



# GEF-6 REQUEST FOR PROJECT ENDORSEMENT/APPROVAL

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

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## PART I: PROJECT INFORMATION

Project Title: A systemic approach to sustainable urbanization and resource efficiency in Greater Amman Municipality (GAM)			
Country(ies):	Jordan	GEF Project ID: <sup>1</sup>	9204
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5543
Other Executing Partner(s):	Grater Amman Minucipality (GAM)	Submission Date:	19 January 2018
GEF Focal Area (s):	Climate Change	Project Duration (Months)	60
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/> Corporate Program: SGP <input type="checkbox"/>		
Name of Parent Program	[if applicable]	Agency Fee (\$)	250,800

## A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES<sup>2</sup>

Focal Area Objectives/Programs	Focal Area Outcomes	Trust Fund	(in \$)	
			GEF Project Financing	Co-financing
CCM-2 Program 3	Outcome B. Policy, planning and regulatory frameworks foster accelerated low-GHG development and emissions mitigation	GEFTF	2,346,370	19,566,400
CCM-2 Program 3	Outcome C. Financial mechanisms to support GHG reductions are demonstrated and operationalised	GEFTF	293,630	2,448,600
		(select)		
		(select)		
<b>Total project costs</b>			2,640,000	22,015,000

## B. PROJECT DESCRIPTION SUMMARY

<b>Project Objective: To assist the Greater Amman Municipality (GAM) improve the quality of life for its citizens and comply with the National Energy Efficiency Action Plan (NEEAP) via support for more sustainable resource-efficient urban planning and targeted low-carbon inter</b>						
Project Components/Programs	Financing Type <sup>3</sup>	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Confirmed Co-financing
1: Urban sustainability planning tools and benchmarks	TA	Planning and monitoring frameworks in place to foster accelerated low-carbon development in GAM and benchmark progress against established international standards	Output 1.1: Development of a Sustainability Plan (SP) and Financing Strategy (FS) for the GAM using the updated Amman Master Plan;  Output 1.2: Quantification of all energy, water and material flows in the GAM;  Output 1.3: Institutional strengthening (Urban Planning Department and Amman Urban Observatory) for data analysis and reporting;	GEFTF	250,000	2,119,803

<sup>1</sup> Project ID number remains the same as the assigned PIF number.

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

<sup>3</sup> Financing type can be either investment or technical assistance.

			Output 1.4: Assessment and costing of awareness-raising campaigns for the Sustainability Plan.			
2. Strengthened GAM enabling framework for low-carbon buildings and street lighting	TA	The enabling conditions, methodologies and tools in GAM for enforcing regulatory frameworks for EE buildings and street lighting strengthened	<p>Output 2.1: A new Sustainable Development Department (SDD) set-up within GAM;</p> <p>Output 2.2: Enforcement capabilities of new Sustainable Development Department (SDD) strengthened as regards compliance with Energy Building Codes;</p> <p>Output 2.3: Update of the existing Building Codes and development of a 'Retrofit Building Guidelines' to make upgrades more acceptable;</p> <p>Output 2.4: Development of a training and accreditation programme for ESCOs for selected Building Energy Codes;</p> <p>Output 2.5: At least 5 ESCOs accredited and capacitated via programme;</p> <p>Output 2.6: Development and dissemination of an online tool for carrying out comparative socio-economic and environmental analysis of buildings using life-cycle methodology;</p> <p>Output 2.7: Development of an energy rating and label for buildings for issuing Energy Performance Certificates.</p>	GEFTF	400,000	4,758,397
3. Performance-based GHG monitoring frameworks for low-carbon building and street lights	TA	An integrated climate monitoring and finance framework is established for the development of urban NAMAs, and appropriate financial derisking tools are identified and	<p>Output 3.1: Development of an urban MRV system for (i) Building Energy Codes and (ii) energy efficient street lighting for determination of emission reductions from investments;</p> <p>Output 3.2: Development of 2 city-wide sectoral NAMAs, including investment plan for existing and new buildings, and street lighting;</p>	GEFTF	490,000	3,915,100

		supported to promote adoption of EE measures in buildings attached to MRV systems	<p>Output 3.3: As part of NAMA development, assistance to the Jordan Renewable Energy and Energy Efficiency Fund to provide customised financial incentives to promote investments in Building Energy Codes;</p> <p>Output 3.4: Identification and quantification of the effectiveness of different policy and financial derisking instruments for EE buildings using UNDP's derisking methodology (DEEI);</p> <p>Output 3.5: Lessons learnt, experiences and best practices related to the project are compiled and disseminated in other cities of Jordan and MENA countries.</p>			
4. Targeted proof-of-concept mitigation interventions	Inv	Selected proof-of-concept mitigation interventions	<p>Output 4.1: 2 new private-sector residential buildings integrating best-practice resource efficiency measures/technology are supported;</p> <p>Output 4.2: 4 existing public-sector buildings integrating best practice resource efficient/technology measures supported;</p> <p>Output 4.3: Updated EE Lighting Code and smart usage system in place for all GAM lights.</p> <p>Output 4.4: Stand-alone PV street lighting installed in GAM using the most energy efficient and site appropriate lighting technology available (e.g. LEDs)</p>	GEFTF	1,374,500	10,164,980
Subtotal					2,514,500	20,958,280
Project Management Cost (PMC) <sup>4</sup>				GEFTF	125,500	1,056,720
<b>Total project costs</b>					<b>2,640,000</b>	<b>22,015,000</b>

### C. CONFIRMED SOURCES OF [Co-financing](#) FOR THE PROJECT BY NAME AND BY TYPE

<sup>4</sup> 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.

Please include evidence for [co-financing](#) for the project with this form.

Sources of Co-financing	Name of Co-financier	Type of Cofinancing	Amount (\$)
Recipient Government	GAM	Grants	9,000,000
Recipient Government	GAM	In-kind	2,850,000
Recipient Government	Ministry of Planning and International Cooperation (MOPIC)	In-kind	3,000,000
Recipient Government	Ministry of Environment	Grants	800,000
Recipient Government	Ministry of Environment	In-kind	200,000
CSO	WEEC	In-kind	15,000
Private Sector	Al Tarek Co Ltd	Grants	3,000,000
Private Sector	Hussein Maaitah & Partner Co Ltd	Grants	2,750,000
Beneficiaries	Fadi Thaer Building Committee	In-kind	150,000
GEF Agency	UNDP	Grants	100,000
GEF Agency	UNDP	In-kind	150,000
<b>Total Co-financing</b>			22,015,000

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

GEF Agency	Trust Fund	Country Name/Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee (b) <sup>2</sup>	Total (c)=a+b
UNDP	GEF TF	Jordan	Climate Change	(select as applicable)	2,640,000	250,800	2,890,800
<b>Total Grant Resources</b>					2,640,000	250,800	2,890,800

#### E. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS<sup>5</sup>

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	<i>hectares</i>
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	<i>hectares</i>
3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;	<i>Number of freshwater basins</i>
	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	<i>Percent of fisheries, by volume</i>
4. Support to transformational shifts towards a low-emission and resilient development	750 million tons of CO <sub>2e</sub> mitigated (include both direct and indirect)	7,229,858 metric tons (direct) <sup>6</sup>

<sup>5</sup> Update the applicable indicators provided at PIF stage. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the [GEF-6 Programming Directions](#), will be aggregated and reported during mid-term and at the conclusion of the replenishment period.

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path		467,834 metric tons (indirect) <sup>7</sup>
5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	<i>metric tons</i>
	Reduction of 1000 tons of Mercury	<i>metric tons</i>
	Phase-out of 303.44 tons of ODP (HCFC)	<i>ODP tons</i>
6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	<i>Number of Countries:</i>
	Functional environmental information systems are established to support decision-making in at least 10 countries	<i>Number of Countries:</i>

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

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

## **PART II: PROJECT JUSTIFICATION**

### **A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN WITH THE ORIGINAL PIF**

A.1. *Project Description*. Elaborate on: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects, 3) the proposed alternative scenario, GEF focal area strategies, with a brief description of expected outcomes and components of the project, 4) [incremental/additional cost reasoning](#) and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and [co-financing](#); 5) [global environmental benefits](#) (GEFTF) and/or [adaptation benefits](#) (LDCF/SCCF); and 6) innovativeness, sustainability and potential for scaling up.

1. An adaptive approach has been used to develop the project document. Consequently, a few changes have been brought to the project design in order to respond to changes in baseline activities and the changing context that have taken place during the relatively long-period of time taken for PIF approval. Further, it is pointed here that the initial PIF was formulated for inclusion in the Sustainable Cities Integrated Approach Pilot (IAP), while expecting matching funding from the IAP. However, the project concept was not retained for the Sustainable Cities IAP, but the scope of work (without receiving matching funding from the IAP) remained unchanged leaving an imbalance between project scope and funding. The adaptive project design approach has sought to redress this imbalance without jeopardising the core elements of the project.
2. The changes brought to the project design are listed in Table 1. Changes have been brought at the output level only, without changing the project components and corresponding outcomes. While relatively few outputs have been removed compared to the aforementioned discrepancy between scope and budget at PIF stage, and changes in the baseline situation, the updated project design has also introduced either new outputs or increased the scope of others. Any new output that was not included in the PIF is shown in italics. Details on the changes are substantiated in Sections 3.1.1, 3.1.2, 3.1.3, and 3.1.4 of the Project Document.

**Table 1: Changes brought to the project design due to changes in baseline activities.**

<sup>6</sup> The direct emission reductions that will accrue from the direct investments that GEF-financed, UNDP-implemented project will carry out over its 5-year lifetime are estimated at 1,603 tCO<sub>2e</sub>. These emission reductions arise from energy savings in the form for savings in electricity and diesel oil used for space cooling and heating, as well as from water savings. Direct emission reductions will also accrue from updating and enforcing the Thermal Insulation Code and this will yield emission reductions of 343,734 tCO<sub>2e</sub> between 2018 and 2022, and 6,874,682 tCO<sub>2e</sub> between 2023 and 2042. Including reductions from PV lighting, the total direct emissions are 7,229,858 tCO<sub>2e</sub>.

<sup>7</sup> The indirect emission reductions due to insulated buildings has been estimated to range between 467,835 tCO<sub>2e</sub> (top-down) and 435,390 tCO<sub>2e</sub> (bottom up)..

Output in PIF (or new output)	Changes made	Rationale for change
<b>Component 1 / Outcome 1</b>		
Output 1.4. Amman benchmarked against other cities using ISO 37120 to measure the performance of city services and quality of life	Removed (based on guidance received from GAM)	As part of its commitment to pursuing sustainable development, the City of Amman is a member of the World Council on City Data (WCCD). As a global leader on standardised metrics, the WCCD is implementing ISO 37120 Sustainable Development of Communities: Indicators for City Services and Quality of Life, the new international standard; created by cities, for cities. On 7 December 2016, the City of Amman received the Platinum Certification from the WCCD for completing the ISO 37120 report for 2015. More details are provided in the discussion of Output 1.2 in Section 3.1.1 of the ProDoc.
<i>Output 1.3: Institutional strengthening (Urban Planning Department and Amman Urban Observatory) for data analysis and reporting.</i>	<b>Output added.</b>	The Urban Planning Department (UPD) and the Amman Urban Observatory (AUO) are located in the GAM organisational structure. While the UPD is responsible for the physical development plan of GAM, and will play a central role in updating the Greater Amman Metropolitan Growth Plan, the AUO is responsible for collating and analysing city data for reporting purposes. Baseline assessments have shown deficiencies in the capacity of the AUO to fulfil its mandate. Further, the STAP had recommended that the UNDP-GEF project should collaborate closely with the Sustainable Cities IAP in order to adopt benchmarked and standardised tools and methodologies for measuring and reporting the sustainability performance of Amman. As discussed in Section 3.1.1 below, this recommendation of STAP has been fully integrated in the project design and development. The UPD and AUO are the clear candidate for receiving capacity building on these tools and methodologies that will be developed by the GEF-financed Global Platform for Sustainable Cities (GPSC). Consequently, a new output has been added for enhancing the institutional capacity of the UPD and the AUO.
<b>Component 2 / Outcome 2</b>		
Output 1.8: Development of a web-based geospatial tool that provides a topographical plan of main buildings in the city of Amman.	Removed (based on guidance received from GAM and other project stakeholders)	Project stakeholders have commented that, although it is desirable, this output was too far removed from the core issue of promoting low-carbon building by putting in place the necessary conditions for the enforcement of Building Energy Codes, and in particular the Thermal Insulation Code. Removing this output also seeks to bring more balance between the scope of the project and available funding as discussed at paragraph 1 above.
Output 2.5: At least 20 ESCOs/RESCOs accredited and capacitated via programme	Modified (based on guidance received from GAM and other project stakeholders)	Discussions with project stakeholders have revealed that the number of ESCOs was not realistic given that the EE in buildings in Jordan was nascent. Hence, it was decided that the number will be changed downwards to 5 ESCOs but with all of them focusing on thermal insulation in buildings. As discussed in section 3.1.2, an accreditation scheme for Energy Service Providers (ESPs) is in place, hence catering for other aspects of EE in buildings such as heating and air conditioning that will not be the focus of the UNDP-GEF project. This approach brings the project more in line with its core objective at promoting low-carbon buildings through the implementation of building thermal insulation.
<b>Component 4 / Outcome 4</b>		
Output 4.2: 2-4 new public-sector buildings (either schools or hospitals) integrating best practice resource efficiency measures are supported	Removed (based on guidance received from GAM and other project stakeholders)	The JREEEF is now sufficiently capitalised and it has an action plan to 2020. The action plan already considers the implementation of this output. Hence, stakeholders have suggested its removal and to make better use of the investment funding to have impact at scale (rather than diluting the funding over a multitude of low-impact interventions). Please see the changes brought to Output 4.3 described below.
Output 4.3: 1-2 existing public-sector buildings are retrofitted	Modified (based on stakeholder recommendation)	The scale of this output has been <b>increased</b> with interventions planned in 4 existing buildings. This modification is motivated by the fact that while energy efficiency in new public buildings was now receiving support from JREEEF, no attention was being given to existing buildings that utilise most energy (compared to new buildings), and hence, contribute to most emissions in the city. The increased scale of



1. A rapid increase in economic activity, population growth and successive influxes of refugees over the last decade have imposed huge stresses on Jordan's urban areas and fragile water and energy resources. Sitting at the crossroads of two major areas of instability and prolonged conflicts, Jordan was originally a prime destination for several waves of forced migrants from Palestine – the majority of whom were granted Jordanian citizenship – and, more recently, from Syria, Lebanon and Iraq. With the conflict in Syria entering its fifth year, Jordan is now hosting 1.4 million Syrians, of whom 646,700 are refugees. Approximately 85% of these refugees, 550,000 in total, are living in non-camp settings in urban and rural areas. The highest concentrations are in northern and central Jordan, including the capital city, Amman, with the largest proportion (28%); a significant proportion are classified as extremely vulnerable and approximately 24% of all Syrian refugees are women and almost 53% are children.
3. Providing for the needs of Syrian refugees has impacted heavily on the Greater Amman Municipality's public finances, increasing expenditures on subsidies and public services, and further degrading the built environment. Despite these challenges, Amman continues to be the focal point of the Jordanian economy, commanding the majority of Jordan's total investment while accounting for 39% of the total population (over 50% if Zarqa is included) and showcasing nascent but vibrant local technology and service sectors (Jordan was the best performing non-oil economy in the MENA region as measured by real GDP growth between 1999 and 2013).
4. At a city level, the Greater Amman Municipality (GAM) developed the Amman Master Plan (AMP) in 2010: this Plan provides a vision for the growth of the city until 2025, with a clear overarching focus on climate-resilient development, the creation of green jobs, and a strive for resource efficiency in all aspects of municipal planning and investments. The AMP is reflective of a city and a country with limited indigenous energy and water resources and one that is heavily dependent on imports of energy to meet growing demand, expected to double by 2020. Jordan imports 96% of its oil and gas, accounting for almost 20% of the country's GDP, which makes the country completely reliant on, and vulnerable to, the global energy market. The Kingdom is ranked third among the 18 countries in the world considered to be at risk of water insecurity. Current total water use in the country exceeds the renewable supply. If supply remains constant, per capita domestic consumption is projected to fall to 90 cubic metres per person per year by 2025, putting Jordan in the category of having an absolute water shortage that could constrain economic growth and potentially endanger public health (National Climate Change Strategy of Jordan, 2013).
5. Under Jordan's National Agenda (2006-2015), "environmentally sustainable economic development" is a key policy goal, and is reflected in a wide range of sectoral planning, including sustainable energy and infrastructure. In January 2013, a milestone was achieved in Jordan with the launch and adoption of the first National Policy on Climate Change. The Policy was drafted to accommodate national climate change priorities and to provide a policy reference point upon which further strategies and sectoral policies can be based. The long-term goal of the Policy is to achieve a proactive, climate risk-resilient Jordan and to enable a low-carbon but growing economy, with healthy, sustainable and resilient communities; sustainable water and agricultural resources; and thriving and productive ecosystems.
6. The Government of Jordan and the GAM recognize that climate change mitigation and adaptation are an integral part of a much broader strategy for green growth and sustainable development. Authorities have already shown the political will to undertake many of the underlying regulatory reforms needed to catalyse green growth while GAM has committed to a vision of green and sustainable growth via the AMP. However, as observed in the latest AFEX report, **"Jordan still needs to strengthen its implementation capacity to properly capitalise on introduced energy efficiency policies"** and there is still a great deal of support needed for customized solutions at the city-level, particularly around enforcement of existing codes, proper monitoring of policies and targets, financial engineering and support for proof-of-concepts. The UNDP-GEF project will squarely support GAM in overcoming these challenges in a sustainable manner.

7. The alternative scenario proposed by the project addresses the root causes of the problems related to building energy efficiency such as:
  - Barrier #1: Lack of systematic assessment, planning and reporting tools for optimized climate-resilient, resource-efficient development and decision-making at GAM: The AMP offers a general vision of climate-resilient green growth in the GAM. However, there is no GAM-specific sustainability plan or urban metabolism assessment for the city; climate change considerations as it relates to infrastructure and spatial planning decisions in the GAM still take place in an ad-hoc and sub-optimal manner. Moreover there is no standardized common metric in place to measure the progress that the GAM has achieved and plans to achieve versus other urban areas;
  - Barrier #2: Lack of enabling conditions and tools for enforcing and enhancing regulatory frameworks (including financial incentives) for EE in the GAM: The prevailing practice shows that monitoring and enforcement of the current (less optimal) prescriptive EE regulations in Jordan and the GAM is not carried out systematically. Moreover a sizeable portion of the potential for GHG emissions in GAM relate mostly to 'locked in' energy inefficiencies in existing buildings that will not comply with the existing codes and guidelines. In addition to enforcing Building Energy Codes in new buildings, there is a need to design similar codes to retrofit existing buildings;
  - Barrier #3: Information/Awareness and perception barriers about resource efficiency benefits: A general lack of knowledge and negative perception of the benefits of Building Energy Codes still exist among decision-makers, the banking sector and the general public in the GAM and Jordan as a whole. This lack of awareness regarding the socio-economic and environmental benefits of the Codes can be found among both policy decision-makers and end-users;
  - Barrier #4: Technical capacity barriers and absence of performance-based GHG monitoring frameworks and quality assurance: At present there is no one entity in the GAM responsible for development and enforcement of EE measures and a need for capacity strengthening human capacity on EE measures and compliance. There is also an absence of training and accreditation for energy service or savings companies (ESCOs) in the GAM for the selected Building Energy Codes, and no monitoring, reporting and verification (MRV) system determining and certifying emission reductions from investments in EE measures; and
  - Barrier #5: Lack of fiscal incentives for uptake of EE building measures and proof-of-concept investments in the GAM: Up until now, the lack of adequate financing and investment viability of EE measures in Jordan has been further complicated by heavily subsidised energy prices. EE investments can appear unattractive when business cases assume continued low energy prices, especially in the residential sector. Moreover in the GAM and more generally there is a lack of information and understanding amongst financial institutions about EE technologies which makes it difficult to evaluate loan applications for EE investments.
8. The project will implement a strategy founded on a solid Theory of Change (please see Section 2 of the ProDoc) that will lead to changes that will overcome the above barriers and will *"assist the Greater Amman Municipality (GAM) improve the quality of life for its citizens and comply with the National Energy Efficiency Action Plan (NEEAP) via support for more sustainable resource-efficient urban planning and targeted low-carbon interventions in the municipal buildings and street lighting sub-sectors"*. This strategy will lead to 4 outcomes: i) Outcome 1: planning and monitoring frameworks in place to foster accelerated low-carbon development in GAM and benchmark progress against established international standards; ii) Outcome 2: the enabling conditions, methodologies and tools in GAM for enforcing regulatory frameworks for EE buildings and street lighting strengthened; iii) Outcome 3: an integrated climate monitoring and finance framework is established for the development of urban NAMAs, and appropriate financial derisking tools are identified and supported to promote adoption of EE measures in buildings attached to MRV systems; iv) Outcome 4: selected proof-of-concept mitigation interventions.
9. The project will enable GHG reductions through:
  - **Implementation of building envelope thermal insulation in 6 demonstrations projects:** By the close of project, annual direct emission reductions are expected to be ~544 tCO<sub>2e</sub>;
  - Direct emission reductions accruing from the **updating and enforcement of the Thermal Insulation Code** is expected to generate savings of approximately 343,734 tCO<sub>2e</sub> between 2018 and 2022, and 6,874,682 tCO<sub>2e</sub> between 2023 and 2042;



- **Introducing water efficient fixtures in the 6 demonstration projects** will result in direct emission reductions of approximately 1,9 tCO<sub>2e</sub> per year;
- **PV street lighting will result in ~27 tCO<sub>2e</sub>/yr direct emission reduction;**
- The total direct GHG emission savings accruing from the project are expected to be 7,229,858 tCO<sub>2e</sub>, giving a GEF abatement cost of 0.365 US\$/tCO<sub>2e</sub>.

The detailed calculations are given in Section 3.2 of the ProDoc (and Annex SA5 to the ProDoc).

10. Then project's sustainability is underpinned by the fact that as a category of GHG mitigation options, EE in the built environment has been validated as being the most cost-effective abatement measure (by category) in the country (see more below). As discussed in Annex SA2 of the ProDoc, EE interventions in the Jordanian building sector benefit from the highest energy-saving potential, the greatest political attention, and achieve the maximum possible influence in the target group. Energy efficient street lighting similarly has a high level of visibility and social acceptance; it is technically straightforward to implement; and already builds on the work started by several other partners. Jordan suffers from a huge energy import bill and is completely reliant on, and vulnerable to, the global energy market. Energy prices in Jordan are among the highest in the region and Jordan's Cabinet approved a plan to increase electricity tariffs for most segments until 2017 to better reflect the costs of generation. All of these trends and facts mean that from both a Government and end-user perspective, the chosen project interventions can be expected to receive a high degree of acceptance from all stakeholders and have a positive profile in terms of their social, operational and financial sustainability.
11. The urban NAMA and accompanying investment plan will support scaling-up of EE in buildings in GAM based on the lessons learned in implementing the project. Through the compilation and dissemination of lessons-learned to other cities in Jordan, the urban NAMA can potentially be scaled up to other cities in Jordan. Focusing on the largest city in Jordan – i.e. Amman – provides the measure of scale and visibility to hopefully extend similar measures to other cities (post-project) and begin the process of decarbonising the built environment of all of Jordan's urban areas. The interventions chosen for this project have excellent replication potential for the neighboring Greater Zarqa Municipality and Irbid Governorate, the second largest metropolitan population in Jordan after Amman with a population of around 1.1 million (located about 70 km north of Amman on the northern ridge of the Gilead).
12. The project is innovative since it includes more general upstream policy support for urban planning and monitoring frameworks that systematically address resource efficiency issues across the continuum of water, energy and waste sectors in the GAM, as well as more customized components designed to address specific barriers in the municipal buildings and street lighting sub-sectors. Because of budget constraints (the project originally applied for additional set-aside funding under the GEF Sustainable Cities IAP), the choice of sub-sectors for targeted support were narrowed down to buildings and street lighting (it was originally hoped to additionally focus on water and waste interventions) but the “systematic” and “resource efficiency” aspects of the project are nevertheless preserved by virtue of the upstream planning activities and the fact that many of the approaches and tools put forth for the chosen sub-sectors can in the future be replicated for other areas (waste, water-saving technologies, transport, etc.).
13. The project will also have a market transformation impact in terms of supporting a low carbon economy for the country. In terms of both GHG reductions and local benefits<sup>8</sup>, the project has the potential to catalyze transformational change and make a major contribution towards achievement of the National Energy Efficiency Action Plan (NEEAP) and to the offsetting of incremental energy demand from the Syrian Crisis. The project is not your conventional energy efficiency project in the sense that it is embedded in the broader umbrella of a push towards a sustainable architecture by GAM authorities and the fact that many of the interventions are specifically customized to the needs of the GAM and alleviating the exceptional circumstances faced by the city. As already noted, additional Government subsidies on food, gas, water and electricity for Syrian refugees and accelerated

<sup>8</sup> The project will also enhance sustainable development through minimizing dependence on imported energy, minimising energy costs to the GAM and the larger economy, creating new employment opportunities and improving the local environment. The sustainable development and socioeconomic development impacts of the project will be substantial and multi-faceted.

infrastructure depreciation from the crisis are costing the Government more than US\$ 650 million a year, with a sizeable portion of that going to support services in the GAM. The project is very relevant to the current national context since expediting and expanding key energy efficiency and water conservation measures could potentially meet all of the new energy demand from the Syrian crisis and would be a strategic approach that does not build in new import-dependence as with oil/gas, thereby putting the city and country on a firm low-carbon pathway.

A.2. *Child Project?* If this is a child project under a program, describe how the components contribute to the overall program impact.

N/A

A.3. *Stakeholders.* Identify key stakeholders and elaborate on how the key stakeholders engagement is incorporated in the preparation and implementation of the project. Do they include civil society organizations (yes ☒ /no ☐)? and indigenous peoples (yes ☐ /no ☒)?<sup>9</sup>

14. A number of project partners have been identified as a part of the project approach to catalyse a multi-stakeholder process (MSP). The MSP approach will be implemented in a context where there are complementary baseline initiatives with which synergies will be forged to deliver maximum benefits productively (efficiently and effectively) to beneficiaries. The stakeholders that have been engaged in the preparation of the project and their incorporation in its implementation are listed in Table 2 below. All the stakeholders were consulted during the PPG stage and their views and suggestions were used to shape the design of the UNDP-GEF project. More details can be found in Table 11 of the ProDoc.

**Table 2: Project stakeholders and their involvement in project implementation.**

Stakeholder	Contributions	Relevant project outputs
Greater Amman Municipality (GAM)	<p>The mission of GAM is to provide high quality municipal services of excellence focused on the environmental, health, organizational and infrastructure dimensions while maintaining the identity of the City of Amman, cultural heritage, community development, and concern of the human dimension through good planning, optimal investment of resources and building partnerships with stakeholders. Importantly, its role is to oversee the land use development in the City of Amman. To achieve this, its responsibilities consist of issuing construction and occupancy permits and land use licenses, and to oversee that urban development, including constructions are carried according to permits and licenses. In this respect, GAM has the responsibility to also enforce the Building Energy Codes within its jurisdictions. However, promoting low-carbon buildings forms part of a broader set of activities for increasing the resilience of the City of Amman against internal (urbanization and high population growth, water scarcity) and external (e.g. regional geopolitical context that drives an influx of refugees) shocks.</p> <p>GAM is the national implementing institution for the UNDP-GEF project, and it will chair the PSC and host the PMU. Outcome 1 will be implemented directly under the oversight of GAM, and GAM will be the primary beneficiary for engaging with the GPSC that has been</p>	<p>→ Output 1.1: Development of a Sustainability Plan (SP) and Financing Strategy (FS) for the GAM using the updated Amman Master Plan.</p> <p>→ Output 1.2: Quantification of all energy, water and material flows in the GAM.</p> <p>→ Output 1.3: Institutional strengthening (Amman Urban Observatory) for data analysis and reporting.</p> <p>→ Output 1.4: Assessment and costing of awareness-raising campaigns for the Sustainability Plan.</p> <p>→ Output 2.1: A new SDD set-up within GAM.</p> <p>→ Output 2.2: Enforcement capabilities of new SDD strengthened as regards compliance with Energy Building Codes.</p> <p>→ Output 3.1: Development of an urban MRV system for (i) Building Energy Codes and (ii) energy efficient street lighting for determination of emission reductions from investments.</p> <p>→ Output 3.2: Development of 2 city-wide sectoral NAMAs, including investment plan for existing and new buildings, and street lighting.</p>

<sup>9</sup> As per the GEF-6 Corporate Results Framework in the GEF Programming Directions and GEF-6 Gender Core Indicators in the Gender Equality Action Plan, provide information on these specific indicators on stakeholders (including civil society organization and indigenous peoples) and gender.

Stakeholder	Contributions	Relevant project outputs
	<p>established under the GEF-financed Sustainable Cities IAP. In order to enhance the institutional and technical capacity of GAM to issue Occupancy Permits based on, among others, new building compliance with Building Energy Codes, a SDD will be set up in GAM. Appropriate technical capacity building will be provided to GAM engineers and inspectors for onsite monitoring of the implementation of Building Energy Codes, and in particular the Thermal Insulation Code.</p> <p>Further, the Basman District Headquarter that is owned and managed by GAM is one of the buildings that have been retained from retrofitting under Output 4.2.</p>	<p>→ Output 4.1: 2 new private-sector residential buildings integrating best-practice resource efficiency measures/technology are supported.</p> <p>→ Output 4.2: 3 existing public-sector buildings integrating best practice resource efficient/technology measures supported.</p> <p>→ Output 4.3: Updated EE Lighting Code and smart usage system in place for all GAM lights.</p> <p>→ Output 4.4: Stand-alone PV street lighting installed in GAM using the most energy efficient and site appropriate lighting technology available (e.g. LEDs)</p>
Jordan National Building Council (JNBC)	<p>According to the National Energy Efficiency Roadmap 2007, the JNBC is mandated to strengthen energy efficiency building codes and to establish clear responsibility to monitor adherence to the building codes by all planning and certifying agencies. The JNBC will accomplish its mandates in the project by: (1) updating existing Building Energy Codes, and (2) developing retrofit guidelines, especially regarding building envelope insulation, for existing buildings. It will also be closely involved in developing energy performance standards for a labeling scheme for buildings in accordance with the Building Energy Codes.</p>	<p>→ Output 2.3: Update of the existing Building Codes and development of a 'Retrofit Building Guidelines' to make upgrades more acceptable.</p> <p>→ Output 2.7: Development of an energy rating and label for buildings for issuing Energy Performance Certificates.</p>
Ministry of Energy and Mineral Resources (MEMR)	<p>The MEMR is responsible for implementing the National Energy Efficiency Action Plan (NEEAP) 2016. It is also the lead government institution that has oversight over the application of the RE &amp; EE Law 2012 and the Bylaw on regulating Procedures and Means of Conserving Energy and Improving Its Efficiency 2012. It also has the overall responsibility to formulate national energy policy. MEMR has the responsibility to accredit energy auditors under the Bylaw of 2012. Further, according to the Jordan Energy Efficiency Roadmap, MEMR has the responsibility to establish a monitoring, evaluation and verification (MEV) mechanism to continually review and refine the government policies, together with the National Energy Research Center (NERC). The JREEEF is operated under the aegis of the MEMR. The MEMR has been involved during all the stages of project design, conceptualization, development, and it will play a key role in project implementation and monitoring &amp; evaluation, especially since the UNDP-GEF project directly supports the implementation of the NEEAP 2016, and will provide technical assistance to JREEEF in order to operationalize a technical and commercial window for promoting EE in buildings, in collaboration with the SEED project. The MEMER will be closely involved in the application of UNDP's DEEI methodology for assessing the effectiveness of public de-risking instruments to promote Building Energy Codes using an ESCO model. MEMR will serve on the Project Steering Committee (PSC).</p>	<p>→ Output 3.3: As part of NAMA development, assistance to the Jordan Renewable Energy and Energy Efficiency Fund to provide customised financial incentives to promote investments in Building Energy Codes.</p> <p>→ Output 3.4: Identification and quantification of the effectiveness of different policy and financial de-risking instruments for EE buildings using UNDP's de-risking methodology (DEEI).</p>
Ministry of planning and International Cooperation	<p>The Ministry of Planning and International Cooperation (MoPIC) is the official government body entrusted with responsibility for channelling funding from donor countries and organisations to Jordanian agencies and</p>	<p>→ Output 3.2: Development of 2 city-wide sectoral NAMAs, including investment plan for existing and new buildings, and street lighting.</p>

Stakeholder	Contributions	Relevant project outputs
(MoPIC)	<p>organisations. MoPIC also hosts the GEF-OFI, and it was consulted during the development stage of this project.</p> <p>MoPIC will be the institution responsible for carrying out coordination between the proposed project and the initiatives of other development partners that are discussed in Section 3.3 and Supplementary Annex A (SA2). MoPIC is responsible for planning projects and programmes to be developed in Jordan, on a national scale, whether climate-focused or not. More specifically, then, MoPIC will be involved in coordinating the stakeholders during the development of the city-wide NAMA and its replication in other municipalities, as well as coordinating donors and development partners for financing the NAMA. Further, MoPIC can facilitate the implementation of the policy and financial de-risking instruments that will be developed under Component 3 by coordinating the technical and financial assistance provided by the donor community.</p> <p>MoPIC is developing the Jordan Aid Information Management System (JAIMS) for mapping all ongoing projects and programs funded through foreign assistance (grants, soft loans, technical assistance, and twinning programs) in various sectors. The UNDP-GEF project will work with MoPIC to include potential support for climate mitigation activities in JAIMS. This approach is also favored by the PMR project.</p> <p>Finally, as the central public coordinating institution, MoPIC is also very well placed for communicating the lessons learned from the UNDP-GEF project to development partners, the donor community and regional partners.</p>	<p>→ Output 3.3: As part of NAMA development, assistance to the Jordan Renewable Energy and Energy Efficiency Fund to provide customised financial incentives to promote investments in Building Energy Codes.</p> <p>→ Output 3.4: Identification and quantification of the effectiveness of different policy and financial de-risking instruments for EE buildings using UNDP's de-risking methodology (DEEI).</p> <p>→ Output 3.5: Lessons learnt, experiences and best practices related to the project are compiled and disseminated in other cities of Jordan and MENA countries.</p>
Jordan Standards and Metrology Organization (JSMO)	<p>JSMO plays a proactive role in enhancing the competitiveness of Jordanian products in the national, regional and international markets. To achieve this, JSMO fulfils its mandate to build, implement and update systems compatible with international practices in the fields of standardization, metrology, conformity assessment, market surveillance, accreditation, information and related areas. In this project, JSMO is responsible for supporting the adoption of appropriate building standards for developing a building energy performance certification and labeling scheme. JSMO also plays a key role in establishing the specifications for laboratory testing equipment and their commissioning.</p> <p>JSMO is, therefore, a key stakeholder for establishing standards and carrying out conformity tests for materials and equipment that are promoted in Building Energy Codes.</p>	<p>→ Output 2.7: Development of an energy rating and label for buildings for issuing Energy Performance Certificates.</p>
Private sector (new building developers; the Jordan Housing Developers Association;	<p>The private sector is an important investor in the building and construction sector in Jordan. In the proposed project, the private sector will be directly involved in the investment component – i.e. Component 4 – through the implementation of Energy Building Codes in two new buildings. The two private sector projects are described in Section 3.1.4, and are supported by letters of co-financing (Annex J).</p>	<p>→ Output 2.4: Development of a training and accreditation programme for ESCOs for selected Building Energy Codes.</p> <p>→ Output 2.5: At least 5 ESCOs accredited and capacitated via programme.</p> <p>→ Output 4.1: 2 new private-sector residential</p>

Stakeholder	Contributions	Relevant project outputs
and ESCOs)	<p>The private sector building developers will be engaged directly with the project as explained in Section 3.3.2 during the implementation of the Thermal Insulation Code, and the monitoring &amp; evaluation of the building energy performance after their commissioning. Since the developers are also members of the Jordan Housing Developers Association (JHDA), the UNDP-GEF project will avail of this opportunity to promote low-carbon buildings and the results of the project to all the members of the JHDA. It is pointed out that the two private building developers were identified during the project design and development phase through interactions with the JHDA.</p> <p>Other private sector parties that will benefit from the UNDP-GEF project are ESCOs that will be trained and accredited under Outcome 2. As discussed in Section 3.1.2, the ESPs that have been capacitated by the USAID-financed ESCB project will be capacitated as ESCOs.</p>	buildings integrating best-practice resource efficiency measures/technology are supported.
National Energy Research Centre (NERC)	<p>NERC is part of the Royal Scientific Society (RSS) which is the largest applied research institution, consultancy, and technical support service provider in Jordan and is a regional leader in the fields of science &amp; technology. The main goal of NERC is to ensure EE conditions in the relevant sectors (industry, buildings) and support the relevant market key actors as also energy consumers in reducing overall energy consumption.</p> <p>NERC offers services as an ESP, and based on its experience, it will support the development of a training and accreditation programme for ESCOs. Leveraging its prior experience on establishing a national database for EE appliances in buildings, NERC will expand the scope of the database to also include EE measures proposed in this UNDP-GEF project.</p> <p>NERC also has experience in developing Sustainability Strategies and Plans for municipalities (e.g. Municipalities of Sahab, Aqaba and Karak), and supporting their accession to the Covenant of Mayors. This experience will be valuable towards the implementation of Outcome 1.</p> <p>NERC also has experience with retrofitting the Higher Council for Science and Technology building with proper envelope insulation, glazing and geothermal heat pump. It is currently constructing a new building to house NERC offices and laboratories that will adopt the Green Building Code. These experiences will be invaluable for designing retrofit guidelines for existing buildings and to bring the energy performance of new buildings up to the level of Building Energy Codes.</p>	<p>→ Output 1.1: Development of a Sustainability Plan (SP) and Financing Strategy (FS) for the GAM using the updated Amman Master Plan.</p> <p>→ Output 2.3: Update of the existing Building Codes and development of a 'Retrofit Building Guidelines' to make upgrades more acceptable.</p> <p>→ Output 2.4: Development of a training and accreditation programme for ESCOs for selected Building Energy Codes.</p> <p>→ Output 4.1: 2 new private-sector residential buildings integrating best-practice resource efficiency measures/technology are supported.</p> <p>→ Output 4.2: 4 existing public-sector buildings integrating best practice resource efficient/technology measures supported.</p>
Ministry of Environment (MoE)	The Ministry of Environment is the focal point for climate change issues. MoE is responsible for the implementation of the National Climate Change Policy. The Climate Change Directorate (CCD) was created under the aegis of MoE in August 2014. It is the National Focal Point for the UNFCCC and the Designated National Authority (DNA)	→ Output 3.1: Development of an urban MRV system for (i) Building Energy Codes and (ii) energy efficient street lighting for determination of emission reductions from investments.



Stakeholder	Contributions	Relevant project outputs
	<p>for the purpose of facilitating Jordan's participation in Clean Development Mechanism (CDM). The MoE also hosts the Green Economy Unit (GEU) that is developing a "National Strategy and Action Plan for Transitioning to a Green Economy in Jordan: 2016-2025". The GEU was established by a decree from the Prime Minister's Office, and it is supported by UNEP and GGGI (Global Green Growth Institute). It will be responsible for implementing the National Strategy and Action Plan for Transitioning to a Green Economy.</p> <p>The MoE was involved during PIF development, and has been consulted during the PPG phase concerning the design of Component 3, and more precisely the outputs related to the development of standardized baselines as part of a MRV system for tracking GHG emission reduction in buildings, and the design of an urban NAMA. The CCD will ensure that these activities are aligned with and complementary to those that will be carried out under the PMR project, as well as building on what has been achieved under the First BUR. Since the Minister of Environment is the chairperson of the National Climate Change Committee (NCCC), the MoE will also provide the coordination link between the UNDP-GEF project and the NCCC.</p>	<p>→ Output 3.2: Development of 2 city-wide sectoral NAMAs, including investment plan for existing and new buildings, and street lighting</p>
Jordan Green Building Council (JGBC)	<p>The JGBC is a member-based not-for-profit organization with mission to promote and advocate for the adoption of Green Building Practices in all phases of the building process leading towards making Green Buildings a widespread reality in Jordan. The Council is part of a global network of more than 80 GBCs worldwide and holds the authority to represent the World Green Building Council (WGBC) in Jordan. As discussed in Section 3.1.2, the JGBC has been active in developing a tool for promoting the benefits of applying Building Energy Codes, as well as developing a Mini-Checklist, which is a simplified rating tool customized for both existing and new buildings in Jordan. The Mini-Checklist can serve as a precursor for developing a full-fledged energy performance labeling scheme for Jordan that is compliant with the Jordanian Building Codes and the Jordanian Green Building Guide. Similarly, the UNDP-GEF project will enhance the functionality of JGBC's Excel-tool under Output 2.6.</p>	<p>→ Output 2.6: Development and dissemination of an online tool for carrying out comparative socio-economic and environmental analysis of buildings using life-cycle methodology.</p> <p>→ Output 2.7: Development of an energy rating and label for buildings for issuing Energy Performance Certificates.</p>
GIZ	<p>GIZ was consulted during project design and development, specifically in regard to its projects aiming to reduce the energy intensity of water supplied in cities and towns in Jordan. Although GIZ does not have any specific projects in the proposed fields of activities, it has provided a letter of support for the UNDP-GEF project. The projects of the GIZ aim to reduce the energy intensity of water by adopting EE measures on the water supply side, and to make more use of RE sources for water pumping and distribution. These activities are complementary to the end-use water efficiency that is proposed in the UNDP-GEF project.</p>	<p>→ Output 3.1: Development of an urban MRV system for (i) Building Energy Codes and (ii) energy efficient street lighting for determination of emission reductions from investments.</p> <p>→ Output 3.2: Development of 2 city-wide sectoral NAMAs, including investment plan for existing and new buildings, and street lighting.</p>

Stakeholder	Contributions	Relevant project outputs
	Further, the GIZ has supported the development of NAMA in the building sector in Tunisia, and the lessons learned will be used to inform the design of the urban NAMA proposed under Outcome 3.	
EU-Delegation (& REEE II Programme)	<p>The EU-Delegation was consulted during the PIF development and the PPG stage. During the PIF stage, UNDP was made aware that EU funding that would be forthcoming in 2014 (for the period 2014-2018) will be directed towards the implementation of the National Energy Efficiency Action Plan (NEEAP). The EU-funded Renewable Energy and Energy Efficiency (REEE) II programme is now in the implementation phase. Discussions have held with the REEE II management team for coordination with the UNDP-GEF project.</p> <p>Collaboration with the REEE II programme will take place around the following: (1) developing and enforcing stricter energy performance standards in buildings; and (2) promote available EU subsidies through JREEEF for investment in RE and EE measures. The latter is an option for supporting the implementation of financial de-risking instruments that will be identified, quantified and assessed for their effectiveness in the UNDP-GEF project.</p>	<p>→ Output 2.2: Enforcement capabilities of new SDD strengthened as regards compliance with Energy Building Codes.</p> <p>→ Output 2.7: Development of an energy rating and label for buildings for issuing Energy Performance Certificates.</p> <p>→ Output 3.3: As part of NAMA development, assistance to the Jordan Renewable Energy and Energy Efficiency Fund to provide customised financial incentives to promote investments in Building Energy Codes.</p> <p>→ Output 3.4: Identification and quantification of the effectiveness of different policy and financial de-risking instruments for EE buildings using UNDP's de-risking methodology (DEEI).</p>
Co water (& SEED Project)	The SEED project is implemented by Cowater International using bilateral Canadian financing. It aims to promote sustainable economic growth in Jordan by driving entrepreneurship and livelihoods through RE and EE. SEED's principal partner is the Jordan Renewable Energy and Energy Efficiency Fund (JREEEF). In collaboration with the SEED project, the UNDP-GEF project will assist JREEEF to develop its post-2020 action plan with customized financial instruments, including delivery model, for promoting Building Energy Codes. There will also be knowledge sharing on the development of a prototype EE residential building in either the Jordan Valley or the Ajloun region that the SEED project will develop as a best practice demonstration.	<p>→ Output 3.3: As part of NAMA development, assistance to the Jordan Renewable Energy and Energy Efficiency Fund to provide customised financial incentives to promote investments in Building Energy Codes.</p> <p>→ Output 4.1: 2 new private-sector residential buildings integrating best-practice resource efficiency measures/technology are supported.</p>
USAID	USAID has supported the utilities in Jordan to support end-use energy efficiency measures. One component of the ESCB project seeks to train and accredit Energy Service Providers (ESPs). The GEF-financed, UNDP-implemented project will build on the achievements of the USAID technical assistance to support the establishment of ESCOs.	→ Output 2.4: Development of a training and accreditation programme for ESCOs for selected Building Energy Codes.
UNDP CO	<p>The UNDP Country Office (CO) has been supporting the Hashemite Kingdom of Jordan with strengthening institutional capacity for carrying out evidence-based policy planning to enhance the resilience of Jordan against shocks, such as the refugee crisis.</p> <p>UNDP will monitor the implementation of the project, review progress in the realization of the project outputs, and ensure the proper use of UNDP/GEF funds. Working in close cooperation with GAM, the UNDP CO will provide support services to the project - including procurement, contracting of service providers, human</p>	<p>→ Output 1.1: Development of a Sustainability Plan (SP) and Financing Strategy (FS) for the GAM using the updated Amman Master Plan.</p> <p>→ Output 1.2: Quantification of all energy, water and material flows in the GAM.</p> <p>→ Output 1.3: Institutional strengthening (Amman Urban Observatory) for data analysis and reporting.</p> <p>→ Output 2.1: A new SDD set-up within GAM.</p>



Stakeholder	Contributions	Relevant project outputs
	<p>resources management and financial services - in accordance with the relevant UNDP Rules and Regulations, Policies and Procedures and Results-Based Management (RBM) guidelines. The agreement for the delivery of these services is found in <b>Annex SA8</b>.</p> <p>UNDP CO also provides its services through technical advice, facilitating change processes, support to mechanisms for advocacy, networking and partnership building including intermediation for information, expertise and funds, and knowledge development and dissemination.</p> <p>It will also contribute directly to the implementation of Outcomes 1 and 2 through the provision of parallel financing. In particular, the UNDP will finance the participation of GAM and other local stakeholders in the capacity building activities and annual milestone event organized by the GPSC.</p>	<p>→ Output 2.2: Enforcement capabilities of new SDD strengthened as regards compliance with Energy Building Codes.</p>

A.4. *Gender Equality and Women's Empowerment*. Elaborate on how gender equality and women's empowerment issues are mainstreamed into the project implementation and monitoring, taking into account the differences, needs, roles and priorities of women and men. In addition, 1) did the project conduct a gender analysis during project preparation (yes ☒ /no ☐)?; 2) did the project incorporate a gender responsive project results framework, including sex-disaggregated indicators (yes ☒ /no ☐)?; and 3) what is the share of women and men direct beneficiaries (women 33%, men 67%)?

15. A gender-differentiated approach was used to inform the design of the UNDP-GEF project design. A discussion of the gender analysis is found in Section 3.3.3 of the ProDoc, and details thereof are given in Supplementary Annex 6 (Annex SA6) of the ProDoc. Some of the conclusions that can be drawn from the gender analysis study are.

- The survey and gender analysis results indicated there were key differences between men and women when it came to: (i) perceptions on energy efficiency (EE) measures, (ii) access to knowledge and financing options, and (iii) the roles they play in applying EE measures in their households;
- The survey results showed that women held more positive perceptions of EE measures than men. For instance, nearly 20% more women believed in the effectiveness of EE measures when compared to men, while 10% less women believed that EE measures were expensive when compared to the perceptions of their male counterparts;
- In terms of regulatory concerns, nearly one third of individuals were aware of any retrofitting guidelines in Jordan, and only 5% believed that these guidelines were adequately applied in Jordanian buildings. Awareness was nearly 10% lower among women as they have less access to market based knowledge in the energy efficiency sectors;
- Women were perceived to have less market-based access to developments in the EE sector and to financing options. This was likely do to with the higher employment rates among men, as employment gives them more market access and access to financial institutions; and
- Another key difference between men and women when it came to installing EE measures is in their perceived roles. Men played a leading role when it came to decisions involving construction work, infrastructure, and maintenance. On the other hand, women were perceived to have a more equal (if not leading) role when it came to: selecting features of a house at the point of purchase, household design and renovation works, and selecting household appliances.

16. A gender action plan has been developed in response to the conclusions of the gender analysis as summarised in Table 3 below.

**Table 3: Gender Action Plan.**

<i>Project-level outcome: The enabling conditions, methodologies and tools in the GAM for enforcing and enhancing regulatory frameworks (including financial incentives) for EE buildings and street lighting are strengthened</i>						
<b>Gender-related activity</b>	<b>Indicator</b>	<b>Target</b>	<b>Baseline</b>	<b>Budget</b>	<b>Timeline</b>	<b>Responsibility</b>
- New SDD at GAM with female engineer(s) participation.	The EE Unit technical staff include women participation from GAM	1/3 of technical staff are women	No existing EE unit at present	% of budget or total estimated amount (no effect on EE unit budget)	Year 1	GAM
- Update of the existing Building Energy Codes and development of a "Retrofit Building Energy Code" to make upgrades more acceptable	The new Retrofit Building Energy Code accounts for the participation of women and men in the implementation	1 workshop is developed to integrate the priorities and needs of women in the code.	Existing building energy code	Workshop cost, moderator, and gender specialist (up to 10'000 USD)	Year 2	Project Gender Specialist in coordination with GAM and NBC
General awareness raising targeting women	Women become aware of EE measures and incentives / financing options	12 small workshops in various areas of Amman targeting at least 200 women and 200 female school students		Workshop and material preparation and gender specialist (10'000 USD)	Year 1	Gender specialist + consultant + GAM EE unit
<i>Project-level outcome: Performance-based GHG monitoring frameworks for low-carbon building and streetlights</i>						
<b>Gender-related activity</b>	<b>Indicator</b>	<b>Target</b>	<b>Baseline</b>	<b>Budget</b>	<b>Timeline</b>	<b>Responsibility</b>
Lessons learnt, experiences and best practices related to the project are compiled and disseminated in other cities in Jordan and MENA countries.	3 workshops to disseminate the lessons learnt are held with women organizations in 3 major cities (north, middle, south) of Jordan	3 workshops with women organizations outside Amman.	No such focused activity exist	15'000 USD	Year 3	GAM and a consultant
	Women's online forum (eg. Facebook page) to share success stories/ ask for tips and advice	Facebook page for women engaging in EE	No such activity exist	5'000 USD	Year 3	GAM / JGBC / consultant
<i>Project-level outcome: Targeted proof-of-concept mitigation interventions</i>						
<b>Gender-related activity</b>	<b>Indicator</b>	<b>Target</b>	<b>Baseline</b>	<b>Budget</b>	<b>Timeline</b>	<b>Responsibility</b>
2-4 new private-sector residential buildings integrating best practice resource efficiency measures are supported	Women in private residential buildings are informed of the EE measures, investment and financial returns and financing	At least 50 housewives are informed and made aware of the EE measures that can be applied in buildings	No gender focused information tool exist to date	Cost of Information material preparation, small workshops. 10'000 USD Media campaign and gender	Year 2-3	GAM with Gender specialist

	options via a dedicated media campaign (TV and Radio)			consultant. 20'000 USD		
<b>Total budget allocation (% or amount):</b>					70'000 USD	

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

17. Table 4 below provides an executive summary of the risks identified on the project. The full risk log was informed by UNDP's Social and Environmental Screening Procedure (SESP), and can be found in Table 13 in Section 4.2 of the ProDoc.

**Table 4: Project risks and mitigation measures**

Description	Type	Impact & Probability	Mitigation Measures	Owner	Status
Further deterioration in the security climate or increase in terrorism accompanying economic impacts	Political	<p>Probability – Lack of political support from GAM because of the pressing needs to provide services to refugees.</p> <p>Impact – Delay in project implementation due to the need to manage an ongoing refugee crisis at the expense of the project.</p> <p>P = 3</p> <p>I = 3</p> <p>Risk - Moderate</p>	<p>Despite the difficulties experienced in some sectors, the Jordanian economy has generally weathered the difficult regional security climate and has continued to expand, albeit not at the robust pace seen in the previous decade. The Latest EIU country report (July 2015) states that: “<i>Helped by rising construction activity and a rebound in agriculture after a difficult, real GDP grew by 3.1% in 2014. The overall pace of growth, although picking up gradually, will remain constrained in the near term by the impact of regional instability—Syria and Iraq traditionally being Jordan's main export markets and tourism also a key sector—and the effect of lower oil prices on regional liquidity. Meanwhile, high unemployment will act as a continuing drag on private consumption, although work on large infrastructure projects and tourism expansion projects should help to boost employment, and lower oil prices will increase consumer purchasing power. Economic growth in 2015/16 will be higher than in 2013/14, at an annual average of 3.9%.</i>” Additionally it is important to note that the US has also said that it will increase annual aid to Jordan from US\$660m to US\$1bn a year in 2015/17 and has extended loan guarantees.</p> <p>Further, since the beginning of the crisis the European Commission has allocated more than €657 million in assistance to refugees and vulnerable communities in Jordan. The EU will continue to support humanitarian actors on the ground in the assistance to vulnerable Syrian refugees in particular the new arrivals in camps and those living outside of camps, as well as Jordanian host communities.<sup>10</sup></p> <p>With no sign that the regional political situation is likely to improve in the near-future, Jordan will</p>	Project Steering Committee, Project Manager, UNDP Country Director	No change

<sup>10</sup> European Commission. (2017). ECHO Factsheet – Jordan: Syria Crisis – January 2017.  
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			<p>continue to face considerable economic pressure. However, Jordan closed its northern border with Syria in December 2016 as a means to curb the influx of refugees and to stabilise the socioeconomic pressures it is facing.<sup>11</sup></p> <p>In contrast to other neighbouring countries, Jordan has, so far, not been severely impacted by terrorism.</p> <p>There is little the project can do to mitigate or prepare for deterioration of the security situation or the risk of increased spillover effects of the Syrian conflict into Jordan and the GAM. However given that the project rationale and design are specifically designed to achieve cost savings for both the GAM and end users and generate strong economic co-benefits, its relevance will remain.</p>		
Capacity of duty bearers to meet their obligations in the project	Institutional capacity	<p>P = 2</p> <p>I = 3</p> <p>Risk - Moderate</p>	<p>As the project was initiated by GAM it is expected that they will be willing to build the capacity for project implementation. GAM has signed a MOU with the UNDP to provide substance to its commitment to provide all the human and institutional support to the project through the creation of the Sustainable Development Department. Further, human and institutional capacity strengthening will of GAM will be carried out under Components 1, 2 and 4 of the UNDP-GEF project. Further the HACT micro-assesment shown in Annex I demonstrates that the GAM has the fiduciary and due diligence processes in place to implement the proposed project.</p>	GAM, Project Manager	No change
Impact of low oil prices	Economic	<p>P = 1</p> <p>I = 3</p> <p>Risk - Low</p>	<p>According to most studies the recent fall in oil prices has had a positive impact on the Jordanian economy in the short run, lowering production costs and price pressures on citizens and refugees, reducing fiscal pressures related to oil imports for energy, negating the need for past oil subsidy payments from the government to households, and ultimately reducing the twin deficits. In the medium term, however, and depending on the length of the oil price slump, the net effect could turn negative, primarily from lower grants from the GCC on which Jordan is dependent to fund its fiscal deficits, and lower remittances from its diaspora in oil-producing countries. This could impact the budgets of the GAM and many companies in terms of their ability or appetite to invest in EE measures.</p> <p>However generally low oil prices have a largely positive fiscal effect as it pertains to cash transfers from the GAM aimed at compensating households for the removal of fuel subsidies for which about \$300 million had been budgeted (nationally) for each of 2014 and 2015 in the 2014 budget. As originally designed, when oil prices fall below \$100, the cash transfer automatically stops. As a result, the December 2014 disbursement did not take place. The influx of Syrian refugees has affected the cost of living in terms of higher rental costs, but generally inflation has been moderate, helped mainly by lower global oil prices. In the first</p>	Project Steering Committee	No change

<sup>11</sup> European Commission (2017).  
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			<p>quarter of 2015 the consumer price index actually contracted by 0.9%, compared with a rise of 3.3% in the same quarter of 2014, with the cost of transport and fuels and lighting declining by 16.3% and 11.6% respectively.</p> <p>Given that according to AFEX 2015 Jordan has the third highest energy prices in the region, even with lower oil prices there is a strong incentive for consumers and GAM authorities to invest in the EE measures included in this project, which as noted are among the most cost-effective in the country.</p>		
Climate Change	Climate	<p>P = 2</p> <p>I = 4</p> <p>Risk - Moderate</p>	<p>The ambient temperature in Jordan is expected to increase in the future due to climate change. As discussed, energy building codes related specifically to building envelope insulation will be an effective form of adaptation to this climate impact. The Third National Communication to the UNFCCC includes a special chapter on municipal needs for urban adaptation to climate change in Jordan, and the project has been specifically informed by the recommendations contained therein. Adaptation measures which will be incorporated into this project include; 1) introduction of climate-responsive building techniques and elements to reduce the effect of heat and reduce demand on energy for cooling; 2) Promotion of the use of energy-saving devices, and raising awareness on the long-term benefits of energy efficient devices; 3) amendments to sector policies and regulations, such as building codes, to reflect climate change risks and to direct people towards insulating buildings to reduce energy demand; and 4) zoning and development changes to reflect increased vulnerability of specific locations and/or resources.</p>	Project Steering Committee, Project Manager	No change
Social acceptability of EE buildings	Social	<p>P = 1</p> <p>I = 3</p> <p>Risk - Low</p>	<p>The social acceptability of the proposed project is expected to be high in Jordan, especially in a context of increasing prices of electricity and water and temperature increases. The proposed project is also expected to create skilled green jobs that are a social and political priority in Jordan. The capacity building and communication activities proposed in the project will enhance the awareness of stakeholders about the socio-economic and environmental benefits of resource efficiency measures and mitigate this risk, as will the proof-of-concept investments supported under Component 4.</p> <p>Further, any health risks associated with the use of hazardous or dangerous materials and products in building envelope insulation will be avoided by developing and enforcing national standards for insulation materials and products as discussed in the SESP in Annex F.</p>		No change
High financing costs or lack of financing could undermine the viability of the	Financial	<p>P = 2</p> <p>I = 3</p> <p>Risk - moderate</p>	<p>The government has committed to capitalizing the JREEF and several other donors such as AFD and EBRD have expressed a strong willingness (as evidenced by EBRD's recent loans to the GAM in the areas of waste and light rail) to provide concessional financing for low-carbon investments. The application of UNDP's DEEI tool will assist policymakers in the GAM to systematically identify</p>	Project Steering Committee, Project Manager	No change

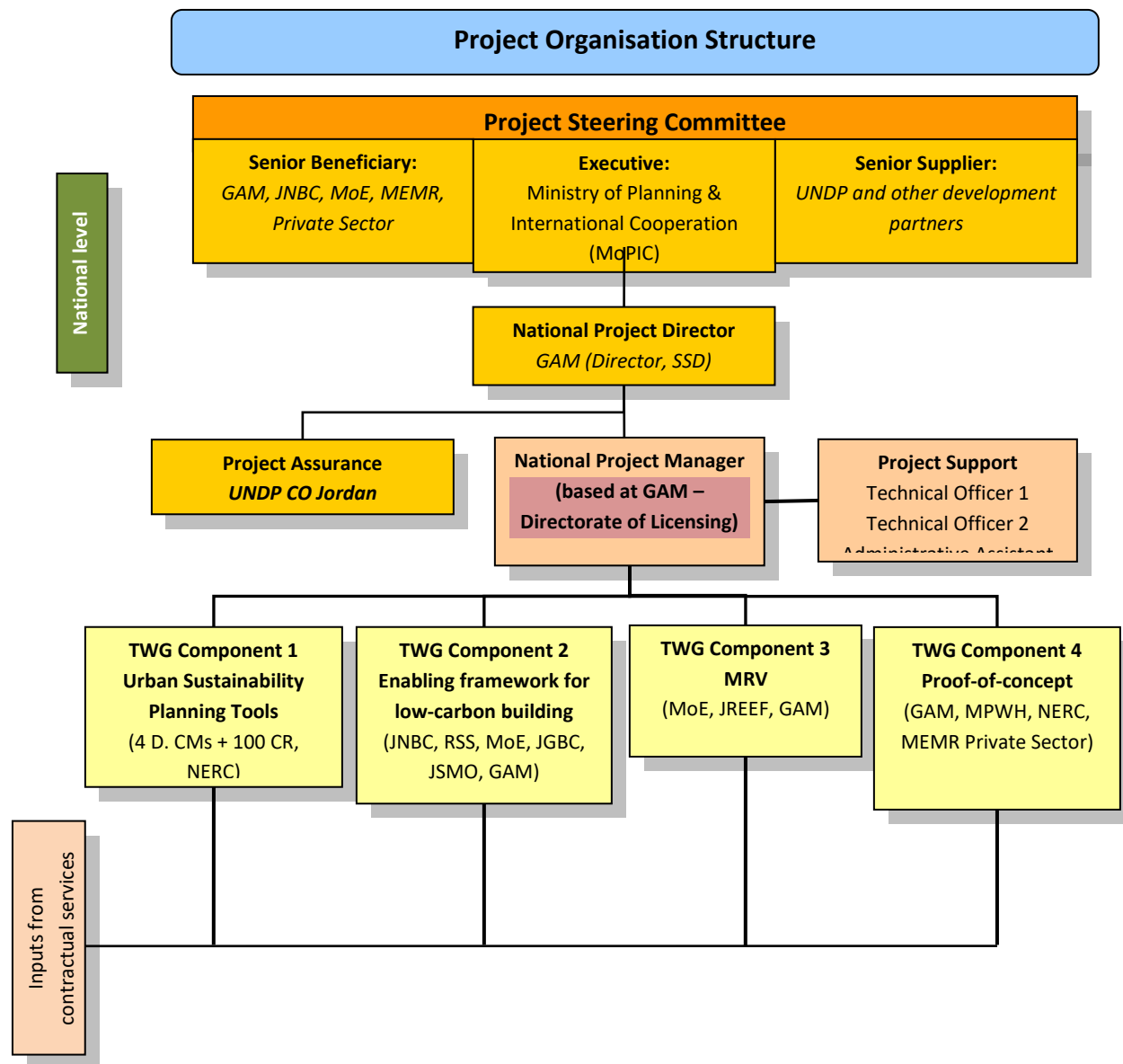
proposed investment measures and approaches			<p>the barriers and associated risks which can hold back private sector investment in EE and propose specific de-risking measures to reduce the cost of capital. A preliminary application of the DEEI approach will be done at PPG phase.</p> <p>In addition, GAM is providing incentives for the adoption of the Green Building Guidelines that include the Building Energy Codes in terms of increased floor area of new buildings so that building developers can fetch higher revenue by selling or renting the additional space.</p> <p>As noted, the government has committed to capitalizing the JREEF and several other donors such as AFD and EBRD have expressed a string willingness (as evidenced by EBRD's recent loans to the GAM in the areas of waste and light rail – see next section) to provide concessional financing for low-carbon investments. A detailed investment analysis of the different measures to be promoted under the project will be undertaken at PPG phase to make sure that the risk/return profile is in line with local financing costs and sources. The application of UNDP's DREI tool will assist policymakers in the GAM to systematically identify the barriers and associated risks which can hold back private sector investment in EE and propose specific derisking measures to reduce the cost of capital. A preliminary application of the DEEI approach is discussed in Section 3.1.3.</p>		
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*A.6. Institutional Arrangement and Coordination.* Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

18. The project will be implemented following UNDP's national implementation modality (NIM), according to the Standard Basic Assistance Agreement (SBAA) between UNDP and the Hashemite Kingdom of Jordan, and the Country Programme Action Plan (CPAP). The Implementing Partner for this project is the Greater Amman Municipality (GAM). The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources.
19. The project organisation structure is shown in Figure 1. The Project Steering Committee (PSC) is responsible for making by consensus, management decisions when guidance is required by the Project Manager, including recommendation for UNDP/Implementing Partner approval of project plans and revisions. In order to ensure UNDP's ultimate accountability, Project Steering Committee decisions should be made in accordance with standards that shall ensure management for development results, best value for money, fairness, integrity, transparency and effective international competition. In case a consensus cannot be reached within the Steering Committee, the final decision shall rest with the UNDP Programme Manager. The terms of reference for the Project Steering Committee are contained in Annex E of the Project Document. The Project Steering Committee is comprised of the representatives of the following institutions: the PSC will be chaired by the Ministry of Planning and International Cooperation (MoPIC). The PSC will comprise the Deputy City Manager, Planning & Economic Development of GAM, the Jordan National Building Council (JNBC, under the aegis of the Ministry of Public Works and Housing), the Ministry of Energy and Mineral Resources (MEMR), the Ministry of Environment (MoE), and a representative of the private sector (e.g. member of the Jordan Housing Developers Association), as well as the Project Manager. If required, representatives of the project stakeholders such as JGBC, RSS, NERC, GIZ, Cowater and AfD, can be invited to the PSC meetings at the discretion of the PSC. UNDP will participate as the GEF Implementing Agency. Other members can be invited at the decision of the PSC on an as-needed basis, but

taking due regard that the PSC remains sufficiently lean to be operationally effective. The final list of PSC members will be completed at the outset of project operations and presented in the Inception Report by taking into account the envisaged role of different parties in the PSC. The Project Manager will participate as a non-voting member in the PSC meetings and will also be responsible for compiling a summary report of the discussions and conclusions of each meeting.

20. The Project Manager will run the project on a day-to-day basis on behalf of the Implementing Partner within the constraints laid down by the PSC. The Project Manager function will end when the final project terminal evaluation report, and other documentation required by the GEF and UNDP, has been completed and submitted to UNDP (including operational closure of the project).



**Figure 1: Project organisation structure**

21. The project assurance role will be provided by the Head of the Energy and Environment Unit, UNDP CO.



22. Given the wide range of stakeholders on the project, it will accommodate a larger number of individuals from target groups to participate in the project implementation through the 4 technical working groups (TWGs) to be established for each project component. The TWGs will be set up to review the operational policies and progress on project outputs, provide project assurance, and provides regular reports to the PSC. In this capacity, the TWGs will support the PSC in monitoring functions and delivery of project outputs, ensuring that the project is on-track towards achieving the overall outcomes. As shown in Figure 1, different target groups are represented in TWGs depending on their involvement in the project. Additional specific responsibilities of the TWGs will include, but are not limited to, ensuring: beneficiary needs and expectations are being met or managed; risks are being controlled; the project remains viable; internal and external communications are working; quality management procedures are properly followed; and that the PSC decisions are followed and revisions are managed in line with procedures laid-down in the project implementation manual.
23. UNDP will maintain the oversight and management of the overall project budget. It will be responsible for monitoring project implementation, timely reporting of the progress to the UNDP Regional Service Centre in Istanbul and the GEF, as well as organising mandatory and possible complementary reviews, financial audits and evaluations on an as-needed basis. It will also support the implementing partner in the procurement of the required expert services and other project inputs and administer the required contracts. Furthermore, it will support the coordination and networking with other related initiatives and institutions in the country. A Letter of Agreement (Annex SA8 of the ProDoc) describes all additional services required of UNDP beyond its role in oversight between the IP and UNDP. The direct project costs requested of UNDP are also detailed in the Total Budget Work Plan.

Additional Information not well elaborated at PIF Stage:

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

24. The GHG emission reduction benefits and the energy-water nexus have been determined for the project, and the calculations are given in section 3.2 of the ProDoc and in Annex SA5 (Supplementary Annex 5 accompanying the ProDoc). Emission reductions will accrue in two ways, namely:
  1. *Emission reduction accruing from the uptake of thermal insulation in existing and new buildings:* The uptake of thermal insulation in buildings will result in savings in energy from reduced need for space heating and cooling. By the EOP, the corresponding emission reduction reaches 544 tCO<sub>2e</sub> per year. The cumulative emission reduction accruing from the adoption of thermal insulation in demonstration projects over 20 years is therefore ~30.3 ktCO<sub>2e</sub>;
  2. *The water-energy nexus:* As discussed in section 3.2 of the ProDoc, there is a high embodied energy in water (1.42 kgCO<sub>2</sub>/m<sup>3</sup>) delivered and used in buildings in Amman. By the end of the second year, an annual emission reduction related to the uptake of water efficient fixtures in demonstration projects will amount to ~1.9tCO<sub>2e</sub>; and
  3. *PV street lighting:* The direct emission reduction accrue from PV street lighting using LEDs as from year 3 of the project. Subsequently, the emission reduction is ~27 tCO<sub>2e</sub>/yr.
25. Besides the demonstration projects, direct emission reductions will also accrue from the updating and enforcement of the Thermal Insulation Code. Consequently, direct GHG emission savings of 343,734 tCO<sub>2e</sub> are expected between 2018 and 2022, and 6,874,682 tCO<sub>2e</sub> between 2023 and 2042. The calculations have assumed a 20 year lifetime for insulation in buildings, which is conservative since modern technologies have a longer lifetime. the total direct GHG emission savings accruing from the project are expected to be 7,229,858 tCO<sub>2e</sub>. This gives a GEF abatement cost of 0.365 US\$/tCO<sub>2e</sub>, which is considered to be a conservative estimate of mitigation cost as it excludes the indirect emission reductions associated with awareness-raising, capacity development and replication. Details of the calculations are provide in Annex SA5 accompanying the ProDoc.
26. There will also be numerous adaptation benefits. The first adaptation benefit arises from the water-energy nexus. Although the project delivers emission reductions from water savings in buildings that may appear to be small

compared to emission reductions resulting from the uptake of thermal insulation, an important co-benefit is direct water savings in a water-scarce context. Secondly, the uptake of thermal insulation in buildings can also be seen as an adaptation measure, especially when Building Energy Codes are updated to take into account future climate change. The discussion at paragraph 54 of the ProDoc provides more details.

27. The benefits of the project are further elaborated in the ProDoc in Paragraphs 87 to 98, and Annex SA5 which provides details of the GHG calculations.

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

28. Knowledge management has not been retained as a stand-alone component in the project design. Rather, knowledge management, as a means to an end, is a transversal issue that cuts across the project design and conceptualisation. Nevertheless, Output 3.5 seeks to capture and disseminate lessons learned and best practices within Jordan and other MENA countries. For instance, the development of an online tool under Component 2 for carrying out comparative socio-economic and environmental benefits of buildings with or without EE measures will be disseminated broadly to be used as a decision-making and pedagogical tool for promoting low-carbon buildings. Similarly, in Component 3, lessons-learned on the integrated city-wide NAMA will be compiled and disseminated. The MRV mechanism to be established to assist NAMA reporting will ensure that GHG baselines are standardised and that emission reduction targets and milestones are consistently monitored. The development and application of the MRV mechanism for GHG emission reductions will be institutionalised by integrating the project MRV system within the broader MRV framework that will be established at the national level by the Ministry of Environment. The Ministry of Environment, which has the mandate for developing a coherent national MRV system, and which is overseeing the development of a national MRV framework and system under the First Biennial Update report (FBUR) and Partnership for Market Readiness (PMR) projects, will be closely involved in the project activities related to the development of the MRV system for the GHG emission reductions that the implementation of building thermal insulation are expected to deliver. From the targeted proof-of-concept work in Component 4, lessons learned on operationalising the GAM enabling framework, including enforcement, and the design and implementation of incentives, and the MRV system will be captured for replication (scaling up activities GAM and other municipalities in Jordan, and in other MENA countries).

## **B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:**

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

29. The project is consistent with the Government of Jordan's aspirations to enhance energy efficiency in buildings under the National Energy Efficiency Action Plan (NEEAP) 2016. The updated NEEAP (2016-2020) sets an ambitious target to save 15% of electricity by 2020 (2080 GWh), compared to the annual average electricity consumption between 2010 and 2014. The NEEAP 2016-2020 includes 16 measures covering residential, tertiary, industrial, water pumping and street lighting sectors. Further elaboration of the consistency of the proposed project with national strategies and plans can be found in Annex SA2 that accompanies the Prodoc.
30. The proposed project is also consistent with the long-term goal of the National Climate Change Policy 2013-2020 (NCCP) to achieve a pro-active, climate risk-resilient Jordan, to remain with a low carbon but growing economy, with healthy, sustainable, and resilient communities, sustainable water and agricultural resources, and thriving and productive ecosystems in the path towards sustainable development. Two of the main recommendations for climate change mitigation stipulated in the policy are (please see Para SA2.6 in Annex SA2 of the ProDoc):

- Strengthen the promotion of renewable energy and energy efficiency in Jordan, which will have a large impact on reduction of GHG emissions in the country; and
- Complete the policy and legal framework for renewable energy and energy efficiency and strengthen the development, implementation and enforcement of existing regulation, e.g. green buildings codes;

31. The project has been designed for alignment with the National Strategy and Action Plan for Transitioning to a Green Economy in Jordan 2016-2025. In particular, the UNDP-GEF project directly supports Cluster 2: Smart Urban by contributing towards the transformation of GAM into a greener city that will be more attractive to both investors and residents. Further, the existing national funding mechanisms, namely JREEEF and the Jordan Environment Fund (JEF), were also assessed during the development of the NGGP. Out of the 12 recommendations emanating from this review, four are either related or are directly addressed in the UNDP-GEF project design, namely: (1) the continued development of JREEEF – consider expansion of scope to energy efficiency, transport (e.g. EVs), ESCOs and funding Technical Assistance (this is further discussed below); (2) conducting structured risk analysis and de-risking study for private finance; (3) consideration given to establishing a new Jordan Green Growth Fund to facilitate private finance; and (4) improving credit lines to ESCOs. The GEF-financed project will squarely address these issue under its Components 2 and 3 as discussed in Sections 3.1.2 and 3.1.3 of the ProDoc. More details can also be found in Para SA2.9 to SA2.12 in Annex SA2 of the ProDoc.

32. The proposed project is also consistent with the following:

- Intended Nationally Determined Contribution (INDC) has identified specific EE actions in the energy sector, namely: (1) implementation of green building codes; and (2) rationalising energy consumption in all sectors and improving their efficiency, and raising awareness about the long-term financial benefits of EE. Further details can be found in Para SA2.7 in Annex SA2 of the Project Document. It is pointed out that the conditional contribution in the INDC is expected to be met by implementing projects that have been identified in the Third National Communication (TNC) (please see Error! Reference source not found. in Annex SA1 of the ProDoc for mitigation projects related to buildings, water pumping and street lighting);
- National Capacity Self Assessment (NCSA - 2007) Global Environmental Management for Jordan<sup>12</sup>, which acknowledged 12 capacity gaps that contribute to barriers that prevent Jordan from achieving the objectives of the UNFCCC. Capacity gaps that are relevant to the proposed project include:
  - Lack of economic incentives for climate change mitigation and adaptation
  - Weak linkages between research, systemic observation and policy making
  - Lack of a systemic approach to technology inventory and transfer
  - Lack of clear and systematic integration of the UNFCCC main concepts in the national policy formulation process
  - Weak systematic capacity development for energy efficiency
  - Weak capacity for practical education and training
  - Low capacity for knowledge management and networking
  - Low capacity for resource mobilizationinstitutional gaps;

## C. DESCRIBE THE BUDGETED M & E PLAN:

33. The monitoring and evaluation plan of the project is presented below in Table 5.

**Table 5: Project M&E plan**

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget <sup>13</sup> (US\$)		Time frame
		GEF grant	Co-financing	
Inception Workshop	UNDP Country Office	US\$ 5,000	None	Within two months of project document

<sup>12</sup> <https://www.thegef.org/sites/default/files/ncsa-documents/544.pdf>.

<sup>13</sup> Excluding project team staff time and UNDP staff time and travel expenses.  
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GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget <sup>13</sup> (US\$)		Time frame
		GEF grant	Co-financing	
				signature
<b>Inception Report</b>	Project Manager	None	None	Within two weeks of inception workshop
<b>Standard UNDP monitoring and reporting requirements as outlined in the UNDP POPP</b>	UNDP Country Office	None	None	Quarterly, annually
<b>Monitoring of indicators in project results framework</b>	Project Manager and Administrative Assistant	To be carried out as part of the Annual Work Plan's preparation.	None	Annually
<b>GEF Project Implementation Report (PIR)</b>	Project Manager and UNDP Country Office and UNDP-GEF team	None	None	Annually
<b>NIM Audit as per UNDP audit policies</b>	UNDP Country Office	Per year: US\$ 3,000 (i.e. a total of US\$ 15,000)	None	Annually or other frequency as per UNDP Audit policies
<b>Supervision missions</b>	UNDP Country Office	None <sup>14</sup>	US\$ 10,000 (i.e. total of US\$ 50,000)	Annually
<b>Oversight missions</b>	UNDP-GEF team	None <sup>14</sup>	US\$ 10,000 (i.e. total of US\$ 50,000)	Troubleshooting as needed (assumed annually)
<b>Knowledge management (spread around the four outcomes as explained in the project approach – Section II)</b>	Project Manager supported by the Administrative Assistant	To be carried out as part of the Annual Work Plan's preparation.	None	On-going
<b>GEF Secretariat learning missions/site visits</b>	Project Manager and UNDP-GEF team	None	None	To be determined
<b>Mid-term GEF Tracking Tool to be updated</b>	Project Manager and External Consultants	To be completed as part of the MTR	None	Before mid-term review mission takes place
<b>Independent Mid-term Review (MTR)</b>	UNDP Country Office and Project team; UNDP-GEF team and External Consultants	US\$ 39,100	None	Between 2 <sup>nd</sup> and 3 <sup>rd</sup> PIR.
<b>Final GEF Tracking Tool to be updated</b>	Project Manager and External Consultants	To be completed as part of the TE	None	Before terminal evaluation mission takes place
<b>Independent Terminal Evaluation (TE) included in UNDP evaluation plan</b>	UNDP Country Office and Project team and UNDP-GEF team	US\$ 40,920	None	At least three months before operational closure
<b>TOTAL indicative COST</b> Excluding project team staff time, and UNDP staff and travel expenses		US\$ 100,020	US\$ 100,000	

### **PART III: CERTIFICATION BY GEF PARTNER AGENCY(IES)**

<sup>14</sup> The costs of UNDP Country Office and UNDP-GEF's participation and time are charged to the GEF Agency Fee.  
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**A. GEF Agency(ies) certification**

This request has been prepared in accordance with GEF policies<sup>15</sup> and procedures and meets the GEF criteria for CEO endorsement under GEF-6.

<b>Agency Coordinator, Agency Name</b>	<b>Signature</b>	<b>Date (MM/dd/yyyy)</b>	<b>Project Contact Person</b>	<b>Telephone</b>	<b>Email Address</b>
Adriana Dinu, UNDP-GEF Executive Coordinator		January 19, 2018	Saliou Toure, EITT RTA	+221 77 115 19 90	<a href="mailto:saliou.toure@undp.org">saliou.toure@undp.org</a> >

<sup>15</sup> GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF  
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## ANNEX A: PROJECT RESULTS FRAMEWORK

The complete project result framework can be found in the PROJECT RESULTS FRAMEWORK section of the Project Document on pages 62-65.

<p><b>Intended Outcome as stated in the UNDAF/Country Programme Results and Resources Framework:</b>  <i>Government and national institutions have operationalized mechanisms to develop and implement strategies and plans targeting key cultural, environmental and Disaster Risk Reduction issues (including a transition to a Green Economy) at national and sub-national levels.</i></p>					
<p><b>Outcome indicators as stated in the Country Programme Results and Resources Framework, including baseline and targets:</b></p> <ul style="list-style-type: none"> <li>- # of new buildings implementing Green building codes; no active Green building codes; 2-3 new Green building implementing green codes at subnational level</li> <li>- # of municipalities that have capacities to undertake land use planning in sustainable manner; 0; 5</li> <li>- # of municipalities having planning capacity in eco-city management; 0; 12</li> </ul>					
<p><b>Applicable Outputs from the 2014 – 2017 UNDP Strategic Plan:</b>  <i>Output 1.5. Inclusive and sustainable solutions adopted to achieve increased energy efficiency and universal modern energy access (especially off-grid sources of renewable energy).</i></p>					
<p><b>Applicable Output Indicators from the UNDP Strategic Plan Integrated Results and Resources Framework:</b></p> <p><i>Output 1.5: indicator 1.5.1: Number of new development partnerships with funding for improved energy efficiency and/or sustainable energy solutions targeting underserved communities/groups and women.</i></p> <p><i>Output 1.5: indicator 1.5.2: Extent of change in: a) energy efficiency, and/or b) modern energy coverage by users and specific sectors.</i></p>					
	<b>Objective and Outcome Indicators</b>	<b>Baseline<sup>16</sup></b>	<b>Mid-term Target</b>	<b>End of Project Target</b>	<b>Assumptions<sup>17</sup></b>
<p><b>Project Objective:</b>  <i>To assist the Greater Amman Municipality (GAM) improve the quality of life for its citizens and comply with the National Energy Efficiency Action Plan (NEEAP) via support for more sustainable resource-efficient urban planning and targeted low-carbon interventions in the municipal buildings and</i></p>	<p><i>Direct project CO<sub>2</sub> emission reductions from the range of interventions proposed by the project, tCO<sub>2e</sub> <sup>18</sup></i></p>	0	~255	~1,602	<p><i>Continued political commitment to enforce the implementation of the Thermal Insulation Code and to develop retrofit guidelines for existing buildings.</i></p> <p><i>The successful implementation of the project is premised on the assumptions that: (a) GAM will develop the capacity to inspect the construction of new buildings according to the</i></p>

<sup>16</sup> Baseline, mid-term and end of project levels must be expressed in the same neutral unit of analysis as the corresponding indicator.

<sup>17</sup> Risks must be outlined in the Feasibility section of this project document.

<sup>18</sup> GHG reduction measures of the project emanate from increasing the energy efficiency of new buildings through the application of the Building Thermal Insulation Code, and by retrofitting old buildings using thermal insulation retrofitting guidelines that will be developed by the project, as well as through the implementation of water efficient devices and fixtures in all the 6 buildings discussed in section 3.1.4.

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street lighting sub-sectors.					<p><i>Thermal Insulation Code; (b) incentives will be provided to building developers to adopt codes;</i></p> <p><i>Project MRV reports are completed on specific project interventions (i.e. combination of new and existing private and public buildings).</i></p>
	Energy saved through application of Thermal Insulation Code and water efficient fixtures	0	<p>- 1,780 GJ (from diesel avoided)</p> <p>- 218 MWh (electricity saved)</p>	<p>- 7,742 GJ (from diesel avoided)</p> <p>- 1,822 MWh (electricity saved)</p>	<p>Energy savings is dependent on: (a) GAM developing and retaining the capacity to inspect the construction of new buildings according to the Thermal Insulation Code; (b) incentives are provided to building developers to adopt codes;</p> <p><i>Project MRV reports are completed on specific project interventions (i.e. combination of new and existing private and public buildings).</i></p>
	Number of gender-disaggregated beneficiaries benefiting from investments in building envelope thermal insulation <sup>19</sup>	0	94,000 <sup>20</sup> (of which at least 40% for women)	153,000 (of which at least 40% for women)	Project reports are completed on social impact analysis of project interventions.
<b>Outcome 1</b> Planning and monitoring frameworks in place to foster accelerated low-carbon	Number of resources quantified in GAM inventory using best practice methodologies by the Amman Urban Observatory	0	3 <sup>21</sup>	3	Collaboration with IAP Cities project is established for the adoption of best practice methodologies for measuring

<sup>19</sup> The number of beneficiaries are calculated as: (1) the annual number of persons using the Al Hussein Cultural Centre; (2) the number of persons living in the low-cost housing that is retrofitted with insulation under Component 4, and (3) the expected number of persons that are expected to use the private-sector commercial buildings supported by the GEF-financed project under Component 4.

<sup>20</sup> This is approximately 61.5% of the final number of beneficiaries.

<sup>21</sup> The target is the following resources used in GAM annually: (1) energy (electricity and fossil combustibles), (2) water, and (3) municipal solid waste. The inventory for solid waste will also cover the generation of the following waste sub-categories: (i) hazardous; and (ii) electrical and electronic waste.



development in GAM and benchmark progress against established international standards					energy and materials throughput at the municipal level.  Reporting of energy and water used and waste generated on an annual basis to the WCCD under the ISO 37120.
	Number of plans and strategies that set medium-to-long-term targets for sustainable use of energy and water, and the sustainable management of solid waste in GAM <sup>22</sup>	0	- 1 Sustainability Plan - 1 Financing Strategy - 1 Communications Plan	Plans and Strategy updated where necessary	Political commitment of GAM management to develop plans and strategy, and to implement them.  The refugee crisis is under control or manageable so as not to take away the attention and resources need to design, implement, monitor & evaluate the Sustainability Plan.
<b>Outcome 2</b> The enabling conditions, methodologies and tools in GAM for enforcing regulatory frameworks for EE buildings and street lighting strengthened	Number of new department established and operational in GAM	0	1 (at least 30% of staff are women)	1 (at least 30% of staff are women)	Commitment of GAM to set up SDD and providing it with the necessary resources for operating.  A gender-sensitive approach is used to staff the SDD.
	Number of updated Building Codes and newly developed 'Retrofit Building Guidelines'	0	- 2 updated Energy Building Codes - 2 newly developed 'Retrofit Building Guidelines'	- 2 updated Energy Building Codes - 4 newly developed 'Retrofit Building Guidelines'	Political commitment for enhancing energy efficiency in buildings at the national and municipal levels.  Jordan National Building Council is fully integrated in the project.

<sup>22</sup> The implementation of the Sustainability Plan will benefit the entire population of GAM.  
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	<i>Number of ESCOs accredited and capacitated by programme</i>	0	3	5	<i>Adequate demand for ESCOs in a nascent market for energy efficiency.</i>  <i>Collaboration with USAID-funded ESCB project is established.</i>
<b>Outcome 3</b> <i>An integrated climate monitoring and finance framework is established for the development of urban NAMAs.</i>  <i>Appropriate financial de-risking tools are identified and supported to promote adoption of EE measures in buildings attached to MRV systems.</i>	<i>Number of standardized baselines for calculating emission reductions in MRV system</i>	0	1	4 <sup>23</sup>	<i>Availability of reliable and accurate data.</i> <i>Documentation of the 3 established standardized baselines and MRV system.</i>
	<i>Number of policy and financial de-risking instruments identified and quantified</i>	0	- 4 policy instruments identified and quantified - 3 financial instruments identified and quantified	- at least 2 policy instruments implemented - at least 1 financial instrument implemented	<i>UNDP's DEEI methodology has been fully developed and validated.</i>  <i>Political commitment of all stakeholders (municipal and national) to implement instruments using the evidence-based approach afforded by the DEEI methodology.</i>
	<i>Gender-disaggregated population covered by a registered UNFCCC NAMA for energy efficient buildings applying the Thermal Insulation Code and retrofit guidelines<sup>24</sup></i>	0	0	<i>Total population of GAM at the end of the project<sup>25</sup></i>	<i>NAMA registration is documented.</i>  <i>There are local experts with sufficient expertise and understanding of concepts to develop the NAMA.</i>
<b>Outcome 4</b> <i>Selected proof-of-concept mitigation interventions</i>	<i>Area of building envelope insulated (differentiated between new and existing buildings)</i>	0	- 2,125 m <sup>2</sup> (new building) - 6,140 m <sup>2</sup> (old buildings)	- 2,125 m <sup>2</sup> (new building) - 9,988 m <sup>2</sup> (old buildings)	<i>Physical verification of buildings.</i>

<sup>23</sup> This will include the establishment of the following standardized baselines by the end of Year 3: (i) grid emission factor for the electricity system of Jordan; (ii) consumption of liquid fossil combustible for heating in buildings, including sampling methodology for verification; and (iii) calculating the carbon embodied in water supplied to buildings in GAM, including a methodology to account for the effect of physical water loss through leakages in the piping network.

<sup>24</sup> This indicator will be measured as the male and female population of GAM taking into account projected population growth rate.

<sup>25</sup> This NAMA will initially cover GAM but it will have the potential for scaling up to other municipalities in Jordan using the project's lessons learned – i.e. Output 3.5.  
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	Percentage of GAM lighting adopting smart usage system	0	30%	100%	Physical verification of street lighting system.
	Number of standalone PV outdoor/street lighting units installed	0	570	570	Physical verification of PV lighting units.

## ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to

Several of the issues identified by the GEFSec at the PIF stage were cleared on 29 July 2015, and there were a set of six issues raised by STAP in its review of the PIF on 7 May 2016. The table below provides the responses to these outstanding issues.

GEFSec also commented that the issues raised by two members of the GEF Council, namely Germany and the United States had not been completed. The updated version of the CEO ER has addressed all these issues.

STAP has concurred with the scientific and technical quality of the project design. It has provided guidance for further improvements and the table below details how these suggestions have been integrated in the final project design.

STAP Review Comments	Response
1. Amman, the capital of Jordan has a National Energy Efficiency Action Plan that this proposal aims to comply with for the benefit of citizens. Urban planning, municipal buildings and street lighting are the main targets for reducing energy inputs and hence avoid greenhouse gas emissions.	No action is required.  The Ministry of Energy and Mineral Resources (MEMR) has updated the NEEAP 2013 that was mentioned in the PIF. The alignment of the UNDP-GEF project with the updated NEEAP 2016 is discussed in Section 1 in the Project Document, and in Supplementary Annex 2 (Annex SA2).
2. It aims to benchmark against other cities based on ISO 37120 but the project proponents should also consider liaising with other municipality projects that are progressing under the GEF Cities IAP. This was attempted originally but was unsuccessful. Project proponents are advised to use the methodologies and indicators as they evolve in a similar manner in the Cities IAP: <a href="https://www.thegef.org/gef/node/10826">https://www.thegef.org/gef/node/10826</a> . The challenge will be to assess what progress towards greater sustainability resulted from this project over and above other activities and what would have been business as usual. Therefore, dynamic baseline scenario for this project should be properly developed during project preparation.	This suggestion has been fully integrated in the project design. A link has been established between the GEF-financed Global Platform for Sustainable Cities (GPSC) and the UNDP CO and GAM. As discussed in Section 3.1.1, there are multiple ways in which the UNDP-GEF project will collaborate with the GPSC: <ol style="list-style-type: none"><li>1. The Sustainability Plan (SP) that will be developed for the City of Amman under Output 1.1 will be carried out using the Urban Sustainability Framework (USF) that has been developed by the GPSC. The USF will also be used to inform the development of the Financing Strategy for the SP as proposed under Output 1.1;</li><li>2. The USF has proposed an extensive set of Reference Indicators for tracking the sustainability performance of cities (please see Section 3.1.1 in the Project Document, and Table SA2.7 and Table SA2.8 in Annex SA2). Output 1.2 of the UNDP-GEF project will focus mainly on the quantification of energy, water and flows of solid waste in GAM, and it will seek alignment with the methodology of the USF indicator matrix. Since the sustainability of GAM accounts for a much broader set of indicators than those that will be quantified under the UNDP-GEF project, the project will assist GAM in adopting any relevant indicators from the USF for tracking its sustainability performance;</li><li>3. Staff of GAM, including the Amman Urban Observatory, will participate in GPSC technical capacity building sessions for the adoption of the USF and methodologies for developing baselines and quantifying sustainability indicators (please see discussion related to Output 1.3 in Section 3.1.1 in the Project Document). The project budget (using UNDP cash co-financing) makes provision for the participation of GAM staff in GPSC events (please see Activity 1.2.1 in Annex A in the Project Document), and for capacity building on the use of Sustainable Cities IAP metrics and methodologies (please see Activity 1.3.1 in Annex A in the Project Document);</li></ol>

	<p>4. In order to support the development and institutionalisation of sustainability using the USF, a dedicated Sustainable Development Department will be set up in GAM as explained in Section 1.3.2 in the Project Document (please see discussions related to Output 2.1); and</p> <p>5. Regarding the establishment of dynamic baselines for tracking the sustainability performance of GAM, the following is pointed out:</p> <p>i. Amman does not have a Sustainability Strategy, and the existing Master Plan is outdated especially given the impacts of the unplanned or unexpected refugee crisis that has disrupted the region. These impacts are complex and establishing a dynamic baseline amidst these complexities was beyond the scope of the PPG. Instead, establishing the baseline has been front loaded during project implementation as per Activities 1.1.1 and 1.1.2 in Annex A in the Project Document; and</p> <p>ii. As discussed in Section 1.3.1, the GPSC is in the process of developing dynamic diagnostic tools based on geospatial and socio-economic modeling to establish sustainability baselines and development trajectories. The Programme Director of the GPSC has indicated that these diagnostic tools would be available for implementation under the USF by the time of the UNDP-GEF project implementation start. This timing is reconciled with the activity planning provided in Annex A in the Project Document, and as discussed at (i) above.</p>
<p>3. The proposal is sound in involving support for ESCOs and RESCOs that will have a key role to play. Work has been done elsewhere on achieving energy performance ratings for buildings and these should be investigated to learn from others' experiences. Similarly many cities have moved to LEDs for street lighting and much can be learned from these endeavours. Becoming a member of ICLEI is one way to collaborate with other cities seeking similar goals and could be explored further: <a href="http://www.iclei.org/">http://www.iclei.org/</a>.</p>	<p>No action required.</p> <p>Lessons learned from other cities will take place through the GPSC. Further, GAM is already embarked in several initiatives such as 100 CR and signing up to the Covenant of Mayors.</p>
<p>4. For the development of the proposed new model buildings, and to give international credibility, proponents should consider developing the planned building designs to gain a LEED building rating <a href="http://www.usgbc.org/LEED/">http://www.usgbc.org/LEED/</a> or to link with the Living Building Challenge <a href="http://living-future.org/lbc/certification">http://living-future.org/lbc/certification</a>.</p>	<p>No action needed.</p> <p>The Government of Jordan has already decided on adopting the LEED building rating.</p>
<p>5. Cooling of buildings with air conditioners is a major energy load usually using heat pumps, which, although efficient, can result in high peak power demand. Means of reducing the building cooling loads would have the added benefit of flattening the load profile. Linking water collection and conservation with energy use is important in this region and could be further strengthened in the proposal.</p>	<p>This comment is indeed relevant since as discussed in Annex SA5, emission reductions accruing from electricity savings is higher than emission reductions accruing from savings in diesel oil that is used for space heating. However, the aim of the project is to enforce the use of Building Energy Codes with specific focus on building thermal insulation rather than on energy efficient appliances. Hence, the building load demand will be reduced through the uptake of building envelope thermal insulation according to the Thermal Insulation Code. All of the investments under Component 4 of the project aim to demonstrate energy, and hence emissions, savings that result from the application of thermal insulation in buildings.</p>

	<p>The suggestion of STAP to integrate water conservation in the project design has been fully taken onboard. Section 3.2 of the Project Document, and details found in Annex SA5, discusses the Energy-Water nexus. The high energy embodied in water delivered and used in buildings in Amman is relatively high leading to a carbon embodiement of 1.42 kgCO<sub>2</sub>/m<sup>3</sup>. The investments in Component 4 of the project will also be used for introducing water efficient fixtures and devcies in 6 dermonstration buildings. The details are given in TABLE 5 and TABLE 7 of the Project Document. The emission reductions arising from water efficiency in buildings are calculated in Section 3.2 and Annex SA5 of the Project Document.</p>
<p>6. For integrating renewable energy systems on buildings, and when developing appropriate policies, the IEA publication "Cities, Towns and Renewable Energy" could be useful (<a href="https://www.iea.org/publications/freepublications/publication/Cities2009.pdf">https://www.iea.org/publications/freepublications/publication/Cities2009.pdf</a> )</p>	<p>The document has been perused. It is pointed out here that the main focus of the UNDP-GEF project is on increasing the energy efficiency in buildings through the application of building envelope thermal insulation. Nevertheless, any relevant recommendations from the document have been used in the project design.</p>
<p>7. With the high cost of imported energy to Jordan, any energy efficiency initiatives should prove to be cost-effective (as confirmed by Figure 1). Renewable energy interventions at the higher mitigation costs (\$/t CO<sub>2</sub> avoided) should also take account of any co-benefits such as local employment, reduced air pollution, improved health. The latter could be estimated and reported at the CEO endorsement stage and used to build stronger ownership and longer term sustainability of the project.</p>	<p>It is pointed out that the main focus of the GEF-financed project is on energy efficiency in buildings through the application and enforcement of the Thermal Insulation Code, and not on renewable energy interventions. As discussed in Section 3.2 of the Project Document, the GEF abatement cost is a very low 0.365 US\$/tCO<sub>2e</sub>, which is considered to be a conservative estimate of mitigation cost as it excludes the indirect emission reductions associated with awareness-raising, capacity development and replication. Nevertheless, the project will also yield co-benefits in terms of adaptation to current and future climate change as discussed in Paragraph 25 above. The accreditation and capacity building of ESCOs under Output 2.5 will create jobs. One of the main elements of the longer term sustainability of the project is energy savings that are quantified in the Results Framework. The gender-disaggregated number of beneficiaries are also captured as tangible social benefits arising from the GEF-financed project.</p>
<p>8. At the time of PIF final review on 29 July 2015, STAP commented on the incomplete gender analysis.</p>	<p>A detailed gender analysis has been carried out as discussed in Section 3.3.3 of the Project Document, and further substantiated by the detailed gender analysis given in Annex SA6 of the Project Document. Based on the gender analysis, a gender action plan has been developed and integrated in the project design.</p>

The table below addresses the comments made by the GEF Council Members Germany and the United States

<p><b>GERMANY</b></p> <p>Germany welcomes the project on sustainable urbanization and resource efficiency in the greater Amman municipality. The project's rationalization and objectives are well presented and justified, and the planned components and expected results, which focus on transformational changes for greater energy efficiency in the building and street lighting sectors, are well conceived. The presentation of the overall sustainability challenge within the context of the massive refugee influx from Syria, which has added significant pressure to energy and water systems in the country, is very compelling and the need for a solution urgent.</p>	<p>Germany is fully supportive of the project rational and objectives. According to the Council Member, the project is well designed. Germany concurs with the project.</p> <p>Hence, no action is warranted.</p>
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## UNITED STATES

1. Energy efficiency is an important avenue of cooperation to pursue. This proposal includes many of the benefits, but we are Not convinced this project as outlined would get at some of the institutional and financial barriers to broader uptake and sustainability unless UNDP makes headway on the enforcement and financial incentives for efficiency measures.

First, we would like to highlight that the project has been designed taking into account all the concerns of the United States Council Member. This is reflected by the fact that very close coordination has been carried out with USAID, and in particular Mr Ramzi Sabella, Project Management Specialist at USAID during all the stages of the ProDoc development starting from baseline assessments through to validation. The specific issues raised have been addressed as follows:

### Enforcement of Building Energy Codes

GAM has a crucial role to play in the enforcement of Building Energy Codes. Two outputs have been dedicated to GAM institutional strengthening that would increase the success towards enforcement. First, Output 2.1 seeks to establish a dedicated Sustainable Development Department (SDD) in GAM. The position of the SDD within the new organigram of GAM is shown in Figure 4 in the ProDoc. Here, we'd like to thank USAID for making the recommendation during project design for a Memorandum of Understanding (MOU) to be signed between GAM and UNDP regarding the setting up of the SDD, and more importantly to commit to providing personnel, logistics and administrative support to the SDD. This suggestion was expressly made to ensure that enforcement would be sustainable, and to be used as an exit strategy to ensure sustainability of GEF investment beyond the project lifetime. This suggestion was adopted and a MOU has been signed between GAM and UNDP as mentioned in paragraph 49 of the ProDoc.

One of the functions of the SDD will be on enforcing the Building Energy Codes through the building licensing process that is described in Figure 5 in the ProDoc. Under output 2.2, staff of the SDD will be trained to carry out monitoring of building at the different stages of the construction cycle to ensure that the Building Energy Codes, and in particular the Thermal Insulation Code is being respected. The issuance of Building and Occupancy Permits by GAM will be predicated on the inspections carried out by engineers of the SDD.

### Financial measures

The barriers analyses (paragraph 14 in the ProDoc and Annex SA3 accompanying the ProDoc) that have been carried out during project design concur with the fact that financial measures will be necessary tools for incentivizing adoption of the Thermal Insulation Code. As discussed in paragraph 24 in the ProDoc, GAM is already providing indirect financial incentive through increased floor area ratio (FAR) to building developers. However, this was not deemed sufficient for more aggressive adoption of the Thermal Insulation Code. Hence, outputs 3.3 and 3.4 are dedicated to developing customized financial incentives for the uptake of Thermal Insulation Code by new building developers. The most appropriate financial derisking tools will be identified through the adoption of UNDP's Derisking Energy Efficiency Investment (DEEI) methodology that uses ESCOs as the cornerstone instrument. Details of the DEEI are provided in Annex SA3 accompanying the ProDoc, and all the activities of output 3.4 have been front-loaded so that derisking instruments are identified by the project mid-term. Stage 1 of the DEEI was carried out during the PPG stage.



	<p>The activities under outputs 3.3 and 3.4 have been synchronized so that financial incentives are provided to building developers as from Year 3 of the project through the Jordan Renewable Energy and Energy Efficiency Fund (JREEEF). It is pointed out GEF funding will not be utilized for provided financial incentives. The realignment of JREEEF for targeting uptake of the Thermal Insulation Code is part of the exit strategy that will ensure the sustainability of the project beyond its 5-year duration.</p>
<p>2. The focus on streetlights is useful; we have heard from the GAM that they consume a lot of electricity.</p>	<p>No action needed.</p> <p>It is pointed out that the comment in Box 1 by the reviewer on 12/4/2017 was fully taken on board with the inclusion of an investment component on PV street lighting (Output 4.4)</p>
<p>3. The proposal mentions (p. 13) launching an Energy Star type program, but we understood UNDP had such a program already in place. Please clarify.</p>	<p>No action needed.</p> <p>We thank the US Council Member for raising this issue, and to provide the UNDP with an opportunity to clarify it. First, the UNDP does not have any programme on developing an energy labeling system for buildings in Jordan. In fact, the UNDP-GEF project will be the first to develop an energy labeling and certification scheme for buildings in Jordan.</p> <p>It is however pointed out that the UNDP has implemented a GEF-financed project in Jordan on Energy Efficiency Standards and Labeling (EESL) for electrical appliances. That UNDP-GEF project was concluded and closed in 2014. The EESL for electrical appliances has nothing to do with the insulation performance of buildings.</p>
<p>4. We are not sure the Agency needs to spend so much on demonstration projects to jump-start a retrofit industry (p. 15). We think it might be more important to ensure that efficient products and equipment are readily available on the local market, can be maintained, and are marketed appropriately.</p>	<p>No action needed.</p> <p>As mentioned at 1 above, the project design was carried out in close collaboration with USAID. The budget breakdown between the different project components was based on the local context and demand-driven. It is also pointed out that the investment component of the project (i.e. component 4) does not focus on retrofitting only but also on new private-sector led buildings and PV street lighting. The balance between the budget allocation between the 4 project components, and the budget allocation to outputs under each component was done under close guidance from GAM based on their requirements.</p> <p>As mentioned in Table 1 in the CEO ER, one of the changes made to the project design was a broader focus on retrofitting existing buildings. This modification is motivated by the fact that while energy efficiency in new public buildings was now receiving support from JREEEF, no attention was being given to existing buildings that utilise most energy (compared to new buildings), and hence, contribute to most emissions in the city. The adoption of the Thermal Insulation Code was mandated for new buildings, and given that enforcement and incentives (see response to comment 1 above) are addressed by the project for its uptake, the same cannot be said for existing buildings. While output 2.3 will develop retrofit guidelines, one of the main levers to encourage the uptake of retrofitting building insulation is through the demonstration of its financial benefits to users. Accordingly, GAM has suggested that four characteristic buildings be retrofitted using GEF financing to achieve this objective. While an ESCO model may also apply to existing buildings, it may be seen as a more risky market segment</p>

	<p>than that for new buildings. Hence, it was judged at the design stage that a combination of more awareness on the benefits of building retrofits coupled with financial incentives (output 3.3) would be an appropriate model for retrofitting thermal insulation in existing buildings.</p> <p>Discussions with the private sector (e.g. Jordan Housing Developers Association, JHDA) has shown that the availability of appropriate insulation materials and equipment was not a problem in Jordan. Rather it was the lack of enforcement of the Building Energy Codes and inadequate incentives. Hence, it is expected that the combination of enforcement of Thermal Insulation Code, availability of financial incentives, training of accredited ESCOs, retrofit guidelines, coupled with proof-of-concept investments will catalyse the market for insulation materials and equipment.</p>
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**ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS<sup>26</sup>**

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

PPG Grant Approved at PIF: <b>\$100,000</b>			
<i><b>Project Preparation Activities Implemented</b></i>	<i><b>GEF/LDCF/SCCF Amount (\$)</b></i>		
	<i><b>Budgeted Amount</b></i>	<i><b>Amount Spent To date</b></i>	<i><b>Amount Committed</b></i>
Component A: Technical Review	32,500	25,548.42	
Component B: Institutional Arrangements, Monitoring and Evaluation	12,500	6,548.3	
Component C: Financial Planning and Co-financing Investments	22,500	15,548.3	
Component D: Finalization of Project Document	32,500	3,922.39	48,432.59
<b>Total</b>	<b>100,000.00</b>	<b>51,567.41</b>	<b>48,432.59</b>

<sup>26</sup> If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities. Agencies should also report closing of PPG to Trustee in its Quarterly Report.

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

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

N/A