatial map and technical options)
- Series of studies and assessments to support the development of an integrated and comprehensive sustainable Master Plan (*Plano Diretor*) 2019-2029
- A sustainability target plan 2017-2020 (aligned with the 2037 strategic plan), which includes a set of indicators linked to the IAP cities global framework and ISO 37120
- Web-base Platform for integrated and sustainable planning in Recife developed and operational

Brasilia: The new elected government of DF main strategic focus is on actions related to sustainable land occupation and definition of development directions. GDF wants to achieve this by ensuring cohesion and coherence between the land use and development planning instruments. In this context, GDF has decided to use the Ecological-Economic Zoning (EEZ) planning tool to manage urban expansion and provide the needed inputs to the development of GDF urban plans. EEZ is a land use planning approach that takes into account elements of the physic-biotic and socio-economic environment.

The Secretariat of Environment of the Federal District (SEMA) has the mandate to develop and implement the Climate Risk Management Strategy for a Resilient and Sustainable Brasilia. The EEZ will be the planning tool that will allow SEMA to develop and implement their Climate strategy. This strategy aims to create the scientific and technical bases for the establishment of GHG mitigation actions and for the development of legal and institutional instruments for implementing effective measures of adaptation and climate risk management and thus contributing to the sustainable development of the GDF.

This component will support SEMA in accomplishing this strategy by undertaking a series of sectoral studies, assessments and modelling to allow (i) the development of scientific-based climate change mitigation policy plans with GHG mitigation actions and a GDF adaptation plan (to be undertaken in cooperation with TERRACAP, through the use of geo-reference tools and data); and (ii) the mainstreaming of climate scenarios and risk assessments into the planning instruments of GDF, namely the Spatial Planning Master Plan (PDOT), the Urban Mobility Plan, the Water and Sewage Master Plan and the Water Resource Management Master Plan. These plans will be then further integrated to promote the adequacy of economic and science & technology development policies and regional development and provide the inputs for the development of the Integrated Master Plan of the Brasilia Metropolitan Area, which includes neighbouring municipalities in *Goiás* and *Minas Gerais* states.

The main GEF financed deliverables of this component are:

- City diagnosis to identify problems in an integrated way, through the following sectoral studies, modelling and surveys:
  - Conservation units climate and impacts risk assessment
  - Watershed climate and impacts risk assessment
  - Land use planning climate scenarios with identification of mitigation and adaptation options
- Observatory of risk indicators and climatic risk management and alignment of indicators with the IAP cities global framework
- Evaluation of solar business models
- GEO technologies and geo-sensing data as tools for integrated urban planning support
- Mainstreaming of climate scenarios, risk assessments and recommendations in GDF planning instruments
- GDF climate change policy with the adoption of GHG mitigation actions, risk management actions and integration of mitigation/adaptation measures in GDF development policies
- GDF Adaptation Plan elaborated in a participatory manner
- Climate scenarios mainstreamed in all GDF public investments
- Institutionalization and functioning of District Council of climate change (CONCLIMA), and proposal for governance of climate risk in GDF 100% validated and draft bill published to be submitted to the CONCLIMA
- Knowledge sharing platform on climate risks deployed

See Annex I for details of Component 1 in Brasilia.

Component 2: Integrated Investment Pilots

In this component, selected innovative technologies will be piloted in Recife and Brasilia to showcase the local and global benefits of integrated investment derived from integrated and sustainable urban planning. In parallel, MCTI in collaboration with the cities, will develop an adequate system of monitoring and verification (MRV) to measure the impact of these technologies.

Recife: The aim of this component in Recife will be to work at the confluence of the urban mobility plan and the low carbon strategy, as an example of the benefits of integrated urban planning in Recife. The pilots in Recife will focus on integrated transport development and on sustainable buildings.

Integrated transport development

The state of Pernambuco has invested over USD 500 million in a metropolitan integrated urban water management plan including Recife, that integrates pollution control and the creation of a river park along the Capibaribe river. The state is also investing in a bike lane plan in the metropolitan region of Recife. This USD 123 million investment will expand the 28 km of existing bike lanes to 590 km of cycle tracks and lanes until 2024. The Ministry of Cities will be working together with the State of Pernambuco in improving the navigability of the River Capibaribe through infrastructure works including dredging, raising bridges and constructing terminals.

The integrated transport development pilot investment will take advantage of the upgraded river environment and the bike lane plan to improve mobility in the city in a low carbon integrated way, and act as a visible commitment by the city to climate change, and to improvement in the quality of life while maintaining water quality in the river.

This pilot will work together with the city of Recife in testing solar boats as ferries and investing in intermodal integration between the river terminals, bikes and electric cars and the adoption of a filtering garden system for cleaning the River Capibaribe.

The pilot will finance the acquisition, adaptation and testing of 2 solar powered electric propulsion boats (50 people each) to complement the urban mobility investment and link it to the low carbon development strategy.

The investment also aims to support inter-modal transport integration, including a connection between river ferries with bikes and electric cars, acquisition of new electric cars, construction of new solar/electric car stations, as well as the acquisition of new bicycles for sharing and new stations. This will support city efforts to connect different forms of transport in the city center and support modal shift away from private transport and fossil fuels.

The pilot will also finance the costs of extending an existing mobility app and erect communication and GPS software for bikers to locate bikes and electric cars and connect with the ferry schedule, developed by Porto Digital.

The pilot will also finance the deployment of filtering gardens to test an innovative, low cost and natural technique to clean pollution from water bodies of the Capibaribe River. As a result of low sewage network coverage in Recife, there is a high pollution rate in water bodies caused by the dumping *in natura* of urban sewage. Besides cleaning the river, the filtering gardens and restoration of wetlands will reduce flooding incidents, create recreational areas and small parks, improve the local landscape, and contribute to the quality of life and health of the local population. The use of filtering gardens are complementary to the co-financed sewage system modernization and renovation investments.

Lessons learned from this pilot will be integrated in the urban mobility plan and the low carbon strategy, will feed in the Strategic Plan of Recife 2037, and will allow replication of the approach in other municipalities in Brazil.

Green roofs and sustainable buildings

Since January 2015, Recife has a new municipal law requiring new buildings to adopt "green roofs", equipped with rain water capture system and a vegetation cover with the aim of mitigating heat islands hot spots in the city. The new law applies to new buildings but the city would like to expand the law to existing buildings. This has not yet been tested.

This pilot will support the city of Recife to test green roofs and sustainable construction practices in two ‘state donated’ existing buildings with the aim of gathering solid data on GHG savings, water savings, quality of the indoor environment and surrounding temperature changes. This will enable the current municipal law to be revised in order to include findings of this pilot. The aim is also to support the city with recommendations for a financial mechanism to allow existing buildings to be retrofitted in a sustainable and cost effective manner, reducing electricity and water bills and contributing to reducing the impacts of heat islands in the city center.

This pilot will test the ‘green roofs’ concept by assessing technically the strength, impermeability and durability of the roof. It will use this opportunity to also test sustainable building practices, including rain water capture and re-use, and energy efficiency within the building, amongst others.

This pilot will also support the city to train building inspectors and generate lessons learned from this pilot, and guidance will be integrated in the relevant urban plans. This approach can then be replicated in other municipalities with similar heat island problems.

Finally, this pilot will also finance the development of an application to measure the microclimate in the city. The app will make use of three basic elements of data collection: open bases of climate information and their historical series; data commonly shared by users through highly diffused devices and applications (location, pictures, complaints on social networks, etc.); data sharing collected by "wearable" sensors devices. This will allow real-time forecast weather phenomena and their impacts on the city life. In addition to providing information about the environment that the citizen experience day-to-day, the application enables the public authorities and private organisations to identify climate related problems, understand its causes and select coping strategies. This innovation allows the involvement of citizens through sharing of information. Information collected through this application will be used to cross reference findings from the MRV.

The main GEF financed deliverables are:

- Procurement and testing of two solar boats
- Construction and testing of filtering gardens
- Procurement of bikes and electric cars
- Construction of inter-modal stations for bikes, electric cars and ferries

- Application for bikes locations, ferry schedule and electric car user requests
- Renovation and monitoring of 2 sustainable reconstructed buildings with green roofs
- Microclimate application
- MRV systems

Brasilia:

Watershed restauration pilot

Brasilia is expanding fast. The planning Company of the Federal District (CODEPLAN) estimates that in 2030, Brasilia will have 1 million inhabitants more than today. This will not only create an increasing pressure on the surrounding land, but also on surrounding resources, and drinking water in particular. Urban expansion and drinking water shortage are a prevailing problem in Brazil and in other fast growing economies. The investment in Brasilia will address these two important issues through the concept of ecological-economic zoning.

Brasilia is located in one of Brazil's driest ecosystems, and the city's water consumption is expected to outstrip supply in the next 3 years. As a result, the City Administration aims to expand its water supply by adding lake Paranoá to the city's water supply network, 60% of which now comes from Bacia do Descoberto watershed. The largest dumpsite (124 ha) in Brazil is located on the outskirt of Brasilia. Leachate from this dumpsite flow into 2 well-springs that feed lake Paranoá. The city administration will first close the dumpsite before adding lake Paranoa to the city's water supply. The project will finance the costs of testing techniques to capture, dry and dispose of the leachate once it is closed. In addition the project will finance a planning exercise for the lake Paranoá and Bacia do Descoberto watersheds and generate a land use map using the ecological-economic zoning principals. From the mapping exercise the project will support restoration of the basins to improve water quality, including terracing, contouring and replanting with native species, and fencing off set-aside areas. Communities in both watersheds practice agriculture there. The project will work with these communities to promote agricultural management practices suitable for the multi-use purposes of the watershed. This will include: organic farming practices, drip irrigation, organic fertilisers, low till cropping techniques and permaculture.

As the old dumpsite is closed the city of Brasilia will open up a new landfill, in the Bacia do Descoberto watershed, and they will include drainage for the new landfill to avoid ground water contamination of the city's water supply. This investment will also include 12 new separation and recycling facilities; 4 composting centres; a full program in the city to promote recycling and training for the waste pickers; currently living and working at the old dumpsite. The city will offer training to the waste pickers to encourage them to move to the landfill and allow the city to close the dumpsite without major social upheaval. Once the old dumpsite is closed the project will finance the costs of testing rehabilitation techniques for the soil around the dumpsite.

Distributed Renewable Energy Alternatives

Brazil generates around 70% of its power from hydro-electricity. By 2020 the consumption is forecasted to grow by more than 500 TWh and it will require sources like wind, solar, biomass to contribute to the supply. The future of Brazil's power sector will be focused on generation of power from sources other than hydro. In 2012, Brazil enacted a net metering program (Sistema de Compensação de Energia) to allow small-scale power production generators of 1 MW or less to offset their electricity bills with credits from the energy they provide to the grid. This provides the basic conditions to encourage distributed energy and allows building owners to install and operate PV systems.

In this context, GDF will promote the Solar program strategic plan for decentralized energy generation and provide financial incentives for deployment of equipment for mini and micro solar generation. This pilot will address this problem by raising awareness of the population, and testing new business models and approaches for decentralised solar generation and energy efficiency measures.

This pilot will be implemented called Solar School Park. It will aim to install LED lamps and solar powered equipment in parks and public schools around the 73 urban parks of Brasilia, through decentralised generation. The pilot foresees the development of

environmental education actions, campaigns and training of installers on the use of solar energy in the DF. It also addresses the topic of energy efficiency by exchanging incandescent bulbs with LED bulbs in street lighting in order to reduce energy consumption.

The main GEF financed deliverables are:

- Planning and restoration in two watersheds in the urban periphery of Brasilia to manage the quality of drinking for Brasilia and for testing land use management including for agriculture. Pilot remediation techniques of contaminated soil surrounding the dumpsite.
- Education and social mobilization to create culture of responsibility and increase awareness of the population about existing environmental technologies for energy saving (enabling the partnership with educational institutions)
- Municipal solar and LED pilots to support larger scale uptake of these technologies in the public sector.
- MRV system

Component 3: Knowledge Platform

The project will establish a knowledge platform based on existing structures of the MCTI and the Sustainable Cities Programme, to support city planners with (a) sustainable integrated investments and policy-making based on reliable urban metrics and (b) piloting of innovative technologies and approaches. The platform will provide extensive capacity building support to city planners not only in the selected cities, but to a number of other cities in Brazil. The goal of the platform is to promote the tested methodologies, approaches and lessons learned Brazilian cities (through the Platform and the Sustainable Cities Programme)

As a catalyst for the sustainable cities agenda in Brazil, the knowledge platform will include engagement processes, capacity-building and training, dialogues among stakeholders and thematic meetings, sharing of good practices and case studies, training programs and development of references. Specifically, the project will have specific objectives:

i. support cities with integrated urban planning process and its indicators;
ii. test, adapt and provide proof of concept for innovative technologies that can be deployed to solve technological bottlenecks identified through the integrated urban planning process;
iii. disseminate good practices emerging sustainability work in support of the planning and design technologies;
iv. stimulate the engagement of more than 300 municipalities that voluntarily adopt sustainability goals in their local administrations;
v. promote the functionalities of the platform to support replication and scale gain and its evolution through collaborative action and tools for the revision of national urban policies and guidelines.

See Annex II and III for details of the Platform structure and services.

The Sustainable Cities Programme city network voluntarily promotes the adoption of a sustainability target programme and animates a functional platform and software for indicators data input around 12 axes that structure the sustainable cities agenda. In addition, it performs an important role on social mobilization, which is key to influence decision makers and to ensure the sustainability of achieved results. MCTI has a programme to support technological innovation for sustainable cities with a number of innovative technologies quite mature for being pilot tested, applied and up-scaled.

A rough estimate of direct Green House Gas emissions reductions from the project are calculated at 2,405ktCO2eq. For further details, please refer to Annex IV. This rough estimate will be refined during project preparation.

5. Rationale to include target city or metropolitan area.

Recife is a rapidly growing coastal city facing many of the same problems of both Brazil's and the world's other fast growing coastal cities including adaption to climate change, increasing journey times and the associated economic losses and pollution; water shortages and energy consumption.

Brasilia: There are four reasons why Brasilia has been chosen as the second pilot city. Brasilia is growing fast and will not be able to meet demand for clean water in about 5 years on a BAU scenario. This is a common problem for cities in Brazil and around the world. Secondly, Brasilia is the seat of national government, so the experiences and lessons learnt from this pilot will provide most visible evidence for law makers and help the project with replication and scale up. Finally, GDF is a metropolitan area and demonstrates the problem of institutional integration between different municipalities within the metropolitan area. Lessons learned in this regard can be shared with many other metropolitan areas in Brazil and worldwide.

6. Experiences with, and commitment to, integrated urban management by (1) national government, and (2) target city or metropolitan area.

Since 2001 Brazil has a federal law that establishes a requirement that each city with more than 20,000 people should develop a Master Plan, through a participatory approach and taking into account social, economic and environmental concerns.

In 2010, a thematic programme on sustainable technologies was launched by the MCTI to support technologies for Sustainable Cities. This support to cities came in the form of innovative technologies in the areas of: sustainable buildings; sustainable transport and mobility; water and sanitation; and renewable energy and energy efficiency.

The *Programa Cidades Sustentaveis* (Sustainable Cities Programme), a civil society led cities initiative was launched in 2011. It allows practitioners to benchmark their actions and indicators' use in a more integrated and sustainable urban planning. It then allows mayors and cities to develop and implement public policies for sustainability and to identify specific targets and time frames to monitor the results. To date, there are 270 cities that are participating in the platform with around 60 of them providing and updating more frequently the indicators.

Recife's Target plan, elaborated in the context of the Sustainable Cities Programme, confirms Recife's commitment to sustainability urban planning. It identifies 5 main areas of work, among them: urban planning, urban mobility and transport; lighting; sanitation and risk zones; environment; and waste management. This is in addition to their low carbon development strategy and their intention to have a long term vision to 2037, to set the direction for integrated planning.

Brasília has revised its Sustainability Programme in 2009. It had 4 components, one of them focused on an integrated approach to management of land, management of environment and water resources and management of environmental sanitation. Under the new government, there is already a commitment to review the strategic plan and to join the Sustainable Cities Programme, which will imply the development of a Target plan based on agreed indicators.

7. Confirmation of commitment to IAP engagement and sustainable cities global platform/network participation from (1) national government, and (2) target city or metropolitan area.

National Government has registered its intention to participate and contribute to the GEF Sustainable Cities Integrated Approach Pilot (SC-IAP) initiative during the GEF-6 Replenishment Meetings and the GEF 5th Assembly. Discussions with senior officials in Brasilia and Recife have also confirmed these two cities interest in participating in the project.

8. Consistency with national and local policies and strategies:

- Summary of alignment of proposed priorities with relevant national sustainable development policies and strategies

The main priorities of Brazilian urban development polies are housing, sanitation and urban mobility and transport. According to the Brazilian Plan for Urban Development, the theme of environmental sustainability was not singled out as 'separate theme' since it cuts across all the above priorities. Our proposal is aligned with the national urban development policies of Brazil, especially as they call for an integrated approach to the key areas to address environmental sustainability. Furthermore, there is a call from the National Government for the establishment of Knowledge Platforms to address key strategic issues of national concern, such as urbanization (sustainable cities). Our proposal will establish a National Knowledge Platform responding to this

national strategic policy. It will enable further integration of the three levels of government (national/state/city) for improved integrated city plans development, and will allow for further integration of sectoral plans (including sustainability plans).

- Summarize alignment of proposed priorities with relevant local sustainable development policies and strategies

Both Brasilia and Recife have initiatives to review their strategic plans in an integrated and participatory manner to provide inputs to the Master Plan that will integrate to the support of this project several stand-alone plans, some of them sustainable plans. Both cities are committed are to have sustainability as a cross cutting theme within their integrated urban processes.

A.2. Stakeholders. Will project design include the participation of relevant stakeholders from civil society and indigenous people? (yes) If yes, identify key stakeholders and briefly describe how they will be engaged in project design/preparation:

The ultimate beneficiaries for this project are city inhabitants, since the aim of the project is to generate local as well and global benefits in cities. However this will be done through cities administrations and urban planners in particular. The two cities that have been chosen for this project are Brasilia and Recife, so the city administration and planners of these cities will be primary stakeholders of this project.

MCTI has a governance role at the knowledge platform, promoting the multi-stakeholder engagement and fostering the technologies for sustainable cities amongst other relevant actors. Ministry of Cities will be the main partner of Federal Government, through its Urban Mobility Secretariat, a priority axis for the platform. The Sustainable Cities Programme will be the main actor mobilizing cities to participate in the platform. UNEP will provide technical assistance given its engagement with the sustainable cities agenda. CSOs such as ICLEI, WRI, C40 will also be invited to the platform. MCTI network of Science & Technology National Institutes, research institutes and universities working with the theme will be also be engaged. Business Community will be engaged through Ethos Institute, major CSR institute in Brazil and partner of the Sustainable Cities Programme.

A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

Engagement of city administrations: city administrators are under intense pressure to deliver tangible results for their inhabitants, particularly at the beginning and end of election cycles. There are well established procedures in Brazil for planning and financing city actions. Encouraging city planners and city politicians to experiment with different procedures and explore complex integrated goals can be more complex than expected.
Funding: Brazil is going through an economic recession and this has constrained the size of city budgets, however there is a well-established process for planning and allocating city budgets, making resources fairly predictable.
Replication: replication of integrated city planning will be driven through the knowledge platform of the project, the network of the sustainable cities programme, but will also be dependent on adoption of best practices and guidelines at the federal level for promulgation throughout Brazil. If legal revision are required by law makers in Brazil, awareness raising will become important.

A.4. Coordination. Outline the coordination with other relevant GEF-financed and other initiatives:

The IADB has a USD 6 million GEF project in Brazil on urban mobility. One of the cities in the project is Brasilia. Both the IADB and UNEP project are working with the Ministry of Cities, and as such they will ensure full coordination between the projects.

IADB also has an initiative in Brasilia, named PROCIDADES. The PROCIDADES aims to promote the economic development of the Federal District (GDF), with improvements in the conditions of the business environment, promotion of investment, infrastructure and promote the development of entrepreneurship in the GDF. The programme, approved in 2006 with an allocation of USD 50 mi, finances actions of municipal investments in basic and social infrastructure. During the PPG phase, IADB colleagues working on this project will be contacted and depending on the scope of the project and final pilots chosen in Brasilia, there maybe close integration and potential synergies between the work of the project and this IADB project..

IADB is also preparing a new USD 100 million investment loan with the GDF, the Environmental Sanitation Program for Federal District-*Brasilia Sustentável* II. The initiative aims to benefit the entire population of the City in actions of environmental protection and waste management. Parts of this loan may form part of the co-financing of this project, depending on the final pilots chosen.

DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

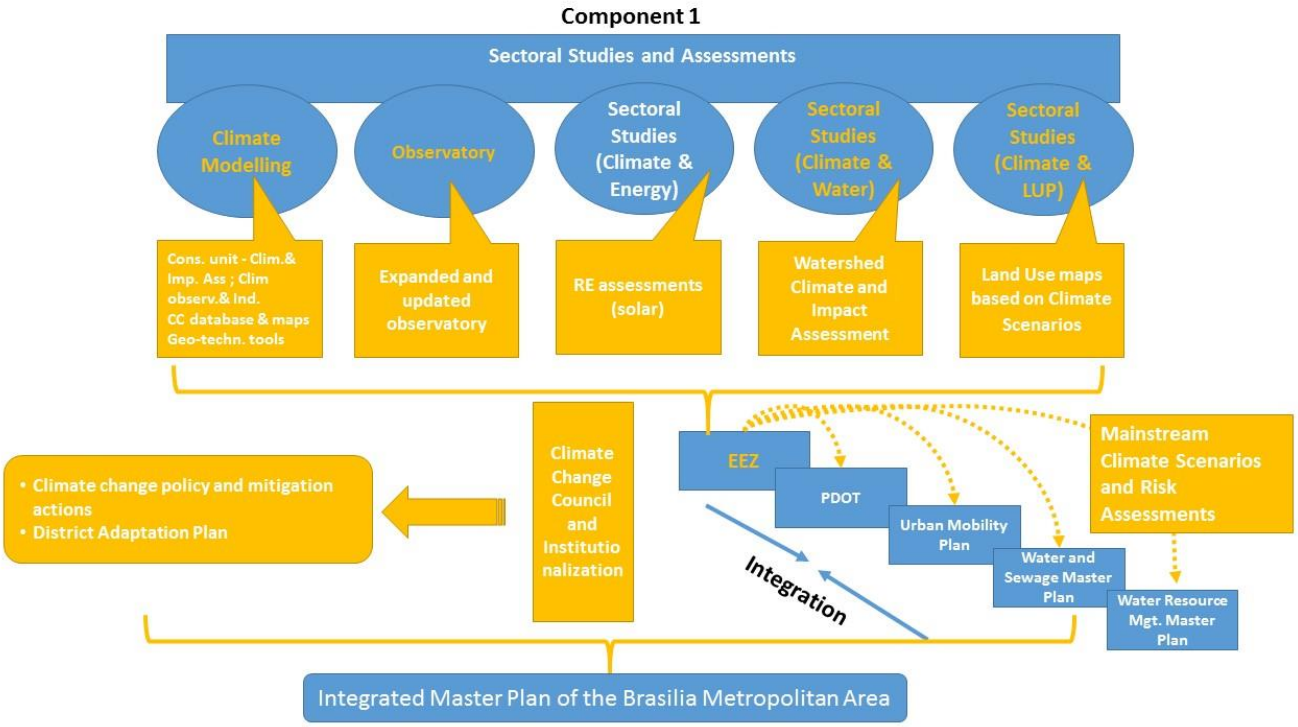
B.1 IS THE PROJECT CONSISTENT WITH THE NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSEMENTS UNDER RELEVANT CONVENTIONS? (YES/NO)). IF YES, WHICH ONES AND HOW: NAPAS, NAPS, ASGM NAPS, MIAS, NBSAPS, NCS, TNAS, NCSAS, NIPS, PRSPS, NPFE, BURS, ETC.:

The Government of Brazil (GoB) is committed to addressing the challenges presented by climate change. In 2009, during the 15th Conference of the Parties to the UN Framework Convention on Climate Change (UNFCCC), Brazil expressed the decision to contribute to an ambitious international effort to combat climate change. In December 2009, the GoB launched the Brazilian Climate Change Law (Federal Law No. 12,187) that provides the principles, objectives, guidelines and implementation mechanisms for climate change public policies. The law creates a supportive environment for Federal, State and Local Governments actions on Climate Change. In this context, the GoB has established a national voluntary commitment of reducing Brazil's GHG emissions by 36.1% - 38.9% by 2020, compared to a business as usual (BAU) scenario. According to Brazil's second National Communication to the UNFCCC (2010), road transport is the largest contributor to the country's carbon dioxide emissions from the energy sector (39% in 2005). The proposed GEF project will support GoB efforts on urban development priorities such as urban mobility and transport, housing and sanitation, thus contributing to GoBs national voluntary commitment of reducing GHG emissions.

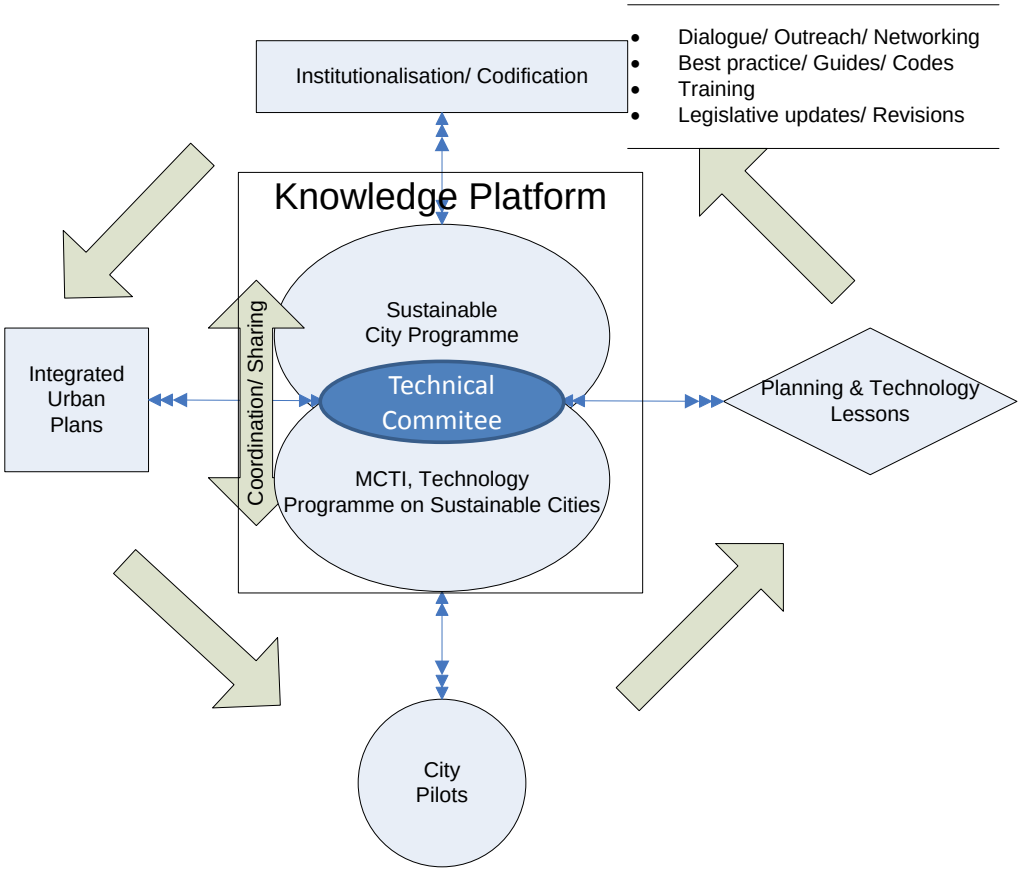
GEF AGENCY(IES) CERTIFICATION

Agency Coordinator, Agency name	**Signature**	**Date** *(MM/dd/yyyy)*	**Project Contact Person**	**Telephone**	**Email**
Brennan Van Dyke GEF Executive Coordinator United Nations Environment Programme (UNEP)		March 26, 2015	Ruth Zugman Do Coutto Task Manager, Energy Branch UNEP	+33441371634	ruth.coutto@unep.org

Annex I – Component 1 - Brasilia



Annex II – Knowledge Platform – Structure and aim



Annex III: Products & Services of the Knowledge Platform

Indicators	• Methodologies and guidelines for harmonising indicators With ISO 37120 and GEF FA Indicators • Map or geo-references of indicators and progress • Basic city statistics data to support planning, diagnosis and monitoring • Access to open city databases
Capacity Building Portal	Online moduals, city wide, regional (international), webcasts and online courses in: • Understanding the benefits and trade offs of intergated urban planning • Using integrated planning software • In using integrated diagnostic and planning methodologies
Integrated Planning Support	• Planning software to allow integration of sector planning software • A portal FOR INTEGRATED PLANNINGof resources to help municipalities with integrated urban planning.
Integrated planning and technology best practices & case studies	• A portal for best practices in planning and technology
Municipal financing opportunities	• Funding and other resources opportunities offered by the federal government • a portal for municipalities to request support form the federal government
Academic collaboration Portal	Innovation, testing and development between public and academic sector • On technology • On integrated sustainable urban planning • On Indicators/ observatories
portal for social participation	• Inform citizens about opportunities to participate in planning consultation processes and hearing • Inform citizens about city Campaigns and promote their involvement • Act as a conduit for complaints
Private Sector Collaboration Portal	• Information exchange between public and private sector on opportunities for public private partnership
Calendar of Events	• National and International city and urban planning events •
Other Links	• Other city networks

Annex IV – Explanation of GHG emissions reductions calculations

The impacts of the project are estimated to be 2,405ktCO2eq. This estimation is explained in the following paragraphs.

Recife

The 2012 GHG emissions for the city of Recife that has been used for the calculations is presented in the table below:

GHG emissions in Recife (2012)		
Emissions per sector:	**tCO2eq/year**	**Share**
Transport:	2,024,972	65%
Waste:	623,068	20%
Residential:	186,920	6%
Industrial:	155,767	5%
Commercial:	124,614	4%
Total	**3,115,341**	**100%**

Source: ICLEI

The project will contribute to greenhouse gas emission reductions in Recife through an integrated urban planning approach and through shovel-ready investments mainly applied in the following three sectors: transport, residential and commercial. The three targeted sectors represent 75% of Recife emissions, which equals 2,773ktCO2eq in 2012. The shovel ready investments will aim to achieve a reduction of 1% of emissions in the 3 sectors compared to the 2012 figures. In addition, it is estimated that the integrated urban planning approach can contribute to reduce 1% of the total city emissions in 2012**.** In the absence of time, we have taken the most conservative estimate of project impact.

Therefore, considering a period of influence post-project of 20 years, and an average lifetime of investments of 10 years the total impacts estimated for the project in Recife are up to 857ktCO2eq.

Brasilia

The 2012 GHG emissions for the city of Brasilia that has been used for the calculations is presented in the table below:

GHG emissions in Brasilia (2012)		
Emissions per sector:	**tCO2eq/year**	**Share**
Energy:	4,302,950	56%
Waste:	1,388,170	18%
IPPU (Industrial processes and product use):	1,567,890	20%
AFOLU (Agr., Forest and other land use):	480,820	6%
Total	**7,739,830**	**100%**

Source: Way Carbon

The project will contribute to greenhouse gas emission reductions in Brasilia through an integrated urban planning approach and through shovel-ready investments.

In addition, it is estimated that the integrated urban planning approach can contribute to reduce 1% of the total city emissions in 2012**.** Therefore, considering a period of influence post-project of 20 years, the total impacts in Brasilia are estimated to 1,548ktCO2eq.

Annex A

NAME OF PROGRAM:
SUSTAINABLE CITES INTEGRATED APPROACH PILOT
Child Project Concept Note

PART I: PROJECT INFORMATION[1]

Project Title:	Sustainable Cities IAP – China Child Project
Country(ies):	China
GEF Agency(ies):	WB (select) (select)
Other Executing Partner(s):	MOF, MOHRUD, governements of Tianjin, Beijing, Shijiazhuang, Nanchang, Shenzhen, Nignbo, Guiyang
GEF Focal Area(s):	Multi-focal Areas

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]:

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	**Trust Fund**	**(in $)**	
		GEF Project Financing	**Co-financing**
IAP-Sustainable Cities	GEFTF	9,174,312	410,000,000
CCM-2 Program 3	GEFTF	23,578,211	1,000,000
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
Total Project Cost		32,752,523	411,000,000

B. CHILD PROJECT DESCRIPTION SUMMARY

Project Objective: To improve the quality and sustainability of urban infrastructure and energy development programs in selected cities in China. The objective would be achieved through individually customized support programs in each participating city that address priority challenges to align especially environmental objectives with social and economic ones. Each city has been selected to reflect different types of sustainable development challenges to sustainable urbanization and level of development in China. During preparation, each city will carefully select priorities that can be efficiently improved under project budget and other constraints.

Project Components	**Financing Type[3]**	**Project Outcomes**	**(in $)**	
			GEF Project Financing	**Co-financing**
Integrated approach policy framework development and guidance	TA	- Integrated urban planning policy and management framework [guidelines, rather than framework] developed and refined; - Knowledge gaps identified for cities of different typologies;	200,000	200,000
Integrated planning framework at city level	TA	- Integrated urban and land use planning framework demonstrations developed in selected areas of participating	700,000	0

[1] This Concept Note is intended to convey whatever preliminary information exists at this stage on a child project and that is indicative of how it will contribute to the overall Program.

[2] When completing Table A, refer to the Program Results Framework, which is already mapped to the relevant *Focal Area Results Framework* in the *GEF-6 Programming Directions*.

[3] Financing type can be either investment or technical assistance.

		cities.		
Piloting in cities of different type	TA	- Supporting policies for integrating urban and land use planning developed - Analytical and urban management tools for evaluating planning options and outcomes of selected cities and sectors developed on a pilot basis for new urban areas and existing urban areas - Supporting policies and measures to improve incentives, administrative measures, management methods, and financing schemes for promoting sustainable urban resource use developed	23,100,045	410,000,000
Knowledge network platform and scale-up mechanisms	TA	- Coordinated knowledge network and dissemination platform on integrated urban planning established - Scale-up mechanisms recommended for national-level	879,739	800,000
	(select)			
	(select)			
	(select)			
	(select)			
	(select)			
	(select)			
		Subtotal	31,179,784	411,000,000
		Project Management Cost (PMC)[4] (select)	1,572,739	
		Total Project Cost	32,752,523	411,000,000

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust

C. CO-FINANCING FOR THE PROJECT BY SOURCE, BY TYPE AND BY NAME

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount ($)
Others	Target cities' government, private sector and other international cooperation funding	Mix of equity, loan and in-kind	410,000,000
Recipient Government	Government of China	In-kind	1,000,000
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
Total Co-financing			411,000,000

[4] For GEF Project Financing up to $2 million, PMC could be up to10% of the subtotal; above $2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

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

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in $)		
					GEF Project Financing (a)	Agency Fee (b)[b)]	Total (c)=a+b
WB	GEFTF	Global Sustainable Cities Incentive (set-aside) ☐	Multi-focal Areas	IAP-Cities	9,174,312	825,688	10,000,000
WB	GEFTF	China ☐	Climate Change	(select as applicable)	23,578,211	2,122,039	25,700,250
(select)	(select)	☐	(select)	(select as applicable)			
(select)	(select)	☐	(select)	(select as applicable)			
(select)	(select)	☐	(select)	(select as applicable)			
(select)	(select)	Project Management cost [c)]	(select)	(select as applicable)			
Total GEF Resources					32,752,523	2,947,727	35,700,250

a) No need to fill this table if it is a single Agency, single Trust Fund, single focal area and single country project.
b) Refer to the Fee Policy for GEF Partner Agencies.
c) If Multi-Trust Fund project :PMC in this table should be the total amount; enter trust fund PMC breakdown here ( )

PART II: PROJECT JUSTIFICATION

Project Overview

A.1. Project Description. Briefly describe:

1. Proposed city or metropolitan area for IAP.

The Government of China proposes a pilot program with different types of cities according to their level of urbanization and challenge. The 7 cities are: Guiyang, Shenzhen, Ningbo, Nanchang, Beijing, Tianjin and Shijiazhuang

2. Population of target cities or metropolitan areas:

Current population	Projected population in 2050[5]
Guiyang: 4.3 million Shenzhen: 10.4 million Ningbo: 7.6 million Nanchang: 5.0 million Beijing: 20.2 million Tianjin: 12.9 million Shijiazhuang: 10 million (The above numbers are official national statistics or local official's estimates of 2010 reported to the NDRC's National Climate Change Center for the Low Carbon Pilot Program.)	Guiyang: 8.0 million Shenzhen: 12.8 million Ningbo: 9.4 million Nanchang: 9.4 million Beijing: 25 million Tianjin: 16 million Shijiazhuang: 15.5 million (The population of cities are assumed to maintain at a stable level by 2030. The cities of Shenzhen, Beijing, Tianjin are assumed to grow 1% in population per annum based on 2010 level until 2030. These cities are with per capita GDP over 10,000USD. Shijiazhuang is currently a city of 10 million population, its population growth rate is estimated as 2% per annum. And Guiyang and Nanchang are expected to have larger population growth potential at 3% per annum.)

3. Brief description of context and baseline scenario.

In the last 30 years, China's record economic growth lifted half a billion people out of poverty, with rapid urbanization providing abundant labor, cheap land, energy and water and other resources, and good infrastructure. This growth was accompanied by the largest movement of people from rural to urban areas in human history. In 1978 just less than a fifth of China's population of 975 million lived in cities, by 2013, 53.7% of the 1.3 billion population was living in cities.

This rapid growth and urbanization process led China to become a large GHG emmiter of the world, mainly due to energy production, heating, and transportation. This process also increases the water demand in urban areas, in a countrry with relatively scare water resource has histiorically dedicated most of its water resources to produce food for its large population.

China is facing tremendous challenges with very rapid urbanization, increasing energy demand and growing pollution, and the challenges different cities face varies according to their size, rate of development, management capacity, energy mix and environmental issues. The megacities in the more developed regions of China are facing increasing challenges with pollution, congestion and resource scarcity. But China has 658 cities that are in the early stage of rapid growth and urbanization and need to balance economic development with environmental and social challenges it faces. With economic development and China's urban population projected to rise to about one billion – or close to 70 percent of the country's population – by 2030, the population will continuously demand higher standard of living in cities, and better management of the urbanization process is essential to make cities more livable, efficient and sustainable.

[5] Please refer to Table 2: The World's Largest Cities in 2050, which can be found in the background paper of the August 2014 Sustainable Cities IAP consultative meeting (http://www.thegef.org/gef/CC/sustainable-cities).

The China Child Project, China GEF Sustainable Cities IAP (China SCIAP), will build on lessons learned from initiatives developed by China over the past two decades, for example, Retrofitting the Exist Buildings, Renewable Energy Application, Low Carbon Eco-cities.

4. Brief description of priorities for IAP support.

The China Child Project, SCIAP, would support a program with a set of cities representative according to their level of urbanization and challenges, which can be scaled up at the regional and national level. A knowledge platform will be established at the national level for information dissemination and exchange and cities network. At the global level, the China SCIAP is to play an important role contributing to the global IAP platform sharing knowledge on urban issues.

The China SCIAP goal would be to achieve a more people-centered development which would also foster the development of the local economy around research, innovation, higher value-added manufacturing and services. Policies to coordinate land use with transport planning should be combined with policies to promote clean and efficient energy systems, more efficient use of natural resources, promote private sector participation in urban development, integration of affordable housing and basic services, construction and retrofit of green buildings, environmental technologies, promote clean and affordable transport modes, waste management and protection of cultural heritage, green space and the natural environment.

All cities would develop demonstrative urban planning, by integrating with low-carbon transport network, environmental impact and energy resources with spatial development planning. Based on gap analysis and on the developed urban plan, cities will focus on 2 to 5 different thematic priorities that are interlinked in the urban sustainability context, which include the following:

- Sustainable and safe urban transportation
- Sustainable and secure energy supply
- Green buildings
- Markets and mandates to reduce energy use in industry
- Integrated water resource management
- Solid waste management
- Comprehensive green infrastructure

The SCIAP would have national level coordination components managed by the Ministry of Housing and Urban Development (MOHURD) to ensure knowledge sharing and synergy among participating cities, and that the lessons learned feed into the national policy formulation process. While cities will implement their own city-level components, the knowledge platform and coordination unit managed by MOHURD will closely faciliate dialogues between the national and sub-national levels, and carry out the coordination function among cities to ensure coherence of policy priorities, extract lessons learned and faciliate experience sharing both within China and with the global IAP platform.

A system will be developed to track and evaluate the implementation and performance of the pilots and which would contribute to the global IAP common metrics.

5. Rationale to include target city or metropolitan area.

The cities of Guiyang, Shenzhen, Ningbo, Nanchang, Beijing, Tianjin and Shijiazhuang have been selected jointly by Ministry of Finance (MOF) and MOHURD, representing different types of cities in terms of population size, urbanization rate, economic condition, energy mix and environmental problems. All selected cities share the common aspriation of sustainable urbanization and are committed to taking on a new path and leading demonstrative effects to other cities of their peer.

- Guiyang represents cities in western China, where it is in early urbanization stage that offers an opportunity to balance economic development and natural resource conservation, including unlocking its tourism potential.
- Shenzhen has been a show case of market reform policies for other Chinese cities. With the highest urbanization rate, Shenzhen has existing industrialized areas that face challenges in upgrading and restructuring. Shenzhen is a member of the R20 Regions of Climate Action.
- Ningbo is one of the eastern coastal cities that has rapidly developed over the last decade, attracted a large work force. Its sprawl is in the need of urban spatial use efficiency and urban services.
- Nanchang represents the cities in central China in an rural setting and which can develop sustainable avoiding lock-in effects in terms of urban structures and services.

- Beijing, the largest of all the target cities, is a typical mega city in the needs of addressing issues from its urban sprawling, which affect the efficient provision of services such as energy, transportation and heating. Beijing is an observer member of the C40 initiative.
- Tianjin, taking the momentum of the central government's commitment in regional coordinated development of Jingjinji (Beijing- Tianjin- Shijiazhuang) area, would promote integrate urban resources efficiency in its development planning.
- Shijiazhuang City, also a core part of the Jingjinji area, has an economy dominated by heavy industries. The industrialized city is seeking a new pathway to become cleaner and more efficient.

6. Experiences with, and commitment to, integrated urban management by (1) national government, and (2) target city or metropolitan area.

Consolidating experience and lessons learned from three-decades of rapid urbanization, the central government has released a national urbanization plan for the 2014-2020 period in an effort to steer the country's urbanization onto a human-centered and environmentally friendly path, forging a new model of urbanization. In 2014, upon the request of the Premier Li Keqiang, the Development Research Center of the State Council and the World Bank Group published the Urban China Report to help to address overarching questions. The China SCIAP will build on some of the key recommendations of the Plan and the Urban China Report and pilot policies to promote healthier and people-centered urbanization of inclusiveness, efficiency and environmental sustainability in China's urbanization.

The target cities have submitted proposals of their own integrated approach proposals and gone through the selection process by the central level leading agency and the World Bank. One of the key criteria is the commitment of the city-level leadership.

7. Confirmation of commitment to IAP engagement and sustainable cities global platform/network participation from (1) national government, and (2) target city or metropolitan area.

Yes. MoF with the support of MOHURD is leading the preparation of the project.

All seven cities have submitted formal expressions of interest to MoF and the World Bank requesting to participate in the China SCIAP.

China's sustainable urbanization process will not only contribute to the global effort to preserve the world's eco-environment and address climate change, but will also enrich the collective experience of the international community in pursuing urbanization. A knowledge exchange element would be an integrate part of the china sciap, which will enable the chinese target cities to interact and exchange experience. Another important function of this element is to connect the child project china iapwith the global sustainable cities iap dissemination platform so that chinese target cities experience are exchanged with global experience.

8. Consistency with national and local policies and strategies:

- Summary of alignment of proposed priorities with relevant national sustainable development policies and strategies

China has recently announced its goal to peak GHG emission around 2030. Cities account for about 70% of energy-related carbon emissions worldwide. Mainly as result of the urbanization and industrialization process, in 2009 China's per capita GHG emissions of 5.8 CO2 metric tons reached those of the EU but lower than that of the USA. With hundreds of millions of people expected to migrate to the cities in China over the next 20 years, Chinese cities face some of the world' most difficult environmental challenges due to the traditional growth model. Chinese cities face air and water pollution, water scarcity, solid waste and congestion challenges. Implementing sustainable policies is therefore essential for China's green urbanization agenda.

- Summarize alignment of proposed priorities with relevant local sustainable development policies and strategies

Climate change mitigation measures in cities usually bring in positive co-benefits of air quality improvement (which is a pressing and common issue in cities of China) and health. Transit-oriented development and green transportation not only reduces CO2 emission but also typically involves measures that enhance access and quality of public transport services; higher efficiency in resource and energy use provides cleaner and cost-effective public services, and policies and incentives also intend to change user behavior.

A.2. Stakeholders. Will project design include the participation of relevant stakeholders from civil society and indigenous people? (yes ☒ /no☐) If yes, identify key stakeholders and briefly describe how they will be engaged in project design/preparation:

Ministry of Housing and Urban Rural Development (MOHURD), together with Ministry of Finance (MOF), will be the leading agencies at the central level, working with the target cities' authorities. A multi-level collaboration has been formed as the cities will prepare and implement their IAP. Research and academic institutions would provide analytical support to ensure policy making is informed. Stakeholders such as civil society would be engaged in a consultative manner. The private sector is expected to be a significant source of co-financing.

A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

This project is desgined to mitigate climate change any evenutal climate change risk to the project obejective would be addressed by the project. The environmental risks are moderate as they would be linked to the establishment of new or retrofitting of existing structures/ facilities. The social risk are low as the project will mainly bring positive impacts in terms of cleaner air and water, and more efficient commuting.

The implementation risk is moderate, as the GEF IAP approach is new and its operational aspects have not been familiarized by key leading agencies. This risk would be addressed by the Chinese authorities' experience of implementing national wide policy programs, which also requires substantial coordination and guidance at the national level. For example, among many other national programs, MOHURD has led a national program on Green Low Carbon Small Cities and Towns since 2011; and MOF has launched a national pilot city program in energy conservation and emission reductions. The risk of lack of participation and exchange from the city level is low.

A.4. Coordination. Outline the coordination with other relevant GEF-financed and other initiatives:
The China SCIAP will ensure active coordination and build on experience with other related initiatives, including the following:

GEF-World Bank Developing Market-Based Energy Efficiency Program in China. The project is jointly led by MOF and NDRC. While its objective is to support development and implementation of China's priority energy efficiency programs, with a focus on improving energy savings measurement and verification system and developing market-based mechanisms; the project supports MOF in its fiscal incentive program to pilot the energy conservation and emission reduction cities. The activities will include survey and review of the pilot cities' policy measures, identify barriers, recommend improvement fo the monitorign and evaluation system and promote experience exchange.

GEF-World Bank Sino-Singapore Tianjin Eco-City Project is to develop an economically sustainable, socially harmonious, environmentally friendly and resource-conserving city.

Description of the consistency of the project with:

B.1 Is the project consistent with the National strategies and plans or reports and assessements under relevant conventions? (yes x☐ /no☐). If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.:

Annex A

The project's consistency with the national strategies and plans is described in the answer to question 8 above. The national and city level efforts on sustainable cities development have no direct link with the international conventions mentioned in the question above.

Annex A

NAME OF PROGRAM:
SUSTAINABLE CITES INTEGRATED APPROACH PILOT
Child Project Concept Note

PART I: PROJECT INFORMATION[1]

Project Title:	Abidjan Integrated Sustainable Urban Planning and Management
Country(ies):	Cote d'Ivoire
GEF Agency(ies):	AfDB UNIDO (select)
Other Executing Partner(s):	Ministry of Urban Development, Ministry of Environment, District of Abidjan
GEF Focal Area(s):	Multi-focal Areas

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]:

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	**Trust Fund**	**(in $)**	
		GEF Project Financing	**Co-financing**
(select) CCM-1 Program 1 (select)	GEFTF	950,000	3,200,000
(select) CCM-1 Program 2 (select)	GEFTF	850,000	4,000,000
(select) CCM-2 Program 3 (select)	GEFTF	702,294	10,000,000
(select) (select) IAP-Sustainable Cities	GEFTF	2,752,293	4,100,000
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
Total Project Cost		5,254,587	21,300,000

B. CHILD PROJECT DESCRIPTION SUMMARY

Project Objective: To enhance local capacity to assess and respond to environmental degradation through the application of integrated sustainable urban planning and management methods while encouraging the uptake of innovative lower carbon technologies to reduce GHG emissions and improve air quality in the city of Abidjan

Project Components	**Financing Type[3]**	**Project Outcomes**	**(in $)**	
			GEF Project Financing	**Co-financing**
Component 1: Improving Urban Planning and Management	TA	1.1 Increased scope and depth of integrated urban planning and management policies and processes, particularly related to integrated land use and transport planning. 1.2 National policies and strategies create more favourable conditions for the adoption of more sustainable and integrated urban planning principles and methods.	950,000	3,200,000
Component 2: Assessing and Improving Air Quality	TA	2.1 National policies and strategies create an enabling environment to mainstream the adoption of cleaner fuels and vehicles in Abidjan.	850,000	4,000,000

[1] This Concept Note is intended to convey whatever preliminary information exists at this stage on a child project and that is indicative of how it will contribute to the overall Program.

[2] When completing Table A, refer to the Program Results Framework, which is already mapped to the relevant *Focal Area Results Framework* in the *GEF-6 Programming Directions*.

[3] Financing type can be either investment or technical assistance.

		2.1 Core performance framework for reduction of C02 and other GHGs implemented at the local level. 2.2 Improved local and global environmental sustainability		
Component 3: Sustainable Urban Infrastructure and Tools	Inv	3.1 Increased number of innovative approaches toward assessing and managing urban transport and related infrastructure. 3.2 Reduced vulnerability of people, livelihoods, and physical assets to the adverse effects of climate change.	2,178,050	10,000,000
Component 4: Industrial Air Quality Assessment and Pilot (To be implemented by UNIDO)	TA	3.1 Core performance framework for reduction of GHG emissions from industrial sources at the local level. 3.2 Improved local and global air quality and lower emissions from industry.	895,250	3,000,000
Component 5: Knowledge Management and Replication Activities	TA	4.1 Contribution of IAP to global discourse on sustainable urban management enhanced.	129,885	300,000
	(select)			
	(select)			
	(select)			
	(select)			
	(select)			
		Subtotal	5,003,185	20,500,000
		Project Management Cost (PMC)[4] (select)	251,402	800,000
		Total Project Cost	5,254,587	21,300,000

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust

C. CO-FINANCING FOR THE PROJECT BY SOURCE, BY TYPE AND BY NAME

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount ($)
GEF Agency	African Development Bank	Loans	18,300,000
Donor Agency	European Union	Grants	1,500,000
Recipient Government	Cote D'ivoire	In-kind	1,500,000
(select)		(select)	
(select)		(select)	
(select)		(select)	
Total Co-financing			21,300,000

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

[4] For GEF Project Financing up to $2 million, PMC could be up to10% of the subtotal; above $2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

Annex A

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in $)		
					GEF Project Financing (a)	Agency Fee (b)[b)]	Total (c)=a+b
AfDB	GEFTF	Global Sustainable Cities Incentive ☒	Climate Change	IAP-Cities	2,752,293	247,707	3,000,000
AfDB	GEFTF	Cote d'Ivoire ☐	Climate Change	(select as applicable)	1,502,294	135,206	1,637,500
UNIDO	GEFTF	Cote d'Ivoire ☐	Climate Change	(select as applicable)	1,000,000	90,000	1,090,000
Total GEF Resources					5,254,587	472,913	5,727,500

a) No need to fill this table if it is a single Agency, single Trust Fund, single focal area and single country project.
b) Refer to the Fee Policy for GEF Partner Agencies.
c) If Multi-Trust Fund project :PMC in this table should be the total amount; enter trust fund PMC breakdown here (CCM)

PART II: PROJECT JUSTIFICATION

Project Overview

A.1. Project Description. Briefly describe:

1. Proposed city or metropolitan area for IAP.
Abidjan, Bouake, San Pedro

2. Population of target cities or metropolitan areas:

Current population	Projected population in 2050[5]
6,351,086	16,696,791

3. Brief description of context and baseline scenario.

Côte d'Ivoire is the second largest economy in West Africa, and was, for many years, a symbol of stability and prosperity in the region, until the political conflict of 2002-2007 and the social and political instability which ensued until 2011. Following four decades of stability and relative prosperity, the political conflict in September 2002 subsequently split the country into two zones, one controlled by the Government and the other by the Forces Nouvelles (FN). The crisis exacerbated natural resource depletion, loss of biodiversity, environmental degradation as well as water, soil and air pollution. The degradation of natural resources and environmental quality adversely affected local livelihoods, in particular the poor, as well as economic growth and development.

Another major consequence of civil unrest in the country has been mass migration, with the majority flowing toward urban centers, in search of economic opportunity. As a result, urban poverty has increased dramatically in Abidjan, the economic capital of Cote d'Ivoire and the country's largest city, as well as Bouake, the second largest city – half of the population resides in one of the two cities. The population of Cote d'Ivoire has tripled over the past four decades, from 6.7 million in the early 1970s to its current population, which stands at more than 22 million, and since 2010, of which 50.1% is urban. The city of Abidjan covers an area of 54,000 hectares, of which 8,700 are lagoon areas. The city's population stands at roughly 2.5 million inhabitants, and the rapidly growing population has placed enormous pressure on the allocation of road and housing space, leading to severe traffic congestion and subsequently, increased air pollution, and the rapid proliferation of informal settlements and slums, which are often cut off from public services, and subject to exposure to extreme weather events.

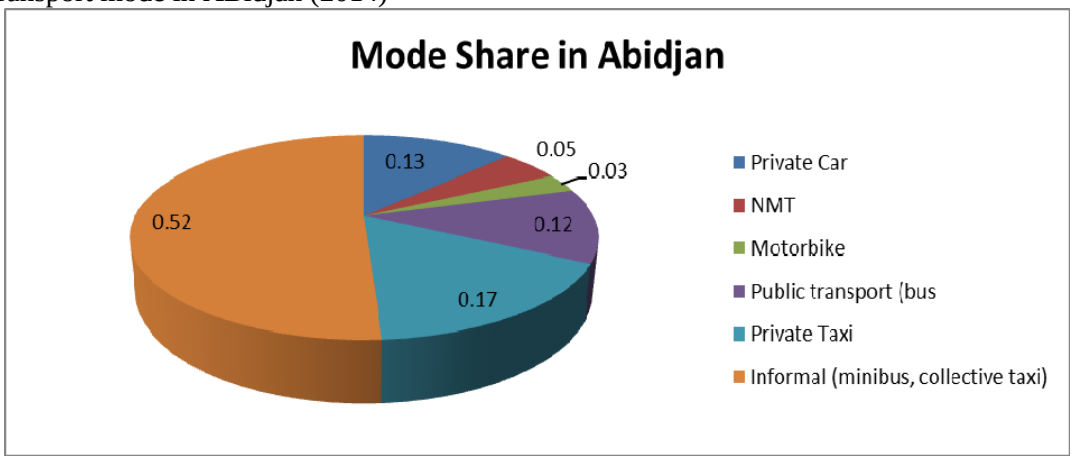
Abidjan is composed of three distinct topographic elements – the coastal cordon, the lagoon, and the plateaus. The bulk of urban growth takes place on the plateaus, which hinder the continuity of the city, and act as obstacles to a cohesive urban development, resulting in fragmented growth pattern with ruptures throughout the city. These divisions have led to dispersed urban units with long distances between commercial and residential areas, which exacerbate a shortfall of public transport options and have resulted in a very high mode share of private and collective taxism which are one of the cities' largest contributors to air pollution. Abidjan's central districts are saturated, with the result that urbanization is increasingly occurring in areas far from the city center – where the population is stagnant – a situation that has significantly accentuated the employment/housing imbalance. The population of Abidjan is increasingly concentrated in the North (peripheral districts), while the sparsely populated districts in the South (especially the Plateau) provide most of the jobs (60 percent of all jobs but with only 34 percent of the agglomeration's total population). These factors, along with the geographical constraints imposed by the city's location affect the principal

[5] Please refer to Table 2: The World's Largest Cities in 2050, which can be found in the background paper of the August 2014 Sustainable Cities IAP consultative meeting (http://www.thegef.org/gef/CC/sustainable-cities).

North-South trip patterns, from the peripheral districts in the North towards the central districts in the South. Although inter-district travel patterns within the North's districts have developed in recent years, the heaviest demand for transport in Abidjan is for North-South travel.

A rapidly growing population –it was estimated at 7 million in 2013 – exacerbates problems related to urbanization. Abidjan faces enormous challenges in terms of urban transport, particularly related to a lack of robust public transport and mobility options, which has resulted in high motorization rates and private vehicle usage, which has resulted in a severe air pollution problem. The urban transport infrastructure was severely degraded during the civil war, leaving the city with roads which are in need of serious repairs and rehabilitation and lacking basic infrastructure, such as traffic lights, junctions, crossings, and non-motorized infrastructure along the main roads, intersections, and urban highways. This lack of transportation infrastructure has negatively impacted traffic flow and resulted in severe traffic congestion, accessibility issues, high costs, increased road injuries, and severe air pollution. The poor condition of the urban road network extends past traffic congestion and road safety to negatively impact the provision of urban services across all sectors, particularly waste management, which is particularly difficult during the rainy season, when unmaintained roads are prone to severe flooding, cutting off entire neighborhoods for days at a time from waste collection services, placing inhabitants at higher risk for contracting water borne and other communicable diseases and issues related to sanitation.

Fig 1 : Transport mode in ABidjan (2014)



Côte d'Ivoire was one of the most dynamic countries In terms of vehicles fleet evolution in the 1980s and 1990s. While the rate of increase has slowed down in the early 2000s, due to the political and economical crisis, the number of vehicles multiplied by almost 4 in 15 years (1993–2007). Similar trends of increase for the whole period 1990–2010, and growth is expected to continue exponentially. The majority of the taxi fleet includes very old imports from Europe and Asia, which is connected to the liberalization of the import of vehicles. This reality is attributable to the second hand vehicles import policy -- in the 1990s, import liberalization policies were imposed by the World Bank and the International Monetary Fund (IMF) in many African countries, making it easier and cheaper to buy a car (or a minibuses) either for private or commercial use. The import of second hand vehicles resulted in an aging national vehicle fleets. The average age of the Ivorian vehicle fleet was estimated at 11 years old in 1998. In the absence of enforceable vehicle maintenance, fuel quality, and emissions standards, air pollution and GHG emissions continue to grow at an astounding rate.

Between 1993 and 2000, transport was the largest contributor of emissions of carbon dioxide (CO2), mostly attributable to a growing rate of motorization and increasing ownership of private vehicles. In 2000, the transport sector in Cote d'Ivoire produced 2.2 Mt CO2-Eq or 3.62% of emissions from the fuel

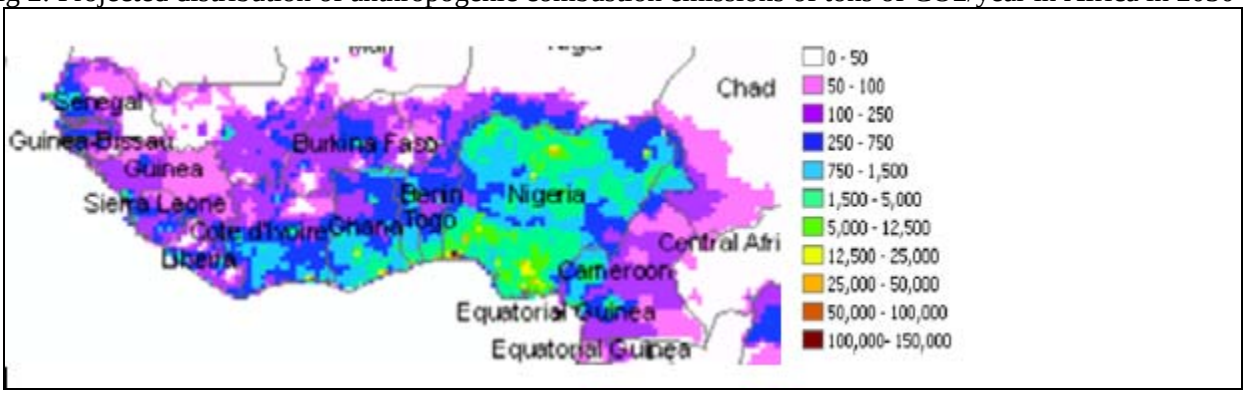
combustion sector. Road transport is the main source emission in this sector with 95.88% from passenger and goods. Emissions from the transportation sector increased by 1 Mt CO2-eq (83.33%) from 1990 to 2000. Emissions from road transport have increased eightfold between 1990 and 2000, an increase of over 677% (1.83 Mt CO2-eq). Nationally, the fleet is estimated at about 600 000 vehicles, comprised of 75% of used (second hand) vehicles, which is attributable to lower purchasing power since the beginning of an economic downturn. Around 20,000 vehicle registrations are recorded each year.

According to the West and Central Africa Regional Framework Agreement on Air Pollution (Abidjan Agreement), emission reduction targets have been developed in several source categories including Industry and Mining as well as Urban Planning. It recognizes the following challenges:

- The increasing emissions from the industrial and mining sector including manufacturing and processing industries, mineral extraction, and power generation using fossil fuels;
- The limited information on air quality in all the countries making it difficult to track trends and hindering coordinated approaches to air quality management and the introduction of programmes that would contribute to better air quality;
- The linkage between air pollution and climate change, associated with greenhouse gases (carbon dioxide, methane, ozone), and the co-benefits of reducing air pollution in all sectors of the economy for greenhouse gas reduction;

A research study from 2014 predicts the worsening urban air quality in the area of West Africa. Urban air quality will be most likely threatened by the transport sector as well as fuel use in mining, oil, and industrial activities including charcoal manufacturing. A reduction in fuel consumption and improvement in industrial efficiency are found to have clear impacts in the air pollution prediction model used in this research.

Fig 2: Projected distribution of anthropogenic combustion emissions of tons of CO2/year in Africa in 2030



Source : Liousse et al., 2014

4. Brief description of priorities for IAP support.

Integrated Sustainable Urban Planning and Management and Air Quality Improvement

The project will address severe air pollution and rising GHG emission with a two pronged approach to address air pollution from multiple sources. On one level, emissions from the urban system will be addressed through transportation as an entry point, which will be complemented with activities in the industrial sector in order to approach the problem of GHG emissions and air pollution in a truly integrated way. At the urban level, the project will follow the Avoid-Shift- Improve paradigm to guide a shift in perspective toward more sustainable urban planning and management by 1) avoiding unnecessary motorized transport through better spatial planning and other measures; 2) to promote

denser, mixed use land use and zoning so as to promote more compact growth model, which will result in modal shifts toward non-motorized transport (NMT) modes with high transport and fuel efficiency; and to 3) improve efficiency for all modes of transport; all with the aim of decreasing GHG emissions and improving air quality.

The project aims to achieve these overarching goals by creating the requisite policy framework to encourage a more sustainable approach toward future urban planning and management initiatives in Abidjan, which will reduce travel demand by maximizing the efficiency of transportation assets and deploying more effective methods of effectively using urban space in Abidjan to encourage a mixed land use development model and subsequently encourage and exploit NMT potential. This will also encouraging local economic development, increase city-wide accessibility, and ultimately promote social equity through proper land use planning. The project will ensure the integration of land-use considerations, and establish holistic sustainable transport measures to include ITS and fuel standards with the aim of decreasing air pollution from both mobile and non-mobile sources with the broader aim of improving air quality. The integration of urban land and transportation policies are solidified in Transit-Oriented Development methods, where a transportation system is developed in clear relation to the guidelines of a land development plan, and is very effective in guiding the more compact and sustainable development patterns. Concurrently, the project will also finance the identification of policy and financial incentives meant to catalyze investment toward cleaner vehicles and fuels at the municipal level, while also addressing urban management issues using transportation as a pillar around which an integrated approach combining land use planning principles with a pollution assessment and reduction system to establish a truly sustainable urban management system.

This project will also improve traffic conditions and overall mobility through the integration of intelligent transport system (ITS) elements and infrastructure in priority areas, which will result in the increase of in average traffic speeds, thereby improving mobility, reducing road accidents, and increasing the productivity of urban economic activities while concurrently reducing GHG emissions. The project will address integrated urban management by building resilience into road infrastructure, thereby reducing risks associated with poor hygiene and sanitation diseases,water pollution; while also improving traffic conditions (increase in average traffic speed, mobility, etc.), reducing road accidents and increasing the productivity of urban economic activities. Poorly maintained roads with low drainage capacity are highly vulnerable to flooding which can, in turn, easily exacerbate any sanitation issues. The tropical climate includes two rainy seasons and two dry seasons, although it is not atypical to experience rain even during the dry season. During the rainy season, a large portion of the road network is flooded, particularly in informal settlements and lower income areas, causing water retention throughought the road network, which hinders waste colelction and management and disrupts everyday activities. The poor condition of the urban road network extends past traffic congestion and road safety to negatively impact the provision of urban services across all sectors, particularly waste management, which is particularly difficult during the rainy season, when unmaintained roads are prone to severe flooding, cutting off entire neighborhoods for days at a time from waste collection services, placing inhabitants at higher risk for contracting water borne and other communicable diseases and issues related to sanitation.

In addition to poor infrastructure, according to the Carbon Disclosure Project, sea level rise of approximately 1 meter could cause displacement of residents, disruption of transportation and wetland and human life loss. Approximately 1000 km of paved roads and bridges in the Abidjan area, and areas east of Abidjan will disappear with a rise in the sea of 0.5 m. Adaptation activities to build resilience into urban infrastructure and the identification of a

climate change resilience plan will identify and assess the most vulnerable points of the city and recommend measures to increase resilience to the negative impacts of climate change, particularly increased flooding.

Priority Activities

Component 1: Improving Urban Planning and Management

- Production of detailed urban mobility plan for priority areas of Abidjan, supporting NMT and integrated land use planning.
- Formulation of climate change resilience plan to guide further urban resilience and adaptation activities.
- Production of Intelligent Transport System concept plans for priority areas in Abidjan, which would then be detailed to for implementation.
- Providing tools to urban managers to evaluate and monitor air quality in Abidjan (CO2 / particulate mapping)

Global Environment Benefits:

- 15-20% reduction of emissions from vehicles as a result of shift from motorized to non-motorized trips.
- Policy framework and tools to guide more sustainable and compact urban growth and planning

Component 2: Assessing and Improving Air Quality

- Identification policies, fiscal measures and incentive measures to mainstream cleaner fuels, engine technologies, and promote a younger vehicle fleet in CI and specifically in Abidjan.
- Regulatory and enforcement measures to improve monitoring of vehicle emission in Abidjan (mobile smoke meters for diesel vehicles for an enforcement unit).
- Identification of policies and fiscal measures for cleaner fuels in Abidjan and nationwide
- Assessment of feasibility of upscaling usage of biofuels and alternative fuels (sugar cane / biomass / gas methane / CNG), fuel quality, and maintenance standards.

Global Environment Benefit:

- Age of vehicles (per mode in years per vehicles), target reduction by 10 to 15% in 5 years. Which can be translated in an estimated tonnes CO2. Air quality improvements in terms of particulate matter and reduction of short-lived climate forcers (SLCFs).

Component 3: Sustainable Urban Infrastructure

- Part implementation of ITS infrastructure, emissions monitoring equipment, and GIS mapping tools to drive more cohesive and cross-sectoral urban planning in the future, combining transport and non-transport data. To be supplemented by the ADF / ADB large loan.
- Adaptation measures built into low lying urban road network to prevent flooding and build resilience of road infrastructure.

Global Environment Benefit: Traffic delay in sec in the target areas, target – 10 to 15% in sec, or Kg CO2, before and after

Component 5: Knowledge Management and Replication Activities

- Project documentation activities and collation of lessons learned
- Formal mechanism for information dissemination

To calculate the total global environmental benefit of this project, we utilized the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC) Standard for Accounting and Reporting

City-Wide GHG Emissions and Guidance for GHG Inventory Compiling." This is a preliminary estimate upon which we will build as more data becomes available. Data is taken from Cote d'Ivoire's second National Communication to the UNFCCC in 2010 and data from SICTA (2008). According to our estimations, a total of 1.04 million tons of CO2 will be mitigated as a result of the activities implemented under this project during the period between 2015-2020, directly impacted the transport sector in Abidjan.

Table 1: Abidjan Transport Sector CO2 emission

	2005	2008	2010	2013	2015-2020
New Car	200	300	300	450	
Used car importation	13,921	18,917	20,000	21,000	
Existing cars	130,474	144,595	163,812	184,112	
Total cars in circulation	144,595	163,812	184,112	205,562	920,560
Average Fuel consumtion (L/100km)	10	9	8	8	8
Emission factor (CO2 Kg/km)	0,30	0,28	0,22	0,22	0,19
Average distance (km)	3,000	4,000	5,000	6,000	7,000
CO2 emission by transport sector (t CO2e)	127,967	182,814	199,762	265,792	1,224,345
CO2 emission avoided by the project					1,040,693

Source : Data compiled from SICTA (2008) and CI UNFCCC report (2010)

Air Quality and Industrial Pollution

The incremental activities of the air pollution component of this project will make a brief assessment of the current industrial pollution. By identifying the prioritized pollution sources, the project will facilitate the pollution sources' efforts to reduce the emission by providing the incentives and disseminate the achievements to other sectors and parts of the country as success stories.

An assessment of industrial pollution levels in Cote d'Ivoire's urban areas will be essential for preserving human health and the environment. The air pollution assessment, in particular, will serve as an important complement to the transportation projects proposed by AfDB. The WHO estimates that 1 in 8 global deaths is attributable to air pollution exposure and unsustainable industrial development policy will only exacerbate this problem. Air pollution challenges in Cote d'Ivoire will be addressed most thoroughly through a combination of industrial and transportation reform.

Component 4: Industrial Air Quality Assessment and Pilot (To be implemented by UNIDO)

UNIDO will use industrial pollution data to identify the largest air emission point sources and better target interventions. A technological pilot project will be introduced in a production center to reduce emissions in Abidjan, and a comprehensive operational plan to reduce industrial emissions will be created for the other two cities.

Priority Activities

- Assessment of industrial air pollution point sources organized by sector, for Abidjan, Bouaké, and San-Pedro
- Identification of appropriate technologies for reducing industrial pollution in Abidjan, Bouaké and San-Pedro
- Technology demonstration to reduce industrial pollution in a production center in Abidjan
- Operational plan of action to reduce industrial pollution

Stockholm Convention on persistent organic pollutants (POPs) lists potentially higher and other prioritized emission sources of POPs. In this project component, such point emission sources that are possibly emitting both POPs and air pollutants will be listed among the pilot candidate sites. Addressing such point emission sources will aim at achieving the co-benefit of reduction in green house gases in reducing the air pollutants including POPs.

Global Environmental Benefit: CO_2 reduction: 5,000 tons; POPs: 0.5g-TEQ

5. Rationale to include target city or metropolitan area.

Abidjan is an important city in the largest economy in Francophone West Africa and the economic capital of Cote d'Ivoire With 19% of the population, it houses 80% of the country's industry, and generates 27% of GDP and over half of secondary and tertiary sector employment.

Population is growing steadily at around 4% per year, and the city can only maximize its potential as the economic engine of the country if it optimizes its transportation network and addresses industrial waste problems.

The majority of industrial activities in Côte d'Ivoire, and subsequent industrial pollution, is concentrated in three urban areas - Abidjan, Bouaké, and San-Pedro. Over half of the entire Ivorian population lives in these three cities. These three cities are growing rapidly and will continue to serve as key industrial production sites in the future.

6. Experiences with, and commitment to, integrated urban management by (1) national government, and (2) target city or metropolitan area.

Cote d'Ivoire has long recognized the importance of proper urban planning and management in its capital city. The country has participated in UN Habitat's local environmental planning and management (EPM) processes since the 1990s, to prioritize urban environmental issues. Waste and transportation were identified as key priority sectors linked to the root drivers of rapid population growth and urbanization and degradation of natural resources.

With the help of the Japan International Cooperation Agency (JICA), Abidjan has formulated and updated its second urban master plan in 2012, under which a sector plan for urban transport has been formulated. The first Urban Master Plan was formulated in 1994.

7. Confirmation of commitment to IAP engagement and sustainable cities global platform/network participation from (1) national government, and (2) target city or metropolitan area.

Yes. The Ivorian Operational Focal Point, MmeAlimataKone has confirmed the Ivorian government's commitment to participate, working closely with the Ministry of Urban Development in Cote d'Ivoire.

8. Consistency with national and local policies and strategies:

- Summary of alignment of proposed priorities with relevant national sustainable development policies and strategies

AfDB Component

Cote D'Ivoire is a party to the Kyoto Protocol, and has indicated that its climate change mitigation priorities in the transport and industrial sectors include:

- Establishment of air, water, and soil quality monitoring systems; and
- Raising awareness in the transport sector to encourage the adoption of cleaner production and consumption methods.

UNIDO Component

Cote d'Ivoire's commitment to improving industrial waste management is highlighted in the National Development Plan (PND) for 2012-2015. The government aims to eliminate industrial waste in urban zones and seeks to carry out baseline studies to improve industrial waste management.

- Summarize alignment of proposed priorities with relevant local sustainable development policies and strategies

AfDB

Abidjan has formulated and updated its second urban master plan in 2012, under which a sector plan for ransport has also been formulated. The first Urban Master Plan was developed in 1994.

UNIDO

This project contributes to several of the Mayor's Office of Abidjan's environmental improvement es, including: (i) Remediation of Cocody Bay; (ii) Construction and equipment of a laboratory ed to measuring air pollution in Abidjan.

A.2. Stakeholders. Will project design include the participation of relevant stakeholders from civil society and indigenous people? (yes **X** /no☐) If yes, identify key stakeholders and briefly describe how they will be engaged in project design/preparation:

AfDB

Government Agencies

Ministry of Sustainable Urban Development

National Agency of Urban Sanitation

National Agency for the Environment/National Mechanism for Sustainable Development

Centre Ivoirian Antipollution (CIAPOL)

Abidjan Transport Company (Societe des Transports Abidjanais – SOTRA)

NGOs and Civil Society

The African Association of Public Transport (UATP)

The Institute for Transportation and Development Policy (ITDP)

World Resources Institute (WRI) EMBARQ

MIT and Columbia University Digital Matatus

UNIDO

Representatives from various structures in the Ministry of Environment will collectively validate a data table that will be used to organize industrial pollution data.

Key members of the Ministry of Industry and the Ministry of Commerce will be informed about the project's activities and developments and any concerns they may have will be taken into account before finalizing project methodology

Centre Ivorien Anti-pollution (CIAPOL): Data exchange and capacity building for future pollution monitoring

CGECI (Confederation Generale des Entreprises de Cote d'Ivoire): Group members will be involved in the selection of the pollution reduction pilot demonstration

A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

AfDB

1) Lack of baseline data on fleet composition and characteristics and emission factors - this is a medium level risk and will be mitigated production of studies in the early stages of implementation. Transport data and fleet composition data are still readily unavailable, but air quality and emissions reductions have been identified as a priority concern for Abidjan.

2) Low social acceptance of measures to decrease emissions from transport and other measures to encourage a shift toward more sustainable transport - This risk is considered medium to high, and will be mitigated though an organized outreach and and public education effort.

4) Poor coordination and lack of alignment among government and municipal agencies - This is a present but low risk. The main risk arising from coordination is lack of technical capacity and this will be mitigated through the provision of technical assistance provided in the first two components of this project. The government agencies are well aware of the need for more sustainable transportation solutions in Abidjan and the project has received strong support from all levels of the Ivorian government, which indicates that there will be strong local ownership.

UNIDO

1) Low - Industrial sectors may not be willing to collaborate with the project activities. Mitigation measure: The benefits (environmental, health, social, economic) of this project and its endorsement by the Ivorian government will be clearly explained to people implicated in its implementation prior to it being launched.

2) The government may not have enough budget and capacities to monitor the pollutions that are more increasingly emitted by the growing industrial sectors. Mitigation measure: The government will develop the national pollution mitigation plan by involving the industrial sectors in the monitoring activities. In addition, the feedback from the industrial sectors are incorporated into the plan that are practical from the industrial sectors' perspectives as well.

A.4. Coordination. Outline the coordination with other relevant GEF-financed and other initiatives:

AfDB

There is a global GEF-financed project on fuel efficiency currently ongoing, of which Cote d'Ivoire is one of the fifteen participating countries. The project aims to lead to the identification and eventual implementation of policies and regulatory frameworks that will improve vehicle fuel efficiency resulting in major CO2 reductions and contribute to an overall shift toward low carbon transport systems, while also stimulating the development of cleaner vehicle production in developing countries. The AfDB plans to coordinate closely with UNEP to exchange relevant information related to this initiative to guide the development of a more sustainable transport and urban development policies, taking into consideration fuel efficiency and lower carbon engine technologies.

This project will also be closely aligned with an existing GEF climate change project, which was CEO endorsed under GEF 4, and also being implemented by the AfDB, under which a waste-to-compost facility with a capacity of 1,000 tons per day is being piloted. This urban development project twill scale up the technology transfer pilot by creating a financial mechanism meant to ensure sustainability of the composting unit past project closure by while creating a supportive policy environment to ensure that the technology is mainstreamed and integrated into the policy framework.

There have been several waste management initiatives undertaken in Abidjan, including capacity building activities regarding hazardous waste management by UNEP and the design of a strategic plan for the collection and management of solid waste by the Public Private Infrastructure Advisory Facility (PPIAF). As a result of the solid waste management work done by PPIAF, a sustainable solid waste management strategy has been identified, along with a number of measures to maximize successful implementation. This project will coordinate closely with these initiatives to ensure knowledge is disseminated effectively and efficiently and that best practices are reflected, with the aim of encouraging a truly integrated approach and finding synergies across urban sectors.

UNIDO
The on-going GEF project to review and update the National Implementation Plan (GEF ID: 5500) will strengthen the national capacities for sound management of chemicals and waste. This project will further build on the government's efforts to promote greening of the existing industrial sectors that are expected to expand their operations in the next decades.

INTER-AGENCY COORDINATION AND LEVERAGING THE IAP GLOBAL PLATFORM
UNIDO AND THE AFDB BOTH HAVE IN COUNTRY PRESENCE – UNIDO HAS A FIELD OFFICE IN ABIDJAN, WHILE THE AFDB'S GEF COORDINATION UNIT IS HOUSED IN THE STATUTORY HEADQUARTERS ALSO IN ABIDJAN. AFDB AND UNIDO STAFF ARE IN CLOSE CONTACT AND WILL CONTINUE TO WORK CLOSELY N THIS PROJECT, COORDINATING AT THE PROJECT LEVEL TO SHARE DATA AND MAXIMIZE SYNERGIES.

The GEF Sustainable Cities platform will serve as an important resource for the AfDB - UNIDO project. For example, the AfDB and UNIDO will consult with the IAP program to establish a set of indicators for their projects that may be adopted or adapted in different partner institutions in various countries. The AfDB and UNIDO will encourage the Ivorian government to adopt GEF-supported integrated urban development and management strategies that align with multiple global conventions related to urban sustainability. Finally, AfDB and UNIDO's project results will be made available to the Sustainable Cities IAP in order to help inform the development of international policy in other developing countries.

This project will serve as an effective entry point to counter global environmental degradation in Cote d'Ivoire and serve as a complement to national level actions and as the first pilot of a truly integrated approach to urban management. Air quality assessment and monitoring will inform city level policy and will eventually be applied at the national level to guide decisionmaking on feasibly national standards.

IN TERMS OF ACTIVITIES LED BY CITY-BASED NETWORKS AND INSTITUTIONS, SUCH AS ICLEI AND OTHERS, ABIDJAN IS PARTICIPATING IN THE BELOW INITIATIVES:

- ABIDJAN SUPPORTS THE MUNICIPAL SOLID WASTE ACTION PLAN FORMULATED DURING THE 2014 CLIMATE SUMMIT UNDER THE CLIMATE AND CLEAN AIR COALITION (CCAC). UNDER WHICH PARTICIPATING CITIES COMMIT TO AMBITIOUS ACTIONS TO REDUCE EMISSIONS FROM SLCPS FROM MUNICIPAL SOLID WASTE.
- ABIDJAN HAS TAKEN PART IN THE CARBON DISCLOSURE PROJECT'S VOLUNTARY GLOBAL REPORTING INITIATIVE FOR CITIES, UNDER WHICH IT COMMITED TO MEASURE, MONITOR, AND MANAGE ITS IMPACT ON THE ENVIRONMENT IN 2014.

Description of the consistency of the project with:
B.1 Is the project consistent with the National strategies and plans or reports and assessements under relevant conventions? (yes ☒ /no☐). If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.:

Annex A

COTE DIVOIRE DOES NOT HAVE A NAMA, BUT IT HAS SUBMITTED A LETTER CONERCERNING THE COPENHAGEN AGREEMENT OUTLINING ITS PRIORITIES FOR FUTURE NAMAS. BOTH THE TRANSPORT AND INDUSTRIAL SECTORS HAVE BEEN HIGHLIGHTED, WITH THE LETTER IDENTIFYING THE ESTABLISHMENT OF ENVIRONMENTAL MONITORING SYSTEMS FOR AIR QUALITY AND AWARENESS RAISING CAMPAIGNS FOR THE TRANSPORT AND INDUSTRIAL SECTORS TO ENCOURAGE THE ADOPTION OF MORE SUSTAINABLE PRODUCTION AND CONSUMPTION PATTERNS.

THE INTRODUCTION OF BIOMASS FUELS WAS IDENTIFIED AS A MITIGATION OPTION IN THE COUNTRY'S SECOND NATIONAL COMMUNICATION, SUBMITTED IN 2010.

Annex A

NAME OF PROGRAM:
SUSTAINABLE CITES INTEGRATED APPROACH PILOT
Child Project Concept Note

PART I: PROJECT INFORMATION[1]

Project Title:	Sustainable Cities IAP in India
Country(ies):	India
GEF Agency(ies):	TBD(select) (select) (select)
Other Executing Partner(s):	Ministry of Urban Development
GEF Focal Area(s):	Multi-focal Areas

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]:

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	**Trust Fund**	**(in $)**	
		GEF Project Financing	**Co-financing**
(select) (select) IAP-Sustainable Cities	GEFTF	3,211,009	
(select) CCM-2 Program 3 (select)	(select)	9,174,312	
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
Total Project Cost		12,385,321	0

B. CHILD PROJECT DESCRIPTION SUMMARY

Project Objective:				
Project Components	**Financing Type[3]**	**Project Outcomes**	**(in $)**	
			GEF Project Financing	**Co-financing**
Integrated planning pilots	TA	An integrated, evidence-based urban planning approach is adopted by the four pilot cities	6,000,000	
Integrated investment pilots	Inv	Demonstrate the benefits resulting from integrated urban planning	4,000,000	
Knowledge platform	TA	The experiences and lessons-learned are replicated in other Indian cities	1,795,544	
	(select)			
	(select)			
	(select)			
	(select)			
	(select)			
	(select)			
	(select)			
Subtotal			11,795,544	0
Project Management Cost (PMC)[4] (select)			589,777	

[1] This Concept Note is intended to convey whatever preliminary information exists at this stage on a child project and that is indicative of how it will contribute to the overall Program.

[2] When completing Table A, refer to the Program Results Framework, which is already mapped to the relevant *Focal Area Results Framework* in the *GEF-6 Programming Directions*.

[3] Financing type can be either investment or technical assistance.

Total Project Cost	12,385,321	0

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust

C. CO-FINANCING FOR THE PROJECT BY SOURCE, BY TYPE AND BY NAME

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount ($)
(select)	TBD	(select)	0
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
Total Co-financing			0

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

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in $)		
					GEF Project Financing (a)	Agency Fee (b)[b)]	Total (c)=a+b
(select)	GEFTF	☒	Multi-focal Areas	IAP-Cities	3,211,009	288,991	3,500,000
(select)	GEFTF	India ☐	Climate Change	(select as applicable)	9,174,312	825,688	10,000,000
(select)	(select)	☐	(select)	(select as applicable)			0
(select)	(select)	☐	(select)	(select as applicable)			0
(select)	(select)	☐	(select)	(select as applicable)			0
(select)	(select)	Project Management cost [c)]	(select)	(select as applicable)			0
Total GEF Resources					12,385,321	1,114,679	13,500,000

a) No need to fill this table if it is a single Agency, single Trust Fund, single focal area and single country project.
b) Refer to the Fee Policy for GEF Partner Agencies.
c) If Multi-Trust Fund project :PMC in this table should be the total amount; enter trust fund PMC breakdown here ( )

[4] For GEF Project Financing up to $2 million, PMC could be up to10% of the subtotal; above $2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

India (Implementing Agency = TBD)

Indian cities are faced with the dual challenge of meeting a large infrastructure supply gap while also leveraging information technology to deliver better services. Urban growth has long outpaced the development of infrastructure in India. Water supply, waste collection and treatment, sanitation, road networks, housing, integrated public transport and mass-transit facilities are inadequate to meet to population pressures and economic demands. The following facts highlight the severity of urban infrastructure gap in India:

- **ONLY 64% OF INDIA'S URBAN POPULATION HAS INDIVIDUAL WATER CONNECTIONS;**
- **NON-REVENUE WATER ACCOUNTS FOR 50% OF PRODUCTION;**
- **ONLY 5% OF CITIES HAVE ANY KIND OF SEWAGE SYSTEM;**
- **18% OF URBAN HOUSEHOLDS DEFECATE IN THE OPEN;**
- **ONLY 21% OF WASTEWATER GENERATED IS TREATED.**

In response to these issues, the India child project will focus on national and city-level policy reform to create an enabling environment for large scale infrastructure investment and therefore lay a foundation for smart cities. The IAP will be implemented in four cities: Vijayawada-Guntur, Mysore, Jaipur and Bhopal.

Annex A

NAME OF PROGRAM:
SUSTAINABLE CITES INTEGRATED APPROACH PILOT
Child Project Concept Note

PART I: PROJECT INFORMATION[1]

Project Title:	Sustainable-city Development in Malaysia
Country(ies):	Malaysia
GEF Agency(ies):	UNIDO
Other Executing Partner(s):	Malaysian Industry-Government Group for High Technology
GEF Focal Area(s):	Climate Change

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]:

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	**Trust Fund**	**(in $)**	
		GEF Project Financing	**Co-financing**
CCM-1 (Program 1)	GEF TF	1,834,862	12,000,000
IAP Sustainable Cities	GEF TF	917,431	6,000,000
Total Project Cost		2,752,293	18,000,000

B. CHILD PROJECT DESCRIPTION SUMMARY

Project Objective: Sustainable-City Promotion contributes to the Sustainable City Initiative of the Government of Malaysia

Project Components	**Financing Type[3]**	**Project Outcomes**	**(in $)**	
			GEF Project Financing	**Co-financing**
1. Integration of climate risks in urban planning and management	TA	1.1 National urban policy framework strengthened to promote sustainable cities model 1.2 Improved planning and management capacities of pilot cities and central government for sustainable cities' principles	2,542,293	17,600,000
	INV	1.3 Investments in pilot cities generate local and global environmental benefits		
	TA	1.4 Increased knowledge and partnerships on sustainable cities and climate resilience at multiple levels		
2. Monitoring and Evaluation	TA	2.1 Adequate monitoring and evaluation facilitates smooth and successful project implementation	80,000	100,000
		Subtotal	2,622,293	17,700,000
		Project Management Cost (PMC)[4]	130,000	300,000
		Total Project Cost	2,752,293	18,000,000

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust

[1] This Concept Note is intended to convey whatever preliminary information exists at this stage on a child project and that is indicative of how it will contribute to the overall Program.
[2] When completing Table A, refer to the Program Results Framework, which is already mapped to the relevant *Focal Area Results Framework* in the *GEF-6 Programming Directions*.
[3] Financing type can be either investment or technical assistance.
[4] For GEF Project Financing up to $2 million, PMC could be up to10% of the subtotal; above $2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

C. CO-FINANCING FOR THE PROJECT BY SOURCE, BY TYPE AND BY NAME

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount ($)
National Government	Malaysian Industry-Government Group for High Technology (MiGHT)	In-kind	5,270,000
National Government	Malaysia Green Technology Corporation (MGTC)	cash	500,000
National Government	Ministry of Energy, Green Technology and Water (KeTTHA)	In-kind	1,000,000
National Government	Ministry of Natural Resources and Environment (MNRE)	In-kind	500,000
National Government	Ministry of Urban Wellbeing, Housing and Local Government	In-kind	500,000
Local Government	Melaka City	In-kind	10,000,000
GEF Agency	UNIDO	Cash	84,000
GEF Agency	UNIDO	In-kind	146,000
Total Co-financing			18,000,000

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

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in $)		
					GEF Project Financing (a)	Agency Fee (b)	Total (c)=a+b
UNIDO	GEFTF	Global Sustainable Cities Incentive	IAP	IAP-Cities	917,431	82,569	1,000,000
UNIDO	GEFTF	Malaysia	Climate change	CCM	1,834,862	165,138	2,000,000
Total GEF Resources					2,752,293	247,707	3,000,000

a) No need to fill this table if it is a single Agency, single Trust Fund, single focal area and single country project.
b) Refer to the Fee Policy for GEF Partner Agencies.
c) If Multi-Trust Fund project :PMC in this table should be the total amount; enter trust fund PMC breakdown here ( )

PART II: PROJECT JUSTIFICATION

Project Overview

A.1. Project Description. Briefly describe:

Industrial growth in developing countries and emerging economies has inexplicably been accompanied by rapid urban growth; in 2014, the urban population accounted for 54% of the total global population, compared to only 34% in 1960.[5] As urban areas continue to grow, so too does their impact on the environment; currently, cities are already responsible for 60-80% of the world's energy consumption, and this portion will continue to increase.[6] This growth, however, has in many cases not been undertaken in a sustainable manner, leading to sprawling cities stretched to capacity without the capacity, know-how or incentives to initiate a shift in the direction of environmentally sustainable urban development. In Malaysia, a country that has seen significant economic development in recent years, 73% of the population in 2012 lived in urban areas.[7] While this growth in urbanization brings challenges in terms of urban planning and development, it also holds promise for the improved living standards, with a close link between urbanization and improved income levels.[8]

However, while there are significant opportunities in Malaysia associated with the development of sustainable cities, there are also a number of barriers present in the market that currently prevent their widespread adoption. These include:

- Lack of the necessary policy, regulations and incentive programmes to encourage investment in smart cities by the private sector, despite interest from government institutions;
- Lack of information about the factors that the creation of a sustainable city entails and limited capacity to introduce these technologies and measures; limited awareness also hinders the development of demand for such cities by the general public and businesses
- Lack of the necessary supporting infrastructure: charging station networks, service/equipment providers, support applications, maintenance, etc.

1. Population of target cities or metropolitan areas:

Current population	Projected population in 2050[9]
Melaka State had a population of 790,163 in 2010 and third highest population growth rate (2.6%). Central Melaka, including Melaka City, constitutes 61.37% of this, or 484,885 persons, despite being the smallest sub-district in the state.[10] Population Density of Central Malaka stood at 1,500/km^2 in 2007.	The Malaysian population is expected to increase by 35%; from 28.6 million in 2010, to 38.6 million in 2040.[11]

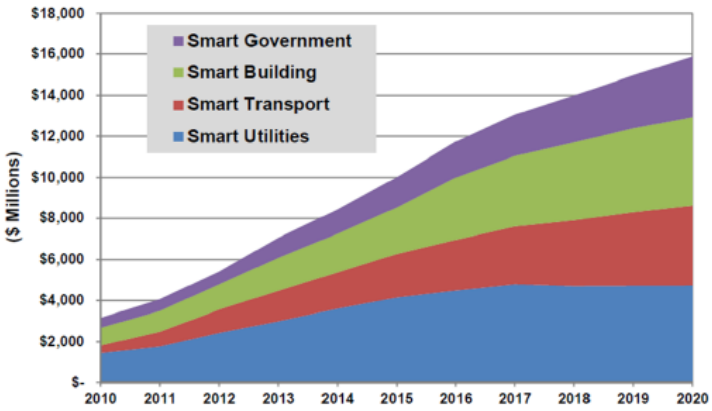
2. Brief description of context and baseline scenario.

GHG Emissions:

In 2007, national GHG emissions were 292.29 Mt CO_2e with per capita emissions of 10.8 t CO_2e. When compared to neighboring countries in East Asia and the Pacific, per capita CO_2 emissions were 114% higher than the average

[5] http://www.who.int/gho/urban_health/situation_trends/urban_population_growth_text/en/
[6] Industry Driven Smart City Programme for Malaysia (v2), 16 April 2014
[7] http://apps.who.int/gho/data/?theme=country&vid=12900
[8] Malaysia Economic Monitor; Smart Cities. November 2011
[9] Please refer to Table 2: The World's Largest Cities in 2050, which can be found in the background paper of the August 2014 Sustainable Cities IAP consultative meeting (http://www.thegef.org/gef/CC/sustainable-cities).
[10] http://www.statistics.gov.my/portal/index.php?option=com_content&view=article&id=1215%3Apopulation-distribution-and-basic-demographic-characteristic-report-population-and-housing-census-malaysia-2010-updated-2972011&catid=130%3Apopulation-distribution-and-basic-demographic-characteristic-report-population-and-housing-census-malaysia-2010&Itemid=154&lang=en
[11] http://www.statistics.gov.my/portal/images/stories/files/LatestReleases/population/Ringkasan_Penemuan-Summary_Findings_2010-2040.pdf

(2004).[12] In the current scenario, it is estimated that Malaysia's GHG emissions will grow at 3.7% per annum from 2000 to 2020, representing a significant burden on the environment and the living conditions of a large portion of the Malaysian population living in urban areas.



National Initiatives in Sustainable Cities

As urban sprawl continues to increase, the importance of developing cities that are both sustainable and environmentally smart has begun to receive widespread recognition by national, state and local governments around the world. This is particularly true in developing countries and emerging economies where urban growth is particularly high and the existing systems and infrastructure are not sufficient. Estimates show that over US$ 100 billion will be invested in technologies to support sustainable cities in the next 10 years. By 2020, expenditure on core technologies is estimated at US$ 16 billion per year.[13]

In response to these developments, the concept of sustainable cities has received significant attention in recent years. A sustainable city can be defined as, "technological fusion in a strategic way to bring sustainability, citizen well-being and economic development." The following key aspects of sustainable cities have been identified by Navigant Research (see Figure 2): [14] These specific initiatives are then supported by common cross-cutting concepts, such as policy coordination, enabling partnerships, high impact projects that concretize their implementation and ensure the implemented projects are sustainable and effective.

The **New Economic Model (NEM)**, the **10th Malaysia Plan (10MP),** and the **National Physical Plan-2** all recognize the important roles that both innovation and cities will play in Malaysia's future economic development. The Malaysian government has also shown significant interest in the development of sustainable cities, including cities in the upcoming **11th Malaysia Plan 2016-2020 (11MP),** under the strategic initiative, *Cities as Growth Poles*.

The Malaysian government's commitment to sustainable cities is indicated in their recent, **Industry Driven Smart City Programme,** a sub-programme of the flagship programme, Smart Communities, of the larger **Science to Action (S2A)** initiative launched by the Malaysian Prime Minister in November 2013. The Smart City Programme will be industry-driven focusing on supporting growth in emerging industries through the application of science and technology and business models. The programme is centered around 3 key objectives; i) to ensure *Environmental Sustainability for Cities* in support of Malaysia's commitment to a 40% reduction in carbon emissions by 2020; ii) to accelerate the greening of cities as an engine for *economic growth* through investment, jobs and innovation; and iii) to provide *well-being* to the city communities through public safety, education, social care, etc. With the achievement of these objectives, the Smart City Programme expects to have the following quantifiable outcomes:

- Additional **RM52 billion** in cities revenue
- **432,000** new jobs
- **35% increase** in energy efficiency
- **RM540 million/year operational savings on government buildings**

[12] Malaysia Economic Monitor; Smart Cities. November 2011
[13] Navigant Research, cited in: Industry Driven Smart City Programme for Malaysia (v2), 16 April 2014
[14] Industry Driven Smart City Programme for Malaysia (v2), 16 April 2014

The actual implementation of the Smart City Programme will have 3 phases, aiming at supporting demonstration cities to identify the appropriate form of smart city, intensify public-private partnerships, develop industrial capacity, and initiate community awareness and promotional programmes. Prioritized sectors under the Smart City Programme are: Energy, Transportation, Buildings, Water, Waste and ICT.

As part of the larger National Smart Communities Program, the relevant national institutions, such as the Malaysian Industry-Government Group for High Technology (MiGHT), Ministry of Natural Resources and Environment (MNRE), Ministry of Energy, Green Technology and Water (KeTTHA), etc., as well as international partners such as the GEF, UNIDO and UNDP organized an event in Melaka City in December 2014, **Industrial Energy Efficiency for Malaysian Private Sector,** which focused on the acceleration of the greening of cities via the promotion and adoption of energy efficiency improvements in the private sector.

The objectives of the Smart City Programme are closely in line with those of the proposed project which will support the Programme in the areas of institutional capacity building on policy development, awareness raising, and technical expertise for specific required energy efficient technologies, such as electric vehicles and energy efficiency and renewable energy applications in buildings. The proposed project also directly targets three of the prioritized sectors under the Programme, namely Energy, Transportation and Buildings, thus opening up numerous areas for cooperation and collaboration.

Focusing specifically on the buildings sector, the **Green Building Index (GBI) Certification Scheme** is a rating tool for buildings launched in 2009. The GBI rating is based on six criteria; energy efficiency, indoor environment quality, site planning and management, materials and resources, water efficiency, and innovation.

Melaka has also been closely involved in the introduction of electric buses, completing a 3-month trial in March 2014, with plans for another 40 e-buses to be introduction. Initiatives have also been undertaken to develop a network of electric charging stations, with 2 already built in Melaka City.

International Initiatives:

The Asian Development Bank is currently developing the project, **Sustainable Urban Management (Green Cities) Support to Follow-Up Activities in Melaka, Malaysia.** The project will be a follow-up to the earlier project, Green Cities a Sustainable Urban Future in Southeast Asia, which aimed to initiate green city action plans and build the capacity of participating cities, focusing on Melaka in Malaysia. The new project will aim to develop a sustainable green city of Melaka with improved quality of life with urban environmental sustainability and climate resilience. They key activities of the project will be; (i) the PINTAR model developed as a decision-support system with baseline database and economy, environment, and equity (3E) benchmarking approaches; (ii) capacity building on integrated urban development and environment planning issues; and (iii) policy dialogue through knowledge sharing and awareness-raising in-country and regional workshops to expand the implementation of the project and create future regional investment opportunities.

Melaka City

Melaka City is a World Heritage City, attracting 14.3 million tourists in 2013 and offering more than 42 institutes for higher learning to more than 70,000 students. In 2010, Melaka State had a population of 790,163 and the third highest population growth rate (2.6%). Central Melaka, including Melaka City, constitutes 61.37% of the population, or 484,885 persons, despite being the smallest sub-district in the state.[15] Population density of Central Melaka stood at 1,500/km^2 in 2007. GHG Emissions for Melaka State in 2005 are estimated at 4 million tons, with projections of 223% increase by 2020 in the Business-as-Usual scenario.[16]

3. Brief description of priorities for IAP support.

The proposed child project will directly contribute to the IAP goals of integrated sustainability planning, namely: integrating climate risks in urban planning and management. This will be achieved through support to the development of national urban policy frameworks, improved planning and management in Melaka City, increased

[15] http://www.statistics.gov.my/portal/index.php?option=com_content&view=article&id=1215%3Apopulation-distribution-and-basic-demographic-characteristic-report-population-and-housing-census-malaysia-2010-updated-2972011&catid=130%3Apopulation-distribution-and-basic-demographic-characteristic-report-population-and-housing-census-malaysia-2010&Itemid=154&lang=en

[16] Green City Action Plan, 2014

investment in Melaka City into urban management modalities; and increased knowledge and partnerships on sustainable cities in Melaka City, and in Malaysia in general.

The proposed project will build upon the baseline of the GEF-UNIDO project, Energy Efficient Low-Carbon Transport in Malaysia that focuses specifically on the promotion of electric vehicles and electric public transport in Malaysia. Building on the positive response to this project, and the Malaysian government's interest and efforts for the development of smart and sustainable initiatives, the proposed project is structured around 2 components, as outlined below:

Component 1: Integration of climate risks in urban planning and management

Outcome 1.1: National urban policy framework strengthened to promote sustainable cities model

Output 1.1.1 - National policies for strategic direction and demand creation for sustainable-cities improved/ developed; incentive schemes (funding models, green procurement, PPPs, etc.) developed;

The development/improvement of national policies is necessary for the development of sustainable cities, providing the correct frameworks and incentives to raise awareness, but also stimulating demand in the market for the development of the required services. It is vital that the appropriate policies are in place from the initial stage of process, including the existence of the required funding models for specific interventions, green procurement legislation, guidelines and standards, and public-private partnerships (PPPs).

During the PPG phase, detailed assessments and consultations will be carried out with all concerned stakeholders, incorporating best relevant practices from around the world. The development of the Smart City Programme led by MiGHT, the project's Lead Executing Agency, will provide ample opportunities for cooperation and coordination of activities to ensure that the proposed project provides the required policy input to the Smart City Programme. Specifically, the proposed project could potentially provide inputs to the specific policies supported by the Smart City Programme, namely; a National Indicator on Smart Cities, Green Governance in States of Malaysia, benchmarking of cities' readiness, etc.

These consultations will also seek to identify the need for the further development of policies, roadmaps, incentive and support programs that could be developed during the project main phase. The policy and regulatory framework to be developed will encourage and facilitate investment in sustainable cities, particular in electric vehicles, the supporting infrastructure and energy efficient buildings. This will seek to enhance partnerships, pool available resources and generally streamline the concerns associated with such investment, thus reducing the perceived investment risks.

Outcome 1.2: Improved planning and management capacities of pilot cities and central government for sustainable cities' principles

Output 1.2.1 - Institutional capacity of policy-makers at the national level built, specifically focusing on the policy coordination partners of Malaysia's Smart City Programme;

Institutional capacity of policy-makers is key to the development of sustainable cities and the associated urban planning and management required for a supportive policy framework. The proposed project will specifically target capacity building of the coordination partners of the Smart City Programme, a multi-stakeholder programme that will be Malaysia-wide and includes the key relevant partners. This will focus on the national-level policy-makers such as the Economic Planning Unit (EPU), the Ministry of Urban Wellbeing, Housing and Local Government, KeTTHA, MNRE, MiGHT and Greentech Malaysia, among others. As these partners are all members of the Smart City Programme Implementation Task Force (see Figure 1), this existing framework will be leveraged to ensure efficiency and sustainability.

The proposed project will also provide support and technical expertise to Melaka City in order to lay the groundwork for the demonstration activities to be undertaken under Outputs 1.3.1 and 1.3.2. As Melaka MGTC is the acting City Development Partner of Melaka City under the Smart City Programme, the proposed project will also work with them closely on policy issues.

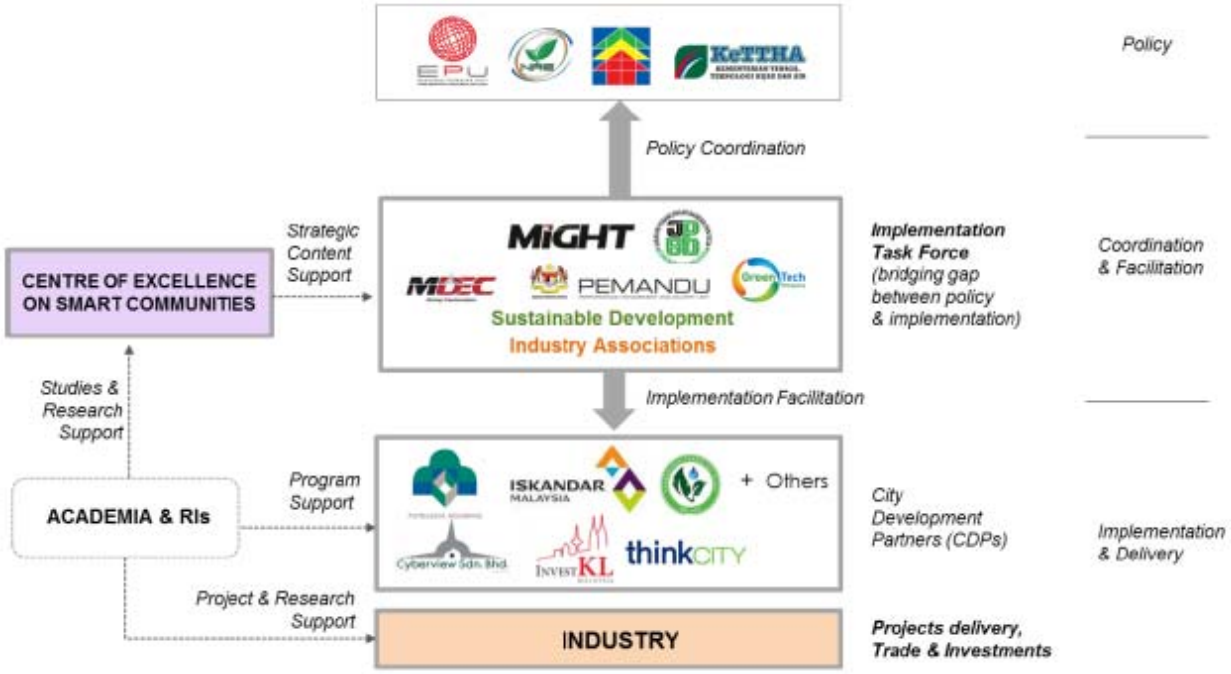


Figure 1 - Smart City Programme Implementation Task Force

The project's training modules will focus on on-the-job training for officers and staff of the participating institutions. The strengthened institutional capacity development will not only ensure the sustainability of the project's impact, but will also help to attract and retain investment in this relatively new market. Furthermore, the built capacity will help to ensure the institutionalization of the policies and strategies developed under Output 1.1.1.

Outcome 1.3: Investments in pilot cities generate local and global environmental benefits

In order to concretize the project efforts in policy development, capacity building and awareness raising, and reap environmental and social benefits at the city level, Outputs 1.3.1 and 1.3.2 will demonstrate technologies in Melaka State of Malaysia. These demonstrations will be conducted in close cooperation with the local authorities and institutions, i.e. MiGHT, Melaka MGTC, etc. to ensure local ownership, as well as hands-on capacity building. Further, as these demonstration projects will require enabling regulations and urban planning (i.e. climate risk planning, feasibility studies, etc.), these Outputs will also stimulate improved urban planning and management at the local and national levels, feeding into Outputs 1.1.1 and 1.2.1.

Melaka State has shown keen interest to be involved in the Smart Cities Initiatives, already working with national institutions and the Asian Development Bank, and thus has an existing baseline of awareness and initiatives that the proposed project will build upon. In addition, discussions between Melaka, MiGHT and the GEF were initiated in September 2014 on potential support for the development of sustainable cities concretizing their commitment to this initiative. The demonstration activities under this Component will also serve as input to the demonstration activities foreseen under the Strategic Projects of the Smart City Programme.

Output 1.3.1 - Increased adoption of electric vehicles promoted through demonstration activities of solar-powered charging facilities, smart-grids, IT applications, etc.

Building on the success of the Energy Efficient Low-Carbon Transport project, this Output will aim to increase the adoption of EVs in Malaysia through demonstrations of the supporting infrastructure available. These will include photovoltaic (PV)-based charging stations for EVs, as well as the utilization of smart-grids based on the energy storages of the EVs and charging stations. One potential specific intervention to be assessed during the PPG phase could be the installation of an integrated Smart Grid consisting of Smart House, Solar, Charging Stations for EVs and Battery Technology to assess the performance and potential scaling up of a Smart Grid.

In order to support the demonstration of EVs (in cooperation with the GEF-UNIDO project, Energy Efficient Low-Carbon Transport in Malaysia), as well as the related supporting infrastructure for Green Mobility, the proposed project will support local partners in the development of a **Green Mobility Master Plan** for the Melaka Heritage Area. Potential strategic areas for promotion and support would include pedestrians, bicycles, e-motorbikes, EVs, e-minibuses, and e-buses. This Plan will support local-level urban planning, as well as raising institutional awareness of the project's demonstration activities and the potential associated with these technologies.

In addition, as these technologies have matured in recent years, a number of innovative IT applications for EV-use have emerged in the market, and the proposed project will identify relevant and appropriate applications to demonstrate. These activities will focus on Melaka State, but dissemination of the results and awareness (under Output 1.4.1) will be nation-wide in order to support and promote widespread adoption of EVs and PV-based smart grids.

Output 1.3.2 - Energy efficiency and renewable energy applications in commercial and government buildings demonstrated;

As urban sprawl continues to expand, the quality and design of buildings will be a key factor in the efficiency of cities. In order to raise awareness of the potential offered by "green buildings," the proposed project will demonstrate energy efficiency and renewable energy applications in both commercial and government buildings. Specifically, these could include solar energy applications, as well as waste to energy technologies. In the PPG phase of the proposed project, a detailed study of the potential and applicability of various technologies will be conducted, and selected technologies will be identified for the project implementation phase in close cooperation with the project's partners. One potential area for intervention would be utilizing the technical expertise of the proposed project to conduct a feasibility study for a Waste Industry Eco-Park in Melaka. This would be done in close coordination with local project partners in order to identify and engage potential investors and ensure national ownership across the various relevant institutions. Where possible, the proposed project will also try to ensure that agreements with various partners are drawn up to ensure commitment to the adoption of these technologies during and beyond the project period. This will support the sustainability of the project's activities.

Under Outputs 1.3.1 and 1.3.2, this project will work closely with the other on-going GEF projects in Malaysia. For example, the project will assist in building renewable energy (RE) kiosks in the appropriate places in Melaka City; the innovator of this RE kiosks is the 2014 Category Winner from the Global Cleantech Innovation Programme (GCIP) for SMEs project in Malaysia. In terms of energy efficiency, the project will continue working closely with the on-going projects on Industrial Energy Efficiency and Energy Efficiency and Solar Thermal Energy Applications of UNIDO and the GEF, and the Energy Efficient Building project of UNDP and the GEF.

<u>Outcome 1.4: Increased knowledge and partnerships on sustainable cities and climate resilience at multiple levels</u>

The awareness raising activities foreseen under the proposed project will increase awareness of the benefits associated with sustainable cities, and dissemination efforts will ensure that best practices and lessons learned are shared with the other cities of Malaysia. This will serve to foster the partnerships at multiple levels of decision-making foreseen and promoted by the Smart City Programme.

Output 1.4.1 Awareness raising events for policy-makers, industry and end-users organized at the local and city levels for dissemination of tangible results achieved under Outputs 1.3.1 and 1.3.2.

Building on the improved policy framework developed under Output 1.1.1 and the demonstrations under Outputs 1.3.1 and 1.3.2, the proposed project will develop and implement an awareness raising programme on the opportunities and benefits (environmental, health, economic, etc.) associated with sustainable cities. Specifically, the Output will focus on raising awareness for policy-makers, industry and end-users on the benefits associated with the increased adoption of electric vehicles and energy efficiency and renewable energy measures in both commercial and government buildings. Given the larger movement toward sustainable cities in Malaysia, the proposed project will leverage on other interventions and demonstrations to improve overall awareness in Malaysia.

Component 2: Monitoring and Evaluation

The monitoring and evaluation component will ensure that adequate monitoring and evaluation mechanisms are in place, facilitating smooth and successful project implementation and sound impact. Specifically, this component's

outputs include; (i) Regular monitoring exercises conducted, PIRs prepared; tracking tools prepared according to GEF requirements; and (ii) Mid-term and final project review conducted.

4. Rationale to include target city or metropolitan area

Melaka State has the fifth highest level of urbanization in Malaysia (86.5%)[17] and has shown keen interest to be involved in the Smart Cities Initiatives, already working with national institutions and the Asian Development Bank, and thus has an existing baseline of awareness and initiative that the proposed project will build upon. In addition, discussions between Melaka, MiGHT and the GEF were initiated in September 2014 on potential support for the development of sustainable cities concretizing their commitment to this initiative. A letter to this effect has been sent to the GEF on March 27, 2015 from the Melaka State Government.

The demonstration activities under this project will also serve as input to the demonstration activities foreseen under the Strategic Projects of the Smart City Programme. Further, the city has also been selected for the 3-country cooperation initiative, the Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT).

5. Experiences with, and commitment to, integrated urban management by (1) national government, and (2) target city or metropolitan area

Malaysia has partnered with the GEF-UNDP project, **Green Technology Application for the Development of Low Carbon Cities (GTALCC)** which is currently under finalization for CEO Endorsement and will target 5 Malaysian cities, including Melaka City. At the state level, Melaka City will be partnering with UNIDO on the execution of the project, "Energy Efficient Low-Carbon Transport in South Africa," for the demonstration of three PV-based fast charging stations for Electric Vehicles, e-buses and e-bicycles.

In addition, as outlined above, Melaka City has been an active partner in a number of initiatives focused on sustainable transport but also sustainable cities initiatives in collaboration with the national government. In particular, this proposed child project would directly support the achievement of **Melaka's Green City Action Plan (GCAP) 2020**, which establishes 6 City Performance Indicators under the IMT-GT Green City Initiative, Economic Planning Unit, and Prime Minister's Department; Water Management, Energy Efficiency & Renewable Energy; Green Transportation; Zero Waste; Cultural Heritage; and Urban Forestry & Agriculture. Melaka has also partnered with MiGHT as their Key Delivery Partner on the GCAP under the National Smart Community Program, with six projects already identified under Phase 1 for 2014-2015. The programme will then be expanded nationally in 2016.

Furthermore, Melaka City's participation in the IMT-GT offers significant potential for upscaling and growth of the sustainable cities initiative within the three countries, as well as the ASEAN region as a whole. Specifically, Infrastructure and Transport is a key Area of Cooperation within the IMT-GT. Furthermore, Melaka City plans to launch a Solar Park in the Melaka World Solar Valley (MWSV) and a Waste Eco Park in Sungai Udang. Plans are also underway for the **Hang Tuah Jaya Green City** where all developments and buildings shall comply with the building rating certifications, such as GBI, LEED, Green Star, etc.

Focusing on smart-grids, Melaka has been selected to initiate the **Smart Grid Pilot Project**, along with Putrajaya, and implemented the first smart-grid in Malaysia. This will involve 800 buildings and residences and will install smart meters, a data center and networking facility.

6. Confirmation of commitment to IAP engagement and sustainable cities global platform/network participation from (1) national government, and (2) target city or metropolitan area

As outlined above, the Malaysian national and local city governments have shown ongoing commitment to the development and promotion of sustainable cities and urban management. These national objectives are outlined in the following policies and initiatives: **11th Malaysia Plan 2016-2020 (11MP),** under the strategic initiative, *Cities as Growth Poles*; **Industry Driven Smart City Programme,** a sub-programme of the flagship programme, Smart Communities, of the larger **Science to Action (S2A)**; as well as the **Industrial Energy Efficiency for Malaysian Private Sector** event which focused on the acceleration of the greening of cities via the promotion and adoption of energy efficiency improvements in the private sector.

[17] http://www.statistics.gov.my/portal/index.php?option=com_content&id=1215

In addition to the policy frameworks put in place, both national and local city governments, as well as other partners, have actively engaged with the implementation of the associated projects and initiatives. Melaka City was also awarded the **Green Apple Award** for the Melaka River Rehabilitation Project by MBMB in 2013, and received the KeTTHA Excellent Award for SAMB (water efficiency) and KMB (Solar Farm) in 2014.

Furthermore, as Melaka has been a member of the **International Council for Local Environmental Initiatives (ICLEI)** since 2014, there are potential opportunities for cooperation with ICLEI, as well as other associated initiatives, such as 100 Resilient Cities by Rockefeller Foundation, C40 and others.

7. Consistency with national and local policies and strategies:

The objectives of the proposed project are aligned with the following relevant national policies:

- The New Economic Model (NEM), the 10th Malaysia Plan (10MP), and the National Physical Plan-2 all recognize the important roles that both innovation and cities will play in Malaysia's future economic development.
- The Malaysian government has also shown significant interest in the development of smart cities, including cities in the upcoming 11th Malaysia Plan 2016-2020 (11MP), under the strategic initiative, *Cities as Growth Poles*.
- The Malaysia government's commitment to smart cities is indicated in their recent, Industry Driven Smart City Programme, a sub-programme of the flagship programme, Smart Communities, of the larger Science to Action (S2A) initiative

8. Summarize alignment of proposed priorities with relevant local sustainable development policies and strategies

The objectives of the proposed project are aligned with the following relevant local policies:

- Melaka supports Malaysia's Vision 2020 to be a high income low carbon developed nation with a minimum GDP Per Capita of USD 15,000 by the year 2020. Melaka is leveraging on three (3) strategic objectives: maintaining status as a developed state; achieving status as a city state; achieving status as a green city;
- Melaka Green Action Plan to further enhance the planning for green development in Melaka;
- Melaka Green Technology City State Blueprint 2011 -2020

***A.2. Stakeholders*. Will project design include the participation of relevant stakeholders from civil society and indigenous people? (yes ☒ /no☐) If yes, identify key stakeholders and briefly describe how they will be engaged in project design/preparation:**

The **Malaysian Industry-Government Group for High Technology (MiGHT)** will be the Lead Executing Agency of the project, responsible for hosting the Project Management Unit (PMU) and will appoint the National Project Director (NPD). As the Head of the Implementation Task Force of the Smart City Programme, MiGHT will play a coordinating role in Component 1 of the proposed project.

Additional project partners will include the MGTC, Melaka City, the Energy Commission, (EPU, Ministry of Urban Wellbeing, Housing and Local Government, KeTTHA, MNRE, and relevant civil society organizations (CSOs).

***A.3 Risk*. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):**

Risk	Rating	Mitigation
The general public opposes the execution of the proposed project, due to a lack of understanding of the technologies and potential	Low	Public awareness and advocacy activities under Component 1 will seek to mitigate this risk. In addition, demonstrations undertaken under Outputs 1.3.1 and 1.3.2 will showcase the technologies and products in a visible manner to present the opportunities and benefits of the proposed technologies. As the proposed project will

Risk	Rating	Mitigation
opportunities.		support the existing and larger Smart City Programme, public awareness is expected to improve throughout the project implementation period, and thus the risk has been categorized as low.
Delays in the proposed improvements to the institutional and regulatory framework by public institutions.	Medium	Close cooperation of the project partners in the Project Steering Committee (PSC) will be sought, as well as through the existing Implementation Task Force. This ongoing cooperation, as well as a careful delineation of the each partner's responsibilities will aim to mitigate this risk. In addition, capacity building of the various relevant institutions will also create awareness and a better understanding of the project's interventions, thereby creating ownership among the local counterparts.
Technology failure	Low	This risk can be considered low, as electric vehicles and the associated required equipment, as well as the energy efficiency and renewable energy applications in buildings are now commercially and widely available. In addition, the groundwork already laid by the ongoing Energy Efficient Low-Carbon Transport project will have built capacity and tested the products at length.
Project interventions are not sustained beyond the project life span.	Medium	Relevant public bodies' agreement will be secured in order to guarantee the project continuation after the end of the GEF funding period and the built capacity and policies will support this continued implementation. Given the ongoing Smart City Programme, it is expected that the project activities will be incorporated into its structure to ensure sustainability.
Infrastructure developed is vulnerable to climate change risks.	Low	While the infrastructure to be developed under the proposed project could potentially be vulnerable to climactic disruptions (e.g. charging stations in coastal areas), sufficient due diligence will be undertaken in the PPG phase as to the location of such infrastructure to mitigate this risk.

A.4. Coordination. **Outline the coordination with other relevant GEF-financed and other initiatives:**

The project will be closely coordinated with the on-going GEF-UNIDO **Global Cleantech Innovation Programme for SMEs in Malaysia**[18] and the GEF-UNIDO **Industrial Energy Efficiency for the Malaysian Manufacturing Sector (IEEMMS)** projects. The GEF-UNIDO **"GHG Emissions in Targeted Industrial Sub-Sectors through EE and Application of Solar Thermal Systems in Malaysia"** project also provides cooperation opportunities, particularly in the policy and capacity building components for the utilization of solar energy which could potentially be adapted to the buildings focused on by the proposed project.

Specifically, the GEF-UNIDO project, **Energy Efficient Low-Carbon Transport in Malaysia**, which is set to begin implementation in 2015, will provide significant input to the proposed project in terms of policy, project partnerships and expertise in the energy efficient and electric vehicles activities.

In addition, the project will also coordinate with the GEF-UNDP project, **Buildings Sector Energy Efficiency Project (BSEEP)** which aims to improve energy utilization efficiency in Malaysian commercial and government buildings, as well as the GEF-UNDP project, **Green Technology Application for the Development of Low Carbon Cities (GTALCC)**. Coordination with the GTALCC project will be clearly defined; the UNDP project will focus more on the promotion of business models and financing of public transport, which will gradually lead to the

[18] Endorsed by the GEF CEO as the GEF-UNIDO Global Cleantech Programme for SMEs in Malaysia

use of more e-buses, while the UNIDO project will focus on promotion of enabling policies for strategic direction and demand-creation for sustainable cities, and demonstration activities of electric vehicles and the related infrastructure, and energy efficiency and renewable energy applications in buildings.

The proposed project will also closely coordinate with the relevant UNIDO Branch, particularly the Environment Branch and Business, Investment and Technology Services Branch. The proposed project will also closely liaise with other initiatives implemented in the country with regard to the fostering of a green industrial sector and the transition toward a green economy.

B. Description of the consistency of the project with:

B.1 Is the project consistent with the National strategies and plans or reports and assessements under relevant conventions? (yes ☒ /no☐). If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.:

The proposed project is closely in line with national priorities and strategies, specifically the Malaysia Smart City Programme and the larger, Science to Action (S2A) Programme. The project will contribute to their objectives and provide input and technical expertise to build national capacity and support the development of smart and sustainable cities in Malaysia.

In addition, the proposed project supports the objectives of Malaysia's **2nd National Communication (2011)** which highlights the importance of developing green and low-carbon cities and townships to ensure great resilience towards negative climate change impacts. Introducing green buildings and green technologies in urban areas through public policy and development guidelines are noted as measures to support urban development in Malaysia. In addition, the National Communication highlights the importance of improving Malaysia's transportation system and infrastructure, specifically noting that only 10% of Kuala Lumpur is directly served or within the transit catchments of the existing stations. In this field, the National Communication highlights two key strategies with which the proposed project is closely aligned; capacity building and awareness raising of the public institutions and the larger populous, and improving the regulatory environment. The interventions of this project, under Component 1, are closely in line with these objectives and will serve to support the objectives of the Government of Malaysia.

In terms of green technologies, the **National Green Technology Policy**, implemented by KeTTHA, is built around 4 pillars; energy, environment, economy and society. The Policy specifically identifies the transportation sector as one of its four focal areas, highlighting the importance of incorporating green technology into supporting infrastructure and public road transport. The proposed project is directly in line with these objectives, and close cooperation with KeTTHA has already taken place at the development stage of this project.

The new **Economic Transformation Program (ETP)** provides strong focus on 12 growth areas, labelled as National Key Economic Areas (NKEAs), of which Oil, Gas and Energy and Business Services focusing on innovative business approaches and technologies are directly relevant to our project. Within the area, sustainable green technology, renewable energy and manufacturing of energy efficient products are specifically referenced.

Annex A

NAME OF PROGRAM:
SUSTAINABLE CITES INTEGRATED APPROACH PILOT
Child Project Concept Note

PART I: PROJECT INFORMATION[1]

Project Title:	Enhancing Mexico´s Environmental Sustainability in Regional Hubs
Country(ies):	Mexico
GEF Agency(ies):	IADB
Other Executing Partner(s):	BANOBRAS
GEF Focal Area(s):	Climate Change

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]:

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	**Trust Fund**	**(in $)**	
		GEF Project Financing	**Co-financing**
CCM-1 Program 1	GEFTF	9,174,312	75,000,000
IAP-Sustainable Cities	GEFTF	4,587,156	35,000,000
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
Total Project Cost		13,761,468	110,000,000

B. CHILD PROJECT DESCRIPTION SUMMARY

Project Objective: Implement the recommendations of IADB Emerging and Sustainable Cities Action Plans in 3 intermediate Mexican cities				
Project Components	**Financing Type[3]**	**Project Outcomes**	**(in $)**	
			GEF Project Financing	**Co-financing**
Enhancing integrated sustainable urban planning and management	TA	• Scope and depth of integrated urban management policies and processes enhanced at the local level, with governance structure. • National polices and strategies create favorable conditions for local action to address global and local environmental concerns	2,900,000	30,000,000
Monitoring globally and locally relevant performance frameworks towards improved performance	TA	• Common performance framework/metrics and tools for local and global environmental benefits established and implemented • Local and global metrics meet agreed targets, such as:	100,000	2,500,000

[1] This Concept Note is intended to convey whatever preliminary information exists at this stage on a child project and that is indicative of how it will contribute to the overall Program.

[2] When completing Table A, refer to the Program Results Framework, which is already mapped to the relevant *Focal Area Results Framework* in the *GEF-6 Programming Directions*.

[3] Financing type can be either investment or technical assistance.

		o GHG emissions reduced or avoided (4 million tons of CO2eq by 2050) o Green spaces will be increased by 20%		
Catalyzing investments for sustainable cities	INV	• Increased investments in sustainable cities initiatives • Enhancements in local, national, and/or global programs on sustainable cities based on IAP engagement	10,361,468	75,000,000
Enhancing partnerships for sustainable cities at local, national, and global levels (through knowledge management, capacity building, global coordination)	TA	• Contribution of IAP to global discourse on sustainable urban management enhanced (including within the context of multilateral environmental conventions) • Capacity enhanced for medium size Mexican cities: implementation of environmental and fiscal measures to improve sustainability, organization of knowledge event, focused on specific topics and improving ties with similar cities in LAC	400,000	2,500,000
	(select)			
	(select)			
	(select)			
	(select)			
	(select)			
	(select)			
		Subtotal	13,761,468	110,000,000
		Project Management Cost (PMC)[4] (select)		
		Total Project Cost	13,761,468	110,000,000

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust

C. CO-FINANCING FOR THE PROJECT BY SOURCE, BY TYPE AND BY NAME

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount ($)
Recipient Government	Government of Mexico	Grants	50,000,000
Recipient Government	Banobras	Loans	50,000,000
Beneficiaries	Subnational Governments	Grants	5,000,000
Private sector	TBD	Grants	5,000,000
(select)		(select)	
(select)		(select)	
Total Co-financing			110,000,000

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

GEF	Trust	Country/	Focal Area	Programming	(in $)

[4] For GEF Project Financing up to $2 million, PMC could be up to10% of the subtotal; above $2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

Annex A

Agency	Fund	Regional/ Global		of Funds	GEF Project Financing (a)	Agency Fee (b)[b)]	Total (c)=a+b
IADB	GEFTF	Global Sustainable Cities Incentive (set-aside) ☐	IAP	IAP-Cities	4,587,156	412,844	5,000,000
IADB	GEFTF	Mexico ☐	Climate Change	IAP-Cities	9,174,312	825,688	10,000,000
(select)	(select)	☐	(select)	(select as applicable)			0
(select)	(select)	☐	(select)	(select as applicable)			0
(select)	(select)	☐	(select)	(select as applicable)			0
(select)	(select)	Project Management cost [c)]	(select)	(select as applicable)			0
Total GEF Resources					13,761,468	1,238,532	15,000,000

a) No need to fill this table if it is a single Agency, single Trust Fund, single focal area and single country project.
b) Refer to the Fee Policy for GEF Partner Agencies.
c) If Multi-Trust Fund project :PMC in this table should be the total amount; enter trust fund PMC breakdown here ( )

PART II: PROJECT JUSTIFICATION

PROJECT OVERVIEW

A.1. PROJECT DESCRIPTION. BRIEFLY DESCRIBE:

1. Proposed city or metropolitan area for IAP.

The proposed project involves the enhancement of Mexico's environmental sustainability through the development of projects and policies in cities that a) serve as regional hubs; and b) are located in environmentally important areas for the country. The objective is to detonate the development of responsible policies and projects in medium sized cities, by supporting the environmental and urban sustainability in cities that can serve as examples for the rest of the country.

Thus, the three selected cities are La Paz, Xalapa and Campeche. These three intermediate cities present economic and population growth levels that are above the national average. They are the capital cities of their respective states (Baja California Sur, Veracruz and Campeche), and have a strategic regional importance as they are reference points for other intermediate cities in the country. Also, the selected cities are strategically located in the northern, central and southern part of Mexico, in an effort to cover the whole country. This is meant to facilitate the replication of responsible environmental and urban actions in cities throughout Mexico that will take Xalapa, La Paz and Campeche as their benchmarks and examples to follow. Additionally, these three cities have undergone the first phase of the Emerging and Sustainable Cities Initiative (ESCI) methodology of the Inter-American Development Bank (IADB). This process has allowed them to have an Action Plan which includes a blueprint for the development of priority urban, environmental and fiscal projects that help the local authorities enhance their local sustainability prospects. This is important as this Action Plan, which has received the full support of the Mexican Ministry of Finance, the National Development Bank (Banobras) and the Federal Ministry of Agriculture and Urban Development (SEDATU), already establishes the projects and actions that should be developed in order to achieve environmental, urban and fiscal sustainability. The fact that the sustainable environmental urban and fiscal projects and actions are already identified will vastly improve the effectiveness of GEF resources and will help increase the success of the program.

After the success of ESCI's methodology implementation in Xalapa, Campeche and La Paz; BANOBRAS and SHCP, are currently partnering with the IADB in the deployment of the Emerging Sustainable Cities Initiative at a national level. This national level program, which is expected to start in late 2015, will include the implementation of ESCI´s methodology in four additional Mexican cities, two of which are among the 5 biggest national metropolitan areas (Toluca and Puebla).

Therefore, the national level program will promote the replication of the Platform to be performed under this GEF-financed operation, and it will multiply its impact in other cities in the country. The consolidation of the national program and its further expansion in the coming years will also carry with it the replication of the benefits which will stem from the GEF operation.

2. Population of target cities or metropolitan areas:

Current population	Projected population in 2050[5]
Campeche (210,000), Xalapa (650,000) and La Paz (250,000)	Campeche (800,000), Xalapa (1,600,000), La Paz (1,000,000)

[5] Please refer to Table 2: The World's Largest Cities in 2050, which can be found in the background paper of the August 2014 Sustainable Cities IAP consultative meeting (http://www.thegef.org/gef/CC/sustainable-cities).

3. Brief description of context and baseline scenario.

Campeche, La Paz and Xalapa have undergone the first phase of IADB's ESCI program. This provides these cities with a baseline scenario as ESCI has already established the value for 117 indicators which cover the environmental, urban and fiscal sectors. Additionally, the information in the indicators has been filtered through a process that includes: public opinion with regards to local sustainability; environmental considerations (resiliency, adaptation, vulnerability and mitigation), and economic factors (opportunity costs of fixing one sector vs. another). The combination of the indicators and the filtering process establishes the priority areas that need to be addressed in the city in order to achieve sustainability. The prioritization phase leads to the design of an Action Plan which contains a strategy to tackle the main urban and environmental challenges required by each city to achieve long-term sustainability. The final goal of the Action Plan is to define ways to control urban sprawl, increase local resiliency, mitigation and adaptation capacity, promote activities to decrease GHG emissions, improve the quality of public services (such as water and wastewater and solid waste management), increase the number and quality of public spaces, develop actions to increase the availability of non-motorized transport infrastructure among other factors.

The strategy set forth in the Action Plans includes the definition of specific projects and the correspondent pre-investment studies that need to be developed for the prioritized areas. This strategy also contains a cost estimation for both the pre-investment studies and the subsequent prioritized projects and it also identifies potential sources of financing.

For the aforementioned Mexican cities, the areas of water and wastewater, clean and efficient urban transport (motorized and non-motorized), management of solid waste, control of GHG emmisions, and vulnerability to climate change have been prioritized. The prioritization of this areas is specifically focused on controlling urban sprawl, improving the quality of transportation infrastructure, increase the efficiency of the water and wastewater services (including the conservation of water sources and the development of responsible wastewater treatment methods). As it has been mentioned, for all those areas, specific projects have been identified and a plan to develop the projects has been outlined.

Support from the GEF facility will help implement the recommendations stated in the Action Plan. This will have a two-fold effect: on the one hand it will potentialize ESCI’s and GEF’s support, and it will also increase the impact of both programs in the improvement of local, regional and national sustainability. By the same token, since the priority areas have already been identified and a strategy has been defined, support provided by GEF will be focused on actions and projects that are vital for local sustainability.

4. Brief description of priorities for IAP support.

For the city of Xalapa, the main priority is to promote a more efficient, sustainable and environmentally-friendly motorized and non-motorized mobility in the city and reduce GHG emissions, as this sector is the biggest producer of this pollutant in Xalapa. This will be done through the development of 5 projects. 1) Rationalizing of the urban mass transit system; 2) integrating the railroad tracks to the urban space; 3) Creation of a land bank which will help keep the city compact and prevent urban sprawl; 4) Implementation of a project to integrate public spaces through walkways, 5) Implement a system of cycling routes. On the water & wastewater sector, the priorities are: to ensure the access to clean water sources, increase the sewage coverage and improve the operations of the water utility. On the solid waste sector, the priority is to ensure that a new landfill is built (the current one is near its capacity). This new landfill should fulfill the environmental, technical and financial standards that are required for a city the size of Xalapa. This new landfill should also prevent the contamination of superficial and underground rivers, so as to ensure the quality of the aquifer and of the urban bodies of water.

For Campeche, the main priority is to begin a process to modernize the city's water and wastewater system in order reduce contamination of the Campeche Bay area and increase the quality of the waters, promoting the repopulation of the ocean by local fauna and flora and improving the attractiveness of the city. The low maintenance levels of the system, along with a deficient management of the water utility and a lack of adequate infrastructure have had as an ultimate consequence the degradation of the Bay area. This Bay is one of the biggest in the American continent and currently receives both the domestic and the rain wastewater from Campeche. It is also close to the largest mangrove in Mexico which is vulnerable to pollution coming from the

Bay area. Thus this project is a priority for the mid-to-long term environmental sustainability of the city. Additionally, the cleaning of the Bay will have national repercussion, as it will become an example of how cities can curb pollution levels, improve their water and wastewater system and management, and modernize their infrastructure in a sustainable fashion. Another priority area for the city is transportation. The current Urban Mass Transit fleet is obsolete, highly polluting (biggest GHG emissions source) and inefficient, most units have to be repaired constantly. This has had as a consequence a very instable, unpredictable and slow transport system. Since the city center is a UNESCO cultural heritage site, all the efforts to improve mobility in Campeche have been focused on that part of the city, neglecting the surrounding areas. Thus, most of the city has rising traffic levels and longer commuting times, which increases the GHG emissions and diminishes the quality of life of the local population. Finally, the city is experiencing an urban sprawl process that is about to reach unmanageable levels, seriously threatening Mexico's biggest mangrove. In order to prevent this, the creation of sub-centers around the city center is proposed as a means to reduce the disordered growth of the city. This sub-centers, which will be located within the current urban area, will serve as magnets for growth. They will also contribute to reduce traffic congestion, as it will contribute to reducing the frequency of trips to and from the city center.

For La Paz, the main priority is to preserve the ecological character of the city, which is today the entry point to one of the world's most important and diverse biospheres: the Sea of Cortes. This city currently has high pollution levels, mostly stemming from 4 obsolete electric plants which use very low grade fuel oil and are the biggest GHG emissors. The problem is exacerbated due to the presence of old, highly polluting vehicles which are imported from the United States. Another priority is the preservation of the water sources; La Paz is situated in a desert and currently has access to two water sources which are menaced by the possibility of saline intrusion. Thus, ESCI determined that the city will have access to only 20 more years of potable water. Finally, La Paz has one of the most important solar radiation levels in the world. This has made the use of solar energy for electricity generation another priority for the sustainability of the city. The use of this alternative energy source would help alleviate the current pollution by reducing the use of the old fuel oil plants and diminish the environmental vulnerability of the Sea of Cortes.

5. Rationale to include target city or metropolitan area.

These 3 intermediate cities have been selected because of the following factors A) National and Global importance; B) Role as regional hubs; C) their local characteristics; and D) all of them have an ESCI Action Plan containing specific actions to be undertaken.

At the national level, these cities have significant strategic importance: La Paz is the entrance to one of the world's most diverse and largest biomarine habitats. The Sea of Cortes is home to unique and rare marine species, some of which are in the brink of extinction. As examples, this area hosts one of the biggest numbers of giant squid, and the gray whale migrates from Alaska every summer to reproduce in its waters. For this reason, enhancing the environmental sustainability of La Paz will also help preserve the local marine flora and fauna. In the case of Xalapa, the city sits on an area that holds the biggest water reserves in Mexico. It is important to mention that the country is facing severe water scarcity scenarios in the future, mostly due to the lack of this resource in its northern region which is home to a fourth of the country's population. Preserving Xalapa's sustainability will also help preserve Mexico's water resources. Additionally, the city is located next to the only fog forest in the country. The growth of Xalapa is severely menacing the existence of this unique area and, according to ESCI's recommendations, preserving this forest is key to preserving the lives of the country's endemic flora and fauna. In the case of Campeche, preserving the Bay area is vital to preserving the biggest mangrove located in the country. This mangrove is home to endemic flora and fauna which will be lost if their habitat is destroyed. The Bay is also the biggest in the country, and it holds a special importance as it helps regulate the Caribbean Sea's temperature and tide levels.

On a regional level, the cities are located in the northern (La Paz), central (Xalapa) and southern (Campeche) regions of Mexico. The three of them are state capitals and serve as economic, political, cultural and social hubs. Helping the sustainability of these cities will create positive externalities in their respective regions, as they will serve as referents of sustainability and this will help promote the adoption of similar policies and actions in other cities. With the strategic locations of the cities, the goal is to cover the entire country thus cementing the role of Mexico as a global champion of environmental sustainability. It is important to mention that, when it comes to promoting sustainable practices, especially in the urban realm, the focus of attention has been the Mexico City region and its surrounding areas. This has deeply affected the adoption of sustainability

practices in other areas of Mexico, as efforts have been centralized in its capital city. Promoting sustainability in regional hubs that are growing, such as these three cities, will help expand the focus and promote the creation of a more integrated sustainable development in Latin America's second biggest country.

At a local level, all of these cities have undergone the first phase of the ESCI methodology and now have an Action Plan which local authorities have committed to use as a guideline to improve sustainability, on this respect, the cities' authorities have received all the support of their respective state governments as well as from the Mexican Federal government. This fact alone makes them unique, as no other cities in Mexico have thus far undergone the aforementioned methodology. Promoting the success of ESCI's recommendation in these cities will heighten the interest in promoting sustainability in other cities of the country and will also help the adoption of environmental, urban and fiscal policies by the Mexican Federal Government. Additionally, sustainable practices in the local realm will have a positive impact on a population of close to1 million inhabitants, which is expected to grow to close to 3.5 million by 2050. Even when these are not the mega cities of the country or even the biggest intermediate Mexican cities, they do represent the universe of the medium sized urban areas, which taken as a whole are home to more than half of the country's population. It is in these cities where efforts to promote environmental and urban sustainability should be focused in order to promote their stable and responsible growth, as the bigger cities present challenges that are more complex and difficult to address and resolve.

This rationale, coupled with the current collaboration between IADB, BANOBRAS and SHCP and the implementation of an ESCI's national program will provide an ideal scenario for the replication of the GEF program in other Mexican cities.

6. Experiences with, and commitment to, integrated urban management by (1) national government, and (2) target city or metropolitan area.

The current administration has recognized the rapid growth the country's urban areas as well as the exposure that Mexico has to climate change related events. In response, the federal government recently created a new ministry (Secretaría de Desarrollo Urbano, Territorial y Urbano - SEDATU), which has as its main mandate the design of a new urban development plan focused on: improving the quality of urban housing, promoting sustainable transportation in urban areas, establishing a new metropolitan and urban model, increasing the resiliency of cities to climate-related events and natural disasters, and promoting regional economic growth. In addition, the Mexican Government has also established a series of funds exclusively focused on attaining the aforementioned goals (Habitat, National program to rescue public spaces, Program to rescue local neighborhoods, among others), and it has actively promoted the coordination between municipalities and the federal authorities on urban issues.

Additionally, BANOBRAS and the Mexican Ministry of Finance (SHCP) and SEDATU are currently working with the Emerging and Sustainable Cities Initiative (ESCI) of the Inter-American Development Bank in the design of Action Plans to improve urban, environmental and fiscal sustainability in intermediate Mexican cities. The Federal Government has played an active role in the design of these plans and in the implementation of their proposals. Thus far, ESCI has been adopted by three intermediate cities (La Paz, Xalapa and Campeche), and it is expected that with the coordination and financing of the Federal Government, an additional 4 intermediate cities will join the program in 2015.

7. Confirmation of commitment to IAP engagement and sustainable cities global platform/network participation from (1) national government, and (2) target city or metropolitan area.

The engagement of the Mexican Government (at the Federal and municipal levels) to IAP and the sustainable cities global platform is confirmed. These two government levels have the necessary decision-making power to promote the implementation of the program and to ensure its success.

8. Consistency with national and local policies and strategies:

- Summary of alignment of proposed priorities with relevant national sustainable development policies and strategies

This proposal is aligned with the National Development Plan and the Environmental Protection Program. Clear alignment regarding green growth is a national priority. This proposal also provides a strategic match to the national Special Climate Change Program through targeting emission reductions in particularly intensive sectors such as transport, reducing GHG emissions per capita, as well as carbon intensity in the economy of the region.
The project components related to reducing vulnerability through conservation, restoration and sustainable natural resource management contribute to meeting the country's commitments under the Convention on Biological Diversity, as the region –in spite of the population density- is home to endemic species, unique terrestrial and aquatic ecosystems and traditional agriculture systems. The project would address vulnerability and adaptation through ecological land-use management and urban development programs with sustainability indicators and criteria.
The program is also aligned with the urban transportation goals of the federal government as established in the Urban Transport Program (Protram), the Water and Wastewater program (Promagua), the solid waste program (Proresol), among others.

- Summarize alignment of proposed priorities with relevant local sustainable development policies and strategies

The vast majority of Mexico's intermediate cities susceptible to join the program have an Action Plan for Climate Change (PACCMUN), and a Sustainable Urban Development Plan. Additionally, a significant number has Municipal Urban Planning Institutes (IMPLAN) and a Land Use Plan (POT).

Implementation of the GEF program in these cities will potentially promote the collaboration with other international initiatives that are focused on promoting environmental and urban sustainability in cities. This also is strengthened by the role that Mexico has played in the promotion of climate change and city-basde initiatives suchas ICLEI (which Mexico's chapter is one of the most important), and C40 (of which Mexico will be host of the 2016 summit). Additionally, other initiatives and binational agencies that are aligned with GEF's and ESCI's efforts can potentially collaborate in the program, such is the case of the Rockefeller Foundation and the German GiZ (which is already working with ESCI in La Paz); and France's AFD (which has partnered with ESCI in Campeche).

A.2. Stakeholders. Will project design include the participation of relevant stakeholders from civil society and indigenous people? (yes X /no☐) If yes, identify key stakeholders and briefly describe how they will be engaged in project design/preparation:

IADB This institution was responsible of designing ESCI's Action Plans for the three cities and will head the efforts to develop the respective prioritized pre investment studies. The IADB will provide technical support through its specialists and expert consultants. IADB will have an active role in managing the knowledge and expertise that will stem from the implementation of the projects. This will be done through the active participation of the Bank's sectorial specialists. This will be done through the active participation of the Bank's sectorial specialists during the project implementation process.
BANOBRAS: This Bank has already been involved in financing both the development of Action Plans in Campeche, and the development of a Sustainable Urban Mobility Plan in La Paz. This institution will continue its involvement with ESCI cities by financing some of the pre investment studies which are necessary to implement the prioritized projects of the Action Plan.
SEDATU: The Federal Ministry of Agricultural, Territorial and Urban Development have been a close partner of the IADB and Banobras throughout the implementation of ESCI's methodology in the 3 cities. Their involvement is being focused in guiding the implementation of the methodology so the recommendations of the Action Plan are in-line with the Federal urban policies.
SHCP: The Federal Ministry of Finance will continue coordinating the efforts to implement ESCI's methodology in Mexico. This entity will also continue leading the activities focused on procuring the financial funding for the development of the ESCI pre investment studies.

Civil Society: An integral part of ESCI{s methodology is the active participation of civil society during both the application of the methodology and the execution of the recommendations outlined in the Action Plan. During this latter phase, the civil monitoring system implemented through ESCI´s methodology will continue being an integral part of the definition and development of all recommended sustainability projects. This monitoring system will continue working closely with local and federal authorities, as well as with the IADB to define and develop actions geared towards ensuring local sustainability and promoting adaptation, mitigation and resilience to climate change related events.

A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

Risk	Mitigation
1) Local administrations have a 3-year period, which can potentially affect the project implementation cycle	A) The alliance with federal authorities (BANOBRAS, SHCP and SEDATU) will decrease this risk. These entities will play a vital role in the negotiation with new authorities and in inviting them to continue the implementation of the program. B) The ESCI monitoring system, which is managed by civil society, will also play a role in requesting to local authorities the continuation of the program.
2) Local technical officials might lack the necessary expertise to participate during the implementation of the projects	A) IADB sectorial specialists will work continuously with local authorities in order to detect and correct the local capacity challenges of municipal officials. B) Organization of workshops and knowledge focused events focusing on specific topics related to GEF implementation projects. These events will feature national and international experts as well as IADB specialists.
3) Lack of coordination between local, state and federal authorities during the implementation of projects	A) IADB specialists will closely monitor the relationship between the three levels of government and will offer advice and counsel in cases where lack of communication is detected.
4) Opposition to the implementation of prioritized sustainability projects by local groups/organizations	A) IADB specialists will work with local and federal authorities in the establishment of communication programs that will explain the benefits of the project. This will be done prior and during the project implementation process. B) Authorities and civil society representatives from other municipalities that have developed similar projects will be invited to the cities in order to explain their experience and the benefits that come with the adoption of the projects.
5) Lack of a strong institutional framework	A) IADB will work with local, state and

within the local municipalities	federal officials in order to establish mechanisms to strengthen local institutional capacity. This might be done by providing advice to local authorities in the definition of specific actions (organization of workshops, design of institutional structures, etc.) geared towards correcting this issue.
6) Climate change related issues (flooding, droughts, etc.) and environmental disasters (earthquake, landslides) might affect project implementation	A) Both the IADB and Mexico's federal government have consolidated programs that provide quick financial and humanitarian responses to natural disasters. These programs have been implemented in the country with high success. These programs will be implemented if necessary.

A.4. Coordination. Outline the coordination with other relevant GEF-financed and other initiatives:

This initiative may coordinate, under a sustainable cities IAP, other proposals submitted to GEF funding currently under review at the national level. Among them, there are initiatives from ITDP, CTS-Embarq, Conservation International, UNEP, and UNDP.
The proposal relies on having involvement from Inter-American Development Bank, academia, civil society, the private sector, and government officials across sectors and levels of authority.

DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 IS THE PROJECT CONSISTENT WITH THE NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSEMENTS UNDER RELEVANT CONVENTIONS? (YES ☐ /NO X). IF YES, WHICH ONES AND HOW: NAPAS, NAPS, ASGM NAPS, MIAS, NBSAPS, NCS, TNAS, NCSAS, NIPS, PRSPS, NPFE, BURS, ETC.:

.

SUSTAINABLE CITES INTEGRATED APPROACH PILOT
Child Project Concept Note

Annex A

PART I: PROJECT INFORMATION

Project Title:	Asunción Green City of the Americas – Pathways to Sustainability
Country:	Paraguay
GEF Agency:	UNDP
Other Executing Partner:	Secretariat of Environment together with Ministry of Public Works and Municipality of Asunción
GEF Focal Areas:	Multi-focal Areas

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES:

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	**Trust Fund**	**(in $)**	
		GEF Project Financing	**Co-financing**
CCM-1 Program 1	GEFTF	2,215,094	230,152,219
BD-1 Program 1	GEFTF	1,357,664	5,453,844
CW-1 Program 2	GEFTF	2,110,500	1,963,384
IAP-Sustainable Cities	GEFTF	1,809,862	2,770,553
Total Project Cost		7,493,120	240,340,000

B. CHILD PROJECT DESCRIPTION SUMMARY

Project Objective: *Improve the quality of life in Asuncion and deliver multiple benefits through the integration of transport and solid waste management and green infrastructure into a framework for a sustainable and resilient city*

Project Component	**Financing Type**	**Project Outcomes**	**(in $)**	
			GEF Project Financing	**Co-financing**
1.Enabling framework for a green sustainable city	TA	Increased capacities for planning, implementing and monitoring sustainable and resilient urban growth delivers multiple health; social; and local, national and global environmental benefits through: • Integrated Planning for a Sustainable City • Sustainable City Finance Strategy • Strengthened Institutional capacities for integrated planning • Public Awareness Programs for Sustainable cities • Disaster risk management planning • Monitoring system for Sustainable City	2,636,692 CC 910,000 BD 393,013 SC 773,679 CH 560,000	2,540,000
2.Sustainable mobility and transport in metropolitan Asuncion,	TA/Inv	Reduced GHG emissions from urban transport resulting from implementation of sustainable transport measures through: • Multi modal transport measures implemented • Traffic management plan implemented • Public transport feeder routing system implemented to complement the MetroBus • Maintenance and upgrade standards implemented for public transport vehicles.	1,549,613 *Inv: 1,000,000* *TA: 549,613* CC 1,199.613 SC 350,000	211,000,000
3. Improved chemicals and waste management system	TA/Inv	Reduced emissions of UPOPs, GHGs, and toxic chemicals through an improved chemicals and waste management system • Pilot projects on solid waste management to reduce the releases of UPOPs and other harmful pollutants • Waste recovery and recycling activities operational	1,700,000 *Inv: 1,200,000* *TA: 500,000* CH 1,450,000 SC 250,000	5,000,000
4.Emplacing and Improving Protected Area Management	TA/Inv	Increased management effectiveness of at least 2 SINASIP PAs increases protection to at least 1% of global populations of 5 endangered bird species during migration periods through: • Bahia de Asuncion management plan approved and under initial implementation including habitat restoration actions. • Minimum management standards in place for green areas key for biodiversity conservation • Financing mechanisms in place in key protected areas.	1,250,000 *Inv: 500,000* *TA: 750,000* BD 900,000 SC 350,000	1,800,000
		Subtotal	7,136,305	220,340,000
		Project Management Cost (PMC)	356,815	20,000,000

Total Project Cost	**7,493,120**	**240,340,000**

C. CO-FINANCING FOR THE PROJECT BY SOURCE, BY TYPE AND BY NAME

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount ($)
Recipient Government	MOPC	Grants	230,700,000
Recipient Government	SEAM	In-kind	175,000
Recipient Government	SEAM	Grants	175,000
Recipient Government	Secretariat for Emergencies	Grants	300,000
Others	Asuncion Municipality and others	In-kind	360,000
Others	Asuncion Municipality and others	Grants	5,450,000
Others	IADB and other multilateral agencies	Grants	2,260,00
Others	Guyra Paraguay Foundation and others	In-kind	310,000
CSO	Guyra Paraguay Foundation and others	Grants	310,000
GEF Agency	UNDP	Grants	300,000
Total Co-financing			240,340,000

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

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in $)		
					GEF Project Financing (a)	Agency Fee (b)	Total (c)=a+b
UNDP	GEFTF	Global Sustainable Cities Incentive (set-aside)	IAP	IAP-Cities	1,809,862	162,888	1,972,7501
UNDP	GEFTF	Paraguay	Climate Change	IAP-Cities	2,215,094	199,358	2,414,452
UNDP	GEFTF	Paraguay	Biodiversity	IAP-Cities	1,357,664	122,190	1,479,8543
UNDP	GEFTF	Paraguay	Chemical and Wastes	IAP-Cities	2,110,500	189,945	2,300,445
Total GEF Resources					**7,493,120**	**674,381**	**8,167,501**

PART II: PROJECT JUSTIFICATION

A.1 PROJECT DESCRIPTION. BRIEFLY DESCRIBE

Proposed city or metropolitan area for IAP.

Gran Asuncion

Population of target city or metropolitan area:

Current population	Projected population in 2050
2,300,000[1] /3,000,000 [2]	4,005,345/5,600,000

Brief description of context and baseline scenario.

1. As Asuncion has evolved into a metropolitan region it has faced problems experienced by many Latin American cities with similar growth patterns. Its development has been unstructured rather than planned, and investment in key infrastructure and services has lagged. As a result, Gran Asuncion suffers from several structural inefficiencies as well as large discrepancies in the services received by the population, depending on location and income. Its location on the shores of the Paraguay River increases its vulnerability to cyclical floods, posing additional challenges to the city's infrastructure and population. On the other hand, it has an extraordinarily high number of green areas. These provide key ecosystem services such as buffering floods and air pollution and also conserve an assemblage of species with a global significance very unusual for an urban setting.

[1] Please refer to Table 2: The World's Largest Cities in 2050, which can be found in the background paper of the August 2014 Sustainable Cities IAP consultative meeting (http://www.thegef.org/gef/CC/sustainable-cities).

[2] As per IADBs Emerging and Sustainable Cities Initiative – Asuncion Action Plan estimate for the Asuncion Metropolitan Region, Oct, 2014

2. In the short term, three main priority issues need to be addressed to move along the city towards a more sustainable city path; transport; solid waste and conservation of critical ecosystem services. In transport, the rapid, unplanned urban expansion has resulted in an unsustainable transportation system that has contributed to the city´s increased congestion problem rather than providing a solution. Problems include poor public transportation services, increased private vehicle ownership, and poor urban infrastructure. Investment in waste management has also lagged, resulting in 30-40% of waste being disposed of in illegal dump sites, with the rest being managed in two semi regulated open air waste dumps. Furthermore, the city's urban biodiversity is being eroded through habitat conversion and degradation, largely due to expansion of the transport system to accommodate daily flux of people from surrounding cities and the increased production of solid and liquid waste. The consequences of these trends are far fetching, including a degraded local environment, poor quality of life, in particular for vulnerable populations, and the contribution to global environmental pollution.

3. The Government of Paraguay and the Municipalities of Asunción and Gran Asuncion (AGA) are undertaking a number of activities to improve the public services offered by these cities. Many of these actions are targeted investments designed to reverse negative trends and shift the city's development to a more sustainable path. In transport, the electric-run Bus Rapid Transit (BRT) system and diesel bus modernization program will transform public transportation services. In waste management, there are plans to close partially regulated and illegal dumpsites (particularly those at risk of flooding), construct a sanitary landfill, and implement measures to recycle waste streams. Regarding the management of urban green infrastructure, work will continue through different institutions to manage Asuncion's extraordinarily number of green areas and water bodies (1,956 parks, plazas and swamps covering 3,565 ha and 28% of municipality) and has recently led to the declaration of Asuncion as the "Green Capital of Ibero-america" by the Ibero-american Union of Municipalities based on a sound Technical and Scientific Justification published late 2014 under the name "Green Book of Asuncion".

4. These initiatives address pervasive problems of AGA regarding transport, biodiversity, conservation and solid waste management but principally from a sectoral standpoint. However, there is an understanding that the city requires a broader, more integrated vision for the medium and long term, as reflected by the city`s engagement in the regional "Emerging and Sustainable Cities Initiative" led by Inter-American Development Bank's (IADB) and its resulting Action Plan for AGA as described in section 12.

Brief description of priorities for IAP support.

5. IAP support is requested to establish fully integrated planning and management practices in AGA, optimizing the contribution of planned sectoral investments to both local and global benefits and catalyzing a shift towards a more sustainable and resilient city. While the project is designed to respond to the specific conditions of Asuncion, this approach can be scaled up across several cities with similar conditions in Latin America and across the world. The project design is aligned with the 2014 Guidance provided by STAP for sustainable cities. The project also identifies and exploits synergies between GEF focal areas at the city level, thus delivering concrete on-the-ground cross sectoral benefits. While UNDP has worked extensively in urban settings,including multi-modal transport systems; waste management and at municipal and national level for protected area management, in the context of GEF projects, this is one of the first proposals that seeks to integrate multiple focal areas in a specific urban area. Furthermore the Global Support Platform of the IAP offers a unique opportunity to link Asunción with a global sustainable cities network that will allow for the sharing of best practices.

6. Despite the problems outlined in paragraph 3, Gran Asunción is in a development phase where several negative trends can be contained and reverted. The need for change is widely recognized at the central and local government levels, and significant investment is projected for projects in transport, waste management, and water treatment. These baseline investment projects are an important foundation for the GEF intervention, as they are clearly designed to reverse negative trends and shift the city's development on a more sustainable path. However, coping with urban growth and responding to the needs for public services in Gran Asunción is challenging and demanding. The baseline initiatives demonstrate that there is a strong effort to respond to the main issues through a portfolio of public investment projects and targeted projects. The aggregation of these initiatives results in a set of actions that are likely to create positive impacts, nonetheless, since the activities are taken independently by different institutions seeking sector-based solutions, this results in inefficiencies, superposition of actions, and missed opportunities for inter-sectorial collaboration and as a result they are unlikely to have a full transformative impact on the city. An integrated approach to planning and allocating resource is needed to define overall objectives, identify synergies and exploit the cross sectorial benefits of integrated actions. On the other hand, there is a unique opportunity to integrate these activities and optimize multiple benefits both locally and globally. The provision of targeted technical assistance and targeted investment is needed to support this integration effort in Asuncion, optimizing the individual activities' contribution to both local and global benefits and catalyzing a shift towards a more sustainable and resilient city.

7. The intervention will take action at two levels. The first level will focus on the medium and long term, and will have a broader geographical and thematic scope. It will develop the enabling framework for a sustainable city, integrating sectorial planning and defining short, medium and long term goals, developing capacities for their implementation, and defining long term

funding needs, based on the Action Plan for AGA completed in late 2014. This includes the establishment of sustainable finance mechanisms, most notably a transport NAMA for Asuncion and a Payment for Environmental Services scheme for urban green areas. Likewise, it develops detailed integrated master plans, and strengthens institutional capacities for their implementation, as well as MRV capacities to track progress. For this a monitoring framework will be set up, utilizing the IAP global support framework tools, metrics and harmonized indicators, to assess performance and to guide and adapt plans over time. Disaster risk management is also included as it is an essential aspect to strengthen the city's resilience. This level will focus on the broader Gran Asuncion and work over time scales and thematic issues that go beyond the current priority actions as identified in the Action Plan for AGA. It will complement the work conducted by the Emerging and Sustainable Cities Initiative, building upon the Action Plan currently under development. The goal of this component is to promote a more coherent and integrated vision for the future of Asuncion, in which common goals govern policy, planning and investment decisions. In this regard this level of the project is one of the most innovative aspects of the project and is specifically designed to promote project sustainability since it is focused on the medium and long term.

8. The second level will take on the ground action to address the most critical problems within the city of Asuncion and a few key surrounding municipalities, optimizing the baseline programmes and delivering solutions to global environment problems in a cost effective way. This includes improving the public transport and non-motorized urban mobility network, as well as the management of municipal and hazardous waste to reduce GHG and UPOPs emissions from uncontrolled burning of waste; and improving the management of green areas to conserve global biodiversity values and provide ecosystem services that contribute to GHG reduction and health related benefits. While these interventions will be at the sector level, their interconnection at city level offers substantial opportunities to identify and implement measures with cross-sectorial benefits and provide important inputs and guidance to the broader framework for a sustainable and resilient city.

9. The project will deliver multiple global environmental benefits. In terms of Climate Change Mitigation, a preliminary estimation of the GHG benefits resulting from the implementation of the first BRT line and 100 km of bicycle paths results in a reduction of approximately 1.2 million tons of CO2 over a 20 year lifespan, using the GEF project based methodology for calculating GHG emission reductions from transport projects. This does not include the potential benefits of implementing public vehicle minimum standards and replacement program, or the impacts of a city-wide traffic management plan that would also reduce the amount of short lived climate forcers such as black carbon. Furthermore it does not include potential co-benefits that can be achieved through the implementation of the biodiversity and waste management components of the project. A full estimation of direct and indirect emission reduction benefits will be presented at the time of CEO Endorsement.

10. In terms of Chemicals and Waste (CW) management, through the improved management of municipal and hazardous wastes the project is expected to reduce UPOPs releases by approximately 10 % as compared to the baseline , which will be established in detail during the project's PPG phase. These UPOPs release reductions will be the result of the reduced open burning of wastes through closure and clean-up of dumpsites, as well as the introduction of BAT/BEP for the management, recycling and disposal of particular waste streams of concern (e.g. tires and e-waste). The CW project activities will also have co-benefits such as reduced GHGs emissions from improved SWM, reduced open burning and segregation of organic from non-organic waste streams as well as reduced releases of harmful and toxic chemical substances (e.g. Mercury, Lead, etc.). The level of these co-benefits will be determined in more detail during the PPG phase.

11. In terms of biodiversity, the improved management and financing of the SINASIP protected areas within AGA and the restoration of key habitats will increase protection to least 1% of global populations of 5 endangered bird species during migration periods. The definition of specific biodiversity conservation objectives and minimum management standards for Asuncion's other large green areas and the establishment of green corridors linking these, will facilitate the mobility of species from one area to another. This will increase genetic exchange, seed dispersal, pollination of flowers, and gene flow between populations increasing the genetic variability and sustainability of a unique guild of species from 3 globally significant ecoregions (Atlantic Forest; Chaco and Cerrado). This assemblage of species is extraordinary for an urban setting and matches the diversity of some SINASIP national protected areas in more remote and wilderness areas of the country.

Rationale to include target city or metropolitan area.

12. On a national level, Gran Asuncion is the largest metropolitan area in Paraguay and concentrates the vast majority of the country's urban population and economic activity. Given the country's relatively low level of urbanization (56%) and current migratory trends, the relative importance of Asuncion is likely to increase in the coming decade. There is a clear understanding amongst stakeholders that Asuncion is at a critical juncture of its development and that participation in the IAP can play an important role in its long term sustainability as well as provide lessons for other growing cities in the country with similar vulnerabilities.

13. On a regional scale, Asuncion is highly representative of urban growth trends in Latin America and the Caribbean. The region hosts 59 metropolitan areas with populations between 1-5 million, and with the region's urbanization level expected to

reach 90% by 2050, all of these cities will experience accelerated growth patterns and face similar sustainability issues. Hence, the Asuncion pilot project will be a valuable experience that can be replicated across the region.

14. Asuncion has planned a number of important investments in infrastructure and urban improvements that will be implemented over the next four years. The IAP program will build upon these initiatives and is thus a cost efficient intervention to allow national investments to contribute to an integrated vision of a sustainable city rather than only respond to sectoral needs. This ensures that the project will deliver tangible results within its lifetime and that impacts will be measured within the timeframe of the GEF6 IAP pilot.

15. Due to the above mentioned investments and its wealth of natural resources, Asuncion offers a unique opportunity to link green infrastructure, transport, waste management and biodiversity conservation, generating multiple quantifiable global environmental benefits in Climate Change, Biodiversity, and Chemicals and Waste within the city boundaries. The project will also have multiple local benefits, including the improvement of local health and increased resilience to natural disasters.

16. A large number of public, private, and civil society stakeholders are highly engaged in sustainable urban issues and have fully supported Asuncion's candidacy to the GEF IAP. Thus, there is a favorable political scenario and high level of local engagement to support the implementation if this project.

Experiences with, and commitment to, integrated urban management: (national government; target city/metropolitan area)

17. Asuncion has joined the IADB's "Emerging and Sustainable Cities Initiative", which supports the identification of long-term objectives and promotes integrated planning; bringing together the numerous institutions and stakeholders engaged in Asuncion's development; this initiative resulted in an Action Plan for AGA in late 2014 and requires implementation support to be sustained, although it already provides an important platform for long term sustainability. The project will build upon this platform to support implementation od some components of the Action Plan and create a long term sustainable planning framework.

18. The Municipality of Asuncion (MA) has created a consortium for presenting and gaining recognition as the "Green Capital of Ibero-america by the Ibero-american Union of Municipalities. As a first step the Municipality has set out a policy regarding the improvement of its streams, parks, air quality, noise and a strategy to better handle its solid waste. Biodiversity is included as one of its 8 strategic policies. A recent campaign "Asunción - Te quiero verde" has been launched that includes the joint work with Guyra in a Municipal ecological park in Viñas Cue. The overall policy also puts forth the idea of connectivity between the existing green areas through corridors. In parallel MOPC is proposing a green belt interlinked with the design of the transport system and with the Municipal Parque Guasu as a major hub. Both these initiatives provide a unique opportunity to increase the long term sustainability of existing large green areas and the continued provision of their ecosystem services.

19. Additionally, the MA has recently conformed the Council for Solid Waste Management in the City of Asunción made up by representatives from the Ministry of Health, the Environment Secretariat, the Public Ministry, the Police Department, the Ministry of Public Works and Communications, amongst other important public institutions that will coordinate efforts on waste management.

20. At both national and municipal level the country has committed to and secured investments to build the keystones of this integration notably the transport and waste disposal loans. There is clear interested in, and aspiration to, integration. Being part of the IAP will provide the additional support to bring this integration to fruition and will provide cost-effective and replicable lessons.

Confirmation of commitment to IAP engagement and sustainable cities global platform/network participation from (1) national government, and (2) target city or metropolitan area.

21. There is a full commitment to the IAP by a large number of public and private stakeholders in Paraguay. The institutions leading the project (Secretariat of the Environment, Ministry of Public Works, and Municipality of Asuncion) are highly enthusiastic about the possibility of forming part of the global network of sustainable cities that will be generated by the IAP. The outline of the proposed components of the project have been discussed and validated with these different stakeholders and are considered to be highly relevant to the current urban context.

Consistency with national and local policies and strategies:

22. *Summary of alignment of proposed priorities with relevant national sustainable development policies and strategies:* The project is consistent with the National Environmental Policy (2005) and will contribute to the implementation of the Central Government's National Development Plan 2014-2030 which promotes, as a general strategy, a urban development that results in a better quality of life and optimizes resources and services based on adequate zoning and territorial articulation between public and

private sectors. The project is also consistent with several sectorial plans that includes the Strategic Framework of the Municipality of Asunción's Environmental Policy, the Master Plan for Asunción's Historic Center, Transport Master Plan and the "Franja Costera's Development Plan." It will build upon the Asuncion and Metropolitan Area Waste Management Plan, the Master Plan for Rain Water and Flood Control Plan, and the Strategic Master Plan for Solid Waste Management in the Asuncion and Metropolitan Area completed late 2014. It will also enable and/or contribute to the enforcement at urban level of several environmental laws such as the Environmental Service Law, the Protected Areas Law, the Wildlife Law, the Law on the Integral Management of Solid Waste and the law on Environmental Crimes, among others.

23. *Summarized alignment of proposed priorities with relevant local sustainable development policies and strategies:* The proposed initiative is fully aligned with the city's priorities as expressed in the "Emerging and Sustainable Cities Initiative" stakeholder dialogues and incipient Action Plan. Furthermore, the project will significantly contribute to Asuncion's promotion of itself as the Green Capital of Ibero-america.

A.2 KEY STAKEHOLDERS AND DESCRIPTION OF HOW THEY WILL BE ENGAGED IN PROJECT DESIGN/PREPARATION

24. Considering the variety of issues that the project addresses, an inter-institutional and multi-sectorial Committee shall be formalized at early stages of project design so as to ensure adequate coordination of activities and timely decision making at the highest institutional levels as per each party´s specific expertise, area of work, and co-finance. At the very least, this Committee shall be made up by the highest representatives from the Secretariat of the Environment, MOPC, the Municipality of Asunción, UNDP and IADB, although other key stakeholders such as, SEN, STP and representatives from CSO may also be invited to join the board later on. In terms of the project implementation a Project Board shall be formed with similar composition and will be in charge of approving Annual Work Plans, review strategic assessments and in general supervise the project's implementation.

25. IADB will be an implementing partner of the project and will be a key stakeholder in decision making bodies of the project, including the Project Board. The project builds upon several ongoing and planned initiatives including the Sustainable and Emerging Cities Initiative and the resulting Action Plan for AGA, loans for the Bahia de Asunción restoration through modernization of the sewage system and a preliminary treatment plant in the Parque Solidaridad area, the Metrobus & downtown revitalization and housing improvement of "chacarita alta" neighborhood (within Asunción).

26. *Public Sector Stakeholders leading the design*

- Secretariat of the Environment - SEAM - in charge of environmental policies and regulating environmental matters; presiding the National Environmental Council; hosting GEF focal points and overseeing the planning and monitoring of GEF funded projects; managing the ER Bahía de Asunción and Banco San Miguel with Asuncion Municipality.
- Ministry of Public Works and Communications- MOPC –in charge of policies and regulations on transport, public works, communications and energy, amongst others. Some public parks within the city of Asunción are under its ownership.
- National Secretariat of Emergencies- SEN - in charge of policies and regulations on risk management and attending emergency situations such as current flooding within the Asuncion area.
- Ministry of Public Health and Social Welfare- MSPBS- in charge of public health care and policies and regulations on health issues including dengue (poor waste disposal related sickness).
- Municipality of Asunción- MA- in charge of the provision of public services to Asuncion`s citizens including municipal traffic control, waste recollection and management and the maintenance of green public areas and some parks including the Bahia de Asuncion jointly with SEAM. The MA led Green Capital of Ibero-America campaign.

27. *NGOs & CSO that will be consulted and participate in project design* During the project design civil society will be invited to participate in preparatory activities to define the scope of specific project components such as design of green corridors, approaches to solid waste management etc. and also to provide input to the overall project design. During these meetings, workshops and consultations the role of civil society in project implementation will also be further detailed. Civil society in this case will be mainly represented through NGOs and CSOs that are involved in related issues in Gran Asuncion.

- The Paraguayan Sustainable Cities Network that supports information and awareness campaigns for civil society, enterprises and municipal governments to transform Paraguayan cities (including Asunción) in fair, democratic and sustainable cities. This network is a member of the Latin-American network for fair, democratic and sustainable cities.
- Altervida that supports citizen participation in local government and has biodiversity, protected areas and health expertise.
- Guyra Paraguay with expertise on protected area management, environmental policies and awareness raising, biodiversity monitoring. It is part of the Asunción "Green Capital of Ibero-America" alliance and has an agreement with the City for supporting management of the Banco San Miguel and Bahía de Asunción and is developing a Viñas cue biocenter.
- Fundación Milenio that is engaged in environmental protection and has members from businessmen/women and experts engaged in CSR actions. It promoted the "Eco-Bahia de Asunción" project.
- Sobrevivencia that engages in citizenship and socio-environmental public awareness, and conservation, restoration, and sustainable management of natural and cultural assets.

- Geam involved in potable water and sanitation; land use planning, waste management.
- Centre for Information and Resources for Development – CIRD- that strengthens civil society, youth development, and dialogue and knowledge management between civil society and public sectors.
- Neighborhood Commissions working to improve the quality of life of a specific sector or neighborhood through dialogue, information and participation in decision making processes related to their environment. (neighborhood commissions)

A.3 ANALYSIS OF RISKS, INCLUDING CLIMATE CHANGE, POTENTIAL SOCIAL AND ENVIRONMENTAL AND, MITIGATION MEASURES THAT ADDRESS THESE RISKS TO BE FURTHER DEVELOPED DURING THE PROJECT DESIGN

Risk	Rating	Mitigation Measures
Political Changes in public sector representatives (at technical and political level) affect project design and implementation.	Moderate	A strong execution unit will be put in place to ensure adequate coordination amongst all institutions and stakeholders, with clearly defined roles and responsibilities and decision-making channels. Furthermore, the project will develop institutional mechanisms for coordinated planning and budgeting across sectors and involving multiple stakeholders. This framework is for the medium and long term and is expected to withstand changes in individuals, as well as political shifts.
Technical Construction of the Metrobus project is delayed. Poor integration of Metrobus reduces the impact of bicycle lanes, traffic lights or urban zoning laws	Moderate	During PPG design phase, it shall be ensured that representatives from Municipality of Asuncion, MOPC and IADB in charge of Metrobus design/construction/financing are the same as those taking part in discussions regarding GEF-funded complementary works so as to efficiently coordinate implementation. In this context, a delay in the implementation of MetroBus would not have a highly negative impact; it would only delay the integration of the complementary works to the main infrastructure.
Social/environmental Consensus is not reached regarding location of waste disposal sites and recycling facilities.	Moderate	The SEAM and the Municipality of Asuncion have been working with key stakeholders on the different aspects of waste management and are planning to launch the Solid Waste Management Plan for Asuncion and Metropolitan Area by the end of 2014. With the support of GEF funding, consensus-building mechanisms will be strengthened, as well as the institutional capacities of both SEAM and the Municipality so as to ensure adequate empowerment and leadership in waste management issues.
Social Informal workers that currently benefit from picking and recycling waste in a semi-formal manner at Cateura are opposed to new recycling programme and resettlement.	Moderate	The GEF supported project would support several consensus building exercises between the private and public sector as well as waste Co-ops, NGOs and CBOs to determine and agree upon the approaches of new waste management interventions which will ensure to safeguard livelihoods, legitimizes informal workers, improves their working conditions and result in financial gains. Experiences from other countries have shown that improved waste separation and classification for recycling purposes can increase substantially the incomes of the waste pickers and transforms their work to a more formal setting.

A.4 COORDINATION WITH RELEVANT GEF-FINANCED AND OTHER INITIATIVES.

28. The project will coordinate with the UNDP/GEF Cross Cutting "Capacity development for improved decision-making for the global environment" project led by the Secretariat of the Environment to be launched in 2015 second quarter. It will also coordinate with the UNDP/GEF National Biodiversity Strategy and Action Plan project and the Third National Communication on Climate Change project led by the Secretariat of the Environment. UNDP's role as the GEF Implementing Agency for all three initiatives will facilitate this coordination. The National Secretariat for Emergencies has launched in 2013, also with UNDP support, the Resilient Cities Campaign which is aimed at increasing disaster risk reduction & recovery. Within this initiative, urban zoning is a key element that serves many purposes related to urban sustainability and will be closely coordinated with the proposed project.

29. Amongst the non-GEF financed ongoing initiatives, an important programme is the "Emerging and Sustainable Cities Initiative" supported by IADB and its resulting Action Plan for AGA, in conjunction with municipal authorities. As described in the baseline section of this document,the Action Plan for AGA and this initiative are fully integrated into the project design,

specifically in Component 1, and IADB will be an implementing partner of the project so as to ensure coordination between IADB and UNDP, as well as amongst national and local stakeholders.

30. Also, the Ministry of Public Works and Communications (MOPC) is the main agency that spearheads most transport projects in the Gran Asuncion. The largest project under development is the Electric-run Bus Rapid Transit (BRT) system for the Gran Asuncion, known locally as MetroBus, which will be a first in Paraguay. This is being financed through a public-private partnership at a cost of around US$ 312 million - around US$ 125 million coming from an IADB loan. The MOPC has also started a project to modernize the diesel run bus fleet in Asuncion by leasing buses to owners whose vehicles are at least 15 years old. The modernization plan also intends to adjust the price of the bus fare and introduce the electronic ticketing for the bus system. This measure will clearly improve the quality of the service and reduce energy expenses, but more importantly it would improve the quality of the air in Asuncion and reduce GHG emissions.

B. 1 IS THE PROJECT CONSISTENT WITH THE NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSEMENTS UNDER RELEVANT CONVENTIONS? YES X. IF YES, WHICH ONES AND HOW: NAPAS, NAPS, ASGM NAPS, MIAS, NBSAPS, NCS, TNAS, NCSAS, NIPS, PRSPS, NPFE, BURS, ETC.

31. There are strong links with the TNC. In effect, the 2012 SNC had identified priority mitigation actions such as the increase in renewable energy use, the improvement in energy efficiency and the energy system –specially in the transport sector- and the optimization of the transport system in Asunción and its Metropolitan area in order to decrease GHG. In the TNC, these priority actions will be further developed, specifically through the following components: 1) GHG inventory for the energy and waste sectors; 2) the BUR section on the analysis of mitigation actions; 3) the National Adaptation Plan, which will include an vulnerability análisis in the hydric resources and public health as well as work on issues such as adaptation to extreme events, monitoring, research, technological solutions and data management in general.

27. It is also consistent with the National Biodiversity Strategy and Action Plan (NBSAP). The most recent NBSAP for Paraguay was completed in 2003 and although its action plan included the "Urban & Rural Development" area and specific objectives on zoning regulations and transport, it did not include key elements of the CBD Strategic Plan's Aichi Targets such as Targets 3, 11,12 and 14 amongst others. The NBSAP is currently being updated under SEAM's leadership to close these gaps. It is will contribute to the achievement of several national targets associated with these key Aichi targets: For target 3, that relates to incentives for the conservation and sustainable use of biodiversity, Asuncion's city authorities have key mandates and this project will contribute to increasing their role in strategies such as promoting and attracting green investors, and mainstreaming of "payment for ecosystems services" mechanisms. For target 11 that relate to the per cent area of terrestrial and inland water under conservation, the proposed parks, corridors, and municipal parks (public and private) will contribute to reaching national targets. For target 12: related to the prevention of extinction of threatened species, awareness raising campaigns managed by city regional authorities along with NGOs and museums will raise critical attention and funds and provide technical assistance for the conservation of threatened species of global significance Eg. the Buff-breasted Sandpiper (*Tryngites subruficolis*) of which at least 3% of the global population of this species uses Bahia habitat for roosting and feeding during migration; the globally endangered cappuccino gray crown (*Sporophila cinnamomea*) the near threatened Dinelli's doradido (*Pseudocolopteryx dinelliana*) amongst others.

32. The project is also in line with the NIP for the Stockholm Convention (signed by Paraguay in May, 2001 and ratified by the Law 2.333 of January 6th, 2004). The Paraguay NIP, 2007, assesses 12 initial POPs and Dioxins and Furans releases with the baseline year of 2005. It concludes that inappropriate management and activities associated to uncontrolled open air burning processes and waste incineration were generating a total of 257 g EQT/year of emissions and releases of U-POPs (123 g EQT/year and 67 g EQT/year respectively). Furthermore it identifies as a national priority the reduction of releases of Dioxins and Furans from out-of-control burning of waste in open air and incineration of obsolete equipment for hospital wastes as it not only represent a high emission of POPs to the environment but also affects mainly the people live in urban areas. The project is directly in line with these priorities as it will incorporate Pilot projects on solid waste management to reduce the releases of UPOPs and other harmful pollutants

33. The project addresses some of the key deficiences noted in the 2012 national capacity self assessment notably the need to strengthen municipal planning and monitoring processes; coordination across sectors improving information between different sectors, to avoid duplication of work and encourage synergies; and foster inter and intra-institutional agreements for cooperation between government and universities, NGOs and other sectors of civil society. In this respect it will coordinate with the Capacity development for improved decision-making for the global environment that will address the improvement in methodologies and standards for data production and knowledge so as to develop and implement land use planning frameworks that are more resilient and that integrate criteria and indicators for complying with the Rio Conventions.

Annex A

NAME OF PROGRAM:
SUSTAINABLE CITES INTEGRATED APPROACH PILOT
Child Project Concept Note

PART I: PROJECT INFORMATION[1]

Project Title:	National Platform for Sustainable Cities and Climate Change in Peru: Lima Metropolitan Area Pilot
Country(ies):	Peru
GEF Agency(ies):	IADB (select) (select)
Other Executing Partner(s):	Ministry of Environment of Peru
GEF Focal Area(s):	Multi-focal Areas

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]:

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	**Trust Fund**	**(in $)**	
		GEF Project Financing	**Co-financing**
(select) (select) IAP-Sustainable Cities	GEFTF	3,211,009	130,000,000
(select) CCM-2 Program 3 (select)	GEFTF	2,752,294	1,800,000
BD-1 Program 1 (select) (select)	GEFTF	458,716	1,500,000
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
Total Project Cost		6,422,019	133,300,000

B. CHILD PROJECT DESCRIPTION SUMMARY

Project Objective: Establish and implement a National Plataform of Sustainable Cities and Climate Change in Peru, with focus on the metropolitan area of Lima.				
Project Components	**Financing Type[3]**	**Project Outcomes**	**(in $)**	
			GEF Project Financing	**Co-financing**
1.Enhancing integrated sustainable urban planning and management	TA	- Increased scope and depth of integrated urban sustainability management policies and processes, including institutionalization within the local governance structure. - National polices and strategies create more favorable conditions for local action to address global and local environmental concerns	2,000,000	2,800,000
2. Monitoring local and globally relevant performance frameworks for improved performance	TA	- Core performance framework for local and global environmental benefits implemented at the local level - Improved local and global environmental sustainability	1,037,240	1,500,000

[1] This Concept Note is intended to convey whatever preliminary information exists at this stage on a child project and that is indicative of how it will contribute to the overall Program.

[2] When completing Table A, refer to the Program Results Framework, which is already mapped to the relevant *Focal Area Results Framework* in the *GEF-6 Programming Directions*.

[3] Financing type can be either investment or technical assistance.

3. Catalyzing investments for sustainable cities	Inv	- Increase in investment flows to sustainable cities initiatives from national governments, sub-national governments, development partners, and the private sector - Increase in the number of innovative financing mechanisms and approaches - Enhanced ability at the local level to leverage long-term financing for sustainability initiatives	3,078,969	129,000,000
4. Enhancing partnerships for sustainable cities at local, national, and global levels (through knowledge management, capacity building, global coordination)	TA	- Contribution of IAP to global discourse on sustainable urban management enhanced (including within the context of multilateral environmental conventions)	0	0
	(select)			
	(select)			
	(select)			
	(select)			
	(select)			
	(select)			
		Subtotal	6,116,209	133,300,000
		Project Management Cost (PMC)[4] (select)	305,810	0
		Total Project Cost	6,422,019	133,300,000

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust

C. CO-FINANCING FOR THE PROJECT BY SOURCE, BY TYPE AND BY NAME

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount ($)
GEF Agency	Inter-American Development Bank	Grants	150,000
GEF Agency	Inter-American Development Bank	Loans	130,000,000
Donor Agency	NAMA Facility	Grants	1,000,000
Donor Agency	NEFCO	Grants	500,000
Recipient Government	Municipality of Lima	In-kind	1,500,000
Donor Agency	IFC	Grants	150,000
Total Co-financing			133,300,000

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

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in $)		
					GEF Project Financing (a)	Agency Fee (b)[b)]	Total (c)=a+b
IADB	GEFTF	Global Sustainable Cities Incentive (set-aside) ☐	Multi-focal Areas	IAP-Cities	3,211,009	288,991	3,500,000

[4] For GEF Project Financing up to $2 million, PMC could be up to10% of the subtotal; above $2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

IADB	GEFTF	Peru ☐	Climate Change	IAP-Cities	2,752,294	247,706	3,000,000
IADB	GEFTF	Peru ☐	Biodiversity	IAP-Cities	458,716	41,284	500,000
(select)	(select)	☐	(select)	(select as applicable)			0
(select)	(select)	☐	(select)	(select as applicable)			0
(select)	(select)	Project Management cost [c)]	(select)	(select as applicable)			0
Total GEF Resources					6,422,019	577,981	7,000,000

a) No need to fill this table if it is a single Agency, single Trust Fund, single focal area and single country project.
b) Refer to the Fee Policy for GEF Partner Agencies.
c) If Multi-Trust Fund project :PMC in this table should be the total amount; enter trust fund PMC breakdown here ( )

PART II: PROJECT JUSTIFICATION

PROJECT OVERVIEW

A.1. PROJECT DESCRIPTION. BRIEFLY DESCRIBE:

1. Proposed city or metropolitan area for IAP.
Lima Metropolitan Area

2. Population of target cities or metropolitan areas:

Current population	Projected population in 2050[5]
8,693,387	12,775,694

3. Brief description of context and baseline scenario.
Climate change is currently showing in Peru by alterations in patterns of rain, sea level rise, the melting of the glaciers, heat and cold waves, and a stronger "El Niño" phenomenon, among others. All these processes manifest themselves in one way or another in the territory, generating a steady increase in the number of vulnerable areas either to floods, storm surge, tsunamis, marine erosion, frost, rain, and drought. The various uses and improper occupation of the territory, create physical conditions of high vulnerability to disasters, circumstances that facilitate the increase in the levels of vulnerability, in particular in urban areas.

During the period from 1970-2009, Peru was impacted by 105 disasters that caused more than 74,000 deaths and affected 4.2 million Peruvians, causing considerable damage. The main events were the "El Niño" phenomenon of 1982-83 and 1997-98, which caused losses of $ 6,800 million dollars; and the occurrence of earthquakes that between 1970-2009 caused losses by approximately $29,000 million. The earthquake of August 15, 2007 left around $250 million dollars in losses. Also in recent years, the higher occurrence of floods, rains, winds, earthquakes, and marine erosion resulted in a spike in the number of emergencies. In 2011 alone there were 4,811 emergencies (of varying severities) registered in the country.

In addition to this scenario of increase of ocurrence of natural phenomenons, 75% of the inhabitants of the region live in cities. and 60 of the 77 largest cities are coastal cities. In Peru, most of the population is located in the coastal cities, the principal city being Lima with a population that is estimated at 8,693,387 inhabitants. Lima is also the second biggest city on the planet that is located in the desert, with flowas from the Rimac River that are insufficient to provide for its growth.

Several initiatives are being implemented to respond to these pressing issues, sucha as the National Programme on Sustainable Cities and Climate Change; the Nationally Appropriate Mitigation Actions (NAMA) on Energy generation and energy end-use sectors in Peru; the solid waste management NAMA; the NAMA for sustainable construction; the sustainable urban transport NAMA; and the National Adaptation Plan.

These programmes respond to the different issues under a sectoral perspective, and tackles the problems in an isolated approach. There is a need for an integrated approach to which the National Plataform for Sustainable Cities and Climate Change in Peru seek to respond with a first pilot in Lima.

4. Brief description of priorities for IAP support.

[5] Please refer to Table 2: The World's Largest Cities in 2050, which can be found in the background paper of the August 2014 Sustainable Cities IAP consultative meeting (http://www.thegef.org/gef/CC/sustainable-cities).

The IAP will support the implementation of a coordinated and integrated approach to put the Metropolitan City of Lima on a track to a low carbon and climate resilient sustainable growth, through the establishment and implementation of a City Action Platform. The proposed approach go further than the city limits and includes a territorial vision to ensure that the resources, goods and services that requires the city, are provided through a sustainable management of the ecosystems.

The City Action Platform will articulate current baseline initiatives and will strenghten local governance and management. The platform will screen the city of Lima and provide recommendation of interventions grouped into 6 components:

1. City planning with a territorial approach: development of planning instruments for city sustainability, which include disaster risk and vulnerability minimization considerations. This component will finance an integrated, comprehensive sustainability plan that will set the priorities for investment and guide the specific actions to be financed in each of the following 5 components.
2. Institutional strengthening of the Lima Metropolitan Municipality, including the creation of the National Program for Sustainable Cities - the platform for subsequent replication in other cities in Peru.
3. GHG Emission Reductions, including development of the baseline GHG emissions inventory for the transport, construction and industry sectors, as well as development of policy instruments for emission reductions.
4. Water Infrastructure and Water Resources: actions to improve environmental quality of water streams, wastewater reuse, and wastewater treatment plants.
5. Environmental Quality, including land and soil: solid waste management, food security.
6. Urban Biodiversity, including the improvement in protected natural areas management in the metropolitan area of Lima, parks and green areas, and public space.

A set of indicators for city sustainability, developed by the Sustainable Cities IAP Global Platform and adapted for the local context, will be used to monitor the progress of the program.

The GHG emission reductions to be delivered by the program will depend on the specific actions to be financed - which in turn will be guided by the integrated sustainability plan to be financed under component 1. An IDB Study (The Economics of Low Carbon, Climate Resilient Cities: Lima-Callao, Peru, 2014) estimated GHG emission reductions for a battery of measures in the Water, Waste, Residential, Commercial, Industrial and Transport sectors for the horizon 2015-2030. The study found out that with cost effective investments, the Lima-Callao metropolitan area would reduce its carbon emissions in 19% by 2030, compared to the business as usual trends. With baseline figures from this study, and by selecting a reduced set of measures in the sectors to be financed under this operation, the potential GHG emission reductions were estimated in 2.26 MtCO2e. This rough estimated figure will be refined further during the project preparation phase.

Financial Mechanisms will be assessed, designed and implemented to catalize investments in the 6 key areas previously described. Such mechanisms include the development of Municipal Green Bonds, public private partnership, environmental offsets, fiscal incentives, results based budgeting (for the public sector), payment for ecosystem services and results-based financing. These innovative instruments will support the Municipality of Lima to access and leverage finance, as well as transfer the investment burden to other actors.

The City Action Platform will initially be piloted in the Metropolitan Area of Lima, with the objective of establishing a National City Action Platform. The wealth of experience gathered from the implementaton of the IAP will allow a smooth integration of other cities in the Platform and contribute to the overall National Climate Change strategy. It will also allow the City of Lima to collaborate more closely in other city networks, such as C40 (of which Lima is already a member) and the Emerging and Sustainable Cities Network created by the IADB.

5. Rationale to include target city or metropolitan area.
The city of Lima is located in a desert coastal area, a very particular geographic setting. It is the second largest city in the world (after Cairo) established in a desert. As such hidric stress is a major concern, and is exarcerbated by climate change, which accelerate deglaciation and increases vulnerability to climate change related disaster. In the last 60 years, the city of Lima has followed an unsustainable growth path with a lack of planification. The metropolitan municipality of Lima is composed of 43 districts, with each a local government, makes the coordination and planification at the municipal level. complex the coordination and planification at the municipal level.

Under this context, the crowding of the city, home of 30% of Peru's population and 2/3 of its GDP, generates an excessive consumption of resources, in particular water and energy. The use of energy has increased of 88% since 2000 and water demand by 33%. Lima also accomodates the 70% of Peru's transport fleet. As a result, the City GHG emissions are significant, estimated at 15,432,105 ton/yr CO2e for the base year 2012.

A series of urgent issues have arisen, especifically: control of contamination (air, water ressources, noise); adequate urban planning; enhance tranportation system; scale up water distribution and sanitation system; increase green areas; respond to food security needs; establish building codes and standards, efficient waste management; restaure ecosystem services; adapt the infrastructure to climate change.

6. Experiences with, and commitment to, integrated urban management by (1) national government, and (2) target city or metropolitan area.
- Sustainable Cities Lima COP Agenda and commitments agreed upon therein.
- Ecological and economic zoning of the city
- Climate Change Strategy of Lima Metropolitan Municipality
- Expansion of train system in Lima aiming for a more sustainable transportation system

7. Confirmation of commitment to IAP engagement and sustainable cities global platform/network participation from (1) national government, and (2) target city or metropolitan area.

There is full commitment to the iap both at the national and at the metropolitan area level. Foremost the peruvian ministry of environment (national government), institution leading the project, is fully engaged and committed towards the establishment and participation in the global cities platform.
Moreover, the need for an integrated platform for city action has been agreed upon by the association of municipalities in peru, of which lima is a member. Current activities are establishing working agendas with municipalities and districts both in lima as the rest of the peruvian territory to achieve these goals.
Lima is also already a member of c40, the global partnership for climate change mitigation and adaptation.
The outline and contents of ths project have been discussed and validated with the different stakeholders and are considered essential both for the city of lima and for other municipalities in the country.

8. Consistency with national and local policies and strategies:

- Summary of alignment of proposed priorities with relevant national sustainable development policies and strategies

The proposed activities are aligned with policies and strategies at the highest level. At the consitutional level, item 22 of article 2 of the Constitution of Peru establishes that every person has the fundamental right to enjoy a balanced and appropriate environment to live. Article 67 of the same document, establishes that the State must ensure the effective enjoyment of that right, determining the National Policy for the Environment policy and promoting the sustainable use of natural resources. Article 44 states that within the duties of the State is the protect the population from threats against its security and promote the general welbeing.

Article I of the General Environment Act, Act No. 28611, states that every person has the inalienable right to live in a healthy environment, balanced and suitable for the full development of life, and the duty to contribute to effective environmental management and to protect the environment. Article V of the same act states that the principle of sustainability is based on the balanced integration of economic, environmental and social aspects of national development, as well as the satisfaction of the needs of current and future generations. Article 64 of the Act requires that in the design and implementation of public policies relating to the creation, development and relocation of population settlements, in their respective planning instruments and in the decisions relating to the preparation of territorial and urban development, environmental protection measures must be considered, on the basis of the provisions in this Act and its regulations and complementary rules, in such a way that it ensure adequate conditions of habitability in the cities and towns of the country, as well as the protection of health, conservation and sustainable use of natural resources and biological diversity and cultural heritage associated with them.

The Nineteen State's Policy of the National Agreement signed on July of 2002, establishes the integration of the National Environmental Policy with the economic, social, cultural and land use policies in order to contribute to overcome poverty and achieve sustainable development in Peru, as well as to institutionalize the environmental management, to protect biological diversity, and to facilitate the sustainable use of the natural resources, ensuring environmental protection and promoting sustainable towns and cities; which will help improve the quality of life, especially of the most vulnerable population in the country.

The 34th State Policy in Land Use and Land Management , sets out a commitment to create a strategic integrated, effective, and efficient process of planning and territorial management that ensures human development throughout the national territory, in a peaceful environment. This process will be based on knowledge and research of the exceptional biodiversity of the territory and the sustainability of its ecosystems. For these purposes we understand the territory as the space comprising soil, subsoil, the maritime domain, and airspace covering them and that develop social, economic, political and cultural relations between people and the natural environment, in a legal and institutional framework; and which converge interests, identities and cultures of peoples, so with this goal, among others, the State will boost and consolidate sustainable cities as dynamic centres of urban and rural development, articulated in reason of their hierarchy and their functional complementarity and that promote economic corridors supplied with water, energy, transport and communications networks in order to facilitate innovation processes, value chains and investment opportunities.

The 32nd policy of State the agreement national, signed on December of 2010, establishes that the State is committed to promote a policy of risk management of disasters, in order to protect the life, health and the integrity of the people; as well as the public and private heritage, promoting and ensuring the location of population and their equipment in the areas of greater safety, reducing vulnerabilities with equity and inclusion, under a process approach comprising: the estimation and reduction of risk, emergency and disaster response and reconstruction. Likewise, it establishes that this policy will be implemented by government agencies of all levels of Government, with the active participation of civil society and international

cooperation, promoting a culture of prevention and directly contributing to the process of sustainable development at the national, regional and local level.

The Ministry of the environment, according to article 2 of the law approved by Legislative Decree No. 1013, has as a general function to design, set up, run and monitor the National and Sectorial Environmental Policy. It aims to conserve the environment in such a way that it ensures the sustainable, responsible, rational and ethical use of natural resources and the environment that sustains them, allowing them tocontribute to the social, economic and cultural development of the human person, in permanent harmony with its surroundings, and thus ensuring the present and future generations the right to enjoy a balanced environment suitable for the development of life.

The national strategy on climate change, approved by Supreme Decree No. 086-2003-PCM, points out in his vision that Peru knows its vulnerability to climate change and has incorporated into its policies and development plans measures for adaptation to address the adverse effects of the same. It is a country which has a population that is aware of the risks of these changes and global causes. This national strategy, among its strategic lines sets as a second-order priority: promoting policies, measures and projects to develop the capacity of adaptation to the effects of climate change and reducing vulnerability.

- Summarize alignment of proposed priorities with relevant local sustainable development policies and strategies

The national environment policy approved by the Supreme Decree Nº 012-2009-MINAM, is mandatory at the national, regional and local levels of government and of guiding character for the private sector and civil society. It has as one of its specific objectives, a high level of awareness and environmental culture in the country, with active citizen participation in a way informed and aware in the processes of decision-making for sustainable development, including the adaptation of the population to climate change and establish adaptation and mitigation measures.

Article X of the preliminary title of the organic Law of Municipalities, Law No. 27972, lays down the "promotion of the Integral Development" by pointing out that local governments promote the integral development, to make viable economic growth, social justice and environmental sustainability; the promotion of local development is permanent and integral; provincial and district municipalities promote local development, in coordination and partnership with the levels of regional and national Government in order to facilitate local competitiveness and fostering the best conditions of life of its population. In this way, municipalities are entities in which the components for the development of a local sustainable cities agenda would be developed since they develop under their jurisdictions.

Specifically in the case of Lima there is the already approved Climate Change Strategy of Lima Metropolitan Municipality. All the activities proposed in this IAP are in agreement and alignment with the strategy.

A.2. Stakeholders. Will project design include the participation of relevant stakeholders from civil society and indigenous people? (yes ☒ /no☐) If yes, identify key stakeholders and briefly describe how they will be engaged in project design/preparation:

- Lima authorities (Municipality of Lima, and the district municipalities of San Borja, San Isidro, Lima, El Agustino, etc). The municipalities are the counterparts for projects to be implemented within the limits of a specific district.
- National Local Majors Association of Peru –AMPE. This metropolitan governance institution will be the key counterpart in implementing projects at the metropolitan scale. In particular, metropolitan urban planning, transport planning at the metropolitan scale, etc. This will also be the center of the integrated platform for city action.
- Ministry of Finance. This Ministry is also in charge of the project portfolio with other multilateral institutions.
- Ministry of Housing, Construction and Sanitation. This Ministry is implementing the NAMA on Sustainable Construction.
- Ministry of Transport and Communications. Key counterpart for transport planning projects in the Metropolitan Area.
- National Institute of Civil Preparedness (Defensa Civil). This Institute deals with disaster risk preparedness and response.
- Catholic University of Peru (PUCP).
- Private sector chambers and Civil Society (Real Estate Developer Association, Peruvian Chamber of Construction, Lima Cómo Vamos - civil society monitoring facility). Key counterparts during planning charrettes, consultation processes, etc.

A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

Political risk: Changes in public sector representatives (at technical and political level) affect project design and implementation. Rating: Moderate. Mitigation: A strong execution unit will be put in place to ensure adequate coordination amongst all institutions and stakeholders, with clearly defined roles and responsibilities and decision-making channels.

Implementation risk: Delays in the adoption and execution of policies and measures identified within the project. Mitigation: close involvement of the local governent, the Ministry of Environment, and the Implementation Agency to ensure timely execution of the activities.

During the project preparation phase, and as part of the first activity area, a climate risk and vulnerability assessment will be carried out to reduce risks resulting from natural disasters and climate change to the city.

Additionally, environmental and social safeguards will also be assessed, consistent with IDB's Safeguard Policies and associated requirements.

A.4. Coordination. Outline the coordination with other relevant GEF-financed and other initiatives:

The project will coordinate with the Ministry of Housing, which is planning to develop a Sustainable Cities Initiative at the National level, starting with the cities of Huancayo and Cuzco. This Initiative spurred from the implementation of IDB's Initiative in the City of Trujillo. The replication program being designed could absorb many elements of the Platform to be worked under this GEF-financed operation, thus multiplying its impact in other cities in the country.

The City Action Platform, will specifically seek to articulate at the city-level, the sector-wide approach of the solid waste management NAMA supported by NEFCO, the NAMAs in the Energy Generation and End-Use Sectors supported by UNDP-GEF and the Sustainable Transport NAMA supported by the NAMA Facility.

For the assessment of financial mechanims the IAP will coordinate with the Partnership for Market Readiness (PMR) of the World Bank.

Moreover, for the constructions sector, the IAP will coordinate with the UNDP-GEF Energy Efficiency Standards and Labels in Peru and UNEP-GEF Lighting Market Transformation in Peru projects.

DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 IS THE PROJECT CONSISTENT WITH THE NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSEMENTS UNDER RELEVANT CONVENTIONS? (YES ☐ /NO☒). IF YES, WHICH ONES AND HOW: NAPAS, NAPS, ASGM NAPS, MIAS, NBSAPS, NCS, TNAS, NCSAS, NIPS, PRSPS, NPFE, BURS, ETC.:

Annex A

NAME OF PROGRAM:
SUSTAINABLE CITES INTEGRATED APPROACH PILOT
Child Project Concept Note

PART I: PROJECT INFORMATION[1]

Project Title:	Sustainable cities initiative for Senegal
Country(ies):	Senegal
GEF Agency(ies):	WB UNIDO
Other Executing Partner(s):	Ministry of Environment and Sutainable Development (Directorate of Environment and Classified Etablissement; Municipal Development Agency
GEF Focal Area(s):	Biodiversity , Climat Change, Land Degradation, Chemical and Wastes

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]:

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	**Trust Fund**	**(in $)**	
		GEF Project Financing	**Co-financing**
IAP Sustainable Cities	GEFTF	7,339,450	41,380,000
CW1 Program 1	GEFTF	1,376,147	10,000,000
	(select)		
	(select)		
	(select)		
Total Project Cost		8,715,597	51,380,000

B. CHILD PROJECT DESCRIPTION SUMMARY

Project Objective: To improve capacity to plan and implement sustainable city management practices, including climate resilience, in selected urban areas				
Project Components	**Financing Type[3]**	**Project Outcomes**	**(in $)**	
			GEF Project Financing	**Co-financing**
Component 1: Integration of climate risks in urban planning and management	Inv	1.1. National urban policy framework strengthened to promote sustainable cities model. 1.2. Improved planning and management capacities of participating pilot cities and central government for sustainable cities 1.3 Investments in pilot cities generate local and global environmental benefits. 1.4. Increased knowledge and partnerships on sustainable cities and climate resilience at multiple levels	5,229,358	39,380,000
Component 2 : Promote renewable energy, integrated waste management and sustainable industrial parks	Inv	- Green industry approach implemented in Greater Dakar industrial parks with specific focus on greening existing industries and creating new green industries on	3,073,395	11,000,000

[1] This Concept Note is intended to convey whatever preliminary information exists at this stage on a child project and that is indicative of how it will contribute to the overall Program.
[2] When completing Table A, refer to the Program Results Framework, which is already mapped to the relevant *Focal Area Results Framework* in the *GEF-6 Programming Directions*.
[3] Financing type can be either investment or technical assistance.

		resource efficiency (mapping of existing green industries in the industrial parks of Greater Dakar, conducting Resource Efficient and Cleaner Production (RECP) assessments in multiple enterprises in Diamniadio industrial park; Scale-up and replicate RECP assessments in a large number of enterprises in the selected industrial park in Greater Dakar; Inputs/Outputs Analysis and synergies for collective solutions including waste exchanges between enterprises in the selected industrial park; Support the operation of environmental and resource conservation infrastructure ; - Pilot demonstrations to reduce dioxin and furan emissions as well as hazardous waste processes (Demonstrating BAT/BEP for municipal and hazardous waste management through promoting recycling industries serving Greater Dakar. Including sustainable waste management and recycling practices, and increasing local expertise in professional associations and the private sector. - New and renewable energy sources and low-carbon technologies to diversify the energy mix, provide energy security, and reduce carbon intensity of industrialization and urbanization in Diamniado identified and promoted in the context of Greater Dakar urban development; Small to medium scale pilot applications (e.g. industrial applications of solar, waste-to-energy, on- and off-grid renewable energy based systems) and business models for future replication and scale-up; Strengthen public and private sector capacity for providing energy services to industrial parks		
		Subtotal	8,302,753	50,380,000
		Project Management Cost (PMC)[4] (select)	412,844	1,000,000

[4] For GEF Project Financing up to $2 million, PMC could be up to10% of the subtotal; above $2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

Total Project Cost	8,715,597	51,380,000

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust

C. CO-FINANCING FOR THE PROJECT BY SOURCE, BY TYPE AND BY NAME

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount ($)
GEF Agency	WB	Loans	35,000,000
Others	Nordic Development Fund under WB project	Grants	5,000,000
GEF Agency	UNIDO	Grants	80,000
Recipient Government	GoS	Cash	11,000,000
GEF Agency	UNIDO	In-kind	300,000
Total Co-financing			51,380,000

N.B: The amount indicated as co-funding from the Government (US$ 11 million) has already been engaged for the building of the industry Park of Diamniadio. This funding is being implemented by the Ministry of Industry with technical assistance from UNIDO.

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

GEF Agency	Trust Fund	Country/Regional/ Global	Programming of Funds	Focal Area	(in $)		
					GEF Project Financing	Agency Fee	Total
WB	GEFTF	Senegal	CCM-IAP Cities	Climate Change	1,383,578	124,522	1,508,100
WB	GEFTF	Senegal	LD-IAP Cities	Land Degradation	910,000	81,900	991,900
WB	GEFTF	Senegal	BD-IAP Cities	Biodiversity	917,431	82,569	1,000,000
WB	GEFTF	Senegal	IAP-Sustainable cities	IAP-Sustainable cities	2,293,578	206,422	2500000
UNIDO	GEFTF	Senegal	CCM-IAP Cities	Climate Change	458,716	41,284	500,000
UNIDO	GEFTF	Senegal	CW1 program 1	Chemicals and waste	1,376,147	123,853	1,500,000
UNIDO	GEFTF	Senegal	IAP-Sustainable cities	IAP-Sustainable cities	1,376,147	123,853	1,500,000
Total GEF Resources					**8,715,597**	**784,403**	**9,500,000**

a) No need to fill this table if it is a single Agency, single Trust Fund, single focal area and single country project.
b) Refer to the Fee Policy for GEF Partner Agencies.
c) If Multi-Trust Fund project :PMC in this table should be the total amount; enter trust fund PMC breakdown here ( )

PART II: PROJECT JUSTIFICATION

PROJECT OVERVIEW

A.1. PROJECT DESCRIPTION. BRIEFLY DESCRIBE:

1. Proposed city or metropolitan area for IAP.

2. The project intervention area will be the Greater Dakar Metropolitan aera but some activities are expected to be implemented in Saint-louis coastal city to reinforce the World bank parent project sub-component on sustainable city pilot projects including coastal city management. While the component 1 of the GEF proposed project aims to improve capacity to plan and implement sustainable city management practices, including climate resilience, in selected urban areas the component 2 will promote renewable energy, integrated waste management and sustainable industrial parks in priority for the industrial Park of Diamniadio on ongoing development. The Component 1 and 2 will be respectively implemented by the World bank and UNIDO Gef agencies.

3. Greater Dakar is the most densely populated area of the country with an average of 4,387 inhabitants per square kilometers. The city is expected to be widely extended to the peri-urban areas with the Government high priority urban poles development programme including Diamniadio urban pole project on ongoing implementation. Saint-Louis remains the main town threatened by river flooding in Senegal and sea level rise worsen flooding conditions. A recent WB funded TA (June 2013) conducted with the Environment Directorate projectted by 2030, more than half of the Saint-Louis city will be flooded with sea level rise detrimental impact and rainfull evolution. By 2080, the situation would become catastrophic since 80% of the city would be flooded with 10-year rainfall combined with rising sea level.

4. Industrial growth in Senegal has particularly been driven by key industrial projects, on the basis of private and public sector participation and partnership, whose economic expansion and labor-intensive activities have made Senegal one of the most industrialized countries in West Africa. One of the key industrial initiatives hosted in Greater Dakar is the development of the industrial park in Diamniadio, run jointly by the Government and the private sector that will integrate ten specialized labor-intensive poles in textile, agro-food, household products, electronics, services, and aeronautics as well local enterprises operating around transport networks facing storage issues, informal companies and enterprises registered at the Société du Domaine Industriel de Dakar (SODIDA). The park is expected to generate 8,000 jobs; moreover, twice as many jobs will be created by indirect employment.

5. Population of target cities or metropolitan areas:

Current population	Projected population in 2050[5]
Population of the Greater Dakar Metropolitan aera is estimated at 3,137,196 in 2013 or 23% of the total population of the country settled in 0.3% of the national territory. Dakar city is the most densely populated area of the country with an average of 4,387 inhabitants per square kilometers. Almost 57 % of Senegal's population resides	The country's high demographic growth (+2.5%) is expected to increase its population by 2050 up to 25 million people of which then 16 million are expected to live in cities. Population of Saint-Louis commune (non included neighboring areas) will be more than 300,000 inhabitants by 2030, against 160,000 inhabitants in 2010

[5] Please refer to Table 2: The World's Largest Cities in 2050, which can be found in the background paper of the August 2014 Sustainable Cities IAP consultative meeting (http://www.thegef.org/gef/CC/sustainable-cities).

currently in urban areas (about 11 million people in 2010). Out of the 11 million people, 25% live in the Greater Dakar area and 41% in cities located along the coast including Dakar.	

6. Brief description of context and baseline scenario.

Sustainable development of cities is being an urgent need and priority in line with the Government broad urban poles development program for accelerating economic growth and reducing poverty. Almost 57 % of Senegal's population resides currently in urban areas (about 11 million people in 2010). Out of the 11 million people, 25% live in the Greater Dakar area and 41% in cities located along the coast including Dakar. The country's high demographic growth (+2.5%) is expected to increase its population by 2050 up to 25 million people of which then 16 million are expected to live in cities. As a consequence of the demographic pressure, the urban sector in Senegal has been focused primarily on habitat management and improvement. For example, about 40% of agglomeration of Dakar is estimated to be informal settlements without provision and management of basic services such as water, electricity, sanitation often located in flood-prone areas. Effective urban planning has been lacking behind these developments. Only 30 % of cities have an urban plan and the few existing ones lack up-dates, implementation results and more importantly participation of civil society. Other constraints of the sector include a lack of integration of urban development in territorial planning; governance of land use planning and land allocations, and discrepancies in the legal framework. The convergence of these ongoing challenges with emerging climate change impacts increase the vulnerability of cities and illustrates the increasing importance of examining the relationship between climate change processes, urban vulnerability and development in order to define responses at an urban scale.

Even though industrial production has generally increased in many sectors (textile, agro-food, energy...), the Senegalese industrial base remains fragile as Senegal needs to increase its capacities to improve industrial and export diversification efforts and opportunities. The small size of production units and economic actors, the high input costs, the underutilization of production capacity, and limited access to finance for local and national private sector constitute major challenges. Furthermore, the strong concentration of economic activities in the Greater Dakar area, the lack of diversification and a system of product quality certification represent major impediments for shifting Senegal's industrial development into a sustainable and inclusive pattern. In this context, Senegal has revised its national development model and strategy through the establishment of the Plan Sénégal Emergent (PSE). The PSE has planned, as part of its 27 flagship project portfolio, the development of industrial parks and the promotion and upgrading of high-potential value chains that can attract foreign and domestic investors. Special economic zones and industrial parks will develop multifunctional platforms built around the development of industrial and craft activities and infrastructure and equipment provision, while industrial poles will integrate SME sub-contracting activities for the mining sector; the latter will be further upgraded to integrated multi-sector industrial poles that will absorb and integrate agro-industries and general manufacturing.

7. Brief description of priorities for IAP support.

The proposed IAP component 1will support a scaling up and introduction of activities in the ongoing stormwater management and climate change adaptation project (World bank and Nordic Devlopment fund financing) as pilot "sustainable cities initiative" to support addressing challenges linked to greater Dakar rapid growth and related urban challenges: lack of integration of urban development as well as risks management in territorial planning; governance of land use planning and land allocations, discrepancies in the legal framework, population settlement in wetlands and floods prone areas; emerging climate change impacts and cities increased vulnerability to many hazards like floods due to stormwater, sea level rise and coastal erosion. This component will also support the Government develop and implement integrated strategies to ensure that the priority ongoing urban pole development program integrates and meet requirements in term of "cities sustainability and resilience". The ongoing Bank project is already committed in this area and the proposed IAP project is expected to broadly reinforce the ongoing work.
The Component 1 also includes "knowledge management" activities to capitalize knowledge, experiences and lessons learned from the pilot cities of Greater Dakar and Saint-louis for further replication and up-scaling as well as the strengthening of local and national expertises.

The WB ongoing project is working with the University of Saint-Louis to develop training modules on new thematic as "sustainable cities", "Climate change impacts monitoring and Adaptation measures". Trainings to be developed by the University of Saint-Louis and training plans funded by NDF under the WB project will be make accessible for academics, civil-servants from local and national governments. Also, it is planned to prepare and disseminate a report to capitalize lessons learned and experiences from the sustainable cities WB+IAP projects to be broadly published.
The WB is also implementing or preparing many resilience urban management projects (Niamey, Freetown, Cotonou etc.) and a West African coastal management TA with perspectives to plan investment projects through targeted West African countries. The ongoing projects, those in preparation and the projected one will profit from the experiences of this Senegal WB ongoing project+AIP experiences.

The component 2 will be implemented by UNIDO to promote sustainable industrial parks through the implementation of green industry approach in Greater Dakar industrial parks with specific focus on greening existing industries and creating new green industries on resource efficiency, to pilot integrated waste management in Greater Dakar Area in connection of green industries of the target industrial park and to promote new recycling industries. The potential for the application of renewable energy and low-carbon technologies will be assessed towards developing an action plan for climate smart and resilient urban development, identifying areas for future investment. Small to medium scale pilot applications and energy efficient measures that do not require large up-front investments to show techno-economic feasibility and potential for replication and scaling-up will be promoted, particularly within the Diamniado industrial zone.

8. Rationale to include target city or metropolitan area.

Component 1 (World Bank): The new Government high prioriry urban poles program including Diamniadio urban pole is expected to modify the greater dakar and neighbors configuration with many related challenges in term of city resilience and improvement of life quality within cities. The Diamniadio new urban pole specifically is expected to serve as Senegal's urban model for a sustainable, carefully planned and managed city. The development of Diamniadio will in itself generate significant climate resilience benefits by increasing the opportunities for housing and work in pre-developed areas thus relieving the pressure on Dakar whose uncontrolled growth is one of the root causes of the city's storm-water flooding problems. Nevertheless, it is essential that planning and development of the Diamniadio broader zone is taking due cognizance of the climate risks, waterways, lakes and dense rainfall runoff facing the city. One of the identified issues is that the city is located in an important groundwater resource area (e.g. the Maastrichtian aquifer and shallow aquifers that provide water for the city of Dakar City water supply). Moreover there are 4-5 irrigation dams located within the city boundaries that will have consequences for land use, settlement restrictions and flood risk implications. Other climate related issues are inundation and storm-water management challenges. the Proposed IAP project which aims to support the Government in the planning and implementation of this urban poles program should contribute the program meet requirements in term of sustainable and resilient cities approach as well as avoid reiterating urban management errors of the past.

The development state of Saint-Louis city is impacted by a number of limitations and challenges: (i) high population growth (anticipated doubling of the population by 2030 e.g. more than 300,000 inhabitants by 2030, against 160,000 inhabitants today) and associated land scarcity and population density increase; (ii) environmental and ecosystem deterioration such as mangrove destruction; (iii) financial constraints and economic management shortcomings hampering effective development of the city and its hinterland; (iv) reduced living conditions and livelihood affected by hampered navigation and harbor operations caused by the un-checked instability of the coastal zone areas, insufficient urban storm-water management to deal with the devastating floods; (v) serious deficiencies in urban waste management and sanitation infrastructure and services; and (vi) poor planning and management resulting in increasing informal settlements and encroachment into fragile and flood-prone areas. These and other city development constraints are posing significant political, technical, and economic challenges that need to be resolved by multidisciplinary and concerted efforts with the participation of local actors. The integrated IAP proposed project is expected to reinforce the ongoing Bank project

"sustainable pilot cities' subcomponent which has as objective to address challenges in term of resilience and sustainability linked to the development of selected urban areas.

Component 2 (UNIDO) : The lingering industrial risks in metropolitan Dakar where some 90% of industries are concentrated triggered serious negative impacts on the environment including the issues of industrial discharges of residues (industrial pollution of the Hann Bay and lead pollution in the Ngagne Diaw neighborhood) as well as household waste management are well-known. This component 2 will promote the adoption of the green industry approach in the Greater Dakar area. Indeed, with the strategy of the Government to develop new urban pole with industrial flat shapes, activities will be developed under this IAP project to support the set-up of the eco-industrial platform of Diamniadio. Moreover, a pilot project on integraed waste management will be developed in connection with the green industries of the Diamandio industrial park. Furthermore, a renewable energy development program in the new urban pole of Diamniadio will be developed to support the Government program and the private sector. The component 2 will take steps towards developing recycling industries in order to stop the practice of open burning of waste in the Dakar. Open burning of waste and underdeveloped recycling of all types of wastes in Dakar are among the main air pollution and toxic air release sources in Greater Dakar. The Unintentional POPs releases from the waste sector in Dakar was estimated to 11 g I-TEQ/a in 2007. The project component will support the government intiatives to decrease open burning of waste and revert such waste to sustaineble recycling schemes.

Component 2 will be implemented by UNIDO in order to promote integration of renewable energy, waste management and sustainable industries in the project intervention area. The recent growth of cities around the world has shown that energy acces is a key challenge that planners need to integrate at early stages of programmes development. At global level, cities generate 80% of global economic output, and 70% of global energy use and energy related GHG emissions (New Climate Economy, 2015). New cities do not need to copy the high-carbon, high-waste model of the past. The carbon intensity of the Senegalese electrical grid at 0.6886 tCO2/MWh is relatively high and would benefit from cleaner energy sources. In the case of Diamniadio urban pole, a new city is planned together with, among other infrastructures, a numeric platform and education facilities, including a national university, all requiring planning of more sustainable energy systems as alternative to "business-as-usual" with grid connection. Experience in Dakar has shown that such a planning with renewable stand-alone systems and/or micro-grids is needed. Grid connection model to power infrastructures in Dakar has shown many limitations these last years, including reliability of supply, and cost of electricity to Government and populations. Integrated management of municipal wastes is another key point this project intends to address, still learning from recent experience of large cities such as Dakar. There is a clear need to plan a proper system for removal of wastes, a system different from Mbeubeuss landfill. Also, renewable technologies provide opportunity to transform those wastes to electricity, in an integrated approach addressing both energy access and municipal wastes disposal. This component will be conducted as part of the PCP initiative being implemented in Senegal by UNIDO.

9. Experiences with, and commitment to, integrated urban management by (1) national government, and (2) target city or metropolitan area.

Urban sustainable development has always been a major concern for the Senegalese authorities. Pilot experiences were conducted in the past to improve some cities management under the Agenda 21.

Currently the sustainable development policy, including urban sustainable development is guided by the principle of green governance spelt out by the Government. This principle is reflected in the Plan Sénégal Émergent (Plan for a Senegal Emergence - PSE) which is the national reference for economic and social development.

Indeed, the PSE in its main outlines, especially in the ''Human Capital, Social Protection and Sustainable Development'' section aims to :

- Promote a sustainable housing and living environment;
- Improve the quality of urban life ;
- Ensure the prevention and management of risks and disasters ;
- Promote a sustainable environment and development.

To this end, the PSE reaffirms the obligations of the Environmental Code to conduct an environmental assessment for all programs under the PSE.

The proposed IAP project is also consistent with the WB Senegal Country Partnership Strategy (CPS) 2013 - 2017 that supports the new national development strategy ("Plan Sénégal Emergent" - PSE). It contributes to the CPS foundation of “Strengthening the Governance Framework and Building Resilience” . The CPS acknowledges the

need to focus all activities on the mitigation of potential shocks to enhance resilience against future events. Complementary to the proposed IAP project are also (i) the national Water and Sanitation Sector Program; (ii) the Disaster Risk Management and Climate Change Adaptation project (financed by the GFDRR TF) and findings from a Bank-funded Technical assistance for an Economic and Spatial study of the Vulnerability and Adaptation to Climate Change of Coastal Areas in Senegal (June 2013) as well as a diagnostic review of the urbanization in Senegal (June 2014) , (iii) the "Pikine Irregulier Sud" restructuration project funded by the French Development Agency; (iv) the Urban Master Plan study of Dakar and around areas for 2035 horizon funded by JICA; and (v) technical assistance to the Government of Senegal from the Dutch cooperation for the coast management and breach in Saint-Louis.

The WB and NDF funded project (proposed parent project of this IAP fisrt component) experiences and lessons were meant to contribute to the development of sustainable and resilient cities in Senegal including national resilient urban strategy and program as unplanned urban areas is recognized to be the main reason of flooding in Senegal.

The long cooperation between UNIDO and Senegal began with the formulation and the implementation of the Phase 1 and 2 of the Programme Intégré de Développement Industriel (PIDI) aimed in increasing the industrial production and upgrading of the industrial sector. Phase 1 (2003-2005) of the PIDI substantially contributed to the establishment of a proper institutional framework for industrial development in Senegal. The promotion of micro and small enterprise was carried out through the establishment of the Bureau de Mise à Niveau des entreprises du Sénégal (BMN) and the Bourse Nationale de Sous-Traitance et des Partenariats (BNSTP), as well as the elaboration of the Plan d'Action pour le Redéploiement Industriel. Partnerships developed for the design and the implementation of PIDI, as well as for its financing, have contributed to the positioning of UNIDO as a dynamic interface to support the process of permanent consultation between public sector, private sector and donors. Further to this success, Senegal and UNIDO developed Phase 2 of the PIDI aimed in operationalizing the main recommendations made during PIDI 1 and for developing technical capacities in order to (i) increase competitiveness, (ii) strengthen the industrial base of Senegal and support exports, on the basis of Partnerships between the State and the Private Sector.
Based on this past cooperation and upon the request of the Government of Senegal a Technical Cooperation Framework was agreed between UNIDO and the Government of Senegal in April 2014, in full collaboration with the National Authorities, Development Partners and Private Sector. The Partneship Country Program (PCP) of Senegal will benefit from an integrated delivery of UNIDO Technical Cooperation services with strong spillovers on the PSE program and is designed along horizontal and vertical interventions.
The three vertical axes for intervention are the following:

1. A Strategy and policy component for the design, implementation and advisory services of the industrial policy in Senegal,
2. The operationalization of competitive and integrated Agro-poles, and
3. The support and the upgrading of Industrial Parks through the operationalization of existing ones and the development and promotion of new ones;

UNIDO's Technical Cooperation services will be delivered under a joint and complementary package of four horizontal interventions in the field of 1) Private Sector Development and Investment Promotion 2) Environment 3) Energy 4) and Trade Facilitation in order to:

- To make the value of UNIDO's Technical Cooperation more powerful and therefore raise the interest and engagement of Senegal's Partners and Donors for funds and resources mobilization;
- Deliver a greater impact of UNIDO's Technical Cooperation and reinforce the positive visibility of interventions;
- Deliver multi-dimensional services for developing mutual reinforcement and complementarities between each Technical Cooperation intervention.

10. Confirmation of commitment to IAP engagement and sustainable cities global platform/network participation from (1) national government, and (2) target city or metropolitan area.

Dakar city has been member of the sustainable city networks for several years now. In 2011 it won the green city award and the international award for sustainable stainable city from the "Association des Eco Maires".

The development of an urban resilience strategy as part of the ''Dakar resilient cities'' program funded by the Rockfeller Foundation will be a good framework to build synergy with the ongoing programs. This strategy is built on these three levers:

(i) Improved multi-scale and multi-stakeholders governance,
(ii) Action on populations,
(iii) Optimized management of structural technical networks of the icty

11. Consistency with national and local policies and strategies:

Summary of alignment of proposed priorities with relevant national sustainable development policies and strategies

- The proposed IAP project is consistent with the country's main development policies and strategies, including :
- - the Plan for a Senegal Emergent (PSE) ;
- - the environmental sector policy ;
- - the sectoral policy of urban planning and housing ;
- - the sanitation sector policy ;
- - the policy of decentralization and town planning ;
- - the New Forestry Policy (NPF, 2005 – 2025) ;
- - the National Program of Action for Adaptation (NAPA) and
- - the territorial climate plan of Dakar
-

12. Summarize alignment of proposed priorities with relevant local sustainable development policies and strategies

The above listed policies and strategies documents cover both local and national areas

A.2. Stakeholders. Will project design include the participation of relevant stakeholders from civil society and indigenous people? (yes ☒ /no☐) If yes, identify key stakeholders and briefly describe how they will be engaged in project design/preparation:

The cities of Dakar and Saint-louis are already part of the sustainable cities network. The proposed IAP components will be built from Experiences capitalized so far by these cities as well as those capitalized from the WB and NDF funded project.

The General Delegation for the promotion of the urban pole is responsible for the development of the new urban pole of Diamniadio. Strong synergy will be developed with this department as well as with other stakeholders (Environment and Urban sectors departments, local collectivities, Municipal Development Agency) to make the pilot areas of the "sustainable cities" initiative including Diamniadio pole resilient.

UICN is expected to contribute to the project objectives through the development of a "Field Green and Blue." This consists to rebuild a coherent ecological network across the Dakar region that will result to biodiversity conservation tool, preservation of ecological services, prevention against natural hazards including coastal erosion as well as land use with objective to promote natural solutions. This work will be conducted with the relevant technical departments (Forest and National Parks management Directorate)•

The Ministries of urban Planning (Direction de l'urbanisme), Transport (Conseil Exécutif des Transports Urbains de Dakar (Executive Council of Urban Transports in Dakar) and Energy, respectively, will contribute in the development of sustainable planning documents and development for new urban poles etc. In the energy sector, utilities (e.g. SENELEC), public institutions (e.g. BMN), private sector consumers and potential investors (e.g. APROSI), including financial institutions (e.g. development banks), will also be consulted for sustainable energy planning and project development.

The Municipal Development Agency which provides permanent technical asssitance to the local collectivities in designing and implementing broad projects for development will also provides key support to the preparation and implementation of this proposed IAP project.

A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

Weak capacity of local and ministries stakeholders in sustainable urban planning, and climate change issues management, monitoring/enforcement : The training modules to be developped with the University of Saint-Louis as well as training program funded under the WB and NDF funded project will assist stakeholders in developing priority skills and capacity needed for effective and efficient 'sustainable cities" management including climate resilience. Technical asssistance if needed will be provided to support technical agencies involved in the implementation of the project activities and components.

The WB project fiduciary implementing agency (ADM) and other techical implementing agencies (Environment and Urban Directorates, ONUDI etc.) will have to coordinate with various other national and local structures to implement the proposed integrated project. Clear division of responsibilities between various national structures involved in the activity will be essential for the success of this project. : A steering committee will be established under the Environment Directorate to facilitate project components 1 (WB) and 2 (UNIDO) coordination and encourage each national structure to be actively involved in project implementation. The World Bank will perform active project supervision through its staff presence in the country for the component 1 implementation. UNIDO will provide same supervision support for the implementation of the component 2.

A.4. Coordination. Outline the coordination with other relevant GEF-financed and other initiatives:

The Directorate of Environment which assumes the role of the GEF focal point will chair the technical committee to ensure that all the ongoing projects, activities under the "sustainable cities"initiatives are well coordinated in term of planning and implementation.

About the coordination with other bilateral donor-supported initiatives will be sought, for instance AFD, JICA, and others that are active in the urban and environmental contexts; two coordination frameworks already exist :

- an informal coordination committee supported by the WB team with monthly meeting organized since October 2013 within the WB office to coordinate initiatives under a) the WB project/Municipal Development Agency which is preparing detailed master plans for Dakar suburb, b) the Urban Department/JICA project for the preparation of the Greater Dakar+ new airport zone urban master plan and c) the Land management agency which is updating the land management plan for greater Dakar/Mbour and Thies. This committee is opened and could include additional structures and urban projects

- The same group and stakeholders are working together through a formal committee chaired by the General delegation of Diamniadio urban pole (Presidency office) to support and coordinate the implementation of the Diamniadio sustainable cities pilot project" under the WB project sub-component. The Directorate of Environment who was not member of this committee just joined during the last coordination meeting on Thursday, March 19. The Directorate of Environment will also be invited to join the first mentioned informal coordination committee supported by the WB team. This formal committee is opened and could include additional structures and urban projects.

DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 IS THE PROJECT CONSISTENT WITH THE NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSEMENTS UNDER RELEVANT CONVENTIONS? (YES ☒ /NO☐). IF YES, WHICH ONES AND HOW:

NAPAS, NAPS, ASGM NAPS, MIAS, NBSAPS, NCS, TNAS, NCSAS, NIPS, PRSPS, NPFE, BURS, ETC.:

Annex A

The vision of the National Climate Change Policy in Senegal is based on the sustainable socio-economic development that includes climate change challenges in the key economic, natural resources management and public policies country's sectors, with objectives to increase resilience and protection of people's livelihood activities. This vision is oriented around adaptation, mitigation, technology transfer, financing mechanisms, capacity building for a resilient population and economy against climate change impacts.

This proposed IAP project will contribute to the implementation of this vision and the achievement of the NAPA objectives.

- ✓ The National Action Plan for Adaptation (NAPA) designed in accordance with the Article 4.9 of the Convention and decision 28 of the Seventh UNFCCC Parties Conference aims to address emergencies climate risk in three key national economy sectors vulnerable to climate change : agriculture, water resources and coastal zones. In this IAP project activities are planned in the aforementioned sectors to strengthen their resilience.

- ✓ The national strategy for biodiversity conservation, a national program against desertification and various mitigation and adaptation projects and programs developed for different key sectors of the country's economy. National program to reduce emissions via the Clean Development Mechanism (carbon market) are ongoing implementation.

- ✓ The activities proposed in this project will contribute to the implementation of adaptation and attenuation options adopted in the Second National Communication of Senegal.

- ✓ The project is also consistent with the National Solid Waste Management ongoing program.

Annex A

NAME OF PROGRAM:

SUSTAINABLE CITES INTEGRATED APPROACH PILOT

Child Project Concept Note

PART I: PROJECT INFORMATION[1]

Project Title:	Building a resilient and resource efficient Johannesburg: Increased access to urban services and improved quality of life
Country(ies):	South Africa
GEF Agency(ies):	UNEP DBSA
Other Executing Partner(s):	City of Johannesburg
GEF Focal Area(s):	Climate Change

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]:

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	**Trust Fund**	**(in $)**	
		GEF Project Financing	**Co-financing**
CCM-2 Program 3 IAP Sustainable Cities	GEFTF	4,496,206	109,927,433
IAP Sustainable Cities	GEFTF	3,596,965	10,000,000
Total Project Cost		**8,093,171**	**119,927,433**

B. CHILD PROJECT DESCRIPTION SUMMARY

Project Objective: The proposal will foster city level resilience, resource efficiency, emission reductions and other co-benefits through area-based pilot demonstrations, systems analysis (food), and institutionalization of evidence-based decision making through integrated planning.

Project Components	**Financing Type[3]**	**Project Outcomes**	**(in $)**	
			GEF Project Financing	**Co-financing**
1. Ensuring sustainability, integration, and accessibility in the development and implementation of the city's physical plans	TA (UNEP)	1.1 Increased capacity of the municipality of Johannesburg to establish compact low energy zones and conduct systems and supply chain analysis to identify suitable housing, transport and recycled material options.	1,000,000	2,000,000
	Inv (DBSA)	1.2 Pilots to demonstrate benefits and stimulate policy and planning evolution in compact low energy zones on public transport (investment in public transport to improve modal shift, alternative fuel for public transport), and sustainable building methods, for social and other housing	2,000,000	88,000,000

2. Improving urban food security in Johannesburg by increasing the efficiency of food flows and improving peri-urban agriculture techniques.	TA (UNEP)	2.1 To support the City of Johannesburg to ensure that urban and peri-urban farmers are using environmentally sustainable techniques to produce and sell affordable food, as well as manage food waste in a close loop (e.g. through spoke and hub supply chains and recycled organic waste).	1,354,686	6,650,000
	Inv (DBSA)	2.2 Improved management of organic (mainly food) waste implemented by the city resulting into reduction in GHG emissions through waste to energy strategies (biogas facility pilot)	745,000	7,580,000
3. Pilot, in Johannesburg, a process wherein aggregated data on resource efficiency will be used to make informed decisions in city infrastructure investments and bring lessons learned to other municipalities in South Africa	TA (UNEP)	3.1 Johannesburg city planners implement their GDS 2040 strategy with an evidence based integrated urban planning approach.	1,000,000	2,000,000
	TA (UNEP)	3.2 Other municipalities in South Africa are aware of the benefits of interested integrated urban planning.	609,000	2,000,000
	Inv (DBSA)	3.3 Prefeasibility and feasibility studies completed for investments aligned with GDS 2040, demonstrating the benefits of integrated urban planning	1,000,000	6,000,000
		Subtotal	7,708,686	114,230,000
		Project Management Cost (PMC)[4] (select)	384,485	5,697,433
		Total Project Cost	**8,093,171**	**119,927,433**

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust

[1] This Concept Note is intended to convey whatever preliminary information exists at this stage on a child project and that is indicative of how it will contribute to the overall Program.

[2] When completing Table A, refer to the Program Results Framework, which is already mapped to the relevant *Focal Area Results Framework* in the *GEF-6 Programming Directions*.

[3] Financing type can be either investment or technical assistance.

[4] For GEF Project Financing up to $2 million, PMC could be up to10% of the subtotal; above $2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

C. CO-FINANCING FOR THE PROJECT BY SOURCE, BY TYPE AND BY NAME

Sources of Co-financing	Name of Co-financier	Type of Cofinancing	Amount ($)
Municipal Government	City of Johannesburg	In kind/cash (to be confirmed)	119,677,433

Int. Organization	UNEP	In kind/cash (50%/50%)	250,000
Total Co-financing			**119,927,433**

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

a)

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in $)		
					GEF Project Financing (a)	Agency Fee (b)[b)]	Total (c)=a+b
UNEP	GEFTF	Global Sustainable Cities Incentive (set aside)	IAP	IAP-Cities	1,761,638	158,547	1,920,185
UNEP	GEFTF	South Africa	CCM	IAP Cities	2,202,048	198,184	2,400,232
DBSA	GEFTF	Global Sustainable Cities Incentive (set aside)	IAP	IAP-Cities	1,835,327	165,179	2,000,506
DBSA	GEFTF	South Africa	CCM	IAP-Cities	2,294,158	206,474	2,500,632
Total GEF Resources					**8,093,171**	**728,384**	**8,821,555**

a) No need to fill this table if it is a single Agency, single Trust Fund, single focal area and single country project.

b) Refer to the Fee Policy for GEF Partner Agencies.

c) If Multi-Trust Fund project :PMC in this table should be the total amount; enter trust fund PMC breakdown here ( )

PART II: PROJECT JUSTIFICATION

PROJECT OVERVIEW

A.1. PROJECT DESCRIPTION. BRIEFLY DESCRIBE:

1. Proposed city or metropolitan area for IAP.

   City of Johannesburg

2. Population of target cities or metropolitan areas:

Current population	Projected population in 2050[1]
4,434,827 (2011)	5,100,604

3. Brief description of context and baseline scenario.

Johannesburg is South Africa's largest and fastest growing city offering both opportunities and challenges to environmental sustainability. It has the headquarters of 70% of South Africa's businesses. Due to the concentration of activities in the city Johannesburg's estimated carbon emission reached 27.2 million tCO2e (6.89tCO2e per capita) in 2007, the largest contributor being the Commercial & Industrial sector (39%), followed by the residential sector (29%), transport (25%) and waste and wastewater (7%).

[1] Please refer to Table 2: The World's Largest Cities in 2050, which can be found in the background paper of the August 2014 Sustainable Cities IAP consultative meeting (http://www.thegef.org/gef/CC/sustainable-cities).

Aware of the challenges and the potential of its remarkable demographic and socio-economic level, the City of Johannesburg has gone through an extensive process of refining its city planning strategies with specific goals including reduction of GHG emissions and reduction of climate change impacts through the improved urban service delivery. In 2006, the city developed its first comprehensive Growth and Development Strategy (GDS), as a long-term strategy to articulate a more environmentally sustainable path to Johannesburg's future. In 2011 the strategy was refined and published as the 'Joburg 2040 GDS'. The concepts of resilience and resource efficient growth are repeated throughout the strategy with the ultimate goal of improving the quality of life of citizens.

4. Brief description of priorities for IAP support.

The first component aims to demonstrate integration immediately in the city's physical form, focusing on low-energy zones already identified in GDS 2040. In 2012, the city announced a planned capital budget of 110 Billion ZAR (about 10.3 Billion USD) to be invested in city infrastructure over a ten-year period, focusing on the underserved areas of Johannesburg. Much of this investment would go towards the provision of social housing and development of public transport. In the 3 financial years, 2014/15 to 2016/17, Johannesburg city and the national government will start investing 4 Billion ZAR (370 Million USD) in transport alone. This component aims to direct current and future investments towards integrated approaches by immediately increasing the capacity of the municipality of Johannesburg in the building and construction, waste, and transport sectors. The City of Johannesburg has plans to continue improving the BRT and LRT system in Johannesburg and this project will work with them to identify test, and modify alternative fuels in the public transport fleet with a view to larger scale diffusion of these fuels in the fleet at a later stage. The project will implement integration in the city's built environment in low energy zones through sector assessments and piloting recycled materials in social housing and transport infrastructure, and alternative fuels in buses.

The main GEF funded deliverables:

- Supply chain assessment in sustainable new and existing buildings and construction (SBC) sector (includes energy consumption baseline across the supply chain)
- Energy consumption assessment and baselines – different fuel alternatives in the public transport fleet; comparison with private transport options; changes in energy consumption patterns in new buildings.
- Assessment of current waste composition and waste management processes in Johannesburg (includes energy consumption baseline)
- Co-development, testing, and institutionalization of methodology/strategy/impact measurement matrices, targets to promote environmental sustainability in the buildings and construction supply chain incorporating waste and transport aspects (to define intervention actions)
- Projects demonstrating an integrated built environment established in 3 compact low energy zones public transport (investment in public transport to improve modal shift, alternative fuel for public transport), and on sustainable building methods, etc. for social housing (especially for social housing but not exclusively)

It is estimated that 42% of Johannesburg's population is living with high levels of food insecurity. This, in spite of the fact that South Africa is the world's leading producer of basic food items such as cereals (5th) and maize (7th) (FAO Statistics Office). In a detailed study produced in collaboration with the African Food Security Urban Network (AFSUN), Johannesburg identified that the structure of food systems (i.e. networks of production, distribution, sale, and consumption) are at the heart of this insecurity. Component 2 of this project will support Johannesburg in improving

access to food of the city's marginalized groups by understanding the city's food system from production, transport, sale, and waste disposal, and "closing the loop" of its food and waste systems; and strengthening the cities green matrix to contain urban sprawl. This will allow the project and the city to choose and implement the appropriate activities to strengthen urban/peri-urban agriculture along with policies that reduce overall waste and promote the sustainability in the food system.

The main GEF funded deliverables:

- Assessment of food system/resource flow of the city and its periphery
- Detailed survey, analysis, and development of an action plan to identify problems and address the needs of disadvantaged groups in Johannesburg in relation to their access to affordable food and affordable housing and food waste to energy
- Design, development, and testing of training modules to improve capacity of peri-urban and urban (training of farmers, local merchants, urban agriculture enthusiasts)
- Biogas project and overall management of food waste
- Training and capacity building of local government officials in the target sectors of food, waste, and building and construction

Johannesburg recognizes that one of the barriers for a city to develop and plan sustainably is the absence of a comprehensive measurement framework that looks at the interaction of a city's critical resources. Resources essential to cities such as energy, water, waste, food, construction materials, and land are often measured separately, by different offices within the local government. In the end, interaction among the resources is not adequately captured in the planning process resulting to gaps in the interventions. To address this issue, this Component 3 will pilot-test, refine, and upscale an integrated framework which builds on existing research of UNEP and its partners. The indicators developed for city planning will also be used for MRV of project activities.

The main GEF funded deliverables:

- Indicator framework established aligned with national indicators, allowing for international benchmarking, and supported by a solid information base to measure change.
- Tracking and measuring key indicators to assess the impacts of, and analyzing policy and planning on inhabitants. This will include travel times and distances growth trends as well spatial aspects such as density ratios, among other things.
- Align city indicators with the GEF Global Cities Programme performance framework
- Co-development of a system to analyze indicators and translate them into policies, approaches, and projects that support GDS 2040 and the revised national SDF (sustainable development framework) (enhanced modeling capacity, scenario building)
- Lessons learned are captured in knowledge products and incorporated into national mechanisms and promoted in international arena.
- Prefeasibility and feasibility studies completed for investments aligned with GDS 2040

A rough estimate of direct Green House Gas emissions reductions from the project are calculated at 1,770ktCO2eq. For further details, please refer to Annex I. This rough estimate will be refined during project preparation.

5. Rationale to include target city or metropolitan area.

Johannesburg was selected as the pilot city since it is considered the country's economic hub, producing 17% of the country's GDP (City of Johannesburg, 2014), and consumes large amounts of resources. A shift in the development approach of Johannesburg would have a substantial impact in the production and consumption processes in the city, and as the largest and capital city set a good example for other cities in South Africa. The city was also selected because it has demonstrated commitment towards environmental sustainability in its long-term development strategy, the Growth and Development Strategy, 2040 (GDS 2040) developed in 2011.

In parallel, the city also defined what it calls "Corridors of Freedom" (CoF) which is a "spatial transformation intervention" which aims to contribute to a socially and economically cohesive South Africa. It identifies key locations within the city that are critical to the development of a society that is the antithesis to the apartheid – one where decisions are not based on race, gender, or socio-economic status. The CoF combined with the GDS 2040 serves as the framework of the city's long-term vision.

6. Experiences with, and commitment to, integrated urban management by (1) national government, and (2) target city or metropolitan area.

In South Africa, sustainable and integrated city development is supported nationally by the government and by civil society. South Africa adopted an Integrated Development Planning (IDP) methodology in the 90s. This was formalized in the Municipal Systems Act (2000) which states how the IDP should be developed and implemented. More recently, in 2014, national discussions have been launched by the Department of Cooperative Governance and Traditional Affairs (COGTA) about an Integrated Urban Development Framework which aims to manage the country's rapid urbanization more effectively. Urban development also features prominently in the National Development Plan (NDP) 2030 which refers to spatial concerns (Ch 6), the rural/urban interface (Ch 6), environmental sustainability and resilience (Ch 5). In his state of the nation address in February 2014, President Zuma highlighted the strategic importance of cities advocating a national approach to sustainable urban growth. In parallel, the South African Cities Network, of which Johannesburg is a member, facilitates exchange of ideas in among cities that are engaged in implementing development strategies such as Cape Town, Durban, and Pretoria.

As mentioned in earlier sections of this document, Johannesburg's GDS 2040 echoes South Africa's aspiration to build more sustainable cities. The city's commitment to sustainable integrated development is also demonstrated in its active engagement in global and regional networks such as C40 Cities, ICLEI-Local Governments for Sustainability and national level institutions such as the South African Local Governments Association. Through its various networks, Johannesburg actively shares its experiences as well as learns from the best practices of cities all over the world.

7. Confirmation of commitment to IAP engagement and sustainable cities global platform/network participation from (1) national government, and (2) target city or metropolitan area.

DBSA and UNEP have been engaged in discussions with the Planning Department of the City of Johannesburg since June 2014 resulting in the development of the current proposal, which is fully aligned with the GDS 2040. The proposal

has full support of the city and is also supported by the National Government. This proposal also has the support of the GEF Operations Focal Point as per the Expression of Interest signed.

8. Consistency with national and local policies and strategies:

- Summary of alignment of proposed priorities with relevant national sustainable development policies and strategies

  As mentioned above, urban development also features prominently in the 2030 National Strategy South Africa which includes as main milestones elements related to public transport; energy production and access to energy for poor households; carbon emissions reductions per unit of power by about one-third; small scale farmers food production; food and nutrition security.

  Some of the critical actions stated in the National Strategy are related to Public infrastructure investment focused on transport, energy and water (10% of GDP); ensure environmental sustainability and resilience; new spatial norms and standards in order to densify cities and improve transport among other targets.

- Summarize alignment of proposed priorities with relevant local sustainable development policies and strategies

  The Growth and Development Strategy, 2040 (GDS 2040) defines a vision for the development of Johannesburg but more importantly, makes considered policy choices on how that development vision would be realized. These policy choices include (but are not limited to) the provision of guidelines to retrofit of buildings, providing clarity on activities specific to agriculture and food security, and the shift to more sustainable means of transport.

A.2. Stakeholders. Will project design include the participation of relevant stakeholders from civil society and indigenous people? (yes) If yes, identify key stakeholders and briefly describe how they will be engaged in project design/preparation:

The listing of key stakeholders below is not exhaustive but covers only stakeholders that are envisioned to take part in the implementation of the project. It is likely that additional critical stakeholders, especially in the private sector, will be identified during project implementation.

(1) City of Johannesburg; as the target city, will play the role of an executing agency and implement project activities accordingly. (2) UNEP and DBSA will act as implementing agencies and will also provide technical support to Johannesburg in project implementation. (3) Department of Cooperative Governance and Traditional Affairs; as a government department that develops national policies and legislation with regards to provinces and local government, will use lessons from this project to influence existing or develop new policies to ensure an integrated approach in the country's cities' planning process. (4) City networks such as the South African Cities Network will identify, assemble and disseminate information gathered from the project and ensure enhancement of the ability of decision-makers from other metropolitan areas and municipalities to learn from the experiences of the City of Johannesburg to build more sustainable cities; C40 Cities and ICLEI-Local Governments for Sustainability shall also lead as a knowledge partners, supporting the dissemination of lessons learned and best practices developed in Johannesburg widely across their networks so that other cities will also benefit from their experiences; South African Local government Association (SALGA) will also play a critical role in transferring lessons and outcomes of this project across the three tiers of the South African government.

A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

Annex A

Risk	Risk level	Mitigation measure
Engagement: Lack of commitment and motivation of targeted stakeholders to participate in and learn from the training and capacity building activities organized by the project.	Low	The Director of Johannesburg Planning Department approached UNEP to do a project on integrated urban planning.
Political: Changes in local authorities could affect the level of priority given to the project	Medium	Implementation of efficient and effective institutional structure to ensure sustainability throughout the project cycle
Implementation: Delays in the adoption and execution of policies and measures identified within the project	Low	Close involvement of the City of Johannesburg, DBSA and national institution as well as permanent communication with decision makers.
Replication: Lack of replication/upscaling initiatives successfully demonstrated by pilots during the project	Medium	The project concept has identified preliminary means for replication and scale up. These approaches will be validated and if necessary strengthened during project development.

A.4. Coordination. Outline the coordination with other relevant GEF-financed and other initiatives:

This project will complement another GEF financed project currently under implementation focused on Energy Efficiency : “Market transformation through Energy Efficiency Standards and Labeling of Appliances in South Africa".

In addition, this project could create synergies with two recently approved GEF projects in South Africa : “Promoting Organic Waste-to-Energy and other Low-carbon Technologies in Small and Medium-scale Enterprises (SMMEs): Accelerating Biogas Market Development” and “Energy Efficient Low-carbon Transport”.

DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 IS THE PROJECT CONSISTENT WITH THE NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSEMENTS UNDER RELEVANT CONVENTIONS? (YES /NO ☐). IF ☒ES, WHICH ONES AND HOW: NAPAS, NAPS, ASGM NAPS, MIAS, NBSAPS, NCS, TNAS, NCSAS, NIPS, PRSPS, NPFE, BURS, ETC.:

South African emissions inventory estimates that 83% of emissions in 2000 were associated with energy supply and consumptions and more than 10% of these emissions are generated by the transport sector.

As stated in its 2011 national communication South African recognises the need to make a transition to a climate-resilient and low-carbon economy and society. This will be achieved in the long-term through facilitating structural transformation of the economy by shifting from an energy-intensive to a climate-friendly path, as part of a pro-growth, pro-development and pro-jobs strategy.

This project is supporting the GDS 2040 which is specifically for the city of Johannesburg and it is designed to be pro-growth, pro-development and pro-jobs. The different components of this project will foster this structural transformation to a low-carbon and more resilient economy through policies and investments at the city level, thus contributing to the global objective of reducing GHG emissions. Indeed, the climate change, resource efficiency, and resilience considerations considered in this project will contribute towards the achievement of South Africa’s voluntary

commitment of a reduction in Greenhouse Gases (GHG) emissions of 34 % below business-as-usual levels by 2020 and 42% by 2025.

Annex I – GHG emissions reduction estimates

The GEF project will contribute to greenhouse gas emission reductions in Johannesburg through an integrated urban planning approach and through pilot projects.

The 2007 GHG inventory for the city of Johannesburg estimated the following emissions per sector:

GHG emissions in Johannesburg (2007)		
Inventory per sector	tCO2e/year	
Commercial & Industrial	10,612,421	39%
Residential	7,891,288	29%
Transport	6,802,834	25%
Waste	1,904,794	7%
Total	**27,211,337**	**100%**

Methodology used: Global Protocol for Community-scale Greenhouse Gas Emissions (GPC).
No estimates of emissions for IPPU and AFOLU included in the inventory due to lack of data.

The **pilot projects** will mainly impact the 3 following sectors: residential, transport and waste (16,598ktCO2eq/year). These projects aim to achieve a reduction of **0.5%** of emissions in these sectors.

In addition, it is estimated that the **integrated urban planning component of this project can contribute to 0.1% of the city reduction target.** The city of Johannesburg has set a target of reducing GHG emissions by 20% by 2020 compared to the 2007 emissions. This equals 5.4MtCO2eq/year. The proposed integrated urban planning approach will then contribute to 0.1% of this reduction. This seems conservative due to the diverse impacts that this planning approach will have in several sectors.

Considering that the reductions will start at the end of the project and the period of influence of the project is 20 years after its closure the total impacts for the project in Johannesburg are estimated to be 1,770ktCO2eq. The table below shows the yearly emission reductions as well as the total post-project emission reductions.

	Yearly emission reduction	Total emission reduction
	tCO2eq/year	tCO2eq
Pilot	82,995	1,659,892
Planning	5,442	108,845
Total	**88,437**	**1,768,737**

Annex A

NAME OF PROGRAM:
SUSTAINABLE CITES INTEGRATED APPROACH PILOT
Child Project Concept Note

PART I: PROJECT INFORMATION[1]

Project Title:	Integrated Approaches for Sustainable Cities in Viet Nam
Country(ies):	Viet Nam
GEF Agency(ies):	AsDB (select) (select)
Other Executing Partner(s):	Ministry of Natural Resources and Environment (MONRE)
GEF Focal Area(s):	Climate Change

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]:

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	**Trust Fund**	**(in $)**	
		GEF Project Financing	**Co-financing**
(select) CCM-2 Program 3 (select)	GEFTF	3,669,725	56,000,000
BD-4 Program 9 (select) (select)	GEFTF	917,431	19,000,000
(select) (select) IAP-Sustainable Cities	GEFTF	3,669,725	100,000,000
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
Total Project Cost		8,256,881	175,000,000

B. CHILD PROJECT DESCRIPTION SUMMARY

Project Objective: To enhance ecosystems resilience, water quality management and integrated sustainable urban planning for Viet Nam

Project Components	**Financing Type[3]**	**Project Outcomes**	**(in $)**	
			GEF Project Financing	**Co-financing**
Component 1: Enhancing integrated sustainable urban planning and environmental management (links to Component 1 in the PFD)	TA	1.National and city policy reforms create more favorable conditions for local action to address global and local environmental concerns 2. Integrated urban sustainability and environmental policies and processes mainstreamed in city planning and environmental management	2,752,327	17,000,000
Component 2: Monitoring local and globally relevant performance frameworks for improved performance (links to Component 2 in the PFD)	TA	1.Core performance framework for local and global environmental benefits implemented at the local level, including green cities indicators (including SCIAP indicators); and tools for climate change resilience, GHG inventory,	1,834,851	34,000,000

[1] This Concept Note is intended to convey whatever preliminary information exists at this stage on a child project and that is indicative of how it will contribute to the overall Program.

[2] When completing Table A, refer to the Program Results Framework, which is already mapped to the relevant *Focal Area Results Framework* in the *GEF-6 Programming Directions*.

[3] Financing type can be either investment or technical assistance.

		and biodiversity impact assessment. 2. Increased energy efficiency, GHG savings, and biodiversity benefits 3. Socio-economic co-benefits (health, equity, personal safety, economic opportunity)		
Component 3a: Catalyzing investments in sustainable cities – Preparing for Investment (links to Component 3 in the PFD)	TA	1. .Enhanced ability at the local level to prepare investment-ready projects and leverage long-term financing for sustainability initiatives 2. Innovative financial mechanisms introduced for promoting sustainability and environmental management	1,376,113	8,000,000
Component 3b: Catalyzing investments in sustainable cities – Demonstration Projects (links in Component 3 in the PFD)	Inv	1..Demonstration projects leverage increased investment in sustainability initiatives	2,293,590	110,000,000
	(select)			
	(select)			
	(select)			
	(select)			
	(select)			
	(select)			
		Subtotal	8,256,881	169,000,000
		Project Management Cost (PMC)[4] (select)		6,000,000
		Total Project Cost	8,256,881	175,000,000

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust

C. CO-FINANCING FOR THE PROJECT BY SOURCE, BY TYPE AND BY NAME

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount ($)
GEF Agency	Asian Development Bank (AsDB)	Loans	170,000,000
GEF Agency	Asian Development Bank (AsDB)	Grants	5,000,000
Recipient Government	Government of Vietnam (amount for cofinanacing TBC)	In-kind	
(select)		(select)	
(select)		(select)	
(select)		(select)	
Total Co-financing			175,000,000

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

[4] For GEF Project Financing up to $2 million, PMC could be up to10% of the subtotal; above $2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in $)		
					GEF Project Financing (a)	Agency Fee (b)[b)]	Total (c)=a+b
AsDB	GEFTF	Viet Nam ☐	Multi-focal Areas	IAP-Cities	3,669,725	330,275	4,000,000
AsDB	GEFTF	Viet Nam ☐	Climate Change	IAP-Cities	3,669725	330,275	4,000,000
AsDB	GEFTF	Viet Nam ☐	Biodiversity	IAP-Cities	917,431	82,569	1,000,000
(select)	(select)	☐	(select)	(select as applicable)			0
(select)	(select)	☐	(select)	(select as applicable)			0
(select)	(select)	Project Management cost [c)]	(select)	(select as applicable)			0
Total GEF Resources					8,256,881	743,119	9,000,000

a) No need to fill this table if it is a single Agency, single Trust Fund, single focal area and single country project.
b) Refer to the Fee Policy for GEF Partner Agencies.
c) If Multi-Trust Fund project :PMC in this table should be the total amount; enter trust fund PMC breakdown here ( )

PART II: PROJECT JUSTIFICATION

A. Project Overview

A.1. Project Description. Briefly describe:

1. Proposed city or metropolitan area for IAP.
A national network of SC-IAP information/activity sharing in Viet Nam will be established involving smaller/medium cities (such as Huế, Buon Ma Thuot, Dong Hoi, Vinh Yen, Hoi An, Ha Tinh, Ha Giang, Viet Tri, Hung Yen and Dong Dan, Thanh Hoa, and others) and several larger cities (Hai Phong, Da Nang, Ha Noi, HCMC). The cluster of urban areas in the Huế-Da Nang corridor is provisionally designated as the target cities for investment support, subject to further stakeholder consultation and analysis during project preparation.

2. Population of target cities or metropolitan areas:

Current population	Projected population in 2050[5]
1.5 million in urban areas	3.2 million

3. Brief description of context and baseline scenario.
Viet Nam is at a pivotal point in the development of its cities. Urbanization is rapid and accelerating and predicted to increase from the 30% of population currently living in urban areas to 45% by 2030 and almost 75% by 2050. These urban challenges are compounded because investment in urban infrastructure is not keeping pace with population growth and by a shortage of human capacity; and become much more compelling because Viet Nam's cities are among the most vulnerable in the world to the impacts of climate change. Viet Nam recognizes the challenges facing its cities and the need for a more sustainable and integrated approach. The Government of Viet Nam (GoV) has adopted a National Green Growth Strategy (2012), which sets out a pathway to a low carbon economy and specifically targets sustainable urbanization as a priority. This is further supported by National Strategy on Climate Change (NSCC) and the National Action Plan on Climate Change (NAPCC) (2012-20) that specifically targets reducing the vulnerability and enhancing the resilience of urban centers.

[5] Please refer to Table 2: The World's Largest Cities in 2050, which can be found in the background paper of the August 2014 Sustainable Cities IAP consultative meeting (http://www.thegef.org/gef/CC/sustainable-cities).

The GoV has a strong partnership with the Asian Development Bank (ADB) in the urban sector and is working closely with ADB as part of its regional Green Cities Initiative (GCI). The ADB GCI provides an integrated framework for sustainable urban development, with that mirrors the GEF SC-IAP. In particular, the framework includes development of a Green City Action Plan (GCAP), which for participating cities, identifies key actions needed to transform the city and achieve its sustainability vision. GCAPs has already been developed for Hue and Vinh Yen as part of the ADB "Green Cities: A Sustainable Urban Future in Southeast Asia" project, and more Viet Nam cities will follow with the GCAP approach. This approach of GCAP and linked investment provides a model with very strong replication potential across the large number of smaller-medium, rapidly growing cities of Viet Nam.

As part of its ongoing partnership with Viet Nam, ADB has many major projects in the urban sector underway or in the pipeline. This includes (project name, cities, funding): Secondary Cities Development Project (Buon Ma Thuot, Ha Tinh, Tam Ky) ($170m); Viet Nam Water Sector Investment Program (Hai Phong, Da Nang, plus provincial programs) ($180m); Urban Environment and Climate Change Adaptation (Dong Hoi, Hoi An, Sam Son) ($135m); sustainable urban transport projects in Ha Noi and HCMC; GMS Economic Corridor Town Development Project (Bac Giang, Mon Cai, Sa Pa) ($100m for urban development); and the second Secondary Cities Development Program (SCDP-Green Cities) (Hue, Vinh Yen and Ha Giang) ($176million) which is currently under preparation and will assist with implementation of GCAPs for participating cities. ADB is also working with the GoV on preparation of technical assistance (TA) for maintreaming of urban climate change resilience into the upcoming National Urban Development Strategy, and on participation in a regional TA on Urban Resilience. Overall, ADB has urban sector projects underway or under development in almost 40 cities in Viet Nam. This means that there are several potential baseline projects for GEF funding. The final choice of baseline project will be confirmed during the project preparation phase, based on alignment with SC-IAP in terms of objectives and timing, and ability to interface efficiently with the SC-IAP program.

4. Brief description of priorities for IAP support.

Priorities for IAP support are structured to further integrate environmental management into urban planning, management, investment and monitoring, and build on the GCAP and baseline project through demonstration projects:

1. Enhancing Integrated Sustainable Urban Planning and Environmental Management (PFD Component 1)

This component will provide a program of technical assistance focusing on national and city-level policy reform to create an improved platform for environmental management and sustainability in urban planning and management in Viet Nam. In particular, it will use the SC-IAP target cities as case studies for identifying weaknesses and gaps in the current framework at the city and national level; establishing a two-way vertical dialog between national and city levels; and focusing on areas were policies and processes are out-of-step with current sustainability and environmental management objectives, best-practice and community expectations. This process will shape national policy and form the basis for an integrated reform package of mutually supportive measures at national and city level.

2. Monitoring Local and Globally Relevant Performance Frameworks (PFD Component 2)

This component will enhance the decision support tools available to cities in Viet Nam in key areas of environmental management, sustainability and global environmental impacts. In particular, it will focus on green cities indicators (including SCIAP Results Framework indicators); tools for assessing climate change impact (city-scale GHG inventory, Climate Resilience Vulnerability Assessment, etc); and tools for monitoring biodiversity impact (biodiversity indicators and associated monitoring processes). These tools will be initially implemented in the target cities and then rolled-out as part of a national program. To support ongoing sustainability of these enhancements, this component will also include training courses and knowledge tools. Collaboration with the SC-IAP Global Platform is also envisioned.

3. Catalyzing Investments in Sustainable Cities (PFD Component 3)

This component will work in conjunction with the baseline project to catalyze investment in selected high impact, high visibility demonstration projects that are consistent with the GCAP; deliver global and local environmental benefits; and have strong replication potential. It will be implemented as a two-stage process:

3a. Translating Opportunities into Investments (TA). The purpose of this activity is to enhance capacity at the city-level to translate opportunities for improved environmental management into investment-ready projects and innovative financial mechanisms; and thereby leverage long-term financing opportunities for sustainability initiatives. This activity will work closely with target city to firstly select a small number of project opportunities that have high impact and replication potential and will complement investments already being made under the baseline projects. In particular, this process will be guided by city integrated urban management planning and draw on the GCAP process which has already identified a range of actions for improving urban sustainability in areas including water/wastewater management; climate change resilience; sustainable transport; "greening" the manufacturing sector; solid waste management (including industrial/chemical waste); biodiversity; and building standards (energy efficiency, water use, etc) for Green Districts. The selected initiatives will then be developed into investment-ready projects. This process will also assess and develop opportunities for innovative financial mechanisms. For example, an opportunity has been identified in the GCAP process to develop/trial innovative financial measures to attract private sector investment to support the "greening" the manufacturing sector (clean manufacturing) to decrease the environmental footprint of local industry.

3b: Demonstration Projects (Investment). In the second stage, selected investments/financial mechanisms will be implemented as demonstration projects. The demonstration projects will be closely monitored and documented to extract learnings that can be broadly applied in the urban sector in Viet Nam and maximize replication potential. As noted above, investments will be selected on the basis of addressing priorities identified in the integrated urban planning/management process; potential to deliver rapid, high and transformative impact; potential to leverage additional investment; replication potential; and additionality in terms of linkages to investments being made under the baseline projects

There is strong potential for replication and scaling-up of the impacts of the GEF-funded activities. As noted above, Viet Nam is amongst the most rapidly urbanizing countries in Asia. There are more than 100 cities in Viet Nam that are facing challenges of urbanization and sustainable development similar to the SC-IAP pilot cities. Mechanisms are already in place for knowledge sharing and replication in Viet Nam through the GoV and the Association of Cities of Viet Nam, which is a focal point for city-to-city peer learning and knowledge sharing in Viet Nam. The target cities will also provide a model for replication more broadly in the region, and generate learnings that are relevant globally. In particular, Viet Nam is very active in the ASEAN WG on Environmentally Sustainable Cities and will use this forum for knowledge sharing and to promote replication more broadly in the region

5. Rationale to include target city or metropolitan area.

A national network of SC-IAP information/activity sharing in Viet Nam will be established involving smaller/medium cities (such as Huế, Buon Ma Thuot, Dong Hoi, Vinh Yen, Hoi An, Ha Tinh, Ha Giang, and others) and several larger cities (Hai Phong, Da Nang, Ha Noi, HCMC). This will create a critical mass for amplifying the impact of SC-IAP support and influencing urban development and policy at a national level. The cluster of urban areas in the Huế-Da Nang corridor is provisionally designated as the target city because:

a) Urban areas in the Huế-Da Nang corridor have particular urban sustainability and resilience challenges, while at the same time, typifying the challenges facing growing smaller/medium urban areas in Viet Nam (rapid population growth; urban sprawl and impact on surrounding farmland and environment/biodiversity; inadequate urban infrastructure and services to meet the growing demand; significant urban, peri-urban and global environmental issues; balancing heritage/cultural values with urbanization). Da Nang is the regional economic hub of central Viet Nam and is one of the fastest growing cities in Viet Nam (average annual growth of 3.1% for last 5 years); while Huế has specific challenges relating to its UNESCO World Heritage status; and the intervening corridor is experiencing strong urbanization pressures especially at the southern end near Da Nang. The participation of other cities in the Viet Nam SC-IAP network ensures that specific development issues are also captured. For instance Vinh Yen is developing as a satellite city of Ha Noi, with a strong and growing industrial focus;

b) Huế city is recognized as leader in the region in pursuing sustainable development goals. Huế has recently received (October 2014) an Environmentally Sustainable City award from ASEAN in

recognition of its commitment to and progress in sustainable urban development. In addition, a Green City Action Plan has already been prepared for Huế city, so Huế is ready to go with a sustainability vision and action plan; implementation can begin quickly; and measurable results achieved quickly (within the period of GEF-6). In addition, within the context of the size of Huế and baseline funding, SC-IAP/STAR financing can make a difference.

c) Huế and Da Nang are currently participating in ADB investment projects (Secondary Cities Development Program (SCDP-Green Cities) and Viet Nam Water Sector Investment Program respectively). This provides strong opportunities for synergies, knowledge sharing and leveraging investment.

d) Opportunity to link SC-IAP funding with the SCCF funded project Promoting Climate Resilience in Viet Nam Cities (GEF ID: 6924) which also has Huế as a target city. This creates an opportunity to coordinate climate change adaptation and mitigation issues facing Viet Nam cities under an integrated response. Confirmation of city selection and the baseline project will be confirmed during further project preparation based on consultations bewteen ADB, the Government of Viet Nam and the GEF.

Further baseline assessment will be undertaken during the project preparation phase to confirm the target city. The selection criteria are expected to include local readiness and commitment to sustainability principles; alignment between city vision and SC-IAP objectives; potential to deliver results during the SC-IAP timeframe; availability of a suitable baseline project; representativeness in terms of typifying the challenges facing urban areas in the country/region/global; and potential to produce broadly applicable lessons for integrated sustainable urban management

6. Experiences with, and commitment to, integrated urban management by (1) national government, and (2) target city or metropolitan area.
Evidenced at national government level by GoV's strong supportive policy and planning environment for sustainable urban development embodied in the National Green Growth Strategy (2012), as described above. Evidenced at local level by participation in the ADB Green Cities Initiative, including preparation of a GCAPs and commitment to implementation. As noted above, this commitment has been recognized internationally by Huế receiving an Environmentally Sustainable City 2014 award from ASEAN.

7. Confirmation of commitment to IAP engagement and sustainable cities global platform/network participation from (1) national government, and (2) target city or metropolitan area.
At a national government and municipal level, Viet Nam has a strong record of participation in regional and global forums and information sharing networks, and has had an ongoing engagement with GEF through the SC-IAP process. GoV and Viet Nam cities are already active in many regional and global forums/projects, including ASEAN Working Group (WG) on Environmentally Sustainable Cities and its regional knowledge sharing network; and initiatives on sustainable cities such as ASEAN Environmentally Sustainable Model City Project; ADB Green Cities; and Rockefeller-funded Climate Urban Resilience Project. In addition, GoV is already supporting city-scale sustainability metrics through the MONRE-developed National Sustainable Development Criteria and the Asia Green Cities Index. This demonstrated commitment to global platform/network participation will extend to SC-IAP.

8. Consistency with national and local policies and strategies:
The project priorities align strongly with national policies and strategies for sustainability and resilience. As mentioned above, Viet Nam has adopted a National Green Growth Strategy (2012) which aligns strongly with SC-IAP principles and objectives. In addition, the National Strategy on Climate Change (NSCC) stresses that climate impacts on Viet Nam are serious threats to poverty reduction, the realization of development goals, and the country's sustainable development. There associated National Action Plan on Climate Change (NAPCC) (2012-20) specifically targeted at reducing the vulnerability and enhancing the resilience of urban centers. An urban focus for implementation of the NAPCC was recently provided by the National Scheme of Responding to Climate Change and Urban Development for the Period 2013-2020 (2013) that included a comprehensive suite of concrete policy measures and implementation support modalities.

- Summarize alignment of proposed priorities with relevant local sustainable development policies and strategies

At a local level, sustainable development policies and strategies are guided by and aligned with the National Green Growth Strategy, NSCC and related national strategies as described above. In addition, cities in Viet Nam are increasingly adopting green cities principles as a basis of urban master plans, and are participating in programs such as the GCAP process and Asia Green Cities Index. These initiatives align strongly with SC-IAP objectives and the proposed project priorities.

A.2. Stakeholders. Will project design include the participation of relevant stakeholders from civil society and indigenous people? (yes ☒ /no☐) If yes, identify key stakeholders and briefly describe how they will be engaged in project design/preparation:

Key stakeholders at a national level include Ministry of Natural Resources and Environment, National Climate Change Committee, Ministry of Construction and Association of Cities of Viet Nam; and at a local level include People's Provincial Committees, local community, civil society and private sector. As noted above, ADB is already working with GoV on Green Cities initiatives and other urban sector projects, which involve extensive and ongoing consultation at a national level. At a local level, GCAP have been developed for several cities with assistance from ADB. This has involved extensive consultation with the municipal agencies, local community and NGOs. The consultation process established during the GCAP process will continue through this project's design/preparation and implementation stages. Gender considerations will also be further taken into account during project preparation consistent with ADB's Policy on Gender and Development and ADB's Guidelines on Gender Mainstreaming and Categorization. The process will involve the use of "Urban Sector gender checklist", which have been prepared to help address gender issues in the design of projects.

The participation of key stakeholders in project design and implementation will also add strongly to project sustainability. In particular, the combination of increased push from the community for improved environmental practice along with improved capacity by municipal agencies to deliver and monitor these practices, is expected to ensure sustainability of project outcomes.

A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

As described above, several cities in Viet Nam have already participated in the GCAP process and the ADB project due diligence process applying to baseline projects. As a result, likely project risks are well understood and mitigation measures have already been designed into baseline projects and consequently into this project. The main risks are institutional. In particular, challenges arise from limited capacity and overlapping mandates within agencies at municicpal and national level; horizontal fragmentation of responsibility for urban sector issues across line ministries; and vertical split of key responisbilities and fiscal powers between provincial and national level. These institutional risks are being mitigated through capacity building in baseline projects targeted at increasing management competencies and overall institutional strength, and by maintaining a close working relationship between ADB and agencies at municipal, provincial and national level and fostering inter-agency cooperation.

From a climate change perspective, the major risk is flooding. For instance, Hue is located on river plains at risk of inundation during flood peaks. Baseline and GEF-funded investment will be designed taking into account predicted changes in flood and rainfall intensity.

A.4. Coordination. Outline the coordination with other relevant GEF-financed and other initiatives:

Coordination will be on several levels. GoV and participating cities have confirmed their commitment to SC-IAP engagement and to participation in sustainable cities initiatives at national and municipal level, as described above. This project is directly linked with the ADB Green Cities Initiative and ADB urban sector program in Viet Nam (as described above), and will be coordinated with ADB's pipeline of projects in the Viet Nam urban sector and projects managed by other development partners (World Bank, UNDP, bilateral,

etc). ADB has already consulted other agencies to ensure coordination and avoid duplication. In particular, the project will be coordinated with work underway by World Bank to identify development institutions active in key aspects of sustainable urban development in Viet Nam and highlight potential entry points for impactful engagement.

The project will also be coordinated with other GEF-financed initiatives, in particular, with the GEF SCCF funded project "Promoting Climate Resilience in Viet Nam Cities" (GEF ID: 6924). This creates an opportunity to coordinate climate change adaptation and mitigation issues facing Viet Nam cities under an integrated response

B. Description of the consistency of the project with:

B.1 Is the project consistent with the National strategies and plans or reports and assessements under relevant conventions? (yes ☒ /no☐). If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.:

As described above, the project is consistent with the Viet Nam National Green Growth Strategy (2012) and National Strategy on Climate Change (NSCC). In particular, the associated National Action Plan on Climate Change (NAPCC) (2012-20) specifically targets reducing the vulnerability and enhancing the resilience of urban centers; and National Scheme of Responding to Climate Change and Urban Development for the Period 2013-2020 (2013) includes a comprehensive suite of concrete policy measures and implementation support modalities. The project also aligns strongly with Viet Nam's Second National Communication to the UNFCCC (SNC) of 2010, which highlights the vulnerability of urban systems.