United Nations Development Programme

Project Document for projects financed by the various GEF Trust Funds

Project title: Green cities transformation – smart, sustainable and low-carbon urban solutions in triangular metropolitan area		
Country(ies): Serbia	**Implementing Partner (GEF Executing Entity):** Ministry of Environmental Protection	**Execution Modality:** Support to National Implementation (NIM)
Contributing Outcome (UNSDCF/CPD, RPD, GPD): **NATIONAL PRIORITY OR GOAL:** Enhanced climate actions, building resilience to climate change impacts, natural and man-made disasters and improved capacity for disaster risk reduction and management; Serbia provides safe, affordable and clean energy to its citizens (National Priorities for International Assistance). **COOPERATION FRAMEWORK (OR EQUIVALENT) OUTCOME INVOLVING UNDP #3:** Serbia adopts and implements climate change and environmentally friendly strategies that increase community resilience, decrease carbon footprint and boost the benefits of national investments. **RELATED STRATEGIC PLAN OUTCOME:** Strengthen resilience to shocks and crises.		
UNDP Social and Environmental Screening Category: Medium	**UNDP Gender Marker: GEN2**	
Quantum Award ID: 1377278 SRB_GEF_ASL_01000473	**Quantum Project ID: 01000473**	
UNDP-GEF PIMS ID number: 9584	**GEF Project ID number: 11301**	
LPAC meeting date: 15 October 2026		
Last possible date to submit to GEF: June 2025		
Latest possible CEO endorsement date: December 2025		
Project duration in months: 60 months		
Planned start date: 30 November 2025	**Planned completion date: 30 November 2030**	
Expected date of Mid-Term Review (MTR) submission to the GEF: 30 May 2028	**Expected date of Terminal evaluation (TE) submission to the GEF: 30 May 2031**	
Expected Operational Closure Date: 30 August 2031	**Expected Financial Closure Date: 30 February 2032**	
Brief project description: The project aims to support pilot interventions for the green, digital, and nature-positive transformation of three cities (Belgrade, Novi Sad, Zrenjanin) promoting sustainable urban development. The interventions will focus on: (i) promoting multi-sectoral resource and energy efficiency through decarbonization and circular business models; (ii) implementing integrated intra and inter-city spatial planning to enhance resilience and sustainability; and (iii) preserving natural capital and biodiversity. These efforts are expected to		

provide valuable experience by promoting a polycentric approach and developing tailored solutions, particularly for mid-size and smaller cities (Novi Sad and Zrenjanin).	
FINANCING PLAN	
GEF Trust Fund grant	USD 7,065,603
UNDP TRAC resources	USD 100,000
(1) Total Budget administered by UNDP	**USD 7,165,603**
(2) Total confirmed co-financing to this project not administered by UNDP	**USD 132,219,632**
(3) Grand-Total Project Financing (1)+(2)	**USD 139,385,235**

SIGNATURES:		
Signature: Sara Pavkov, Minister	**Agreed by Implementing Partner**	**Date/Month/Year:** 15.12.2025
Signature: Yakup Beris, Resident Representative	**Agreed by UNDP**	**Date/Month/Year:** 15/12/2025

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LIST OF ACRONYMS

BPPS NCE-VF	Bureau for Policy and Programme Support, Nature, Climate and Energy, Vertical Fund team
CE	Circular economy
CO	UNDP Country Office
CO_2	Carbon dioxide
CSO	Civil Society Organisation
CSUD	Climate Smart Urban Development
EE	Energy Efficiency
EIF	European Investment Facility
ESMF	Environmental Social Management Framework
EU	European Union
GAP	Gender Action Plan
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GEF CEO	GEF Chief Executive Officer
GEF OFP	GEF Operational Focal Point
GEFSEC	Global Environment Facility Secretariat
GHG	Greenhouse gas
GIZ	Deutsche Gesellschaft fur Internationale Zusammenarbeit
HACT	Harmonized Approach to Cash Transfers
HQ	UNDP Headquarters
ICT	Information and Communication Technology
IGO	Intergovernmental Organisation
IP	Project Implementing Partner
ISO	International Organization for Standardization
KM	Knowledge Management
LSG	Local Self Government
MoEP	Ministry of Environmental Protection
MJ	Megajoule
MME	Ministry of Mining and Energy
MRV	Monitoring, Reporting and Verification
MTR	Mid-term review
NA	Not applicable
NALED	National Alliance for Local Economic Development
NAMA	Nationally Appropriate Mitigation Action
NDC	National Determined Contribution of the UNFCC Paris Agreement
NEEAP	National Energy Efficiency Action Plan
NGO	Non-governmental organisation
NIM	National Implementation Modality
O&M	Operation and Maintenance
OAI	UNDP Office of Audit and Investigations
PB	Project Board
PIF	Project Identification Form

PIR	GEF Project Implementation Report
PM	Project manager
PMU	Project Management Unit
POPP	UNDP Programme and Operations Policies and Procedures
PPG	Project Preparation Grant
PSC	Project Steering Committee
PUC	Public Utility Company
PV	Photovoltaic
RE	Renewable Energy
SBAA	Standard Basic Assistance Agreement
SEA	Sexual exploitation and sexual abuse
SESP	Social and Environmental Screening Procedure
SH	Sexual harassment
SME	Small and medium size enterprises
SSCP	Serbian Sustainable Cities Platform
STAP	GEF Scientific Technical Advisory Panel
SWH	Solar water heating
TE	Terminal Evaluation
ToC	Theory of Change
UNDP	United Nations Development Programme
UNDP ERC	UNDP Evaluation Resource Center
UNFCCC	United Nations Framework Convention on Climate Change
UNSMS	United Nations Security Management System
UZZPRO	The Administration for Joint Services of the Republic Bodies
WBIF	Western Balkans Investment Framework
WG	Working Group

DEVELOPMENT CHALLENGE

The productivity of nearly all Serbian cities has been decreasing. Despite ongoing migration from rural to urban areas, the total urban population in Serbia has decreased to 1990 levels, except for Belgrade, Novi Sad and Novi Pazar[1]. There are several key development challenges that Serbian cities and local self-governments (LSGs) continue to face, which also affect their attractiveness for sustainable business development, employment and, thus, productivity. These challenges include, among others: i) insufficient access to quality services and infrastructure; ii) mounting environmental challenges, including air pollution and waste management, iii) deficiencies in urban planning and governance systems, leading to uncoordinated and -uncontrolled urban sprawl; and iv) increasing disaster and climate change related risks, such as extreme heat events, droughts and/or floods.

While at the national level, Serbia has made significant progress in adopting new laws, regulations, programs and targets to advance sustainable green city development, these advancements have largely not yet been transformed to local level action. One reason for this is the unusually complex multilayer planning system in Serbia. This complexity, combined with LSGs' capacity constraints, inadequate financing, and often un-coordinated, overlapping or even conflicting institutional structures and responsibilities, prevents Serbian LSGs from translating new green city policies and targets into integrated local level planning and implementation.

The most significant urban and industrial area in Serbia is the triangular metropolitan area formed by Belgrade, Novi Sad and Zrenjanin, having jointly a population of 2,16 million or 32% of Serbia's total population. Zrenjanin occupies the largest land area in the Autonomous Province of Vojvodina and is Serbia's second-largest territory with an area of 1,326 km^2. The triangular metropolitan area also includes some of Serbia's most prominent natural reserves such as the wetlands of Carska Bara and Okanj Bara (recognized also as Ramsar sites in accordance with the Ramsar Convention on Wetlands), the national park Fruška Gora between Belgrade and Novi Sad as well as 45 natural goods protected by the law in the Belgrade region.

All three cities are facing similar challenges, including air pollution, inappropriate waste and wastewater management, high level of urbanization, lack of green areas, increase of traffic congestion, increased vulnerability to high temperatures and extreme rainwater. For addressing this, the cities have set a path towards reducing pollution and greening their infrastructure with the commitments enshrined also by their voluntary participation in the Covenant of Mayors and the Green Cities initiative. The high costs of achieving the requirements of the EU Acquis already transposed into the Serbian legislation is posing a challenge for these plans, however, to which continuing increase of urban area and long years of inadequate infrastructure maintenance are also contributing.

While in the baseline, all three cities are planning significant programs and investments in urban infrastructure by using also public-private partnerships (PPPs), their more fundamental green transformation is obstructed by the lack of integrated and inclusive approaches to green city development that, in turn, would adequately prioritize and enable investments into nature positive, resource & energy-efficient, climate-resilient and economically and socially attractive city development in a more coordinated and holistic manner. The same applies to existing and planned Government investments, including USD $39 million to be spent through the Ministry of Environmental Protection to support investments in waste management, wastewater treatment plants and other green infrastructure, as well as USD 1 million to be spent through the Provincial Secretariat for Urban Planning and Environmental Protection of the Autonomous Province of Vojvodina on city infrastructure and urban planning in the city of Zrenjanin. Additionally, the Government of Serbia is planning investments worth of $5 billion into environmental infrastructure at municipal level (wastewater treatment and solid waste management). EU supports the Republic of Serbia through the Operational Programme for Environment and Energy sector in the amount of EUR 240 million in the period 2024 – 2027. The main priority areas are environment and climate Change, transport, digital economy and society, and energy. By targeting these specific sectors and interventions, the Programme strives to contribute to the overall goals of waste management, water management, energy efficiency and air quality in Serbia. Although important, these are investments that do not necessarily promote integrated city planning and more comprehensive green transformation, thereby limiting their overall impact. The private sector also plays important role in Serbia's green transition efforts at national and local level. With UNDP assistance, since 2017, the Government managed, thus far, to mobilize over $25 million worth private sector green investments that contribute to decarbonization, circular economy, depollution

[1] As concluded by a recent World Bank study *"Sustainable Cities Serbia: Unlocking the transformational potential of cities for the green transition"* (June 2023), financed by the Swiss State Secretariat for Economic Affairs (SECO)

of environment. However, with ambitious national targets on decarbonization and green transformation of the economy, Serbia needs to accelerate engagement of private capital to complement scarcer public financing.

In general, Serbia lacks financial mechanisms to support integrative and innovative solutions for improving communal and ecosystem services by urban planning that link investments with infrastructural development and preservation of natural capital and ecosystem restauration in the triangular metropolitan area. Although, participatory approach based on involvement of communities, including women and men, as well as marginalized groups (young, Roma people) in urban planning and citizens-centered infrastructural projects exists it does not ensure that all stakeholders are consulted. Therefore, the existing participatory approach needs to be strengthened.

The main root causes and consequences of the problems faced by the cities are further illustrated in the problem tree analysis below (Figure 1).

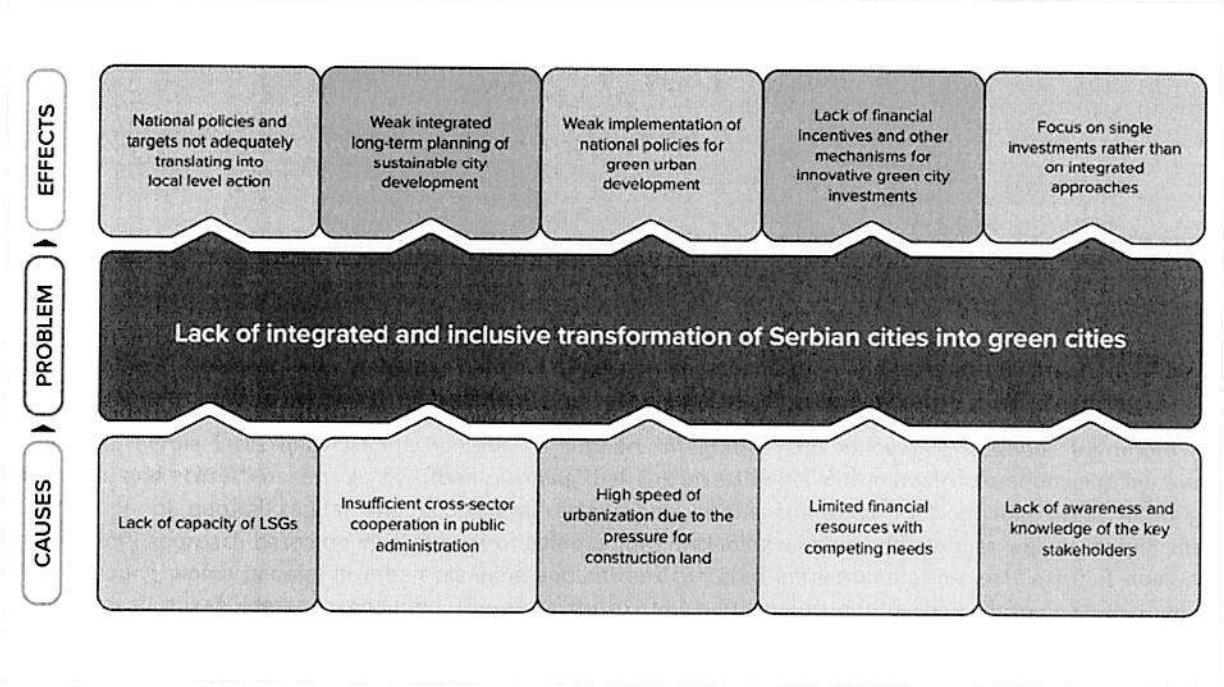


Figure 1. Problem tree

The project is firmly in line with Serbia's national policy and laws, each of which is emphasizing the importance of development in accordance with sustainable development goals, digitalization, and climate resilience. These laws and other policy documents include, among others: (i) the Serbian Urban Development Strategy until 2030 that defines strategic objectives of urban development; (ii) the National Cleaner Production Strategy, (iii) the Strategy for Sustainable use of Natural Resources and Goods, (iv) the Long -Term Renovation Strategy for Encouraging Investments in Renovation of the National Building Stock of the Republic of Serbia by 2050, (v) the Integrated National Energy and Climate Plan of the Republic of Serbia (NECP), (vi) Circular Economy Development Program until 2024 promoting circular economy; (vii) the Law on Environmental Protection (with the latest revision in 2018); (viii) the Law on Waste Management (with the latest revision in 2023), (ix) the Waste Management Programme for the period 2022-2031; (x) the Spatial plan of Serbia that defines urbanization and industrialization in line with green and nature-based solutions (xi) the Law on Planning and Construction, (xii) the Law on Communal activities.

The project is also aligned with the Green Agenda for the Western Balkans which requires Serbia and other countries of the region to further prevent environmental degradation and improve citizens wellbeing by improved intra- and intercity urban planning, decarbonization, nature-based solutions to mitigate climate change risks, and greening of communal infrastructure and services in general. The main global contribution of Serbia in this context lies in its efforts and experience to tackle urban challenges in medium sized cities that are often neglected in global discussion.

The Serbian Urban Development Strategy until 2030 defines the following strategic objectives of urban development: i) sustainable economic development; ii) urban settlements management; iii) social well-being; iv)

quality of the environment; and v) urban development management. However, investments into urban infrastructure usually tend to address the visible most immediate problems at the cost of conducting longer term integrated city planning to balance the needs and benefits of green development targets and citizens' well-being.

The project will also support Serbia in achieving the Nationally Determined Contribution (NDC) targets by reducing energy intensity and promoting renewable energy solutions in communal infrastructure, as well as by better resource efficiency through circular economy and maintenance of carbon sinks. The project is aligned with the national climate change priorities as defined by the Climate Change Law, the Third National Communication (TNC, 2023) and the Low-Carbon Development Strategy, National Adaptation Programme and the National Energy and Climate Plan (NECP) that promote low-carbon solutions and resources efficiency, sustainable passenger transport and promotion of nature-based solutions as priority areas for climate resilient development.

STRATEGY

As part of the global GEF-8 Sustainable Cities Integrated Program, the project will contribute to the global effort to address the environmental and social challenges caused by the urbanization observed also in Serbia. In line with the objectives of the global project, the project seeks to do this by: i) supporting integrated and inclusive urban planning, strategies, and policy development; ii) promoting investments in sustainable, nature-positive, and resilient urban development; iii) adopting innovative financing mechanisms; and iv) strengthening knowledge-sharing and capacity-building. By switching the focus from the responsive passive approach in environmental protection to a more forward-looking green & low-carbon, circular economy-based approach will provoke structural changes and create a market for new green investments and green jobs, while at the same time improving Serbia's overall energy & resource efficiency, climate resilience, decarbonization and depollution of the environment, and maintaining biodiversity.

By sharing similar objectives and targets, the project will also contribute to several UN Sustainable Development Goals (SDGs) including, SDG5 "Achieve gender equality and empower all women and girls", SDG7 "Ensure access to affordable, reliable, sustainable and modern energy for all", SDG9 "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation", SDG 11 "Make cities and human settlements inclusive, safe, resilient and sustainable", SDG 12 "Ensure sustainable consumption and production patterns", SDG 13 "Take urgent action to combat climate change and its impacts", and SDG 15 "Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss".

To address the main root causes faced by the cities and the related causal chains discussed in the previous section, the theory of change (ToC) can be presented in a simplified form by an iterative process including three main elements, as illustrated in Figure 2 below. A more specific illustration of the project's Theory of Change is presented at the end of this chapter in Figure 3.

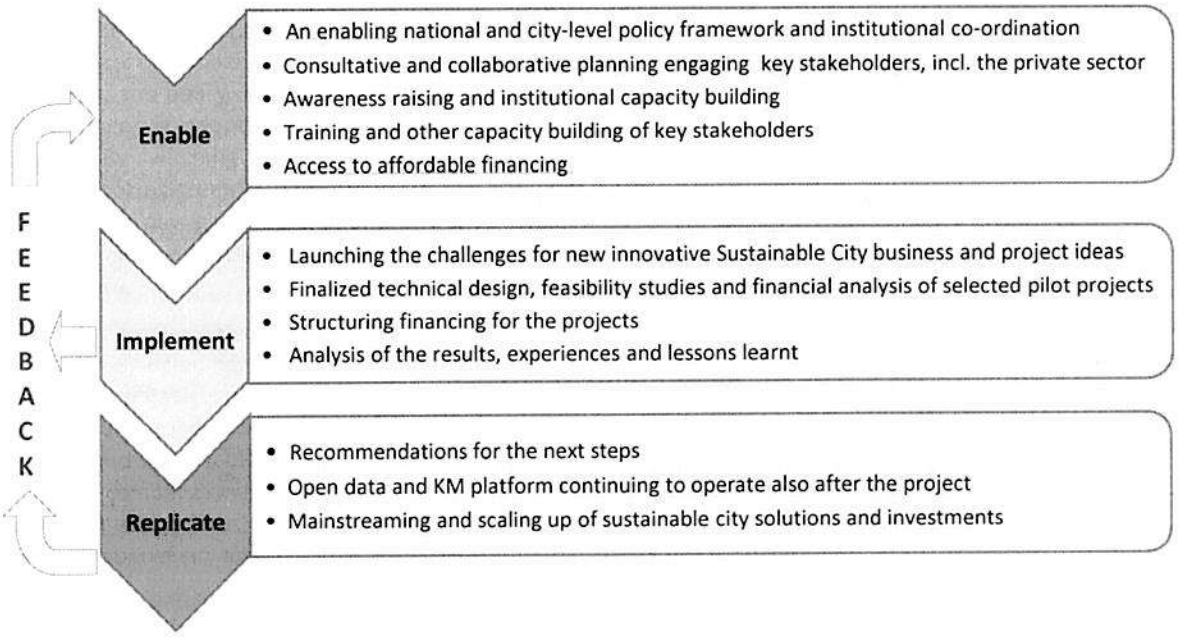


Figure 2: Simplified illustration of the ToC and the key areas to be addressed and supported by the project

Building on the results and lessons learnt from the earlier GEF - supported Climate Smart Urban Development (CSUD) and Circular Economy (CE) projects in Serbia, a similar approach for advancing Serbia's Green City Agenda has been adopted in this child project, with a particular focus on the triangular area formed by the cities of Belgrade, Novi Sad and Zrenjanin. Besides sourcing new innovative community-based business initiatives and investment ideas through performance-based grants and a challenge-based approach developed and already tested by the earlier projects, the project will address the equally important policy, capacity building and public awareness raising dimensions in the following subsectors:

- Water supply and wastewater treatment
- Municipal waste management by applying circular economy
- Transition to circular economy in energy and material consumption, including chemicals of global concern
- Promoting energy efficiency and renewable energy solutions
- Promoting sustainable transport solutions and intermodal transport services
- Integration of nature-based solutions in urban planning and development and preservation of urban biodiversity
- Digitalization of municipal services and creation of "Smart City Information Systems".

The GEF grant is expected to have a catalytic effect by unlocking investments in sustainable and resilient urban development by an integrated approach combining policy changes and institutional strengthening with new innovative investments to improve communal infrastructure and services, while also benefiting the environment and providing social advantages. An already tested innovative challenge approach will be applied to support (where needed test and deploy) innovative investments. By promoting sustainable mobility, improving EE and deployment of RES, the project will contribute to the improvement of air quality, including reduction of PM10 and PM2.5. Furthermore, these actions will reduce CO_2 emissions contributing to climate change mitigation effort.

The construction of wastewater treatment plants and primary and secondary networks in the three cities will improve land and groundwater quality. Current air quality, with an increased value of PM 10 in urban areas, will be improved through energy efficiency measures, replacing existing domestic heating appliances with new eco-design compliant appliances, increased share of renewable energy, sustainable urban mobility, and smart industrialization. In general, sustainable urban planning, supported by promotion of nature-based solutions, will preserve natural capital and ecosystem services, which are essential for the climate resilience of the triangular metropolitan area. Integrated cross-sectoral approach, supported by integrated urban planning, end-user feedbacks, digitalization and innovation will maximize impacts compared to single investment-based solutions in urban infrastructure.

The project will engage key stakeholders from different sectors in a collaborative approach to achieving project targets. By recognizing the current bottlenecks in translating the national policies, programs and targets into integrated and concrete action at the level of LSGs, a particular focus of project's technical assistance activities will be on removing the structural, capacity and other barriers related to this. These barriers include barriers to effective operationalization of digital data collection and management systems for all critical sectors related to sustainable and green city development (land use, green infrastructure, energy (EMIS), mobility, building stock, waste, biodiversity etc.). The digital data processing actions will build upon the results of previous GEF supported projects, but not yet effectively adopted, operationalized or sustained by the targeted LSGs. Additionally, the project will consider testing the digital twin city approach by creating the living city replica, constantly updated with data from its physical twin. This approach will enable the urban planners, decision makers and users of communal services to analyze data, monitor systems and run simulations exactly as if they were working with the physical asset. In return, this approach can significantly contribute to saving energy and resources in various communal services, while also reducing investment risks. The digital twin concept will additionally contribute to integrated cross-sectoral urban planning.

It is also important to note that promoting sustainable and green city development is not only about supporting specific investments but about fostering a change in people's mindset that should permeate society. This process requires inputs and commitments from a variety of stakeholders to work towards the same goal with mutually recognized benefits. Therefore, it is critical that from the very beginning the policy framework and suggested measures for sustainable green city development will be developed through co-creation (concept of living labs). The project should promote an inclusive, consultative process in close cooperation with the public, private, academic and civil society stakeholders, as well as citizens. This offers an opportunity to better engage civil society and emphasize the important role women can play in this process. Furthermore, the approach helps to attract investments from the private sector and multilateral development banks and raise investors' awareness and transparency regarding the sustainability of their investments. The co-creation with citizens will also result in improved communal services that are based on end-user feedback and experience, thus contributing to the integrative cross-sectoral urban planning and design that aligns with citizens' needs.

The project activities are designed to consider gender-specific issues in the policy and regulatory amendments, when applicable. The project will also integrate gender-specific dimensions into the planning of project's knowledge

management activities. The project will ensure and closely monitor that equal training opportunities are provided for both men and women.

Awareness-raising activities will involve the participation and cooperation of women associations and women NGOs to support the mainstreaming of gender considerations in related awareness-raising and information materials. All contractors will be required to ensure non-discriminatory participation of men and women during the implementation of their respective tasks. Female innovators, entrepreneurs and experts will be specifically encouraged to participate in the project implementation. Additionally, the project will ensure that women-rights organizations are included in each of the co-creation activities. The project will ensure gender balance among stakeholders and beneficiaries of the innovation challenges, by defining gender-sensitive criteria, ensuring gender balance within the project selection committees and providing gender expertise to the projects.

Regarding actual investments and new business opportunities for green city development, the project will follow the methodology and tools already tested within the earlier GEF-funded CSUD and CE projects to further blend and leverage funding for low-carbon and climate-resilient development solutions, including nature-based solutions (NbS) and ecosystem services. These include innovation challenges and performance-based payments, new types of partnerships with the private sector, multi-stage evaluation of proposals with strong ownership of national counterparts as well as incubation/acceleration type of technical assistance and mentoring provided to the project teams. By this, the GEF grant seeks to have a catalytic effect by unlocking investment in sustainable urban development, digital and green solutions for the improvement of communal service and conservation of the peri-urban area with consideration for policy development and financial investment that reflects an integrated approach. In other words, rather than focusing on single investments or demonstration projects, the project aims to address the requirements for sustainable green city development in a more holistic manner. The project will also explore and work together with the public and private sector for introducing or expanding the use of other innovative de-risking or financing mechanisms such as green guarantee schemes and green bonds. Thus, the private sector (including companies and industries) is recognized as one of the key beneficiaries of the project with significant potential for leveraged financing for green investment projects. The private sector will engage as the proposer of innovative solutions in challenge calls, as well as service and works provider for their implementation. Also, the project will particularly engage with the SMEs and industries that need to introduce strict environmental pollution prevention and decarbonization measures (e.g. companies in need of obtaining the Integrated Pollution Prevention and Control Permits and GHG Emissions Permits in accordance with Serbian laws). Mobilizing their capital for green investments in urban and peri-urban areas will represent a win-win solution for the benefits of the economy and health of local population. The criteria for project selection have been discussed in greater detail under Outcome 2 in chapter "Results and Partnerships".

The project will also explore and work together with the public and private sector for introducing or expanding the use of other innovative derisking or financing mechanisms such as green guarantee schemes and green bonds. In fact, the Government has already taken steps towards that direction by issuing in 2021 the first green bonds worth of EUR 1 billion in total. With the 1% annual coupon rate and yield rate of 1.26%, this seven-year bond was oversubscribed by more than three times. Proceeds from the Green Bond will be used to accelerate the country's green agenda with investments in rail and subway network, wastewater processing, flood protection, biodiversity protection, pollution prevention and control, waste management, energy efficiency and rooftop solar panels.

By building on the experiences from these first green bonds, the project can work together with the cities for similar financing schemes as well as with the private sector to assist interested companies to prepare and issue corporate green bonds, which could be used, for instance, for financing energy efficiency measures in public and residential buildings based on public-private partnerships and an ESCO model. The issuers of the bonds would also be obliged to publish yearly impact reports based on the agreed impact indicators.

Other financing and de-risking instruments to be further explored during project implementation will include options for using venture capital, crowdfunding, establishment of co-operatives for decentralized renewable energy production thereby making citizens as "prosumers", as defined by the Serbian Law of Renewable Energy, and debt swaps, where a share of current IFI loans could be reallocated for the preservation of natural capital, ecosystem restauration and biodiversity conservation rather than obliging the Government to pay this share of the debt back.

Globally, most NbS projects are financed by public and philanthropic funds, while only 14% of capital is provided by the private sector. In Serbia, private sector involvement does not exist. From the banking perspective, pilot projects are low-risk opportunities to engage in NbS financing, that is complementary with Innovation challenge approach

proposed under this project. In addition, this type of initiative provides a clear picture on what NbS are, the expectations around results, timing, methodologies and partnerships involved. In this case strategic partnerships with academia, local governments and CSOs are essential.

All three cities are facing similar challenges, including air pollution, inappropriate waste and wastewater management, high level of urbanization, lack of green areas, increase of traffic congestion, increased vulnerability to high temperatures and extreme rainwater. As a reaction, all three cities have set the path towards reduction of pollution and greening of their infrastructure. This is especially true for the City of Belgrade and Novi Sad, due to their size and financial power. Their commitments are enshrined in voluntary participating in the Covenant of Mayors and the Green Cities initiative. However, these plans are challenged by high costs for the achievement of the requirements set by the EU acquis which is already transposed in the Serbian legislation, in-crease of the urban area and long years of insufficient maintenance in infrastructure. The upcoming large investments in waste and waste-water management, improving public transport and alter-native transport modes, as well as increasing energy efficiency and decarbonization will provide an impetus for a transformation shift in the urban development. These efforts need to be climate proof and complemented by increasing green areas and use of nature-based solutions for improving the quality of life.

The Project will support these endeavors by introducing innovative approaches, functions, services and use of data for policy making and pilot projects. In the following, we provide a snapshot of the current state in the targeted areas of intervention.

Water supply and wastewater treatment. The three cities are facing significant challenges related to water losses in their water supply systems, which are currently outdated and inefficient. The project will support the identification of main challenges in water supply systems in each of the participating cities and propose measures to prevent losses and improve efficiency and safety by solutions that apply, for instance, digitalization and automatization, ESCO-based and other PPP investments, citizens involvement etc.).

By December 31, 2025, all business entities in Serbia that produce wastewater from technological processes must build treatment facilities for their wastewater.

The Government of Serbia has allocated just over €4.5 billion for wastewater treatment projects in Serbia, of which one billion is designated for projects in Belgrade.

None of the three cities currently has a functional and standardized wastewater treatment facility. As a result, municipal wastewater is largely discharged into the rivers without having prior secondary or tertiary treatment. The situation is not only causing environmental pollution with degradation of river water quality, most of which falls into the 2nd even 3rd category, but presents also health risks to urban population. The situation is slightly better for industrial wastewater, as companies are legally obliged to install wastewater treatment facilities to comply with the standards.

In Belgrade, the project for the construction of a wastewater treatment plant in Veliko Selo, Belgrade, will be entrusted to the consortium "Suez International SAS" and "Vinci Construction Grands Projects." The Government of Serbia and the consortium have signed a memorandum regarding the design, construction, financing, operation, and maintenance of the wastewater treatment plant. The construction of five wastewater treatment plants is planned in the Belgrade area.

In Novi Sad, wastewater treatment is available only in three villages (WWTP Kovilj 6,500 population equivalents, WWTP Rumenka 7, 300 population equivalents, and part of Stepanovićevo 2, 500 population equivalents). Sludge from existing treatment plants is dewatered inside the plants and then, as dried material, disposed of in the landfill. The plants mentioned are not equipped for gas production and storage. Construction of a WWTP for the settlement Begeč has just been completed (3,500 population equivalents), and the sewerage system is in the completion phase. The urban area and other villages are without wastewater treatment. Wastewater in other villages is being disposed of into households' cesspools.

Novi Sad participates in the Project Clean Serbia. Designing of a WWTP for the urban area with a capacity of 400,000 population equivalents has started (the second phase will have the total capacity of 500,000 population equivalents). Pre-feasibility study has been completed. Although the whole technical concept for collected wastewater pumping towards the new WWTP was defined earlier, the solution for sludge disposal is yet to be defined. Besides this WWTP, designs are being prepared for an additional small WWTP Čenej, pumping stations, retention installations and

collectors. Construction of sewerage collectors in the settlement Čenej in the urban area Liman has started. It will improve the protection of the water source "Štrand" and overall resilience.

The Urban Planning Project for the location is currently underway, along with the preparation of a Feasibility Study and conceptual design for the Central Wastewater Treatment Plant

The contract for the construction of a wastewater treatment plant between the City of Zrenjanin and "Metito Utilities Limited" from the United Arab Emirates, specifically its subsidiary "Begej Water" from Belgrade, was signed on November 9, 2020. This involves a direct investment of 30 million euros, of which 70% is allocated for the construction of the wastewater treatment facility, which will employ around forty people. The operation of the facility is planned for the next 25 years.

In June 2024, a contract was signed for the implementation of the project to construct a main collector measuring 1.75 kilometers, which is being carried out with the support of the Ministry of Environmental Protection and is a prerequisite for the operation of the wastewater treatment plant.

The project will explore innovative and cost-effective solutions that can reduce pressure on the rivers and water bodies in urban agglomerations. The solutions will include measures to support public utility companies (wastewater treatment plants) for advanced wastewater treatment (tertiary treatment, sludge management, waste-to-energy etc), as well as initiatives to enhance industrial wastewater treatment by applying circular economy principles.

Municipal waste management by applying circular economy

The City of Belgrade has constructed a sanitary landfill that includes the largest waste-to-energy solution in the country in the form of a public-private partnership. The PPP includes the remediation of the landfill in Vinča and its maintenance after closure; Redirection of at least 200,000 tons of construction and demolition waste annually to a new re-cycling facility that will produce materials for construction and redirection of at least 340,000 tons of municipal waste annually to a waste-to-energy facility, supplying electricity to the power grid and thermal energy to the district heating system of PUC Beogradske elektrane.

The City of Novi Sad is in the process of completing its sanitary landfill and setting up primary separation and waste collection for the whole region. City of Novi Sad and the municipalities of Bačka Palanka, Bački Petrovac, Beočin, Srbobran, Temerin, Vrbas, and Žabalj have established a joint public utility company that will manage the future regional landfill. The contract for the establishment of the Public Utility Company "Regional Waste Management Center" was adopted at the end of 2023.

The tender for the construction of the regional landfill was conducted in September 2024, with a maximum construction deadline of three and a half years from the signing of the contract with the selected contractors. The investment value is €100 million, with the EU expected to allocate €60 million for the construction of the regional center, and the Republic of Serbia contributing €40 million.

The recycling yard opened in May 2024. This is the first of three planned recycling yards in Novi Sad,

In Zrenjanin, the local non-sanitary landfill is in the southern part of the city, 1.7 km from houses in the nearest settlement and about 5 km from the city center. The estimated quantity of landfilled waste is about 268,400 m3. Municipal, construction and non-hazardous medical waste is mainly disposed of at the landfill. "Eko-maber" from Pančevo began work in December 2023 on the remediation and complete closure of the existing city landfill (as part of a public-private partnership).

In addition to the main landfill, there are officially recorded 27 illegal landfills in the city, several located within the city and in all the villages in the area.

In April 2024, a new Local Waste Management Plan was presented, which envisions the construction of a regional landfill and the establishment of a waste management center for Zrenjanin and the mentioned municipalities, in accordance with the Waste Management Program for Serbia (2022–2031), as well as the implementation of primary sorting.

The project will support cities in improving waste management planning and operations by implementing solutions that are locally compatible, sustainable, affordable and resilient. The goal is to maximize resource efficiency by promoting waste reuse and recycling practices, reducing greenhouse gas emissions and establishing sustainable waste collection system and safe disposal for all.

The project will support circular economy models by four areas of intervention: 1. Universal collection – enhancing waste infrastructure development including primary separation and management of specific waste streams, evaluating technology, reviewing national and regional/local policies, and implementing cost-effective and efficient waste collection and transportation services; 2. Safe disposal and treatment - Implementing city strategies and policies to effectively recover secondary raw materials through composting, landfill gas utilization and other recovery practices. This includes eliminating open dumping, open burning and waste leakage, improving disposal quality, establishing organic waste recovery infrastructure, and promoting businesses that enhance recycling and waste segregation; 3. Creating new business opportunities, including informal sector integration by generating new green and decent jobs by boosting collection, recycling, and composting efforts in particular for vulnerable groups with an aim to establish a cost-effective and inclusive waste management system; and 4. Financing - ensuring the financial sustainability of new waste infrastructure, securing funding, and supporting long-term economic viability.

Circular transition in energy and material consumption (including the construction sector)

The three cities currently operate under linear economic models. To ensure full transition towards sustainability, city services must undergo a deep transformational shift in how they consume and produce food, energy and other resources. The transition to a circular economy involves shifting production processes to regeneration rather than depleting the natural systems on which they depend. The project will create enabling policies and incentive measures to support the cities in adopting new business models for managing utility services, aligned with the principles of the Circular Economy Programme and the EU Circular Economy Action Plan. These measures will primarily focus on maintaining the value of products, materials and resources for as long as possible to develop a sustainable economy. Through circular economy-based initiatives, the project will assist the participating cities in addressing issues such as food waste, eco-design, organic fertilizers, guarantees for consumer goods, and fostering innovation and investments. Additionally, the project will support gradual integration of circular economy principles into industrial best practices, green public procurement, and new initiatives in the construction and water sectors.

Specific focus will be on reducing chemicals of global concern (CGCs) such as persistent organic pollutants (POPs), heavy metals (like mercury and lead) and other toxic chemicals. Persistent Organic Pollutants (POPs) and heavy metals are highly toxic substances that can accumulate in the environment, leading to significant health risks for wildlife, humans, and ecosystems. These pollutants often enter the environment through improper disposal, industrial activities, and the use of certain materials in production processes (e.g., plastics containing harmful additives, electronic waste, etc.). Circular practices together with improved waste segregation can play a vital role in minimizing the release of these pollutants.

Plastic waste is of critical concern because plastics often contain or are contaminated by CGCs, which can leach into the environment. According to the IPCC, the plastic industry is also the fastest growing source of industrial greenhouse gases in the world and could be responsible for as much as 19% of global greenhouse emissions by 2040 with the production of 1 ton of plastic causing about 1.19 tons of CO_{2eq} emissions. As presented in Serbia's national program for waste management, only 15,5% of plastic from the municipal waste was separately collected in 2020, while in total about 91.265 tons of plastics was used as packaging material during the same year. To achieve the goals set by the national program for waste management, there would be a need to increase the coverage of the separate collection system for packaging waste to 100% by 2028 and recycle a mass share of total packaging waste of 65% by 2025 and 70% by 2030.

The project will promote a multifaced approach for reducing the use of single-plastics and their disposal. Firstly, it will support the development of legal measures such as extended producer responsibility and introduction of a deposit system for plastic bottles. Other measures can include the development of alternative materials. As an example, one of the projects in the accelerator phase of the UNDP Green agenda project has promoted the use of washable multi-use plastic cups in the festivals. The project will also support public awareness campaigns to educate the consumers about the harmful effects of single-use plastics and encourage them to reduce their plastic consumption also otherwise.

When it comes to the construction and demolition waste, it is typically deposited or more frequently disposed together with municipal waste to unsanitary municipal landfills. According to data from the Statistical Office of the Republic of Serbia, the total amount of construction and demolition waste in Serbia was 661 000 tons in 2021 with its composition estimated by the Serbia's national program for waste management as follows: 75 % of excavated soil, 15-25% of construction and demolition debris (ceramics, concrete, iron, steel, plastic waste), and 5-10% of asphalt and concrete. By better segregation at source, much of these materials could be recycled, which has been

recognized and addressed also by the national program. The project will support this effort by exploring opportunities for improved waste segregation at construction sites as well as by sourcing and promoting innovative business development ideas for reusing those materials.

As part of the country's focus on the transition to a circular economy, reducing food loss and managing food waste represents one of their main priorities. According to estimates, about 247 thousand tons of edible food are wasted in Serbia annually, about 30-40 kg per capita. Households, catering, and retail sectors are the largest waste food generators. It is estimated that up to 99% of this waste ends up in landfills, where it emits greenhouse gases, in a total amount of about 28,000 tons of CO2 equivalent. The project will support composting initiatives including communal composting facilities and home composters, encourage HORECA (hotels, restaurants and cafes) sector to use technologies that track inventory and predict demand to reduce overproduction, support development of regulation that mandate the separation and proper disposal of food waste in HORECA sector, provide training and capacity building activities for citizens, public and private companies and local administration.

Applying circular economy principles helps to reduce the production and release of CGCs by minimizing waste generation, encouraging the use of safer materials and ensuring that products and materials are reused or recycled rather than discarded. Therefore, enhancing waste management systems in cities is crucial that can properly sort, treat and recycle waste, including plastics. The project will assist cities to strengthen restrictions on single-use plastics, promote reusable alternatives to single-use plastics, establish and enforce systems for segregating plastic waste at source, develop partnerships with private companies to innovate and scale solutions for reducing plastic waste and eliminating CGCs. In addition, integrating nature – based solutions, such as green infrastructure for waste management (urban wetlands help manage runoff and reduce pollution from improperly disposed pf plastics and prevent CGCs from entering water bodies) or promoting urban composting programs (mixed waste often reduces the efficiency of recycling and can lead to increased CGC release).

To facilitate the circular transition, the smart city planning may encompass: Ecological public procurement policies; Local production, repair and reuse initiatives; Eco-design principles in the built environment; Bio-intensive urban farming; Energy generation from biomass; Innovation in water and waste management systems; Infrastructure solutions for e-mobility and low-energy districts. The project will encourage local businesses to adopt circular design principles that prioritize recyclability, durability, and ease of disassembly when developing new products. Also, the project will support cities in investing in bio-based materials and technologies that are biodegradable or recyclable. The project will also promote biomimicry — designing products and processes that mimic nature's solutions to minimize waste and resource use.

One of the innovative tools the project will introduce in the three cities refer to the so called "sharing economy", focusing on sharing and collaborative consumption models for goods such as transportation tools, housing/common premises sharing, through platforms that enable sharing among residents.

The project will work with the responsible institutions and local self-governments to introduce regulatory acts that promote circular design principles emphasizing recyclability, durability, and ease of disassembly when developing new products. This will further be strengthened by setting up urban labs/hubs where businesses, researchers, and local authorities can collaborate on innovative circular economy projects, share resources, and exchange knowledge.

The project will particularly encourage public-private partnerships to drive innovation and investment in circular economy initiatives.

Improving EE in buildings and public lighting

In the City of Belgrade, the EU and EBRD (project: EU for You) are supporting Belgrade in the renovation of four public buildings. The EU has provided grants totaling 11 million euros, while the EBRD is offering a loan of 5 million euros to improve the energy performance of selected public buildings.

Belgrade is also part of the EBRD Public ESCO project, with District Heating Company engaging as ESCO for the renovation of residential Multi Apartment Buildings. The first phases anticipate some 300 buildings in Belgrade.

The city has several energy managers and is using their own Information System (ISEB), which is aligned with EMIS.

The City of Novi Sad has an Energy Agency and an energy manager. Data is regularly supplied to EMIS. About 70% of public buildings are connected to the DH system and slightly less than 30% are connected to the gas network.

Novi Sad is also part of the EBRD Public ESCO project, with DHC engaging as ESCO for the renovation of residential MABs. The first phase anticipates some 100 buildings in Novi Sad.

The City of Zrenjanin has an energy manager, however no regular data supply in EMIS. Also, the status of the EE Program and Plan is not known. Zrenjanin is also included in the EBRD Public ESCO project

All three cities are engaged in the program of the Ministry of Mining and Energy for subsidizing the renovation of households.

The project will support these cities in setting up clear policy and regulatory framework aligned with the national priorities, such as those outlined in the National Determined Contributions (NDC), the National Energy and Climate Plan (NECP) and the Low-Carbon Development Strategy. Also, the project will incentivize specific measures at municipal level that promote renewable energy and energy efficiency.

Increasing the use of renewables

In the City of Belgrade there are several efforts to increase the use of RES in DH: there are biomass-based boilers in two locations in the Belgrade DH system. Also, the DHC is planning a trigeneration plant within EXPO and the national stadium. A connection for the use of waste heat from the power plant TENT Obrenovac to New Belgrade is also planned. The DHC is working together with the Mining and Geology Faculty on the exploration of geothermal potential for the supply of heat in locations Borca, Batajnica and Dunav. The supply of heat from the waste incineration plan in Vinca is planned as well. Finally, the use of solar energy is available in the boiler house Cerak.

In the allocation of funds and implementation of subsidy programs for solar panels, the Belgrade municipalities of Barajevo, Grocka, Lazarevac, and Mladenović participated.

The City of Novi Sad engaged in several steps to increase the use of RES in district heating. A 90 million EUR was agreed to finance the construction of a large-scale solar-thermal plant in Novi Sad with 38,600 m2 of solar collector fields, a seasonal heat storage, heat pump and an eBoiler (the "Project"). The Project is included the Green City Action Plan. Total estimated project cost is €104.7 million.

A FS for the use of geothermal energy in DH was commissioned. The DHC already uses waste heat from CHP for the provision of sanitary hot water.

In order to support households with EE investments, Novi Sad obtained additional financing from the Ministry of Mining and Energy (MoEM) of ca. EUR 42,370 in 2021 for the installation of solar rooftop photovoltaic (PV) panels, and an additional ca. EUR 280,000 in 2022 for the implementation of overall EE measures.

In the City of Zrenjanin there is no RES in heat production. In order to support households with EE investments, Zrenjanin obtained additional financing from the MoME of ca. EUR 62,700 in 2021, and an additional ca. EUR 122,000 in 2022. In 2021, 220 households were supported by this program.

In parallel, the project will, over the long term, support the development of comprehensive urban planning strategies that integrate energy efficiency and renewable energy goals into land use, transportation, and infrastructure development. Additionally, through smart leadership, the project will promote green procurement policies that prioritize energy-efficient products and services, while also encouraging private sector partners to adopt similar practices.

Promotion of sustainable transport solutions and intermodal transport services

The three cities still lack integrative transport planning policies that are centered on the citizens' needs. Despite the focus on integrating cycling into urban transport, the absence of enabling policies, particularly in construction and traffic safety, poses significant challenges to the development of supporting infrastructure. On the other hand, promoting sustainable transport is crucial for creating green, sustainable cities.

The Sustainable Urban Mobility Plan for the City of Belgrade, under Measure 7 Reducing Harmful Emissions and Energy Consumption, envisions energy-efficient solutions for public transport (electric vehicles, CNG, LPG, etc.) through the stimulation of electric vehicle use (CNG, LPG, etc.) for taxi services and ridesharing, equipping taxi stations with electric vehicle chargers, and establishing parking and charging stations for ride-share vehicles.

Two bus lines are currently operating with only electric buses.

City of Novi Sad has a master plan for transport and is engaging in improving public transport with low emission vehicles with some 10 electric buses and CNG buses procured. Also, the first multi-story bike park is under construction

The city of Zrenjanin has a high share of non-motorized transport due to the tradition for cycling. However, there is a need for reconstruction and extension of cycling and walking infrastructure

The project may also support the implementation of "smart traffic management systems and congestion pricing schemes" to reduce traffic congestion and encourage the use of public transport and non-motorized modes of transport.

The project will support city and transportation planning to minimize urban sprawl and promote mixed land use ensuring residential areas close to workplaces, schools, and amenities. This approach reduces the need for long commutes and supports sustainable transport options. This measure is also closely linked with the introduction of the so-called "Low-Emission Zones" where access is restricted to low emissions or zero-emission vehicles. This can significantly reduce air pollution in urban areas.

Sustainable transport can be further promoted by applying green procurement policies that prioritize the purchase of environmentally friendly vehicles and technologies for public transportation fleets and government agencies.

Integration of nature-based solutions in urban planning and development and preservation of urban biodiversity

Integration of nature-based solutions (NbS) into urban planning and development remains a novel concept in Serbia, and as such, is underrepresented in current urban policy and planning documents. This also leads to the limited application of NbS in urban infrastructure and construction projects. However, the Serbian Government has made significant progress in promoting NbS through the Strategy for Sustainable Urban Development and National Climate Change Adaptation Programme. Nature-based solutions can act as climate adaptation tools in urban areas by reducing urban heat, mitigating floods, and promoting resilience to extreme weather events. As such, integrating NbS into sustainable urban planning is crucial for enhancing the resilience, livability and sustainability of cities. due to its fundamental role in supporting urban resilience, health and overall quality of life.

By building on NbS-related measures and ecosystem services, the project will contribute to the transformation of cities into greener and more sustainable urban environments by:

- Comprehensive mapping and assessment of natural assets within urban areas, including green spaces, water bodies, biodiversity hotspots, and potential areas for restoration. Use GIS technology and ecological assessments to understand the current status and potential of these assets;
- Amending and developing local policies that prioritize NbS in urban planning. This could include zoning regulations to protect green spaces, requirements for green roofs or walls in new developments, and incentives for developers to incorporate NbS into their projects;
- Engaging with local population to co-create NbS-based solutions that provide multiple benefits to the local environment, such as improved air quality, reduced urban heat island effect, and enhanced biodiversity, to garner public support and participation;
- Designing green infrastructure that serves multiple functions, such as green roofs for flood mitigation, urban parks that also function as water retention areas, and vegetated swales for stormwater management. These solutions will be designed to contribute to both ecological and social well-being, enhancing the overall resilience of urban areas;
- Fostering stakeholder collaboration, including the government agencies, private sector, academia and non-governmental organizations (NGOs) by leveraging expertise, funding, and resources for implementing NbS. Public-private partnerships can be highly effective in funding and maintaining green infrastructure projects.

Other specific measures may include:

- Establishing urban forests and green corridors to improve air quality, reduce urban heat islands, and provide recreational spaces. For instance, Novi Sad has focused on developing green corridors and parks to increase urban green spaces.
- Permeable pavements: Allow for rainwater infiltration, reducing surface runoff and flooding.

- Pocket parks and urban forests: Provide recreation, increase biodiversity, and improve air quality.
- Green corridors: Create interconnected greenspaces to allow wildlife movement and recreation.
- Implementing vertical landscaping on the facades of public buildings and garages can enhance microclimatic conditions and increase energy efficiency. This approach has been planned in certain complexes to improve urban environments.
- Revitalizing areas like the Danube riverfront can provide recreational spaces, promote tourism, and enhance biodiversity. Novi Sad has undertaken such projects to enhance livability and address climate change.
- Urban ponds and bio-retention systems: Capture stormwater, improving urban flood resilience.
- Shade structures with vegetation: Lower heat stress during hot seasons.
- Integrating water-sensitive urban design ensures water cycle management through natural processes.
- Rain gardens: Filter pollutants and allow rainwater infiltration in residential or public areas.
- Urban stormwater wetlands: Retain and cleanse stormwater runoff.
- Rainwater harvesting with green systems: gardens or green walls with water re-utilization mechanisms.
- Involving citizens in urban mapping and planning workshops can lead to more effective and accepted NbS implementations. The "Novi Sad BiodiverCity" project actively involved citizens in analyzing and developing their urban spaces.
- Incorporating green infrastructure, such as parks and green spaces, into urban planning can enhance resilience and sustainability. Belgrade has been developing a Green City Action Plan to guide such investments.
- Planning urban NbS with a focus on biodiversity can lead to balanced urban outcomes. Studies have examined the interplay between biodiversity and NbS planning across various domains.
- Protecting and connecting habitats across the urban-peri-urban gradient ensures healthy ecosystems and prevents habitat fragmentation.
- Bioswales and buffer strips: Manage water runoff while improving connectivity for pollinators and other species.
- Wildlife-friendly urban design: Installing nesting boxes, bee-friendly plants, and amphibian-friendly corridors.
- Protected natural areas: Conserving natural landscapes like peri-urban forests or wetlands as part of the city's ecosystem service network.

The project will also support the cities setting up monitoring programs to assess the performance and effectiveness of NbS over time. Key outcomes such as improvements in air and water quality, reductions in the urban heat island effect, biodiversity enhancement, and community well-being will be measured to inform future planning and investment decisions.

The project will also support cities in integrating NbS into existing financial mechanisms, including green bonds, subsidies, tax incentives, and grants, to support their implementation. In parallel, the project will explore innovative funding sources, including public-private partnerships and impact investment, to attract investment in sustainable urban infrastructure.

The project will also facilitate knowledge sharing and the replication of successful NbS projects across different cities and regions. This will be achieved through the Serbian Sustainable Cities platform and related networks, where cities can exchange experiences, lessons learned, and best practices in integrating NbS into urban planning.

The main assumptions and risks to the proposed project strategy are discussed in greater detail in Annex 7 of this project document. To meet the project objective, it is essential to have clear political will both at the governmental and municipal level of the three participating cities to effectively encourage and support the green transformation. The positive experiences from the earlier CSUD and CE projects, as well as some initial steps already taken both by

the Government and the participating cities, provide a positive signal in this regard. The project has been developed in close consultation with the key stakeholders and beneficiaries. By conducting rigorous technical and financial due diligence of the pilot investments, the project also seeks to minimize any technical and financial failures.

All the measures supported by the project also need to be socially and environmentally acceptable. This has been addressed by a comprehensive Social and Environmental Screening Process (SESP) and related Environmental Social Management Framework as well as a Gender Analysis and Gender Action Plan presented as Annexes to this project document.

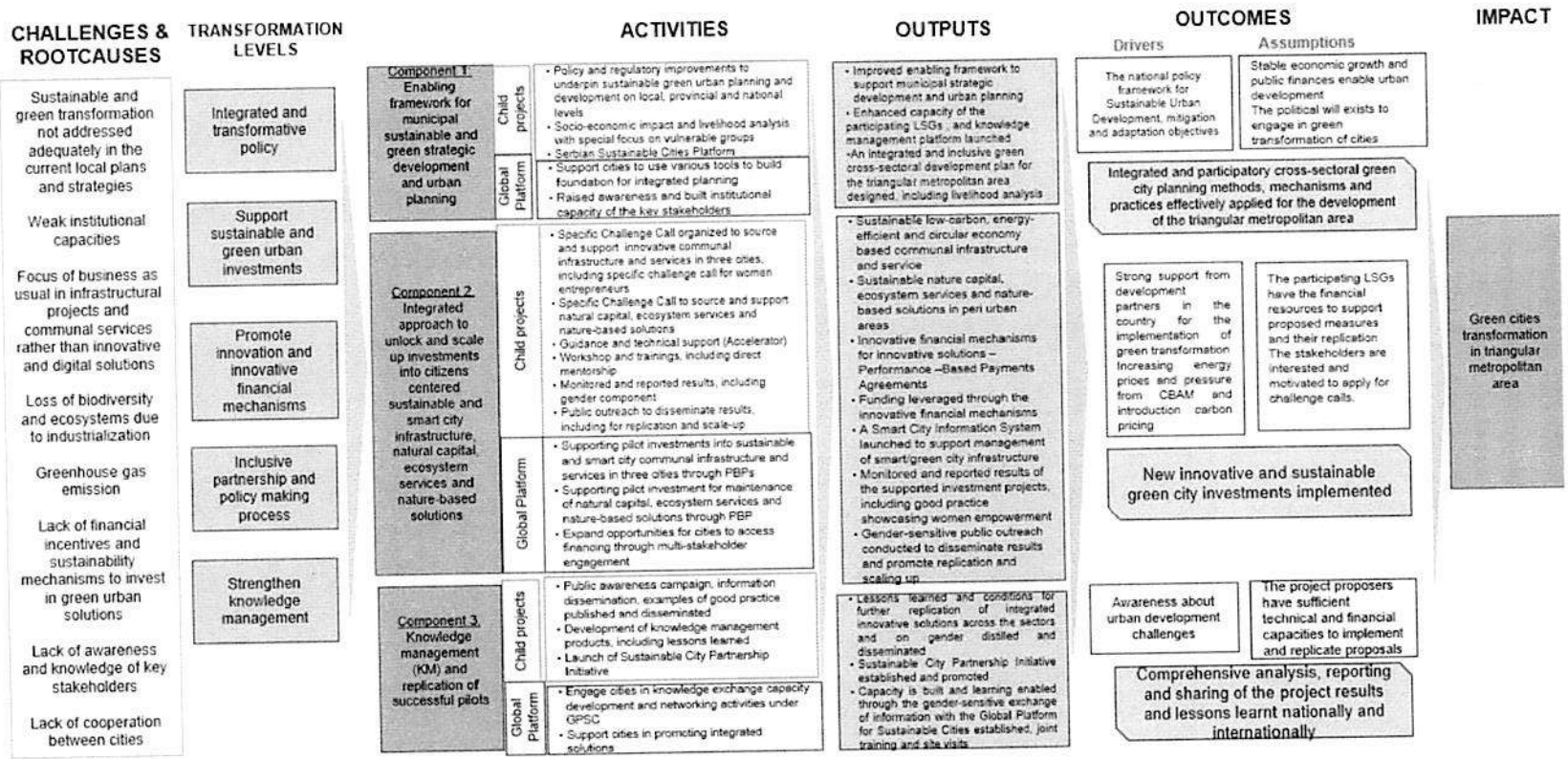


Figure 3. Project Theory of Change

RESULTS AND PARTNERSHIPS

By building on the Theory of Change discussed in the previous section, the project implementation strategy and expected results are structured under three interrelated components, which are briefly discussed below. For further details, a reference is made to chapter "Project Results Framework".

The project will contribute to the global effort to address the environmental and social challenges caused by the ongoing global urbanization process observed in Serbian cities by supporting i) integrated and inclusive urban planning, strategies, and policy development; ii) promoting investments in sustainable, nature-positive, and resilient urban development; iii) adopting innovative and sustainable financing mechanisms; and iv) strengthening knowledge-sharing and capacity-building with the initial focus on the triangular metropolitan area.

Expected global environmental benefits to be produced by the project include: i) GHG emission reduction through innovative solutions and green infrastructure (Paris Agreement/NDC); ii) increasing the number of nature-based solutions and area of peri-urban landscape; iii) improved access to financing for ecosystems and biodiversity conservation, as well as iv) effective management of land and ecosystem restoration in the triangular metropolitan area (Global biodiversity framework).

The project aligns closely with the objectives of the GEF 8 SCIP, which supports "cities and local governments to undertake integrated urban planning, implement policies and invest in nature-positive, climate – resilient, and carbon – neutral urban development". Activities under Component 1 of the proposed project include the development of national and local policies and strategic documents to advance urban sustainability, the strengthening of stakeholders' technical capacity to implement these policies and regulations, with a strong focus on women's involvement, and the application of various tools to support integrated urban strategic planning process. These efforts directly contribute to Component 1 of SCIP (supporting integrated and inclusive urban planning, strategies and policy). The project's investments in innovative, climate resilient, smart, sustainable, nature – based and nature positive urban solutions and piloting new financing mechanisms support Component 2 of SCIP (Promoting investments in sustainable, nature – positive and resilient urban development and adopting innovative financing mechanisms). Capacity - building activities will ensure the replication and sustainability of innovative solutions, business models and financial instruments for resilient and green city development, including the establishment of the Sustainable City Partnership Initiative. Additionally, information exchange and joint activities with the Global Platform for Sustainable Cities will all contribute to Component 3 of SCIP (strengthening knowledge – sharing and capacity building). Three cross cutting areas are incorporated into project design, focusing on gender equity, private sector engagement and different financial instruments and urban strategy and policy.

The specific components and their expected outcomes and outputs consist of the following:

Component 1. Enabling framework for municipal sustainable and green strategic development and urban planning

Outcome 1 Integrated and participatory cross-sectoral green city planning methods, mechanisms and practices effectively applied for the development of the triangular metropolitan area.

Output 1.1. A roadmap developed with recommendations for streamlining integrated inclusive green urban development into different local sectoral plans and incorporating national policy targets for smart climate resilient green city development, including also gender aspects.

Activity 1.1.1. Analysis of the national policies relevant for green and resilient city development

This activity will provide an analysis of the relevant national policies for green and resilient city development and identify shortcomings, gaps and barriers for streamlining local level policies.

Activity 1.1.2 Baseline assessment of existing plans in three cities

Baseline assessment of existing plans (waste and wastewater management, urban mobility, urban planning, green infrastructure, energy efficiency, climate change related documents, development and growth plans etc.) to identify gaps in integrating the national policies and enable green, climate-resilient and gender-inclusive principles.

Activity 1.1.3 Stakeholder consultations about baseline assessment

The findings of the assessment will be discussed in each of the three cities. In addition to obtaining feedback from the city administration and the communal enterprises, the project will engage in consultations with the civil sector

representatives about the gaps and challenges to be reflected in the roadmap. Enabling citizens to actively engage in city planning activities and defining priorities ensures a more inclusive, representative and sustainable urban development process that reflects community needs, fosters local ownership and leads to more effective and equitable policy outcomes.

Activity 1.1.4 Development of the Roadmap

The roadmap will compile the findings of Activities 1.1.1 and 1.1.2, considering also the feedback from the stakeholders and provide concrete measures that will include guidance for incorporating inclusive sustainable green development into sectoral plans, specific recommendations for integrating gender-responsive policies and practices, milestones, timelines and resource requirements for implementation, as well as examples of successful integrated approaches. The roadmap will provide guidance for the integration of the inclusive sustainable green development into sectoral plans which will be supported under Outcome 1.4.

Output 1.2 Enhanced capacity of the participating LSGs to transform national regulations, programs and targets into integrated and inclusive local level action for green city development, including but not limited to: i) effectively operationalized systems for digital data collection and management (land use, mobility, biodiversity, buildings, energy (EMIS), emissions, waste), ii) strengthened human capacities and resources for data management, participatory planning and project preparation; and iii) streamlined institutional and sectoral co-ordination and co-operation.

Activity 1.2.1 Design of capacity building measures

Based on the baseline assessment tailored capacity building measures will be defined. Depending on the city, the measures will include, but not be limited to green and sustainable urban planning (including sectorial approach); digital tools for data collection and management, including GIS and EMIS; techniques for participatory planning, ensuring inclusivity and stakeholder engagement; methods for preparing bankable green city projects (e.g., feasibility studies, financial modeling);

Activity 1.2.2 Capacity building measures implemented

Capacity building training for local self-government employees and urban planners on implementing inclusive green strategies, integrating gender considerations and aligning with national targets. The capacity building should provide the necessary capacities for the implementation of the roadmap and will be aligned with the work under Output 1.4 and 2.6 (e.g. on the job training).

The activity is expected to result in strengthened technical and managerial expertise to prepare and implement green and sustainable sectorial strategies and plans, operationalize data systems and execute green urban projects effectively.

Output 1.3 Socio-economic impact and livelihood analysis and a Livelihood Action Plan with a specific focus on vulnerable groups and their gender specific dimensions potentially affected by suggested policy measures, plans and investments designed

Activity 1.3.1 Socio-Economic and Livelihood Assessment Survey Conducted.

The activity will prepare and conduct a comprehensive survey to gather data on the socio-economic status, livelihood practices, and vulnerability levels of affected communities in each of the three cities. Also, the activity will prepare surveys through consultative dialogue with key stakeholders at the local level. The pilot survey will be tailored to capture socio-economic indicators and livelihood dynamics. The activity will Identify and engage local stakeholders, community leaders, and vulnerable and gender-diverse groups for the inclusive participation. In addition, the project team will conduct focus group discussions and in-depth interviews to understand the nuanced impacts of policy measures like waste management and circular economy advancements. The final result of the activity is the detailed socio-economic and livelihood profile that identifies key areas of vulnerability and opportunity for each of the participating cities. Socio-economic data will be disaggregated (to the extent possible) by gender to capture nuanced insights. Socio- economic surveys will be integrated in a Livelihood action plans for each city designed according to the template from the UNDP SES Toolkit.

Activity 1.3.2 Stakeholder Consultations about the survey findings

The activity will facilitate stakeholder engagement to validate findings, identify community priorities, and co-develop recommendations in each of the Livelihood Action Plans. The activity will include the following tasks: organization of stakeholder consultation workshops with local authorities, NGOs, private sector representatives, and affected community members. The consultative workshops will be based on the methodologies that apply participatory tools such as, design thinking, portfolio approaches, problem trees or scenario analysis to explore the socio-economic impacts of proposed policies. The activity will encourage collaborative drafting of the recommendations for mitigating negative impacts and leveraging opportunities for economic inclusion. The goal is to produce Action Plans that are based on consensus on actionable recommendations aligned with local needs and priorities.

Activity 1.3.3 Livelihood Action Plans (LAPs) developed for each of the three participating cities.

The activity will support formulation of targeted Livelihood Action Plans focused on vulnerable groups and aligned with the principles of just green transition, circular economy and inclusive sustainable development. As part of the drafting process, the activity will map the existing livelihood programs and resources that can support adaptation to new policies or investments. It will design tailored interventions, such as reskilling and upskilling for waste management and recycling jobs, microfinance initiatives, or social enterprise development. The activity will follow National documents such as Study Diagnostics of Just Transition: Serbia (developed by the Ministry of Mining and Energy with EBRD support), Study – Initiating Just Transition in Serbia (developed by the Ministry of Environment with UNDP-GEF support). Also, the activity will follow national policies on social inclusion, gender, social and environmental screening and assessments (e.g. Environmental Impact Assessment and Strategic Environmental Assessment laws), etc. LAPs will include an implementation roadmap, including timelines, responsible entities, targeted measures for women and marginalized groups and monitoring mechanisms. Also, the LAPs will strategically emphasize private sector engagement as a catalyst for green and sustainable urban transformation. With that regard, the LAPs will identify key private sector entities with significant potential to support this transformation in particular through their Environmental, Social and Governance (ESG) initiatives and investments aligned with principles of just green transition, circular economy and inclusive sustainable development. This may target both SMEs and industries that serve as economic drivers within local communities, as well as those that represent sources of local pollution, recognizing their dual role as important community actors. The LAPs will particularly highlight private sector contributions to social and economic development at the local level, by engaging private sector participation in urban planning process, infrastructure improvement initiatives, energy poverty alleviation efforts, strengthening climate resilience, engagement and dialogues with citizens collaboratively identify solutions to local challenges (inclusive of those caused by businesses operations), etc. Final result is to produce socially responsive, inclusive LAPs in three cities that provide clear guidance for improving livelihoods while advancing waste management and circular economy goals.

Output 1.4 An integrated and inclusive green cross-sectoral development plan for the triangular metropolitan area designed

Activity 1.4.1 Cross-Sectoral Data Analysis and Mapping.

The activity will conduct a detailed assessment of current environmental, social, and economic conditions across the metropolitan area, focusing on energy use, urban mobility, housing, waste and wastewater management, green infrastructure and protected areas management. It will also consider climate vulnerability of the greater metropolitan area. The activity will also support the development of integrated digital tools for smart urban planning, including GIS-based maps and real-time monitoring systems to identify critical intersections between sectors and visualize opportunities for green and climate resilient urban development. Moreover, this activity shall also include the development of "Maps of Hope" leveraging spatial data to identify where nature-based actions can safeguard essential life support areas to maintain key biodiversity and ecosystem services. The data-driven approach works with available spatial data sources on nature, society, and economic variables, and develops action maps that reflect different balances across relative national priorities. Recognizing that there may be trade-offs between optimal biodiversity outcomes or social and employment impacts, the Maps of Hope approach allows stakeholders to place different weights on different outcomes to understand how alternative prioritization can change and what land use or nature protection and restoration actions are most appropriate for delivering objectives in a balanced way. The analysis will complement the baseline assessment developed within Activity 1.1.2 and will inform the work on the revision of the cities' plans.

Activity 1.4.2 Proposal for the review and amendments drafted for the Urban Development Plans to facilitate integration of green transition and sustainable development principles

Depending on the interests and needs, the project will provide proposals and support for amending urban development plans. The Urban Development Plans represent the baseline for infrastructure investments in key sectors and municipal public services, such as waste management, wastewater treatment, water supply, transport, energy management, construction, construction and expansion of green areas, management of local protected sites etc. By amending these key local strategic documents, the three cities can reduce resource and energy consumption, improve quality of the environment, health of the citizens and increase the value of natural capital and strengthen the role of nature-based solutions in building up the urban resilience to natural disasters. Also, amendments of the urban planning documents will unlock the opportunities for attracting green capital markets, including through direct investments of the public and corporate sector, but also IFIs and potential donors.

Activity 1.4.3 Proposals for the review and amendments drafted for the key local sectorial policy and planning documents in three cities

The project will provide proposals and, subject to interest of the cities, draft amendments for sector planning documents in the area of waste treatment, energy management and water supply and wastewater treatment, transport management, construction and maintenance of green areas and ecosystems management and restauration.

In the field of waste management: integration of circular economy principles into local and regional waste management plans.

In the field of energy management: this activity will support further integration of the public buildings, under the local jurisdiction, into the Energy Management Information Systems. Also, the activity will formulate local energy efficiency and renewable energy support schemes intended for the public and residential sector, as well as for industries (under local jurisdiction). Particular focus will be on setting up the support scheme for innovative financing mechanisms, such as the ESCO-based models for energy efficiency in public and residential sectors. The activity will also support the development of local guidelines and regulatory acts that further promote energy efficiency and increase the share of renewables in electricity supply/consumption, as well as in the heating and cooling sector.

In the field of water supply and wastewater treatment: the activity will prepare the assessment of the current state of the water supply and wastewater treatment systems in the three cities, from the perspective of efficiency and formulate a set of priority measures that will increase efficiency, reduce losses and increase the opportunities for expansion of the water supply and wastewater treatment systems. Also, this activity will provide recommendations for the upgrades of the local water supply and wastewater treatment information systems to allow better data collection and data sharing with the end-users, with the aim of supporting further development and upgrades of both systems. The activity will also provide recommendations for citizens-sensitive tariffs and billing systems to enable full recovery of the investment costs and allow generation of the systems operations and maintenance budgets at the level of LSGs.

In the field of transport management: the activity will support development and upgrades of the urban mobility plans, recommendations for further incorporation of sustainable urban mobility into transport infrastructure development and amend policies on inter-modal transport systems in urban areas. The activity will also support the development of smart urban transport information systems and its integration with the national early warning and hydromet systems for batter responsiveness of the transport systems to potential weather-induced disasters.

In the field of construction: the activity will support further development energy audit reports for public buildings owned by cities. The activity will also produce guidelines with recommendations on building codes and standardization adjustments in correlation with the observed and projected climate change for Serbia, as well as in line with the National Risk Registry. This will further prevent risk losses and damage due to the climate induced extreme weather events. Particular focus of the activity will be on producing recommendations and guidelines to adjust local construction policies and plans with those related to green areas expansion, nature conservation and ecosystem restauration plans and policies.

In the field of maintenance of green areas and ecosystems management and restauration: the activity will support development and improvements of the local green infrastructure plans in the three cities. It will also support the mapping of the potential areas for the increase of local green areas. The activity will also support the three cities'

authorities to upgrade their management plans for the nature protected sites, improve budgetary planning for the nature and ecosystem conservation and restauration measures and produce guidelines for the implementation of nature-based solutions in ecosystem restauration and development of green areas. The activity will also develop guidelines for the municipal public services on the potential use of nature-based solutions instead of the built infrastructure (such as in energy efficiency, transport, construction sector etc.).

The expected goal of the activity is to have local sectorial green and sustainable planning documents that are inclusive, locally relevant, and strategically aligned with national development goals.

Output 1.5 Serbian Sustainable Cities digital knowledge management platform launched to support inter-institutional collaboration, development of local green plans and financing innovative green urban and nature-based solutions.

Activity 1.5.1 Stakeholder consultations to inform development of the Sustainable Cities Platform.

This activity will facilitate inter-institutional collaboration and capacity-building. It will organize a series of workshops and training sessions for key stakeholders, including local governments, urban planners, private investors, and NGOs with the purpose of developing a detailed blueprint for the platform, including modules for knowledge sharing, data visualization, collaboration tools and access to funding opportunities to foster dialogue on transformative actions, green planning, and funding mechanisms. The activity will collect feedback to tailor the platform to user needs.

Activity 1.5.2 Design and development of SSCP

The Serbian Sustainable Cities Platform (SSCP) will be an integrated online knowledge management and investment platform to support: (i) inter-institutional collaboration, (ii) transformative actions, (iii) development of local green plans and documents, and (iv) mobilization and financing innovative green urban and nature-based solutions. The day-to-day management and updating of the content of the SSCP will be done by the Innovation Challenge Support Unit supported also by the MoEP. The SSCP builds on the good experiences of the KM platform established as a part of the CSUD project and The Low Carbon Communities Innovation Platform (LCCIP) to facilitate interaction between the cities and communities, research institutions and companies (both public and private) in order to produce new innovative low-carbon, green and sustainable project ideas and business solutions.

To ensure sustainability, the project-based SSCP will be transformed into a Sustainable Cities Knowledge Hub linked with the webpage of the Standing Conference of Towns and Municipalities (SCTM) with support by the Project Implementing Partner (MoEP) and the cities of Belgrade, Novi Sad and Zrenjanin. It is envisaged to become a central tool for further dissemination of good practices and lessons learnt by public and private enterprises piloting sustainable green urban and peri-urban projects and solutions.

Output 1.6. Awareness raised and institutional capacities of the key national and local stakeholders enhanced to enable transfer of knowledge to other medium sized cities in Serbia and region

Activity 1.6.1 Stakeholder Engagement Workshops and Forums conducted.

Through dedicated workshops and forums, the activity will raise awareness and build understanding of the transformative approach among key stakeholders at the national and local levels. This will be conducted through a series of interactive workshops and forums in the three pilot cities to present the sustainable city development framework. The workshops and training will facilitate dialogue between national policymakers, local authorities, urban planners, civil society, and private sector representatives. During the events, the project team and experts will highlight successful case studies from Serbia, EU and countries participating at the global SC IP. The training will include feedback on local challenges and opportunities to ensure alignment with stakeholder needs. The results will be improved stakeholder buy-in, tailored insights into capacity-building efforts, and identification of city-specific priorities. The workshops will specifically address the cultural context that influences urban sustainability, recognizing that technical solutions alone cannot drive lasting transformation. Forums will include dedicated sessions on community stewardship of urban spaces, with practical exercises on co-creating behavior change initiatives that resonate with local cultural values.

Activity 1.6.2 Capacity Building Training Programs prepared and conducted.

The activity will enhance institutional capacities of stakeholders at both levels to apply the transformative approach. The project team and experts will design and deliver training modules focusing on core components of green and

sustainable city development (e.g., green infrastructure, participatory urban planning, and climate resilience). The activity will support the organization of the training sessions, based on the Programme, for local governments and urban development agencies in the three cities, with options for online and in-person formats. The activity will include "train-the-trainer" components to empower local actors to replicate the knowledge in other cities. The ultimate results are to strengthen technical skills and institutional readiness for implementing green sustainable city plans and strategies. The training programme will also be uploaded into the Sustainable Cities Platform to that it becomes accessible, scalable, and practical learning tools for broader dissemination of the transformative approach. This Activity will be aligned with Activity 3.1.2.

In order to capitalize on the planned investments and support a deep green transformation, the three cities need assistance in sourcing and implementing innovative and sustainable digital and other low-carbon energy-efficient and circular economy solutions for communal infrastructure and services, such as waste management, wastewater treatment, urban lighting, energy efficiency of public buildings and households.

The GEF grant is expected to have a catalytic effect by unlocking investment in sustainable urban development, digital and green solutions for the improvement of communal service and the conservation of the peri-urban area, combined with policy development and other investments that reflect an integrated approach.

In order to ensure integrated urban development, provide for data-based decision making and prioritization of investments and monitoring the quality of life, the Project will follow the principles of @Twin Transition (digital and green transition in synergy).

The cities can accelerate the greening of the infrastructure and services by applying innovative, IT and AI based solutions. The first step is to improve data collection and management. To maximize these impacts, the project will support the development of a "digital twin city" - a virtual replica or model of the entire city in the digital realm. This digital twin will offer a comprehensive, real-time representation of the city's infrastructure, processes, systems, and behaviors in real time. The digital city twin will result in number of benefits such as: Data Integration (integrate data from various sources such as IoT sensors, satellite imagery, social media feeds, and municipal databases to create a holistic view of the city); Real-Time Monitoring (monitoring of the city's operations, enabling city managers to quickly identify and address issues as they arise); Simulation & Prediction (using historical data and predictive analytics, the digital twin can simulate various scenarios and predict outcomes, thereby also helping in planning for emergencies, optimizing services, and making data-driven policy decisions); Urban Planning and Development (reducing risks and costs associated with urban development by allowing planners to test and refine plans in a virtual environment before implementation); Resource Management (through optimized algorithms, assisting city planners and managers in efficient management of resources such as energy, water, transportation, and waste leading to cost savings and environmental benefits); Citizen Engagement (providing interactive platforms for citizen engagement enabling residents to provide feedback, access information, and participate in decision-making processes); Resilience and Sustainability (modeling different services and monitoring how the city responds to changes, thereby helping in building resilient and sustainable cities capable of withstanding various challenges such as climate change and rapid urbanization); Collaboration and Innovation fostering collaboration between government agencies, businesses, academic institutions, and citizens encouraging innovate and co-create of solutions for urban challenges.

The implementation of a digital city twin can significantly enhance various sectors of urban development by providing data-driven insights and optimizing resource management. Potential improvements in key sectors include the following: Energy Sector (e.g. through smart grid management, where a digital twin monitors energy consumption patterns, predicts demand and optimizes electricity distribution across the city). For renewable energy, a digital twin can simulate the integration of renewable energy sources like solar and wind power into the grid maximizing efficiency and minimizing carbon footprint. For energy efficiency, a digital twin can identify opportunities for energy savings and optimize energy use in buildings, street lighting, and other public facilities. For the transportation Sector, a digital twin can be used to model traffic patterns and optimize signal timings to reduce congestion and improve traffic flow. It can also be used to simulate the effectiveness of public transport routes and schedules, thereby supporting efficient service delivery and encouraging modal shifts to reduce private car usage. For waste management, digital twins can use data on waste generation rates, collection schedules, and vehicle routing to optimize waste collection routes for efficiency and cost-effectiveness. Also, it can monitor recycling rates and simulates strategies for increasing recycling participation, enhancing resource recovery and reducing waste sent to landfills. In landfill management, a digital twin can predict landfill capacity and models strategies for waste reduction through waste-to-energy initiatives or composting. In water supply and management, a digital twin monitors water

supply networks in real time, detects leaks, and predicts demand to ensure reliable water distribution. In certain cases, it can even integrate data from sensors to monitor water quality parameters and ensure compliance with health standards, while also it can help in optimizing the irrigation systems for parks and public spaces by using weather forecasts and soil moisture data to conserve water.

In each of these sectors, the digital twin city concept enhances decision-making by providing real-time insights, predictive analytics, and scenario simulations. This holistic approach not only improves operational efficiency but also contributes to sustainability goals by reducing resource consumption, minimizing environmental impact, and enhancing the overall quality of life for city residents. Support to digitalization will be in the sectors of interest for each city and the highest impacts.

Within Outcome 1 a special focus will also be given to the role of spatial planning including urban and peri-urban areas and considering broader landscapes, in order to take into consideration, the biodiversity spatial elements. Here the project will consider applying the Maps of Hope:

***Maps of Hope (UNDP) – data-driven, landscape-level nature priority action mapping**: Maps of Hope leverages spatial data to identify where nature-based actions can safeguard essential life support areas to maintain key biodiversity and ecosystem services. The data-driven approach works with available spatial data sources on nature, society, and economic variables, and develops action maps that reflect different balances across relative national priorities. Recognizing that there may be trade-offs between optimal biodiversity outcomes or social and employment impacts, the Maps of Hope approach allows stakeholders to place different weights on different outcomes to understand how alternative prioritization can change what land use or nature protection and restoration actions are most appropriate for delivering objectives in a balanced way.*

The Urban Living Lab (ULL) concept will be a key tool for advancing broad stakeholder engagement for green city development. The basic idea of ULLs is that the development of solutions to different challenges should happen in a real-life setting by an iterative process by bringing residents, companies, research communities, educational institutes, civil servants and the public administration together from the very beginning. In other words, work collaboratively on city development with them, whose life the decisions made will affect later on.

While the practical implementation and tools used may vary in participating cities, in general they will follow a gradual process with a need to first build trust among the participants and develop a consensus on a shared agenda and the issues to be addressed. Further work may include the identification of feedback loops and creation of causal loop diagrams and behaviour over time diagrams to study the impact of different interventions, including possible unintended social or other consequences. Available digital tools and ICT supported methodologies can be used to support the process such as:

- Miro board – Online collaborative platform suitable for various forms of visualization.
- Loopy - Free web-based tool for creating causal loop diagrams.
- Kumu - A visualization tool for detailed systems mapping
- Sensing methodology, e.g. collecting data by a mobile connection from end-users as they navigate the city or getting direct inputs from portable sensors
- Participatory co-design and -creation workshops

Component 2. Integrated approach to unlock and scale up investments into citizens centered sustainable and smart city infrastructure, natural capital, ecosystem services and nature-based solutions

Outcome 2: New innovative and sustainable green city investments implemented

Output 2.1 Specific Challenge Call organized to source and support the implementation of innovative digital and other types of solutions that provide low-carbon, energy-efficient and circular economy based communal infrastructure and services.

Activity 2.1.1 Challenge Call prepared and launched to support innovative digital and other types of solutions for greening of the communal infrastructure services.

This activity will support the development of clear criteria for submission and selection of innovative solutions (e.g., innovation level, sustainability, scalability, alignment with low-carbon, energy transition and circular economy national and local priorities). Specific calls will be designed to target women entrepreneurship in order for the project to support gender equality. An operational manual will be designed to guide the investment criteria and the selection process for the Call and will be subject to the approval of the UNDP regional technical advisor, country office and national stakeholders (including the project board). The project team will make sure that the Challenge Call is agreed with national and local authorities and discussed with a broader group of local stakeholders, prior to launching. The team will publish the challenge call on relevant platforms, including industry associations, innovation hubs, and government websites. The activity will conduct outreach campaigns via webinars, social media, and industry events to attract a diverse range of innovators. The activity will result in increased awareness among potential end users about the content and goals of the challenge, encouraging high-quality applications from startups, research institutions, and established companies.

Output 2.2 Specific Challenge Call organized to source and support solutions that maintain natural capital and ecosystem services and promote nature-based solutions in peri-urban triangular metropolitan areas.

Activity 2.2.1 Challenge Call prepared and launched to support innovative solutions that maintain natural capital and ecosystem services and promote nature-based solutions.

This activity will support the development of clear criteria for submission and selection of innovative solutions (e.g. innovativeness of the project idea, impact potential in terms of global environmental benefits, sustainability and potential for replication and scaling up, alignment with strategies and programmes on green infrastructure development, climate resilience, nature conservation and nature-based solutions, at national and local level). An operational manual will be designed to guide the investment criteria and the selection process for the Call and will be subject to the approval of the UNDP regional technical advisor, country office and national stakeholders (including the project board). The project team will make sure that the Challenge Call is agreed with national and local authorities and discussed with a broader group of local stakeholders, prior to launching. The team will publish the challenge call on relevant platforms, including industry associations, innovation hubs, and government websites. The activity will conduct outreach campaigns via webinars, social media, and industry events to attract a diverse range of innovators. The activity will result in increased awareness among potential end users about the content and goals of the challenge, encouraging high-quality applications from startups, research institutions, and established companies.

Based on the experience in sourcing innovative project proposals, tailor-made challenge calls will be designed, taking into consideration the complementary challenges to the ongoing baseline activities based on cities' needs and the detailed selection criteria finalized. The tentative evaluation criteria will include the following:

- ✓ Innovativeness of the project idea
- ✓ Impact potential in terms of global environmental benefits
- ✓ Cost effectiveness and cost-sharing ratio (global environmental benefits achieved per the amount of required project support such as tons of CO2eq reduced per USD invested)
- ✓ Demonstrated project management, implementation and financing capacity of the project proponents
- ✓ Sustainability and potential for replication and scaling up
- ✓ Alignment with the Sustainable Urban Development Strategy
- ✓ Multi-dimensional impact – covering several subsectors the project will focus on (as listed in chapter B)
- ✓ Contribution to climate change adaptation / alignment with the National Program for Adaptation

and with the following exclusivity criteria:

- No physical displacement of vulnerable groups
- Use of biomass only from sustainable sources
- No activities in natural protected areas
- No use or transport of hazardous waste

N.B. When formulating the Challenge Calls under Output 2.1 and Output 2.2, the project will ensure synergy, by setting complementary problem statements and evaluation criteria that promote synergy between two Challenge Calls. The set of criteria will require the potential applicants/beneficiaries to identify specific actions with co-benefits addressing both challenges. This approach will, for example, encourage the integration of NbS into energy system,

communal infrastructure, transport, and waste management related solutions. On the other side, the Challenge call under Output 2.2 will require that proposals focused on natural capital preservation and ecosystem services enhancement also integrate actions that also contribute to decarbonization and climate resilience (e.g. wetland ecosystems restauration for carbon sinks), energy efficiency (leveraging NbS in retrofitting infrastructure), circular economy principles (reuse of waste biomass from natural ecosystems and green areas for composting or energy generation) etc. The evaluation criteria for both Challenge calls will assign higher weights to proposals demonstrating significant co-benefits, thereby reinforcing the project's commitment to integrated, cross-sectorial approach in urban planning and sustainable infrastructure investment.

Output 2.3 Selected ideas transformed into marketable businesses and products through the provision of technical support and advisory services on financial structuring and de-risking

Activity 2.3.1 Support Mechanisms for Applicants established and support to applicants provided.

This activity will support the organization of virtual or in-person information sessions to clarify expectations, eligibility, and evaluation criteria in line with the operational manuals developed under output 2.1 and 2.2. The project team will provide resources such as toolkits or FAQs for designing cities-relevant proposals that align with low-carbon, energy-efficient, and circular economy principles. The team will also set up a help desk that will support potential applicants through technical advisory sessions to assist in refining the solutions and preparing the application.

Activity 2.3.2 Selection, Acceleration and Funding Support Mechanism established.

The activity will set up an evaluation committee or panel, including UNDP experts, but also independent experts in sustainable urban planning, green infrastructure, energy efficiency, circular economy and any other field of relevance to green and sustainable urban development. The role of the evaluation committee is to select the most promising solutions and to provide recommendations to the Government and UNDP about the potential way forward for each of the selected solutions – in terms of the further technical assistance and/or provision of financing for implementation of the solutions.

The activity will also set up the project-based Accelerator with primary function to provide guided and tailor-made mentorship support to selected solutions. This support will contribute to further development and enhancement of the selected solutions. This mentorship support will include, but is not limited to further technical assistance that will confirm technical characteristics and expected impacts of the proposed solution, development of feasibility studies as needed, adjustment of the budget, confirmation of financing structure (including securement of the own financing of the applicant) etc. Only upon the completion of acceleration, will the project team, together with the Government, decide on the potential co-financing support to most advanced solutions that may receive funding for implementation. Also, during the acceleration, the project team will facilitate partnerships with local governments, businesses, or NGOs to integrate the solutions into existing communal infrastructure systems.

Output 2.4 Pilot investments into sustainable and smart city communal infrastructure and services in three cities supported through performance-based payments and innovation awards

Activity 2.4.1 Pilot investments that successfully completed the acceleration process, selected and proposed for co-financing.

This activity will set up criteria, at minimum related to: completeness of technical documentation for given solution/pilot investment (e.g. feasibility study, engineering solutions etc.), completeness of the budget (presenting clear financing structure - including mandatory financing of the applicant which can be secured either form applicant's own resources or from commercial borrowing or other source), proposed project management structure with clear indication of the capacities for implementation, clear impacts of the solution/pilot investment, sustainability and scaling – up potential. The project will provide financial support to the selected solutions/pilot investments in the form of co-financing through the co-called Performance-based Payment Agreements of Innovation Awards in line with the approved operational manual.

Activity 2.4.2 Monitoring and Evaluation Framework with Incentives established.

The activity will set up clear Framework for tracking progress, assessing the outcomes, and encouraging the innovation through rewards and performance metrics. The project team will develop a comprehensive monitoring

and evaluation (M&E) framework to measure the impact of the supported solutions/pilot projects on sustainability and service quality.

Output 2.5 Pilot investments into maintenance of natural capital, improvement of ecosystem services and nature-based solutions supported through Performance-Based Payments

Activity 2.5.1 Pilot investments that successfully completed the acceleration process, selected and proposed for co-financing.

This activity will set up criteria, at minimum related to: completeness of technical documentation for given solution/pilot investment (e.g. feasibility study, engineering solutions etc.), completeness of the budget (presenting clear financing structure - including mandatory financing of the applicant which can be secured either form applicant's own resources or from commercial borrowing or other source), proposed project management structure with clear indication of the capacities for implementation, clear impacts of the solution/pilot investment, sustainability. The project will provide financial support to the selected solutions/pilot investments in the form of co-financing through the co-called Performance-based Payment Agreements of Innovation Awards in line with the approved operational manual.

Activity 2.5.2 Monitoring and Evaluation Framework with Incentives established.

The activity will set up clear Framework for tracking progress, assessing the outcomes, and encouraging the innovation through rewards and performance metrics. The project team will develop a comprehensive monitoring and evaluation (M&E) framework to measure the impact of the supported solutions/pilot projects on sustainability and service quality.

Output 2.6 A Smart City Information System launched to support management of smart/green city infrastructure.

Activity 2.6.1 Development of smart city information systems/ web application

Depending on the needs of the three cities as well as the support provided within Output 1.4, the Project will source the design and development of up to three information systems to collect, integrate, and analyze data from various city infrastructure systems, such as district heating, water supply, waste management, public transportation, and air quality monitoring. This includes selecting appropriate software solutions, integrating IoT devices, and ensuring compatibility with existing city infrastructure. The activity will result in the creation of information systems ready to process and provide actionable insights into green and sustainable infrastructure management.

Activity 2.6.2 Trainings to operationalize the Smart City Information System.

The activity will support the organization of training sessions and workshops for city officials, technical staff, and other stakeholders on the use and management of the smart city information system. This includes technical training in data management, real-time monitoring, predictive analytics, and decision-making support tools. The activity will result in increased understanding of the city management teams to effectively use the system, ensuring it is fully utilized to support green city objectives.

Activity 2.6.3 Smart City Information System piloted and finalized based on feedback.

This activity will support administration in the three participating cities to pilot the system, test its functionality and relevance for managing green infrastructure. Gather feedback from end-users and stakeholders to refine the system and address any technical or operational challenges before city-wide deployment.

Output 2.7 Monitored and reported results of the supported investment projects, including good practice showcasing women empowerment

Activity 2.7.1 Establishing Monitoring Frameworks and Tools.

All new initiatives presented at the SSCP will be given a specific ID code and a card, by which the progress of each pilot initiative can be monitored, and the experiences and lessons learnt from them recorded. Each ID card will consist of two parts. One part will be available only to the Implementing Partner and UNDP for internal monitoring purposes (incl. financial monitoring), while the other part will include publicly visible data about the project and the lessons learned from their implementation. The project team will also monitor and prepare specific progress reports for each supported pilot initiative, while also preparing visual materials such as videos to document different stages

of their development and implementation. Special focus will be given to showcasing good practices in promoting women's empowerment in the project.

This activity will set up a system to collect and track key performance indicators (KPIs) for the supported green investment projects in the three participating cities. It will design city-specific KPIs aligned with environmental and socio-economic goals, incl. gender specific indicators (e.g., energy savings, reduced emissions, waste reused/recycled, green job creation divided to men and women, etc.). Also, the activity will support, as applicable, deployment of monitoring tools such as IoT sensors, remote data collection systems, and GIS mapping for real-time updates. Also, the local administrations teams will gain training on data collection and tool usage.

Activity 2.7.2 Field Visits

This activity will organize periodic field visits to evaluate on-ground progress and identify areas for improvement. The project team will schedule regular field visits to assess infrastructure development, operations, and maintenance, as well as verification of indicators. The teams will, in coordination with local administration, gather qualitative data through interviews with local stakeholders and beneficiaries. The findings and data will be compared against baseline data and targets for each city.

Output 2.8 Public outreach conducted to disseminate results and promote replication and scaling up, including possible city fairs and other opportunities for presenting and pitching the winning ideas to other cities

Activity 2.8.1 Gender -sensitive public Showcase Events organized.

This activity will organize at least annually dedicated events that will showcase successfully implemented green investments in each of the three participating cities. This activity will be conducted in close coordination with the network organizations of LSGs (such as the Standing Conference of Towns and Municipalities) in order to promote gender -responsive approaches in urban innovation for replication among other cities in Serbia. The activity will support each city to organize yearly fairs or exhibitions featuring the project's results, including presentations by winning teams or stakeholders. The events will implement gender-balanced representation among speakers, panelists and demonstrators, ensuring women's voices and perspectives are equally showcased. These gathering events will provide a platform for stakeholders to engage with ideas, understand their scalability, and explore replication opportunities. The events will include, but not be limited to interactive displays, live demonstrations, panel discussions, and networking spaces ensuring diverse equitable participation from all genders across local governments, private sectors, and civil society.

Activity 2.8.2 Media Campaigns and Webinars prepared and conducted.

This activity will support the development of an online outreach strategy involving webinars, blogs, podcasts, and videos showcasing the project's successes and scalability. This activity will extend the dissemination of results beyond the local community to national or international audiences. The activity will include collaborating with influencers, media outlets, and social platforms to share case studies and testimonials. Include a "Call to Action" for scaling up successful ideas.

Component 3. Knowledge management and replication of successful pilots

Outcome 3: Comprehensive analysis, reporting and sharing of the project results and lessons learnt nationally and internationally.

Output 3.1 Lessons learned and conditions for further replication of integrated innovative solutions across the sectors and on gender distilled and disseminated.

Activity 3.1.1 Development of knowledge management products, including lessons learned

The knowledge management products will summarize the conditions for replication, including technical, financial, institutional and social considerations to guide replication in other cities. The activity will support the creation of detailed reports on the results of the supported green infrastructure investments. For this purpose, the project team will develop visual and user-friendly reporting formats (e.g., dashboards, infographics, progress summaries) and short videos showcasing successful projects and their impacts to engage a broader audience. Lessons learned and best practices in advancing gender equality, e.g. by women empowerment, in the project will also be captured in the knowledge products and disseminated. The knowledge products will be based on the examples of good practices of

women-led entrepreneurship supported through the Component 2. The gender-specific guidelines with examples of good practice will be promoted also in direct cooperation with the Government Coordination Body for Gender Equality.

Within these activities, toolkits and guidelines for replicating successful initiatives will be developed in order to facilitate communities or cities in adopting these practices. The expected result is to equip other cities and regions with the knowledge and tools needed to implement green investments effectively. This activity will be conducted in close collaboration with network organizations of LSGs (such as the Standing Conference of Towns and Municipalities) and with support from the technical experts and stakeholders who will design accessible materials.

Also, this activity will organize city-specific and cross-city review meetings with stakeholders to present findings, share best practices, and encourage transparency

Activity 3.1.2 Stakeholders engagement and training to ensure replication and sustainability

The new urban green initiatives sourced by the Innovation Challenge are sought to be further elaborated with stakeholders such as the SCTM and NALED, so that they can continue to identify and disseminate innovative decarbonization technologies even upon the completion of the project. It is expected that this will boost the innovation capacity of domestic enterprises in the field of green technologies, resource efficiency and ecosystem services by linking them to local R&D service providers. Participation of the research institutions is equally relevant as they will ensure promotion and testing of new technologies based on their research work and collaboration with other research institutions globally.

Within this activity stakeholder roundtables will be organized to align efforts for scaling solutions, and provision of advice on replicating innovative solutions in their context.

The results from Output 3.1 will be included in the SSCP and the e-training platform (compiled into one easily accessible online platform). All knowledge materials generated by the project, including the training materials, data and reports with lessons learned from the new pilot initiatives, draft regulations and their updates, good practices and lessons learned will be available for any city and municipality, public and private company, national, provincial or local institutions, scientific community or interested individuals seeking to better inform themselves on green urban solutions and its decarbonization potential in Serbia.

The training materials developed will be incorporated in the Sustainable Cities knowledge hub developed within Output 1.5. Also, the training materials will contain gender-specific topics and guidance that will be based on examples of good practice of women-led entrepreneurship supported under the Component 2.

Output 3.2 Sustainable City Partnership Initiative (association of cities and municipalities with green and sustainable vision) established and promoted, including organization of international, regional and national events to promote integrated city planning approaches.

Activity 3.2.1 Launch of Sustainable City Partnership Initiative

The project will launch a Sustainable City Partnership Initiative as an association of cities with the aim to promote sustainable, resilient and green city development. The tasks of the Initiative are to facilitate exchange of knowledge and promote good practice, as well as to advocate towards the policy makers for the alleviation of barriers for resilient and green development and its integration across different sectoral plans. The Initiative will engage with international voluntary initiatives present in Serbian cities such as Covenant of Mayors, Green Cities, Energy Cities, European Energy Award, etc. and position as an umbrella association. The project will investigate the options to have SCTM or NALED acting as the secretariat of the Initiative. Pilot investments and implemented measures in the three cities will be promoted by the Initiative. In this respect, the Initiative will act as a "Community of Practitioners" which will have its dedicated webpage on social media to exchange information and communicate with other interested stakeholders.

Output 3.3 Capacity is built and learning enabled through the gender-sensitive exchange of information with the Global Platform for Sustainable Cities established, joint training and site visits

Activity 3.3.1. Establishing exchange of information with the Global Platform for Sustainable Cities

As part of learning and capacity building, the project shall link up with the Global Platform for Sustainable Cities (GPSC)[2] set up in the frame of the GEF 6 and GEF 7 Sustainable Cities Impact Programme to learn from corresponding initiatives in other countries and to ensure that the latest global knowledge, best practices and technological developments can be considered in further development and implementation of project activities. The project will ensure participation of project partners in the global activities that the GPSC will organize. This will help in translating global best practices to the three participating cities but also to other Serbian municipalities (e.g. through networks such as Standing conference of Towns and Municipalities). The project will promote the good examples of supported women-led entrepreneurship through the GPSC. The core project team will also be supported by a coaching team composed of a network of international research institutes and professionals, who may provide technical backstopping and share knowledge on the latest international developments in their particular field e.g. as invited speakers or other contributors to the events organized by the project.

Activity 3.3.2 Organization of joint activities with GPSC

The project will work with the GPSC to carry out joint activities and knowledge sharing in Serbia about: i) the use of geospatial data for monitoring the changes in the urban setting (e.g. growth of green infrastructure and green corridors), ii) tools for integrating urban planning and development of urban sustainability plans and strategies, iii) public-private partnerships to enhance opportunities for the exchange of experiences and possible joint activities and financing schemes especially in developing and implementing NbS and ecosystem services. Collaboration with the GPSC will be extremely important for participating cities and their public utility companies, urban planning departments, nature conservation and environmental protection agencies and managers of protected areas.

While the project duration for replicating and scaling up supported investments during the project implementation is likely to be too short, the goal is to conduct activities that can support and facilitate their replication and scaling up after the project ends and thereby can also be considered as consequential impact of the project. The activities supporting this may include:

- Site visits to successful green cities projects in other urban areas, allowing the project stakeholders to get concrete experience of the applied solutions and how they work. The site visits may also encompass examples of good practice of women-led entrepreneurship supported under the project Component 2;
- Workshops and seminars to educate urban planners, policymakers, and community members about principles, design, and implementation of green urban development, including also gender-sensitive urban planning and development;
- Gender-sensitive training programs and courses for local professionals, such as architects, engineers, and landscapers;
- Support for identifying and accessing funding sources, including grants, loans, and public-private partnerships;
- Ensuring that a system is in place for monitoring the performance of the supported projects and to evaluate their impact on urban sustainability and resilience.
- Fostering collaboration between various stakeholders, including government agencies, NGOs, academic institutions, and businesses, to leverage resources and expertise.
- Advocating for the integration of supported measures into urban planning and development policies at the regional and national levels.
- Benchmarking – comparing project results with those in other cities to identify areas for improvement and innovation.
- Facilitating knowledge exchange between cities, regions, and countries to share successful strategies and solutions

As regards biodiversity and NbS related knowledge management in particular, the project will capture lessons learned through UNDP's portal "Learning for Nature," (www.LearningForNature.org), which currently has more than 80,000 policy-relevant learners from more than 190 countries. The portal is UNDP's premier site for promoting learning on nature-related topics, including climate resilience, nature-based solutions, spatial planning – and more

[2] https://www.shiftcities.org/about

than 175 other course offerings. Specifically, UNDP would develop a micro-site to share all of the details of methodologies used in the project and will develop a stand-alone micro-course as an independent tutorial for the site. Some courses in the past, such as ecosystem restoration, have attracted more than 10,000 to 15,000 learners each.

Component 4 Monitoring and Evaluation (M&E)

Outcome 4 Project regulatory monitored and evaluated, lessons learned, compiled and disseminated

Output 4.1 Project results and outcomes monitored and evaluated through comprehensive impact tracking system and knowledge management strategy to enable gender-responsive evaluation and institutional learning

The project will establish and implement a comprehensive framework for tracking, assessing and sharing project impact across the three cities and above. The integrated approach will combine robust monitoring and evaluation with strategic knowledge management to ensure effective accountability, learning and replication of innovative solutions. Cross-sectoral impact tracking system will establish baseline measurements for key indicators in each city, collection methodologies to track progress against targets and milestones across all project components.

The project will regularly assess different impact on project activities on women and men, evaluate gender mainstreaming in project implementation, analyze gender-specific outcomes in urban innovation and planning process.

Knowledge Management Strategy will provide a structured approach for capturing, analyzing and disseminating project results and lessons learned. The project will establish knowledge-sharing protocols between the three cities and other national and local stakeholders as well as Global Platform. Training of city officials and project partners on monitoring systems and evaluation methods, documentation of adaptation process and responsive management decision and development of sustainability plans for continued monitoring beyond project completion will enable establishing and maintaining institutional learning mechanisms.

Agreement on intellectual property rights and use of the logo on the project's deliverables and disclosure of information

To accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed via relevant policies, notably the UNDP Disclosure Policy and the GEF policy on public involvement.

Resources required to achieve the expected result:

To achieve the expected results of this project, a range of resources is essential. Key inputs include dedicated UNDP staff at the country, regional, HQ levels, government personnel, and expert consultants in areas such as legal, financial, and gender analysis. Adequate project funding will cover operational costs, workshops, surveys, technical assessments, system upgrades, and stakeholder consultations. Strategic partnerships with government agencies, civil society organizations, educational institutions, and the private sector will facilitate policy alignment, community engagement, and capacity-building activities.

Partnerships:

The key partnerships of the project include those already outlined in the previous chapter with a brief summary in table 1 below. A more comprehensive stakeholder engagement plan is presented in Annex 9 to this project document.

Table 1 Key partnerships of the project

Name of the entity	Envisaged role in project implementation	Timing of engagement and methods
Ministry of Environmental Protection	The project implementing partner, including the daily management of project activities, ensuring timely implementation of these activities and reporting on the achieved results. Coordination of work with other entities engaged as project partners and across various Government counterparts. The MoEP is also responsible for environmental protection, circular economy, industrial emissions, waste and wastewater management and climate change related issues in general, including related legal and regulatory framework. It is also the Government entity in charge of financing green investments from the Government budget and supporting investments in environmental infrastructure at the local level. The MoEP will provide the required financial resources to ensure sustainability of project interventions upon the project closure.	From the beginning of the project Meeting, email, phone, workshops
Ministry of Finance	A key stakeholder for the establishment of any new financial support mechanisms. The role of the Ministry of Finance in the project is to ensure that financing mechanisms, such as Innovation Awards and Performance-based Payment Agreements, are gradually integrated into the Government budgeting and financing framework. The Ministry of Finance also approves budget plans and expenditures for other governmental entities, including resources to be used as co-financing for any Government co-financed projects.	As needed Meeting, email, phone
Ministry of Construction, Transport, and Infrastructure	The key ministry for ensuring that city planning incorporates sustainable practices, energy-efficient infrastructure and resilient urban development to mitigate climate change impacts, but also to support sustainable and circular principles. The Ministry is responsible for the implementation of the Sustainable Urban Development Strategy and the Strategy for Fostering Investment in the Renovation of the Building Stock. The Ministry is responsible for developing and promoting sustainable transport system to reduce carbon emissions and enhance mobility. Therefore, the Ministry is implementing LIID project, co-financed by the World bank and AFD, to promote sustainable urban development investments in Serbia and to improve the capacity of all 145	From the beginning of the project Meeting, email, phone, workshops, press releases

	Serbian LSGs to develop and manage green, inclusive and climate resilient sustainable mobility infrastructures.	
Ministry of Mining and Energy	The Ministry of Mining and Energy has introduced the energy management information system (EMIS) in local self-governments as a tool supporting the energy management system in public and commercial buildings. The system is intended primarily for monitoring and analysing data on consumption and costs of energy and water in public buildings under the responsibility of local-self-governments, the province and the national level, but this concept design is flexible which enables it to be used with equal success also for buildings which are the responsibility of other institutions and organizations, indirect budget beneficiaries, commercial buildings and public enterprises. Every year, the Ministry allocates funds for increasing energy efficiency in public buildings and in households, through public calls for local self-governments. In 2023, energy efficiency measures were done in 10,000 households, in 131 local self-governments, with the total value of 17 million USD. The Ministry is also the Managing Authority for the Operational Programme Environment and Energy 2024-2027 with a planned 240 million EUR investment support.	From the beginning of the project Meeting, email, phone, workshops, press releases
Local Self-Governments of Belgrade, Novi Sad and Zrenjanin	Cities of Belgrade, Novi Sad and Zrenjanin have undertaken projects and initiatives aimed at promoting sustainable and advancing the green city concept. Cities have dedicated energy managers and an Energy Management Information System, but further consultations are required on how to effectively operationalize them together with other required data management systems essential for green city development. Cities are also developing recycling infrastructure and implementing public awareness campaigns to encourage waste segregation and recycling. Cities are constantly expanding network of dedicated cycling lanes to promote cycling as a sustainable mode of transportation. Also, cities are investing in the development and maintenance of urban parks and green spaces, which but they are expanding really fast. Construction and upgrading wastewater treatment facilities to improve water quality and reduce pollution in rivers and water bodies are key priorities of three cities. Strategies and plans developed are aligned with national and climate goals.	From the beginning of the project Meeting, email, phone, workshops, trainings, press releases
National Academy of Public Administration (NAPA)	The National Academy of Public Administration is the central institution of the system of professional development in public administration of the Republic of Serbia, with the status of officially recognised organiser of informal adult educational activities. To be consulted when preparing the training materials with the aim to certify the training materials and ensure sustainability.	As needed Meeting, email, phone, trainings
State hydrometeorological service	Collecting and managing various climate related data	As needed Meeting, email, phone
Provincial Secretariat for Urbanism and Environmental Protection	Support for the promotion of project results and engagement with stakeholders	As needed Meeting, email, phone, workshops, trainings, press releases
Provincial Secretariat for Energy, Construction and Transport	Support for the promotion of project results and engagement with stakeholders	As needed Meeting, email, phone, workshops, trainings, press releases
The Administration for Joint Services of the Republic Bodies (UZZPRO)	This is a government entity that is in charge of management of all public buildings under the authority of the Central Government. Their role may be of importance	As needed

	in case that some of the selected innovative solutions can be applied in government building which can have significant scale-up effect.	Meeting, email, phone
PPP Commission	Responsible for the promotion and approval of each PPP project. To be engaged for the approval of solutions based on PPP approach, as well as for the promotion of good practice.	As needed Meeting, email, phone, workshops
Other cities	Knowledge transfer and engagement with the Sustainable City Partnership Initiative. Users of the Sustainable Cities Platform and of the online training platform.	As needed Meeting, email, phone, workshops, trainings
Private sector	The private sector (including companies and industries) is recognized as one of the key beneficiaries of the project with significant potential for leveraged financing for green investment projects. The private sector will engage as the proposer of innovative solutions in challenge calls, as well as service and works provider for their implementation.	As needed Meeting, email, phone, workshops
Standing Conference of Towns and Municipalities (SCTM)	A representative of the Serbian municipalities and a key project partner to support the introduction and implementation of project related activities at the municipal level with the related outreach, networking, co-ordination and training activities through its working committees. Host for the Sustainable Cities Platform. Also participating in the legal and regulatory work by reviewing and commenting draft regulations and assisting Local Self Governments (LSGs) to prepare local supporting policy documents of relevance to the project. SCTM has developed a methodology for climate change adaptation planning at the local level.	From the beginning of the project Meeting, email, phone, workshops, trainings
National Alliance for Local Economic Development (NALED)	As an organization that brings together representatives from the public, private and civil sectors, NALED advocates for the promotion of sustainable development, with a focus on overcoming obstacles such as skills shortages, infrastructure and technological deficiencies. The Alliance is very active primarily of a better policy of eco-taxes and fees, management of packaging waste, food waste and special waste streams, to switch from a linear to circular economy.	As needed Meeting, email, phone, workshops, trainings
Chamber of Commerce and Industry of Serbia	Envisaged project partner for engaging and advancing the green city agenda within the private sector, including knowledge management, capacity building and training. The Chamber has carried out numerous activities related to the green transformation of the Serbian economy, by different departments.	As needed Meeting, email, phone, workshops, trainings
Academic Institutions	Academic institutions such as the University of Belgrade and University of Novi Sad have been engaged in preparation of strategies and programmes related to climate change, urban planning, green infrastructure and waste management on national and local levels. Universities have a research project on sustainable urban development, including energy efficiency, waste management, green infrastructure, construction, and forestry. In addition, academic institutions collaborate with the private sector, fostering partnerships that enhance the planning and implementation of sustainable projects.	As needed Meeting, email, phone, workshops
World Bank	The World Bank, in cooperation with the Ministry of Construction, Transport and Infrastructure and supported by the Swiss State Secretariat for Economic Affairs (SECO), initiated the Green, Livable, Resilient Cities in Serbia Program to strengthen sustainable and resilient urban development of selected 10 cities in the country. Through the technical assistance selected cities receive support with planning and implementing sustainable, low-carbon and resilient urban development programs, while providing the national government with policy recommendations and suggested actions to facilitate the implementation of Serbian Sustainable Urban Development Strategy. The World Bank also provides a loan of USD 300 million to support Serbian local self-governments to manage sustainable infrastructure, promote equitable growth and facilitate the green	As needed Meeting, email, phone, workshops

	transition. Also, the World Bank in partnership with the Ministry of Mining and Energy is implementing Scaling-Up Residential Clean Energy (SURCE) Project, providing support for the uptake of energy efficiency, sustainable heating, and rooftop solar photovoltaics (PV) by households. Add link to Global Platform	
Switzerland through Swiss State Secretariat for Economic Affairs (SECO) and Swiss Development Cooperation Office (SDC)	Switzerland actively contributes to the implementation of the Green Agenda in Serbia initiative, together with the EU, Sweden and EIB. This support if being provided through both the SDC and SECO. SECO 's activities aim at strengthening the municipal capacities to manage climate-resilient and inclusive urban development, and to increase energy efficiency and decarbonisation of energy sector. Under this portfolio of projects SECO is striving to strengthen municipal capacities to sustainability plan, implement and manage climate-resilient and inclusive urban development. The European Energy Award will be continued and further supports energy management capacities of municipalities. The second focus of SECO's project is on decarbonization of the district heating sector with the introduction of solar, thermal and innovative technologies and biomass. The SDC support is also focused on national and local actions aimed at climate change mitigation and adaptation actions, depollution of the environment and nature/biodiversity conservation with particular focus on promoting nature-based solutions, circular economy. Switzerland will potentially contribute to the GEF project implementation, targets and expected results.	As needed Meeting, email, phone, workshops
European Investment Bank (EIB)	EIB, as EU climate bank, supports sustainable connectivity and the green and digital transition in Serbia, investments in the inland waterway network. Under the project "EU for Green Agenda in Serbia", together with EU, UNDP, Sweden and SECO, EIB is supporting green innovations in Serbia and the energy transition of the economy.	As needed Meeting, email, phone, workshops
EBRD	The EBRD is implementing Circular Economy Regional Initiative (Near Zero Waste), which is a GEF funded initiative that includes Serbia and other countries of the Western Balkans. The objective of the project is to catalyse and scale up of circular economy initiatives by addressing barriers to investments in circular economy technologies and processes, and adoption of circular economy strategies and business practices. In addition, the project will cooperate with the EBRD's "Green Cities facility. Under EBRD Green Cities, the Bank works with municipalities to assess and prioritise environmental challenges and develop an action plan to tackle these through sustainable infrastructure investments and policy interventions (for example Belgrade and Novi Sad) The EBRD helps to improve transport links (Novi Sad) and municipal services, such as water, wastewater, solid waste and public transit, through a combination of investments, policy advice and technical assistance. EBRD, in cooperation with the World Bank, also unlocked private-sector funding for infrastructure projects, including facilitating PPP for the Belgrade Solid Waste project.	As needed Meeting, email, phone, workshops
Delegation of the EU in Serbia	The EU is providing Economic and Investment Plan for the countries of the Western Balkans to support ambitious Green Agenda for the Western Balkans, including Serbia. This programme will secure additional financing for green transition of public and private sector and industries. One of the core elements of this initiative is to decarbonize the economies of the West Balkan countries. To achieve this, circular economy, air quality and biodiversity have been recognized as the priority areas for intervention. The project will seek synergy with the EU funded initiative on Green Agenda, in particular in identification, acceleration and co-financing of concrete decarbonization solutions based on principles of circularity.	As needed Meeting, email, phone, workshops
GIZ	The GIZ is one of the international development agencies operating in Serbia at the national but also at the municipal level. Projects supported by GIZ contribute to improvement of policies but also support the development of local environmental infrastructure and smart cities, such as in case of municipal waste and wastewater management. The project will build partnership with the GIZ funded activities at the municipal level to ensure synergy and multiplication of effects on the state of environment, lowering emissions and improving waste recovery, reuse and recycling. The project will build upon this partnership when providing further policy support to the Government and LSGs. Furthermore, the GIZ is supporting mainstreaming gender equality and social services on local level.	As needed Meeting, email, phone, workshops

NGOs and civil society	NGOs and civil society play an important role in urban development, environmental protection and social inclusion in Serbia. Their engagements are multifold, in monitoring of the decision-making processes and policy implementation, supporting participatory planning and acting as mediators between the citizens and the institutions. The project will engage with the NGOs in all three Components, however, their active support will be sought for in the implementation of the Outputs 1.3. 1.4. 1.5, 2.3 and 3.3. NGOs are also potential beneficiaries of the challenge calls designed under 2.1 and 2.2. • Possible areas for co-operation to be clarified further with NGOs and related initiatives civil society such as: European Movement in Serbia • National Convent on the EU • Society of Women Architects • Environmental Ambassadors for Sustainable Development • RES Foundation • Heinrich Böll Stiftung – Representation Belgrade • European Center for Regional Cooperation • Centre for Ecology and Sustainable Development • National Association for Local Economic Development (NALED) • Cirekon (Circular Economy oriented CSO) • Environmental Engineers • Belgrade Open School • Yurom Center from Nis – organization for the protection of Roma people rights and their active involvement in the society • CSO Standing Conference Roma Citizens Association (SKRUG) – League of Roma	As needed Meeting, email, phone, workshops

In addition to the partnerships listed above, private sector entities are critical to the project as initiators, implementers and financiers of new business ideas that will support the transition towards sustainable and green communities in Serbia. Therefore, the project will actively engage and consult with the private sector in developing an enabling policy framework, as well as involve them as key beneficiaries of the Smart City Information System (SCIS), which is foreseen to continue operating beyond the project's duration. The Innovation Challenge Calls and the Performance-based payments are specific UNDP solicitation and financing modalities to engage the private sector in formulating and implementing innovative solutions to pressing social and environmental challenges. To ensure sustainability, the project will support the Government (namely the MoEP and the Ministry of Finance) to formulate new mechanisms that can continue to identify and finance such solutions in the long term without direct UNDP involvement. The new Government-led mechanism will also consider blending funds, green borrowing schemes and innovative financing instruments such as the green bonds, ESCO-based financing and green guarantees.

The environmental and climate change related policies and strategies in Serbia fall under the jurisdiction of the Ministry of Environmental Protection (MoEP). Co-ordination between different government entities is ensured by intersectoral bodies such as the National Climate Change Council, the Working Group for Circular Economy and the Working Group for SDGs implementation. Within the MoEP, the Group for Circular and Green Economy and the Department for Waste Management have been specifically assigned to deal with circular economy related issues. Furthermore, given the cross-sectoral nature of green city development, the project needs to engage and closely co-operate with the Ministry of Construction, Transport, and Infrastructure and the Ministry of Mining and Energy. The Ministry of Construction, Transport and Infrastructure will be engaged from the beginning of the project being in charge of the implementation of the Sustainable Urban Development Strategy, primarily in the implementation of Component 1, as well as Component 3. The Ministry of Mining and Energy will also be engaged from the beginning of the project as it is responsible for the operation of the Energy Management Information systems at the level of LSGs, which to large extent is currently neglected despite of significant previous support provided also by the GEF to advance EMIS and energy management in Serbia in general. Although under the jurisdiction of different ministries, its integration is a critical component of green city development within the scope of this project.

To effectively raise awareness and build capacity, the project will collaborate closely with the Chamber of Commerce and Industry of Serbia and its departments.

Special attention will be given to communication with expert communities. Due to the technical complexity of the project, the project results will be presented at expert conferences and workshops organized by professional organizations such as Chambers of Commerce, National Association for Local Economic Development (NALED) and the Chamber of Engineers, thereby ensuring that project related information is broadly disseminated among the business community. Participation of the Standing Conference of Towns and Municipalities will ensure commitments and contribution of the local self-governments.

Risks and Assumptions

The project risks are discussed in greater detail in Annex 7 to this project document. As per the standard UNDP requirements, the Project Manager will monitor risks quarterly and report on the status of the risks to the UNDP Country Office. The UNDP Country Office will record progress in the Quantum risk log. Risks will be reported as critical when the impact and probability are high (i.e. when impact is rated as 5, and when impact is rated as 4 and probability is rated at 3 or higher). Management responses to critical risks will also be reported to the GEF in the annual PIR.

Stakeholder engagement

The stakeholder engagement plan is presented as Annex 9 to this project document. It provides for a roadmap for citizen and stakeholder engagement. SEP will be updated and finalized at the beginning of the project.

South-South and Triangular Cooperation (SSC/TrC):

As regards global outreach and "south-south" co-operation, project will explore opportunities for meaningful participation in specific global and regional events where UNDP could support engagement with the global development discourse on advancing green city agenda. This will also be supported and facilitated by the learning and knowledge-sharing activities of the GEF-8 Sustainable Cities Integrated Program's global platform by targeted city learning, international expert meetings and global workshops.

Gender equality and Women's Empowerment

The National Gender Equality Strategy for the period 2021-2030 calls for equal participation of women and men in decision making at all levels and in all policy areas. Based on the fundamental principles of promoting equality and combating discrimination, participation in the proposed project activities shall be guaranteed regardless of sex, racial or ethnic origin, religion or belief, age or sexual orientation. Serbia's legislative framework supports gender equality, which is crucial for sustainable urban planning. The Constitution of Serbia establishes gender equality as a fundamental right, and the Law on Gender Equality (2021) mandates gender-responsive budgeting and integration of gender perspectives in environmental protection and urban planning.

Project activities will be designed in such a manner that gender specific issues can be considered in the policy and regulatory amendments, when applicable. The gender specific dimensions of the project can also show up when counting the number of participants benefiting from the related training. Therefore, the project will facilitate and closely monitor that equal training opportunities are provided for both men and women. As an example, the project can arrange childcare services during the training sessions, when and as needed. Awareness raising activities will involve participation and cooperation of women associations and women NGOs to support mainstreaming of gender considerations in awareness raising and information materials.

A more specific gender strategy and action plan is presented as Annex 11 to this project document. They will be monitored during project implementation by collecting gender specific data on the stakeholders engaged in project activities as well as on the impact of those activities. Gender specific indicators have also been included in the project results framework.

All contractors shall be requested to provide non-discriminate participation of men and women during the implementation phase of respective tasks. Female innovators, entrepreneurs and experts will be specifically encouraged to participate in the project implementation. Some challenges may particularly focus on the relation of biodiversity and gender, and the project will ensure that all circular economy challenges are to be designed and implemented with a gender sensitive approach. The project will ensure gender balance among stakeholders and beneficiaries of the circular economy challenges, though defining gender sensitive criteria, ensuring gender balance

within the project selection committees and providing gender expertise to the projects that will be selected to participate in the Sustainable Cities Partnership Initiative.

The project will prioritize those future beneficiaries that hire more women workers. Promotion activities and training will be gender mainstreamed, targeting specific needs and roles of women and girls, who are directly involved in the waste management in any part of the product's lifecycle (e.g. from purchasing products such as food, product use/processing food, composting at home and/or disposal of residues and their recovery). Individuals from the target group will be chosen voluntarily as promotion champions with the mission to raise awareness within their local communities/companies. Specific effort will be made to help women to improve their knowledge and skills and to obtain additional job training for their better positioning at the job markets.

In order to ensure sustainability and replicability of gender-related interventions, the project will involve national institutions addressing women's issues in all related activities, such as the Coordinating Body for Gender Equality of the Government of Serbia (www.gendernet.rs), the Ministry of Labor, Employment and Social Policy, the Ministry of Interior, the Network of Women Members of Parliament, the Provincial Secretariat for Gender Equality, local-level bodies for gender equality and women's NGOs. The project will also establish formal cooperation with the Statistical Office of the Republic of Serbia so that project results can feed in the statistical data related to women and men in the Republic of Serbia, which provides an overview of gender-disaggregated data. This will contribute to the implementation of the national strategy on gender equality containing a specific objective on gender-sensitive statistics and records.

Knowledge:

For knowledge management, the project will build on an "Open Knowledge" approach by publishing all project related documentation, presentations, training materials and supported new project and business initiatives in the Serbian Sustainable Cities knowledge sharing Platform, unless there is a specific reason for not doing so in order to protect, for instance, some intellectual property rights or commercially sensitive information. This applies also to the project terminal evaluation, which similar to all GEF financed UNDP implemented projects, will be available for downloading from the public UNDP website: web.undp.org/gef/evaluation.shtml.

Development of Serbian Sustainable Cities Platform has been included as Output 1.5 in the project strategy to serve as an integrated online knowledge management and investment platform to support: (i) inter-institutional collaboration, (ii) transformative actions, (iii) development of local green plans and documents, and (iv) mobilization and financing innovative green urban and nature-based solutions. While taking full advantage of the available IT opportunities, the activities implemented within this framework will also encompass online training platform on transformative approach for sustainable city development to be piloted in 3 cities and transferred to other medium sized cities in Serbia and region.

The initial version of the Sustainable Cities Platform is ought to be established by the end of the first year of project implementation with continuing further development, upgrading and updating throughout the project implementation. The day-to-day management and updating of the content of the Serbian Sustainable Cities Platform will be done by the staff of the Project Management Unit (PMU) supported also by the MoEP. The project's KM and related implementation strategy also includes workshops to provide an opportunity at regular intervals to present and discuss project results and further plans with the key stakeholders.

In order to ensure the sustainability, the project-based Serbian Sustainable Cities Platform will be transformed into the Sustainable Cities Knowledge Hub, linked with the webpage of the Standing Conference of Towns and Municipalities, and supported also by the Project Implementing Partner (MoEP) and Cities of Belgrade, Novi Sad and Zrenjanin. As such, it will become a central tool for further dissemination of the good practices and lessons learnt by public and private enterprises piloting sustainable and green urban and peri-urban projects and solutions. This will be complemented by an online training platform targeting key policymakers and company managers to build their knowledge on the main sustainable urban development related policy and legislative trends and achievements at the national, EU and global level and to enhance their capacity to respond to the increasing demand for resource efficient low-carbon CE solutions in combatting climate change and other environmental challenges. The training platform will be an integral part of the Serbian Sustainable Cities Platform and will be implemented by the UNDP, in co-operation with the Project Implementing Partner, Standing Conference of Towns and Municipalities and National Academy for Public Administration to ensure its sustainability also after the project.

The project is building on the methodology and tools already successfully tested by the Climate Smart Urban Development (CSUD) project in Serbia" (GEF ID: 9342)) and Reducing community carbon footprint by Circular economy approach in Serbia (GEF ID: 10425) to further blend and leverage funding for climate resilient urban development solutions. These include innovation challenges and performance-based payments, a new type of partnership with the private sector, multi-stage evaluation of proposals with strong ownership of national counterparts as well as incubation/acceleration type of technical assistance and mentoring provided to the project teams. The Sustainable Cities Platform builds on the good experiences of the KM platform established as a part of the CSUD project and The Low Carbon Communities Innovation Platform (LCCIP) to facilitate interaction between the cities and communities, research institutions and companies (both, public and private) in order to produce new innovative low-carbon, green and sustainable project ideas and business solutions.

For learning from corresponding initiatives in other countries and for ensuring that the latest global knowledge, best practices and technological developments can be considered in further development and implementation of project activities, the project shall link up with Global Platform for Sustainable Cities (GPSC)[3], as knowledge management platforms, set up through GEF 6 and GEF 7 Sustainable Cities Impact Programme. The core project team will also be supported by a coaching team composed of a network of international research institutes and professionals, who may provide technical backstopping and share knowledge on the latest international developments in their particular field e.g. as invited speakers or other contributors to the events organized by the project.

The project also seeks to both benefit from and contribute to the Global Platform for Sustainable Cities (GPSC), which serves as a knowledge platform where participating cities can tap the cutting-edge knowledge and expertise in sustainable urban planning, and exchange ideas and share experiences. In this sense, the project will work with the GPSC to carry out joint activities and knowledge sharing about: i) the use of geospatial data and tool for monitoring the changes in the urban setting (e.g. growth of green infrastructure and green corridors), ii) tools for integrating urban planning and development of urban sustainability plans and strategies, iii) to operationalize expertise on public-private partnerships to enhance opportunities for the exchange of experiences and possible joint activities and financing scheme especially in developing and implementing NbS and ecosystem services. Collaboration with the GPSC will be extremely important for participating cities and their public utility companies, urban planning departments, nature conservation and environmental protection agencies and managers of protected areas.

All new initiatives presented at the SSCP will be given, a specific ID code and a card, by which the progress of each pilot initiative can be monitored, and the experiences and lessons learnt from them recorded. Each ID card will consist of two parts. One part will be available only to the Implementing Partner and UNDP for internal monitoring purposes (incl. financial monitoring), while the other part will include publicly visible data about the project and the lessons learned from their implementation. The project team will also monitor and prepare specific progress reports for each supported pilot initiative, while also preparing visual materials such as videos to document different stages of their development and implementation.

Targeted stakeholders will be primarily engaged through bilateral discussions as well as by organizing at least one or two larger consultative knowledge management workshops, where the project intermediate results and further implementation can be presented for and discussed with a broader audience. For this purpose, the project will also establish a "Community of Practitioners" which will have its dedicated webpage on social media to exchange information and communicate with other interested stakeholders.

The new urban green initiatives sourced by the Innovation Challenge are sought to be further elaborated with stakeholders such as the Standing Conference of Towns and Municipalities and NALED, so that they can continue to identify and disseminate innovative decarbonization technologies even upon the completion of the project. It is expected that this will boost the innovation capacity of domestic enterprises in the field of green technologies, resource efficiency and ecosystem services by linking them to local R&D service providers. Participation of the research institutions is equally relevant as they will ensure promotion and testing of new technologies, based on their research work and collaboration with other research institutions globally.

The SCTM will support the matching of local self-governments with the innovators and facilitating the application of appropriate innovative green and sustainable solutions at the local level. The SCTM will also include dissemination of lessons learned, knowledge and examples of good practices, sourced through the project, among interested municipalities.

[3] https://www.shiftcities.org/about

The SSCP and e-training platform will be compiled into an easily accessible online platform. All knowledge materials generated by the project, including the training materials, data and reports with lessons learned from the new pilot initiatives, draft regulations and their updates, good practices and lessons learned will be available for any city and municipality, public and private company, national, provincial or local institutions, scientific community or interested individuals seeking to better inform themselves on green urban solutions and its decarbonization potential in Serbia.

As a summary from what has been discussed already earlier in this chapter, the knowledge outputs to be produced and shared with the stakeholders will include, among others, the following:

- The Serbian Sustainable Cities and online training Platform (SSCP) to facilitate open online access to all KM materials produced by the project as well as links to other related KM services (GPSS);
- A virtual marketplace included within the SSCP to compile and share information for: i) marketing new innovative business ideas and projects; and ii) finding suitable implementation and financing partners for them;
- Specific matchmaking and training events to facilitate face-to-face contacts and discussions together with associated training materials stored and published also online;
- The progress, monitoring and evaluation reports of the pilot initiatives supported by the project as well as the overall project final report and terminal evaluation; and
- Videos and other visual presentation materials of the pilot initiatives

For all knowledge products, the support of a gender expert will also be used to incorporate gender specific considerations into them at a required level.

The project will support the implementation of open monitoring, information and knowledge management as well as broad community engagement and participation in the preparation and updating of key policy documents under Outcome 1. This will be done by a highly participatory approach, thereby seeking improvements of the transparency and accountability of local governance, opportunities for public participation in decision making and development of people's living environment. In this way, the project will make sure that all findings and good results obtained during the acceleration and implementation phase are captured and used to inform the policy creation/amendments.

The Implementing Partner will also make sure that all successful results arising from the acceleration and implementation phases, as well as examples of good practice, are captured and used to feed policies and decision making. For this purpose, the MoEP as Implementing Partner will form an inter-ministerial Working Group comprised of all relevant national, provincial and local authorities. These working groups will closely follow the implementation of the project and use the results for informed decision making and policy creation/amendments.

The project will also support the processes of mainstreaming human rights issues through its design and activities by a clearly defined human-rights based approach. This action will also support the right to information and will aim to reflect the views of various stakeholders, including minorities and marginalized groups.

Innovativeness, Sustainability and Potential for Scaling Up

The project includes several innovative elements both in Serbia and in the global context by supporting the transition of Serbia cities into in sustainable, nature-positive, and resilient green cities. It will create a new type of platform for closer interaction between the Government, local communities, companies, financing entities and research institutions in advancing the green city agenda in Serbia, thereby contributing also to the related policy development by considering the findings of the scientific community and the feedback from the private sector. Current online platform on citizens participation such as https://tvojgradnovisad.rs/sr-SP/ where citizens of Novi Sad can vote on the prioritization of investments will be linked with SSCP.

Innovative pilot solutions can range from technological advancements to novel governance approaches and community engagement strategies, such as smart infrastructure, advanced materials, digital twins, new urban design and planning approaches (NbS), big data analytics, GIS and spatial analysis, urban living labs.

On the financing side, the project will explore new green funding schemes and provide a platform for blended financing for combining different financial sources from bilateral donors, private sector and other international

sources such as EU IPA and multilateral funds. By the support of such a platform, applying different incentive, risk sharing and co-funding instruments in an innovative and flexible way still presents a novel approach to project financing in Serbia and would make the targeted investments and related business development more attractive also to the private sector. The innovation challenges combined with performance-based payments (PBPs) will be an elementary part of this initiative as a method for sourcing new project and business ideas as well as exploring the use of new financing modalities such as crowdfunding (with or without the PBPs) in financing green city investments.

Sustainability

The project has been designed to create an enabling framework for a sustainable city by enhancing inter-institutional and inter-sectoral coordination, improving policy and regulatory instruments, strengthening dialogue and collaboration.

For sustainability, the supported pilot initiatives must offer both long and short term "win-win" opportunities, including environmental, economic and, when applicable, social ones. Realistic cost-sharing opportunities for project owners and other key stakeholders will be considered from the very beginning together with the engagement of the private sector. The GEF contribution is limited from 20% to a maximum of 50% of the total investments depending on the GHG emission reduction potential, total investment value, innovative component, which can be considered as a reasonable cost-sharing ratio for de-risking new innovative project and business ideas not tested before without over-subsidizing them, while also ensuring that the supported projects have an adequately healthy financial basis and risk profile.

As regards the sustainability of the proposed challenge-based financing mechanism, the Ministry of Environmental Protection continues to look for new financing vehicles, which would facilitate partnerships with the private sector, in particular in the waste industries, and to move away from direct subsidies towards blending of funds and leveraging private capital. After being initiated by the GEF project, the proposed challenge-based financing mechanism shall become a part of the new Green Fund of the Ministry of Environmental Protection/Government together with a variety of other financing instruments that can be used for supporting environment and climate infrastructure/project investments. In other words, the Ministry can take the proposed challenge-based financing mechanism over and continue to manage and implement it also after the GEF project.

Capacity building will enable cities and other project partners to improve their capacities for planning, implementing and monitoring of urban, green, adaptive and sustainable urban and peri-urban growth through training tailored to the specific needs of stakeholders, information management to facilitate information and knowledge sharing. Collaboration with the GPSC will ensure that the most up to date knowledge and international expertise on urban sustainability and resilience is available to the project partners in building the new capacities.

Potential for scaling-up

The potential for scaling up will be among the key criteria when evaluating the proposals submitted to challenge calls. The required framework for this is provided by the Serbian Urban Development Strategy identifying the challenges and opportunities for cities' green transition in a broader national context, while also identifying and highlighting tangible actions (through the challenge call and otherwise), which could be easily implemented, replicated and scaled up from the economic and commercial point of view. Rather than preparing any policy documents or programs as simple civil servant or consultancy work, the aim of also this project is to support a truly consultative and participatory process by bringing different stakeholders together to discuss and work on concrete actions that are required to accelerate the process of green transition of Serbian cities. As a part of this process, the awareness of key decision-makers and their trust in the benefits and opportunities in moving towards that direction at the community level can be built also in general.

The green transition will be further enabled and encouraged by assisting the national government or the LSGs in drafting new legislative and regulatory acts to remove the identified barriers and by facilitating the transfer of the knowledge and experience gained during the project by using public media, seminars, workshops and other already existing communication and co-operation platforms. Given the foreseen interest of several GEF program countries in similar activities, the materials developed, and the results and lessons learned during the project are expected to be of direct interest also to them. The rapidly growing international recognition of the importance of cities green transition as key means to combat the global environmental and social challenges is likely to give a further boost for scaling up the project impact.

<u>Digital solutions</u>

As discussed already in the previous sections, digital solutions can significantly enhance the effectiveness of green and sustainable projects by improving communal services and encouraging greater citizen participation. By leveraging digital technologies, cities can achieve greater transparency, reduce resource consumption, and create a more participatory approach to urban development. Some digital solutions that cities can adopt are:

- Smart Management systems for communal services such as smart bins equipped with sensors that can monitor fill levels in real time, optimizing waste collection routes and reducing fuel consumption and emissions from waste collection trucks; smart water meters and sensors to detect leaks, monitor water quality and reduce water wastage; smart street lightening, tracking energy consumption of public building owned by cities through EMIS and other similar systems;
- Smart management systems for nature – based solutions and green spaces such as using GIS and remote sensing technologies to improve existing maps and monitor green spaces, urban forests and biodiversity;
- Digital twins including improving data collection and management;
- Updating local climate smart urban development platform developed under the GEF6 funded project "Climate Smart Urban Development Challenge", managed by the MoEP that can be used for better urban planning;
- Digital Platforms for participatory planning such as improving existing and developing new online platforms for some cities to involve citizens in urban planning process, such as participatory budgeting, green space design and public consultations on sustainability projects.

The application of digital solutions in planning municipal consumption or communal services will lead to cost reduction, such as in case of Energy Management Information System or optimization of collection routes for waste management fleet. Also, the use of tools such as the risk registry for planning of municipal infrastructure reduces risk exposure and vulnerability. The selection of the systems to be developed will be done depending on the needs and possibility for integration with the existing urban data systems.

PROJECT MANAGEMENT

Cost Efficiency and Effectiveness

As a child project of the World Bank led global GEF-8 Sustainable Cities Integrated Program, the project strategy is building on the experiences and lessons learnt from the previous GEF-6 and 7 Programs, including better alignment between technical assistance and investment, greater partnership and private sector involvement, and a stronger global influence over the urban sustainability agenda, thereby contributing to the overall cost efficiency and effectiveness of the Program.

As reflected in the GEF-8 Program Framework Document (PFD), the experience has also shown that it is critical to streamline technical assistance (TA) types of activities into downstream investments, thereby providing comprehensive support throughout the urban development value chain, from knowledge to financing. While the same approach was adopted already in the previous GEF supported stand-alone national Climate Smart Urban Development (CSUD) and Circular Economy (CE) projects in Serbia, the global framework of the Sustainable Cities Integrated Program will further support the cost-efficiency and effectiveness of the Serbia Child project by direct access to knowledge, experiences, expertise and tools provided by the global program and from the other countries participating it, thereby bringing expanded cost-effective opportunities to cities through joint activities.

The Global Platform for Sustainable Cities, which is led by the World Bank, will serve as a forum to advance the urban sustainability agenda, maximize the impact of the child projects, and engage leadership to scale up ambition and commitment. The platform aims to: (1) promote an integrated policy approach across the six thematic areas; (2) collaborate with financial institutions, including multilateral development banks (MDBs), international and domestic financial institutions, and the private sector to help prepare the next generation of investment projects; (3) bring good practices and innovation into the design and implementation of the city-level child projects; (4) broaden and deepen the partnerships; and (5) strengthen knowledge management and capacity-building.

As demonstrated already by the earlier CSUD and CE projects, innovation challenges provide an effective and flexible mechanism to facilitate and promote concrete collaboration with different stakeholders and leverage also significant

private sector financing for green city investments. The competitive dimension of innovation challenges, on the other hand, promotes cost efficiency and effectiveness by allowing the project team to choose project support proposals that appear to contribute best to the stated project targets. Furthermore, the performance-based mechanism works as a good de-risking instrument, as the payments are made only based on achieving the agreed results.

Project Management

The Ministry of Environmental Protection will support the project by providing equipment and premises for the Project Management Unit (PMU). The office space will be located within MoEP, where a dedicated project manager and project assistant will be stationed. Project implementation will be conducted with the full engagement of the Ministry staff from the Department for Project Management and under the overall management of the PMU. UNDP shall be responsible for Identification and/or recruitment of members of the Project Support Unit (PSU) and consultants according to UNDP norms, rules and requirements, to enable implementation of all technical outputs and proper project management, which shall be also located at the premises of the Ministry of Environment. The Ministry shall nominate representatives from the Climate Change Department as liaisons to the PSU.

The preparation and implementation of this project is and will be closely coordinated by the UNFCCC National Focal Point. The Public Relations Officer within the MoEP will assist in promoting and communicating project results to key stakeholders and the general public. MoEP is also responsible for coordinating the implementation of other climate change, circular economy, waste management and nature protection related projects.

The project will leverage UNDP Direct Country Office Support Services to ensure efficient project execution. Collaborative arrangements with related projects will be established to maximize synergies and avoid duplications.

The project will be audited according to UNDP Financial Regulations and Rules and applicable audit policies. The audit cycle and process will be discussed during the inception workshop. If the Implementing Partner is a UN Agency, the project will be audited according to that Agency's applicable audit policies.

PROJECT RESULTS FRAMEWORK

Contribution to the Sustainable Development Goal (s): *SDG 11, SDG 13, SDG 5, SDG 7, SDG 9, SDG 12 and SDG15*

Intended Outcome as stated in the UNSDCF/Country Programme Results and Resource Framework:
CPD Outcome 3. Strengthen resilience to shocks and crises
CPD Outcome 1: Structural transformation accelerated, particularly green, inclusive, and digital transitions

Applicable Output(s) from the UNDP Strategic Plan:
3.1 Institutional systems to manage multi-dimensional risks and shocks strengthened at regional, national and sub-national levels
6.2 Women's leadership and participation advanced through implementing affirmative measures, strengthening institutions and civil society, and addressing structural barriers, in order to advance gender equality, including in crisis contexts

Project title and Quantum Project Number: Green cities transformation – smart, sustainable and low-carbon urban solutions in triangular metropolitan area, 01000473

Objective and Outcome Indicators		Data Source	Baseline	Mid-term Target	End of Project Target	Data Collection Methods	Risks/Assumptions	# indicator Program Level – Results Framework for the GEF-8 Sustainable Cities IP
Project Objective:	The project objective is to contribute to the global effort to address the environmental and social challenges caused by the ongoing global urbanization process observed also in Serbian cities by supporting integrated and inclusive urban planning, strategies, and policy development; ii) promoting investments in sustainable, nature-positive, and resilient urban development; iii) adopting innovative financing mechanisms; and iv) strengthening knowledge-sharing and capacity-building with the initial focus on the triangular metropolitan area.							
	Mandatory Indicator 1: Direct project beneficiaries disaggregated by gender (individual people)	Minutes of meetings/events/trainings, Attendance sheets	0 females and 0 males	10,000 females 7,000 males	80,000 females and 70,000 males	Attendance sheets	See Annex 6 – UNDP Risk Register	
	Mandatory GEF Core Indicators: *Indicator 2:* Area of landscapes under improved practices (hectare)	Geospatial data (satellite imagery, aerial photography), field survey reports, GIS Databases and maps End-of-project impact report	0	500	4,000	Remote sensing and GIS analysis Field reports	See Annex 6 – UNDP Risk Register	
	Indicator 3: Greenhouse Gas Emissions Mitigated	Innovation projects validation reports GHG monitoring report Annual reports	0	Direct: 0 Indirect: 0	Direct: 1,100 ktons of CO_{2eq} Indirect: 1,100 ktons of CO_{2eq}	Monitoring report Third-party verification	See Annex 6 – UNDP Risk Register	

	(metric tons of CO2e)							
	Indicator 4: Chemicals of global concern and their waste reduced (metric tons of toxic chemicals reduced)	Local waste management reports Data from waste management and recycling centers Project Reports	0	5,000	20,000	Waste inventory analysis Annual progress reports	See Annex 6 – UNDP Risk Register	
Project component 1	**Enabling framework for municipal sustainable and green strategic development and urban planning**							
Project Outcome 1 Integrated and participatory cross-sectoral green city planning methods, mechanisms and practices effectively applied for the development of the triangular metropolitan area	*Indicator 5:* Sustainable digital data management systems in place and key sectoral data (land use, mobility, biodiversity, buildings, energy, emissions, waste) systematically collected and used for integrated, cross-sectoral and participatory green urban development plan(s) in the triangular metropolitan area.	Datasets from the municipalities on city services	No system in place and cross-sectoral data collection not coordinated	Sustainable digital data management systems in place and systematic collection of key sectoral data (land use, mobility, biodiversity, buildings, energy, emissions, waste) started	Integrated, cross-sectoral and participatory green urban development plan completed for the triangular metropolitan area by effectively using the collected data and with at least 80% of the collected data accessible to the public through open data policies and platforms	Survey among the system users in charge of the green urban development plan to assess the effectiveness and data quality of the system	See Annex 6 – UNDP Risk Register	Indicator 1 # of cities that have used various tools to support integrated urban strategic planning process Indicator 2 # of major policies, regulations and strategies developed to support urban sustainability Indicator 3 # of non-GEF-8 countries and cities engaged through domestic and global knowledge platforms

	Indicator 6: Status of the Serbian Sustainable Cities Platform (SSCP) and the number of its users	Website attendance data	SSCP is developed and in testing phase.	SSCP in operation with at least 30 registered users and 500 visits	SSCP in operation and regularly updated with at least 50 registered users and 1000 visits	Progress report Monitoring report on the use of specific platform features	See Annex 6 – UNDP Risk Register	
Outputs to achieve Outcome 1	Output 1.1. A roadmap developed with recommendations for streamlining integrated inclusive green urban development into different local sectoral plans and incorporating national policy targets for smart climate resilient green city development, including also gender aspects. Output 1.2 Enhanced capacity of the participating LSGs to transform national regulations, programs and targets to integrated and inclusive local level action for green city development, including but not limited to: i) effectively operationalized systems for digital data collection and management (land use, mobility, biodiversity, buildings, energy (EMIS), emissions, waste), ii) strengthened human capacities and resources for data management, participatory planning and project preparation; and iii) streamlined institutional and sectoral co-ordination and co-operation. Output 1.3 Socio-economic impact and livelihood analysis and a Livelihood Action Plan with a specific focus on vulnerable groups and their gender specific dimensions potentially affected by suggested policy measures, plans and investments designed. Output 1.4 An integrated and inclusive green cross-sectoral development plan for the triangular metropolitan area designed. Output 1.5 Serbian Sustainable Cities Platform digital knowledge management platform launched to support inter-institutional collaboration, development of local green plans and financing innovative green urban and nature-based solutions. Output 1.6. Awareness raised and institutional capacities of the key national and local stakeholders enhanced to enable transfer of knowledge to other medium sized cities in Serbia and region.							
Project component 2	**Integrated approach to unlock and scale up investments into citizens centered sustainable and smart city infrastructure, natural capital, ecosystem services and nature-based solutions**							
Outcome 2: New innovative and sustainable green city investments	*Indicator 7:* Number of new green city projects implemented	PBPs agreements	0	At least 5 projects implemented, out of which at least 2 woman	At least 15 projects implemented, out of which at least 5 women	Progress reports	See Annex 6 – UNDP Risk Register	Indicator 4 # USD equivalent of nature positive, low carbon, land restoration

implemented with reported results	with project support			led entrepreneurship	led entrepreneurship			demonstrations and/or investments leveraged through the project activities, and % from private financing Indicator 5 # of cities that have initiated innovative financial mechanisms and/or business models for sustainable urban investment Indicator 6 # of cities identified that can be part of a pipeline for future investments for GEF and other initiatives
	Indicator 8: Amount of co-financing leveraged for the supported green city investments	Awardees of PBPs business plans	0	US$ 3 million	US$ 15 million	*Confirmation from the PBP beneficiaries on the co-finance allocation and type of leveraged financing (equity, loan, other)*	See Annex 6 – UNDP Risk Register	
Outputs to achieve Outcome 2	Output 2.1 Specific Challenge Call organized to source and support the implementation of innovative, digital and other types of solutions that provide low-carbon, energy-efficient and circular economy based communal infrastructure and services Output 2.2 Specific Challenge Call organized to source and support solutions that maintain natural capital and ecosystem services and promote nature-based solutions in peri-urban triangular metropolitan area Output 2.3 Selected ideas transformed into marketable businesses and products through the provision of technical support and advisory services on financial structuring and de-risking Output 2.4 Pilot investments into sustainable and smart city communal infrastructure and services in three cities supported through performance-based payments and innovation awards Output 2.5 Pilot investments into maintenance of natural capital, improvement of ecosystem services and nature-based solutions supported through performance-based payments Output 2.6 A Smart City Information System launched to support management of smart/green city infrastructure Output 2.7 Monitored and reported results of the supported investment projects, including good practice showcasing women empowerment Output 2.8 Gender-sensitive public outreach conducted to disseminate results and promote replication and scaling up, including possible city fairs and other opportunities for presenting and pitching the winning ideas to other cities							

Project component 3	**Knowledge management (KM) and replication of successful pilots**							
Outcome 3 Comprehensive analysis, reporting and sharing of the project results and lessons learnt nationally and internationally.	Indicator 9: Number of KM materials produced by the project disaggregated by their type.	KM reports Publication and dissemination records	0	At least 10 KM materials produced	At least 20 KM materials produced	Media reports Progress report	See Annex 6 – UNDP Risk Register	Indicator 7 # of cities participated in knowledge exchanges, capacity development, and networking activities conducted by the Global Platform Indicator 8 # of national knowledge exchanges and trainings held Indicator 9 # of partnerships engaged at the global level through the Global Platform and at the national level through the country project implementation
	Indicator 10: Number of people exposed to project's KM activities disaggregated by their professional field and other background.	Participant Lists, records of workshops, seminars, webinars and other KM events Survey and feedback forms Social media analytics SCPI Platform statistics	0	10,000	30,000	Attendance tracking Automatic (built-in) compilation of the SCIP Platform visitor statistics and platform analytics	See Annex 6 – UNDP Risk Register	
Outputs to achieve Outcome 3	Output 3.1 Lessons learned and conditions for further replication of integrated innovative solutions across the sectors and on gender distilled and disseminated. Output 3.2 Sustainable City Partnership Initiative (association of cities and municipalities with green and sustainable vision) established and promoted, including organization of international, regional and national events to promote integrated city planning approaches. Output 3.3 Capacity is built and learning enabled through the gender-sensitive exchange of information with the Global Platform for Sustainable Cities established, joint training and site visits							

MONITORING AND EVALUATION (M&E) PLAN

Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP (including guidance on GEF project revisions) and UNDP Evaluation Policy **The UNDP Country Office is responsible for ensuring full compliance with all UNDP project M&E requirements including project monitoring, UNDP quality assurance requirements, quarterly risk management, and evaluation requirements.**

Additional mandatory GEF-specific M&E requirements will be undertaken in accordance with the GEF Monitoring Policy and the GEF Evaluation Policy and other relevant GEF policies[4]. The M&E plan and budget included below will guide the GEF-specific M&E activities to be undertaken by this project.

In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed – including during the Project Inception Workshop - and will be detailed in the Inception Report.

Minimum project monitoring and reporting requirements as required by the GEF:

Inception Workshop and Report: A project inception workshop will be held within 2 months from the First disbursement date, with the aim to:

a. Familiarize key stakeholders with the detailed project strategy and discuss any changes that may have taken place in the overall context since the project idea was initially conceptualized that may influence its strategy and implementation.
b. Discuss the roles and responsibilities of the project team, including reporting lines, stakeholder engagement strategies and conflict resolution mechanisms.
c. Review the results framework and monitoring plan.
d. Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP and other stakeholders in project-level M&E.
e. Update and review responsibilities for monitoring project strategies, including the risk log; SESP report, Social and Environmental Management Framework (where relevant) and other safeguard requirements; project grievance mechanisms; gender strategy; knowledge management strategy, and other relevant management strategies.
f. Review financial reporting procedures and budget monitoring and other mandatory requirements and agree on the arrangements for the annual audit.
g. Plan and schedule Project Board meetings and finalize the first-year annual work plan. Finalize the TOR of the Project Board.
h. Formally launch the Project.

GEF Project Implementation Report (PIR):

The annual GEF PIR covering the reporting period July (previous year) to June (current year) will be completed for each year of project implementation. UNDP will undertake quality assurance of the PIR before submission to the GEF. The PIR submitted to the GEF will be shared with the Project Board. UNDP will conduct a quality review of the PIR, and this quality review and feedback will be used to inform the preparation of the subsequent annual PIR.

[4] See https://www.thegef.org/projects-operations/policies-guidelines

GEF and/or LDCF/SCCF Core Indicators:

The GEF and/or LDCF/SCCF Core indicators included as Annex 15 will be used to monitor global environmental benefits and will be updated for reporting to the GEF prior to MTR and TE. Note that the project team is responsible for updating the core indicators status. The updated monitoring data must be shared with MTR/TE consultants prior to required evaluation missions, so these can be used for subsequent ground truthing. The methodologies to be used in data collection have been defined by the GEF and are available on the GEF website.

Independent Mid-term Review (MTR):

An independent mid-term review (MTR) will be completed by the mid-point of the project. The terms of reference, the MTR process and the final MTR report will follow the standard templates and MTR guidance for UNDP-supported GEF-financed projects available on the UNDP Evaluation Resource Center. The MTR must be submitted to the GEF by the mid-point of the project but no later than 48 months after CEO Endorsement.

The mid-point is determined by taking the expected ProDoc signature date plus number of months duration and finding the middle date. (For example, if a project has a 5-year duration, the MTR must be submitted 2.5 years after the ProDoc signature. To meet the submission deadline, final MTR reports must be completed and submitted to BPPS NCE team no later than 2 months in advance of the submission deadline to allow sufficient time for internal review/clearance that is required prior to submission.

Provisions must be taken to complete and submit the MTR within the submission deadline. Therefore, the MTR process must start no later than 8 months before the expected date of submission of the MTR.

The MTR will be 'independent, impartial and rigorous'. The evaluator(s) that UNDP will hire to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be reviewed. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project under review.

The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the MTR process. Additional quality assurance support is available from BPPS/NCE.

The final MTR report will be publicly available in English and will be posted on the UNDP ERC by the MTR submission date included on cover page of this project document. A management response to MTR recommendations will be posted in the ERC within six weeks of the MTR report's submission to the GEF.

Terminal Evaluation (TE):

An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terms of reference, the evaluation process and the final TE report will follow the standard templates and TE guidance for UNDP-supported GEF-financed projects available on the UNDP Evaluation Resource Center. TE must be submitted to the GEF no later than 6 months after the Completion Date. This is a hard deadline that, if not met, can only be extended through a formal extension request. To meet the submission deadline, final TE reports must be completed and submitted to BPPS NCE team no later than 2 months in advance of the deadline to allow sufficient time for internal review/clearance that is required prior to submission.

Provisions must be taken to complete and submit the TE within the submission deadline. Therefore, TE must start no later than 8 months before the expected date of submission of the TE (or 11 months prior to the estimated operational closure date).

The evaluation will be 'independent, impartial and rigorous'. The evaluator(s) that UNDP will hire to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project being evaluated.

The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the terminal evaluation process. Additional quality assurance support is available from BPPS NCE.

The final TE report will be publicly available in English and posted on the UNDP ERC by the TE submission date included on cover page of this project document. A management response to the TE recommendations will be posted to the ERC within six weeks of the TE report submission to the GEF.

Per the GEF Terminal Evaluation requirements, for cancelled full-sized projects, Terminal Evaluations are required if the GEF grant expenditure exceeds more than US$ 2 million.

Final Report:

The project's final GEF PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

In accordance with UNDP's programming policies and procedures, the project will be monitored through the following monitoring and evaluation plans.

Monitoring Plan: The project results, corresponding indicators and mid-term and end-of-project targets in the project results framework will be monitored by the Project Management Unit annually, and will be reported in the GEF PIR every year, and will be evaluated periodically during project implementation. If baseline data for some of the results indicators is not yet available, it will be collected during the first year of project implementation. Project risks, as outlined in the risk register, will be monitored quarterly.

Monitoring Activity						
Results Monitoring	**Indicators**	**Targets**	**Description of indicators and targets**	**Frequency**	**Responsible for data collection**	**Means of verification**
Project objective: The project objective is to contribute to the global effort to address the environmental and social challenges caused by the ongoing global urbanization process observed also in Serbian cities by supporting: i) integrated and inclusive urban planning, strategies, and policy development; ii) promoting investments in sustainable, nature-positive, and resilient urban development; iii) adopting innovative financing mechanisms; and iv) strengthening knowledge-sharing and capacity-building with the	**Indicator 1:** Number of direct project beneficiaries disaggregated by gender (individual people)	*Midterm target:* 10,000 females and 7,000 males *End of project target:* 80,000 females and 70,000 males	In total, 150,000 people will benefit from the project, out of which 80,000 are estimated to be females and 70,000 males. Among the beneficiaries are people using or benefiting otherwise from supported investments into sustainable and smart city infrastructure and maintenance of nature capital, ecosystem services and nature-based solutions, project's knowledge management, training and other technical assistance activities as well as by new work opportunities created.	Annually (reported in Development Objective (DO) progress section of the GEF PIR), mid-term, closure	Project manager	Attendance and registration records Project database Field reports
	Indicator 2: Area of landscapes under improved practices (hectares)	*Midterm target:* 500 *End of project target:* 4,000	The protected areas in the larger triangular metropolitan area between the three cities (Zrenjanin, Novi Sad and Belgrade) cover approximately 50 square km, including the Special Natural Reserve "Carska bara" as largest. The project will support ecosystem restauration measures, nature management practices and investments into NbS that will cover the area of at least 4000 ha in peri urban areas that are most prone to manmade impacts due to urbanization and industrialization activities.	Annually (reported in Development Objective (DO) progress section of the GEF PIR), mid-term, closure	Project manager	GIS and Satellite Imagery Analysis Field survey and Mapping Implementation record Project Progress Reports
	Indicator 3: Greenhouse Gas Emissions Mitigated (metric ton of CO2e)	*Midterm target:* Direct: 0 Indirect: 0 *End of project target:*	Sum of selected innovative solutions and business models related to the direct GHG emission reduction shall be a minimum of 500,000 tons of CO2eq over a 20-year lifetime of the pilot investment, that will result from, for instance, from energy savings, increasing the share of renewable	Annually (reported in Development Objective (DO) progress section of the GEF PIR), mid-term, closure	Project manager	Consultant report Energy consumption reports Monitoring data

Monitoring Activity						
Results Monitoring	**Indicators**	**Targets**	**Description of indicators and targets**	**Frequency**	**Responsible for data collection**	**Means of verification**
initial focus on the triangular metropolitan area.		Direct: 1,100 ktons of CO_{2eq} Indirect: 1,100 ktons of CO_{2eq}	energy in electricity and heat generation as well as in industrial production, reducing methane and other GHG emissions from waste materials currently disposed into landfills, improved urban infrastructure logistics (e.g. transport, waste collection and disposal, heat and water distribution etc.). The estimated consequential (indirect) GHG reduction impact is 1,2 million tons of CO2eq, including replication after the project closing, and related socio, economic and local environmental benefits. Since projects sourced through the Innovation Challenge Call to be supported represent new innovative solutions, the baseline in this case has been assessed as zero. The indicator will be a part of the eligibility criteria for evaluation and selection of innovative, digital and other types of low-carbon, energy-efficient and circular economy based communal infrastructure and services in three cities. The estimated direct GHG emission reduction in the waste and wastewater treatment sector is 400,000 tons of CO2eq over a 20-year lifetime of investments and indirect GHG emission reduction of 700,000 tons of CO2eq. From energy efficiency and renewable energy related investment projects, the estimated direct GHG emission reduction is 200,000 tons of CO2eq, resulting from retrofitted buildings, and indirect 300,000 tons of CO2eq, by replication after the project ends. Estimations are done by applying the IPPC methodology.			Land use and urban greening verification (use of satellite or GIS data) Project progress reports Third - party verification

Monitoring Activity						
Results Monitoring	**Indicators**	**Targets**	**Description of indicators and targets**	**Frequency**	**Responsible for data collection**	**Means of verification**
			Based on the above and standard GEF methodology, the estimated total direct GHG emission reduction will be 1,1 million tons of CO2eq and estimated indirect GHG emission reduction will be 1,1 million tons of CO2eq. The project will incorporate requirements for estimation of both, direct and indirect GHG emission reduction, into conditions of the Innovation Challenge Calls, as main procurement method for innovative projects. Also, all other procurement methods and each investment supported will have to incorporate, as precondition for financing, the direct and indirect estimations of GHG emissions reduced or avoided. The independent experts will be assessing claimed reductions and create monitoring plans for each supported innovative project and investment			
	Indicator 4: Chemicals of global concern and their waste reduced (metric ton of toxic chemicals reduced)	*Midterm target:* 5,000 *End of project target:* 20,000	In total Serbia generates 200,000 tons of plastic waste yearly, mostly in the form of used plastic and packaging waste. In line with the national targets of increasing the percentage of reuse and recycling of plastic waste of 25%, the estimated avoided quantities of residual plastic waste amounts 20,000 metric tons within the project lifetime.	Annually (reported in Development Objective (DO) progress section of the GEF PIR), mid-term, closure	Project manager	Waste management and treatment facility reports Project implementation reports Local waste management data
Project Outcome 1: Integrated and participatory cross-sectoral green city planning methods,	**Indicator 5:** Sustainable digital data management systems in place	*Midterm target:* Sustainable digital data management systems in place	This indicator measures the establishment and effectiveness of sustainable digital data management systems established in each of the three cities capable of handling and integrating sectoral data (land use, mobility,	Annually (reported in Development Objective (DO) progress section	Project manager	Progress reports

Monitoring Activity						
Results Monitoring	**Indicators**	**Targets**	**Description of indicators and targets**	**Frequency**	**Responsible for data collection**	**Means of verification**
mechanisms and practices effectively applied for the development of the triangular metropolitan area	and key sectoral data (land use, mobility, biodiversity, buildings, energy, emissions, waste) systematically collected and used for integrated, cross-sectoral and participatory green urban development plan(s) in the triangular metropolitan area.	and systematic collection of key sectoral data (land use, mobility, biodiversity, buildings, energy, emissions, waste) started *End of project target:* Integrated, cross-sectoral and participatory green urban development plan completed for the triangular metropolitan area by effectively using the collected data and with at least 80% of the collected data accessible to the public through open data policies and platforms	biodiversity, building, energy, waste, GHG emissions). All collected sectoral data are integrated into centralized digital platforms accessible to relevant city departments and stakeholders. At least 80% of the data collected is accessible to the public through open data policies and platforms to ensure transparency and encourage participatory planning.	of the GEF PIR), mid-term, closure		
	Indicator 6: Status of the Serbian Sustainable Cities Platform (SSCP) and the number of its users	*Midterm target:* SSCP is in operation with at least 30 registered users and 500 non-registered users.	This indicator measures the operational status, functionality, and reach of the Serbian Sustainable Cities Platform (SSCP). The SSCP is an online platform designed to facilitate knowledge sharing, collaboration, and best practices for sustainable urban development among Serbian cities. The	Annually (reported in Development Objective (DO) progress section of the GEF PIR), mid-term, closure	Project manager	Progress reports User database and registration log

Monitoring Activity						
Results Monitoring	**Indicators**	**Targets**	**Description of indicators and targets**	**Frequency**	**Responsible for data collection**	**Means of verification**
		End of project target: SSCP in operation and regularly updated with at least 50 registered users and 1000 non-registered users	indicator also tracks the number and diversity of its users, including municipalities, public institutions, private sector entities, non-governmental organizations, and citizens with an expectation that the user engagement metrics showing at least 70% of the registered users to be active on a yearly basis.			Web analytics reports
Project Outcome 2: New innovative and sustainable green city investments implemented with reported results	**Indicator 7:** Number of new green city projects implemented with project support	*Midterm target:* 5 projects, out of which at least 2 woman led entrepreneurship *End of project target:* 15 projects, out of which at least 5 woman led entrepreneurship	This indicator measures the number of new green city projects that have been developed and implemented with the project's support. These projects focus on improving communal services (such as water supply, waste management, energy efficiency, public transportation, and public lighting) and introducing nature-based solutions (NbS) to enhance urban resilience, promote biodiversity, and support sustainable development in cities. At least 9 projects are expected to test and demonstrate innovative approaches to green urban development focused on enhancing communal services, and 6 projects implementing NbS such as creating urban green spaces and rain gardens, reducing urban heat islands and enhancing biodiversity. Projects are implemented in 3 cities to ensure a broader geographic distribution to maximize impact and replicability across various urban contexts.	Annually (reported in Development Objective (DO) progress section of the GEF PIR), mid-term, closure	Project manager	PBPs agreements Progress reports Site visit reports
	Indicator 8: Amount of co-financing leveraged for the	*Midterm target:* 3 million USD	This indicator measures the total amount of co-financing secured from various sources (e.g., national and local governments, private sector, international donors, development banks, and other stakeholders)	Annually (reported in Development Objective (DO) progress section	Project manager	Progress reports Financial reports

Monitoring Activity						
Results Monitoring	**Indicators**	**Targets**	**Description of indicators and targets**	**Frequency**	**Responsible for data collection**	**Means of verification**
	supported green city investments	*End of project target:* 15 million USD	to support green city investments, as part of a total investment target of $15 million. Co-financing is critical for scaling up project impacts and ensuring the sustainability of green urban development initiatives.	of the GEF PIR), mid-term, closure		
Project Outcome 3: Comprehensive analysis, reporting and sharing of the project results and lessons learnt nationally and internationally	**Indicator 9:** Number of KM materials produced by the project disaggregated by their type.	*Midterm target:* 10 KM materials *End of project target:* 20 KM materials	This indicator tracks the number of KM materials created and categorizes them by type, such as reports, case studies, guidelines, toolkits, policy briefs, online courses, webinars, videos, and other formats. At least 20 KM materials on sustainable and green cities are produced by the end of the project, and 100% of the materials produced are made accessible through the SSCP and other relevant online channels, in both Serbian and English language.	Annually (reported in Development Objective (DO) progress section of the GEF PIR), mid-term, closure	Project manager	Finalized Copies of knowledge materials Publication and distribution records Progress reports
	Indicator 10: Number of people exposed to project's KM activities disaggregated by their professional field and other background.	*Midterm target:* 10,000 *End of project target:* 30,000	This indicator measures the number of individuals who participate in or are reached by the project's KM activities related to sustainable and green cities. The indicator tracks participants disaggregated by their professional field (e.g., urban planners, public administrators, private sector, research institutions, civil society members, etc.) and other relevant backgrounds (e.g., gender, age group, geographic location). Distribute at least 20 KM materials reaching a minimum of 30,000 stakeholders, with downloads or distribution tracked through online platforms.	Annually (reported in Development Objective (DO) progress section of the GEF PIR), mid-term, closure	Project manager	List of participants and attendance records Digital Analytics reports (engagement, reach etc.)

Monitoring Activity	Frequency/Timeframe	Expected Action	Partners (if joint)
Inception Workshop and Report	Inception Workshop within 2 months of the First Disbursement	As per above description	
Track results progress (see above table for details)	Annually and at mid-point and closure	Slower than expected progress will be addressed by project management.	
Monitor and Manage Risk	Quarterly	Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.	
Monitor	ongoing	Gender action plan to be updated. Safeguards management framework will be regularly updated.	
Supervision Missions	Annually		
Learning and Learning Missions	As needed	Relevant lessons are captured by the project team and used to inform management decisions.	
Annual Project Quality Assurance	Annually	Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.	
Review and Make Course Corrections	At least annually	Performance data, risks, lessons and quality will be discussed by the project board and used to make course corrections.	
Annual GEF Project Implementation Report (PIR)	Annually typically between June-September	Mandatory contribution by Project Team, CO and RTA. Strengths and weaknesses will be reviewed by project management and used to inform decisions to improve project performance	
Project Review (Project Board)	*At least annually*	Any quality concerns or slower than expected progress should be discussed by the project board and management actions agreed to address the issues identified.	

Evaluation Plan

Evaluation Title	Partners (if joint)	Related Strategic Plan Output	UNSDCF/CPD Outcome	Planned Completion Date	Key Evaluation Stakeholders
Independent Mid-Term Review (MTR) *(optional for MSPs)*	NA			By the MTR submission date included on cover page of Project Document	MoEP, Belgrade, Novi Sad, Zrenjanin, SCTM, NALED, Provincial Secretariat for Urban Planning and Environmental Protection, users of PBPs

Independent Terminal Evaluation (TE)	NA			By the TE submission date included on cover page of Project Document	MoEP, Belgrade, Novi Sad, Zrenjanin, SCTM, NALED, Provincial Secretariat for Urban Planning and Environmental Protection, users of PBPs

Monitoring and Evaluation Budget for project execution:	
GEF M&E requirements to be undertaken by Project Management Unit (PMU)	**Indicative costs (US$)**
Inception Workshop and Report	*7,500*
M&E required to report on progress made in reaching GEF core indicators and project results included in the project results framework	*23,000*
Preparation of the annual GEF Project Implementation Report (PIR)	*10,000*
Monitoring of *GAP and ESMF*	*20,000*
Supervision missions	*None*
Learning missions	*6,000*
Independent Mid-term Review (MTR)	*30,000*
Independent Terminal Evaluation (TE)	*30,000*
Final workshop	*7,500*
TOTAL indicative COST	*134,000*

GOVERNANCE AND MANAGEMENT ARRANGEMENTS

General roles and responsibilities in the projects' governance mechanism

Implementing Partner: The Implementing Partner (IP) for this project is **the Ministry of Environmental Protection (MoEP)** of the Government of Serbia.

The Implementing Partner is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP resources and the delivery of outputs, as set forth in this document.

The Implementing Partner is responsible for executing this project. Specific tasks include:

- Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.
- Overseeing the management of project risks as included in this project document and new risks that may emerge during project implementation.
- Procurement of goods and services, including human resources.
- Financial management, including overseeing financial expenditures against project budgets.
- Approving and signing the multiyear workplan.
- Approving and signing the combined delivery report at the end of the year; and,
- Signing the financial report or the funding authorization and certificate of expenditures. The Implementing Partner is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP resources and the delivery of outputs, as set forth in this document.

Responsible Parties: The Project Board may introduce other Responsible Parties during the project implementation to assist in the implementation of certain project outputs, as well as the recipient of Low-Value PBPs Agreements.

Project stakeholders and target groups: The key project stakeholders, target groups and envisaged partnerships are presented in chapter IV "Results and Partnerships" as well in Annex 9: "Stakeholder Engagement Plan."

UNDP: UNDP is accountable to the GEF for the implementation of this project. This includes overseeing project execution undertaken by the Implementing Partner to ensure that the project is being carried out in accordance with UNDP and GEF policies and procedures and the standards and provisions outlined in the Delegation of Authority (DOA) letter for this project. **The UNDP GEF Executive Coordinator, in consultation with UNDP Bureaus and the Implementing Partner, retains the right to revoke the project DOA, suspend or cancel this GEF project.** UNDP is responsible for the Project Assurance function in the project governance structure and presents to the Project Board and attends Project Board meetings as a non-voting member.

The GEF OFP (Ministry for Environmental Protection – also an IP for the Project) and UNDP had discussions on several options for project the management arrangements as it concerns, in particular, the Innovation Challenges and accompanying Innovation Challenge Awards and Performance-based Payment Agreements (PBPAs), which mechanisms were approved also by the GEF Sec at the PIF stage. The discussion and analysis concluded that the Ministry does not have the capacity to implement the project without UNDP support with further background provided at the end of this chapter. As a result, the Project Implementing Partner (MoEP) has requested UNDP execution support to NIM by an official letter signed by the Serbia GEF OFP (Annex 2). It is also to be noted that execution support, in line with UNDP ICF and POPP/financial regulations, can only be provided in the case it is requested by the Government and agreed by the GEF. The UNDP execution support will be performed by the Innovation Challenge Support Unit, which is project-based and located at the premises of the Government/Ministry of Environmental Protection.

A strict firewall will be maintained between the delivery of project oversight and quality assurance performed by UNDP (charged to the GEF Fee) and any support to project execution performed by UNDP, as requested by and agreed to by both the Implementing Partner and GEF. The costs incurred by the proposed execution support services by UNDP to implement project outputs will be covered by UNDP (TRAC fund) and will not be charged to GEF grant. The segregation of functions and firewall provisions for UNDP in this case is described in the next section. The firewall settings as outlined below apply and are coherent with the standing UNDP ICF and POPP:

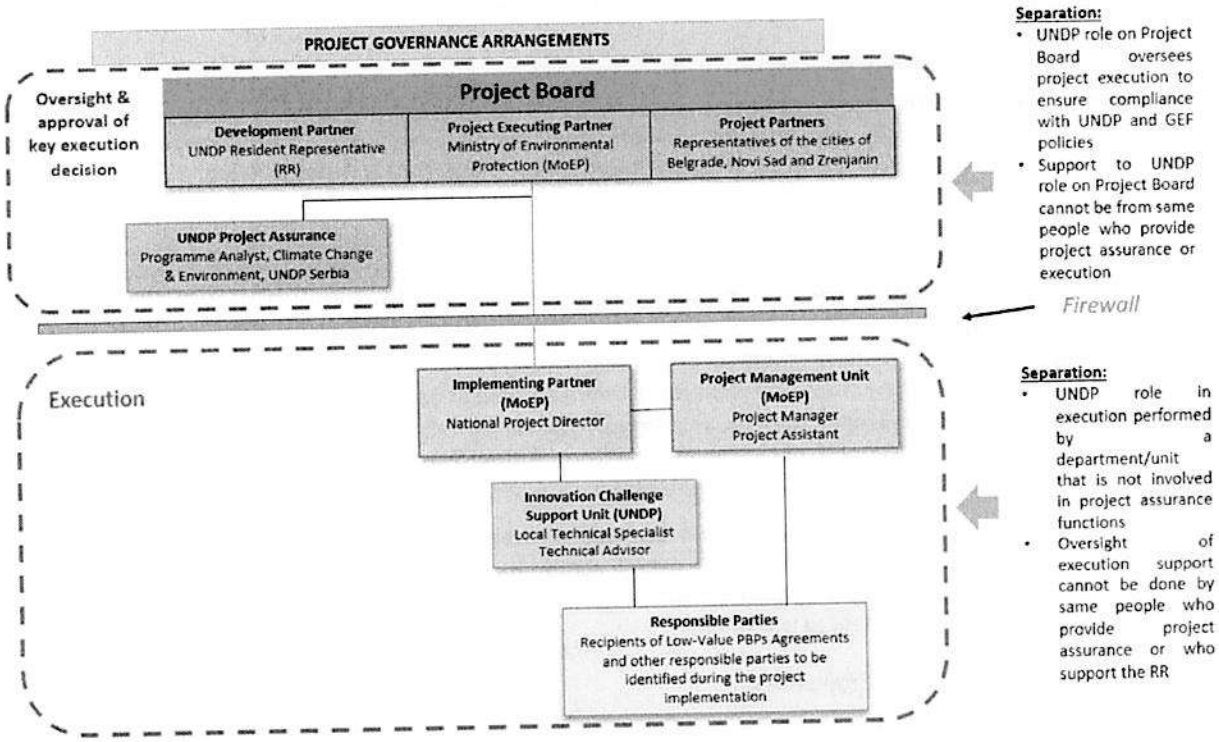
"**Project execution support performed by Innovation Challenge Support Unit**" will be undertaken by personnel on non-staff contracts (i.e. Service Contract holders) specifically hired for the implementation of specific outputs under Outcome 1, 2 and 3 of this project (specified in further detail in table 1), and forming the so-called Innovation Challenge Support Unit, which is fully project-based. It will not involve any actions from the category of "programme or operational oversight". It will be limited to preparing TORs, specifications, requests, and arranging for a proper process for all project management activities such as "managing" the Innovation Challenge Calls, acceleration support, issuing and monitoring of Innovation Awards and Low-Value Performance-based payment Agreements as well as preparing documentation for procurement and recruitment processes, as needed. The Innovation Challenge Support Unit is partially funded by the project budget. The firewall will be ensured by the fact that the Innovation Challenge Support Unit will report to the Project Manager, engaged by the Implementing Partner, and to the Project Board, while administrative aspects of the contracts of the Unit's project personnel will be managed by the UNDP CO officer who is not, in any way, involved in programme nor operational oversight of the project.

The Innovation Challenge Support Unit will perform the requested services outlined in the letter of GEF OFP of Serbia (in Annex 2), in line with UNDP ICF, Financial and HR rules and other relevant sections of the POPP. The anticipated costs of the service provided will be covered by non-GEF resources for the project.

The oversight (i.e. over the Innovation Challenge Support Unit's compliance with the approved Total Budget and Work Plan) will be carried out by UNDP Country Office programmatic and operational units i.e. the Resilience and M&E/Program Finance Teams under the supervision of the CO Senior Management. The second tier of oversight will be provided from the UNDP regional and global level. Further details can be found in Annex 19, UNDP Audit Checklist.

The three cities will be included as key beneficiaries and proactive project partners. The representatives of the cities will be included in the Project Board. The cities will be included in the design and implementation of all three components, enabling the project to be aligned with their priorities and supporting their sustainable green urban development. Additionally, the Implementing Partner will establish a Project Working Group comprising Project Board members and representatives of other important stakeholders, including the Ministry of Construction, Transport and Infrastructure, Ministry of Finance, Ministry of Mining and Energy, Standing Conference of Towns and Municipalities, representatives of other interested LSGs and business associations (Chamber of Commerce and Industry) etc. The Working Group will serve as a forum for addressing policy and investment issues of local concern and will provide strategic input across all three project components. Furthermore, the Working Group will be providing technical guidance and advisory support to other local self-governments in Serbia interested to in replicating project actions and initiatives.

Project governance structure



The UNDP Resident Representative assumes full responsibility and accountability for oversight and quality assurance of this Project and ensures its timely implementation in compliance with the GEF-specific requirements and UNDP's Programme and Operations Policies and Procedures (POPP), its Financial Regulations and Rules and Internal Control Framework. A representative of the UNDP Country Office will assume the assurance role and will present assurance findings to the Project Board, and therefore attend Project Board meetings as a non-voting member.

UNDP project support: The Implementing Partner and GEF OFP have requested UNDP to provide support services in the amount of **USD$ 31,750** for the full duration of the project, and the GEF has agreed for UNDP to provide such execution support services provided however that such costs will not be charged to the project grants from GEF but will be fully covered by non-GEF resources (UNDP TRAC). The execution support services – whether financed from the project budget or other sources - have been set out in detail and agreed between UNDP Country Office and the Implementing Partner in a Letter of Agreement (LOA). This LOA is attached (Annex 14) to this Project Document.

To ensure the strict independence required by the GEF and in accordance with the UNDP Internal Control Framework, these execution services will be delivered independently from the GEF-specific oversight and quality assurance services.

Segregation of duties and firewalls vis-à-vis UNDP representation on the project board

As noted in the Minimum Fiduciary Standards for GEF Partner Agencies, in cases where a GEF Partner Agency (i.e. UNDP) carries out both implementation oversight and execution of a project, the GEF Partner Agency (i.e. UNDP) must separate its project implementation oversight and execution duties, and describe in the relevant project document a: 1) Satisfactory institutional arrangement for the separation of implementation oversight and executing functions in different departments of the GEF Partner Agency; and 2) Clear lines of responsibility, reporting and accountability within the GEF Partner Agency between the project implementation oversight and execution functions.

In this case, UNDP's implementation oversight role in the project – as represented in the project board and via the project assurance function – is performed by the UNDP Resident Representative Yakup Beris, the Programme Analyst Miroslav Tadic for programmatic oversight support and the Programme Associate Aleksandar Jovanovic for financial

oversight. UNDP's execution role in the project (as requested by the implementing partner and approved by the GEF) is performed by the Project Manager Ana Seke, the Project Coordination Associate Milan Cerovac and the Portfolio Associate Vesna Bogdanovic, who will report to the Resilience Team Leader Zarko Petrovic.

Roles and Responsibilities of the Project Organization Structure

a) **Project Board:** All UNDP projects must be governed by a multi-stakeholder board or committee established to review performance based on monitoring and evaluation, and implementation issues to ensure quality delivery of results. The Project Board (also called the Project Steering Committee) is the most senior, dedicated oversight body for a project.

The two main (mandatory) roles of the project board are as follows:

1) **High-level oversight of the execution of the project by the Implementing Partner** (as explained in the "Provide Oversight" section of the POPP). This is the primary function of the project board and includes annual (and as-needed) assessments of any major risks to the project, and decisions/agreements on any management actions or remedial measures to address them effectively. The Project Board reviews evidence of project performance based on monitoring, evaluation and reporting, including progress reports, evaluations, risk logs and the combined delivery report. The Project Board is responsible for taking corrective action as needed to ensure the project achieves the desired results.

2) **Approval of strategic project execution decisions of the Implementing Partner** with a view to assess and manage risks, monitor and ensure the overall achievement of projected results and impacts and ensure long term sustainability of project execution decisions of the Implementing Partner (as explained in the "Manage Change" section of the POPP).

Requirements to serve on the Project Board

- ✓ Agree to the Terms of Reference of the Board and the rules on protocols, quorum and minuting.
- ✓ Meet annually; at least once.
- ✓ Disclose any conflict of interest in performing the functions of a Project Board member and take all measures to avoid any real or perceived conflicts of interest. This disclosure must be documented and kept on record by UNDP.
- ✓ Discharge the functions of the Project Board in accordance with UNDP policies and procedures.
- ✓ Ensure highest levels of transparency and ensure Project Board meeting minutes are recorded and shared with project stakeholders.

Responsibilities of the Project Board

- ✓ Consensus decision making:
  - The project board provides overall guidance and direction to the project, ensuring it remains within any specified constraints, and providing overall oversight of the project implementation.
  - Review project performance based on monitoring, evaluation and reporting, including progress reports, risk logs and the combined delivery report;
  - The project board is responsible for making management decisions by consensus.
  - In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition.
  - In case consensus cannot be reached within the Board, the UNDP representative on the board will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.
- ✓ Oversee project execution:
  - Agree on project manager's tolerances as required, within the parameters outlined in the project document, and provide direction and advice for exceptional situations when the project manager's tolerances are exceeded.
  - Appraise annual work plans prepared by the Implementing Partner for the Project; review combined delivery reports prior to certification by the implementing partner.

- Address any high-level project issues as raised by the project manager and project assurance;
- Advise on major and minor amendments to the project within the parameters set by UNDP and the donor and refer such proposed major and minor amendments to the UNDP BPPS Nature, Climate and Energy, Vertical Fund team Executive Coordinator (and the GEF, as required by GEF policies);
- Provide high-level direction and recommendations to the project management unit to ensure that the agreed deliverables are produced satisfactorily and according to plans.
- Track and monitor co-financed activities and realisation of co-financing amounts of this project.
- Approve the Inception Report, GEF annual project implementation reports, mid-term review and terminal evaluation reports.
- Ensure commitment of human resources to support project implementation, arbitrating any issues within the project.

✓ Risk Management:
- Provide guidance on evolving or materialized project risks and agree on possible mitigation and management actions to address specific risks.
- Review and update the project risk register and associated management plans based on the information prepared by the Implementing Partner. This includes risks related that can be directly managed by this project, as well as contextual risks that may affect project delivery or continued UNDP compliance and reputation but are outside of the control of the project. For example, social and environmental risks associated with co-financed activities or activities taking place in the project's area of influence that have implications for the project.
- Address project-level grievances.

✓ Coordination:
- Ensure coordination between various donor and government-funded projects and programmes.
- Ensure coordination with various government agencies and their participation in project activities.

Composition of the Project Board: The composition of the Project Board must include individuals assigned to the following three roles:

1. **Project Executive:** This is an individual who represents ownership of the project and chairs (or co-chairs) the Project Board. The Executive usually is the senior national counterpart for nationally implemented projects (typically from the same entity as the Implementing Partner), and it must be UNDP for projects that are direct implementation (DIM). In exceptional cases, two individuals from different entities can co-share this role and/or co-chair the Project Board. If the project executive co-chairs the project board with representatives of another category, it typically does so with a development partner representative. The Project Executive is: Sandra Dokic, State Secretary at the Ministry of Environmental Protection.

2. **Beneficiary Representative(s):** Individuals or groups representing the interests of those groups of stakeholders who will ultimately benefit from the project. Their primary function within the board is to ensure the realization of project results from the perspective of project beneficiaries. Often representatives from civil society, industry associations, or other government entities benefiting from the project can fulfil this role. There can be multiple beneficiary representatives in a Project Board. The Beneficiary representatives are: Representatives of City of Belgrade, City of Novi Sad, City of Zrenjanin.

3. **Development Partner(s):** Individuals or groups representing the interests of the parties concerned that provide funding, strategic guidance and/or technical expertise to the project. The Development Partner(s) is: Yakup Beris, UNDP Resident Representative.

b) **Project Assurance:** Project assurance is the responsibility of each project board member; however, UNDP has a distinct assurance role for all UNDP projects in carrying out objective and independent project oversight and monitoring functions. UNDP performs quality assurance and supports the Project Board (and Project Management Unit) by carrying out objective and independent project oversight and monitoring functions, including compliance with the risk management and social and environmental standards of UNDP. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. Project assurance is totally independent of project execution.

A designated representative of UNDP playing the project assurance role is expected to attend all board meetings and support board processes as a non-voting representative. It should be noted that while in certain cases UNDP's project assurance role across the project may encompass activities happening at several levels (e.g. global, regional), at least one UNDP representative playing that function must, as part of their duties, specifically attend board meeting and provide board members with the required documentation required to perform their duties. The UNDP representative playing the main project assurance function is: Miroslav Tadic, Programme Analyst Climate Change & Environment, UNDP Serbia.

c) **Project Management – Execution of the Project:** The Project Manager (PM) (also called project coordinator) is the senior most representative of the Project Management Unit (PMU) and is responsible for the overall day-to-day management of the project on behalf of the Implementing Partner, including the mobilization of all project inputs, supervision over project staff, responsible parties, consultants and sub-contractors. The project manager typically presents key deliverables and documents to the board for their review and approval, including progress reports, annual work plans, adjustments to tolerance levels and risk registers.

   A designated representative of the PMU is expected to attend all board meetings and support board processes as a non-voting representative.

   The primary PMU representative attending board meetings is: Dragana Mehandzic, Department for Project Management Financed by EU and International Assistance in the Field of Environmental Protection, MoEP.

UNDP Implementation Support

The MoEP, serving as the project's IP, has requested UNDP implementation/execution support for certain project sub-components and tasks, as specified in further detail in table 1, below, and the attached letter of the Government/GEF OFP (Annex 2). The subcomponents and tasks requested to be supported include: (1) the implementation of the Innovation Challenge Policy in accordance with UNDP Policy, The Innovation Challenge will be formulated clearly in direct communication with the national partners and the three participating cities, reflecting national and local development challenges. Also, UNDP will prepare and clearly document (operational manuals) the eligibility requirements for an entity to participate, evaluation criteria and scoring method. All these elements will be publicly available before entities register to participate. The evaluation process will follow the Innovation Challenge Policy with the involvement of external independent evaluators, depending on the specificities of the development challenge. Based on the results of the evaluation, innovative solutions will be awarded by appropriate prize in line with UNDP policy, The project will ensure that the Innovation Challenge is widely promoted among potential beneficiaries and also make sure that the duration of the Innovation Challenge application process is sufficient to allow the applicants enough time to prepare and clarify potential issues. (2) conducting acceleration process and (3) issuing and monitoring of the Low-Value Performance-based Payment Agreements (PBPA) in accordance with UNDP Policy. Performance-based payments are type of agreement between UNDP and a responsible party to provide funding upon the verified achievement of an agreed measurable development result. No advances are provided, rather payments are made only upon the verified achievement of the agreed results. UNDP will facilitate the selection of potential recipients of the Performance-based Payment Agreements in line with the PBPA policy and following the competitive process. Responsible parties can be private sector companies, public companies, NGOs, CSOs, academia and/or local self-governments for certain types of activities where payments will be made based on the responsible party's achievement of one or more results and completion of the related deliverable. Also, the potential recipients of the PBPAs will be screened against the particular PBPA criteria that the project will set in agreement with national and local partners (the three cities). Each PBPA will be acompanied with detailed SESP and due diligence, prior to signing. The PBPAs, inclusive of the theory of change, result formulation, payment-linked indicators and validation method, will be appraised by the Project Board. UNDP will undertake regular monitoring of the performance of the beneficiaries in order to ensure that agreed deliverables are met timely and in qualitative manner.

The project will promote the Innovation Challenge, along with the established criteria, among all potential beneficiaries prior and during the launching. The Call will be open for submission of proposals at least three months to allow suficient time for potential beneficiaries to prepare and receive clarity regarding the expected criteria. The reason for requesting implementation support from UNDP is that the MoEP is incapable to carry out independently the Innovation Challenge Call nor issue the performance-based payments in line with the project needs or objectives.

Table 1 List of Responsibility Distribution between MoEP and UNDP

Outcomes	Updated outputs	Responsibility
Outcome 1	Output 1.1. A roadmap developed with recommendations for streamlining integrated inclusive green urban development into different local sectoral plans and incorporating national policy targets for smart climate resilient green city development, including also gender aspects.	MoEP
	Output 1.2 Enhanced capacity of the participating LSGs to transform national regulations, programs and targets into integrated and inclusive local level action for green city development including, but not limited to: i) operationalized systems for digital data collection and management (land use, mobility, biodiversity, buildings, energy (EMIS), emissions, waste), ii) strengthened human capacities and resources for data management, participatory planning and project preparation; iii) streamlined institutional and sectoral co-ordination and co-operation.	MoEP
	Output 1.3 Socio-economic impact and livelihood analysis and a Livelihood Action Plan with specific focus on vulnerable groups potentially affected by suggested policy measures, plans and investments designed.	MoEP
	Output 1.4 An integrated and inclusive green cross-sectoral development plan for the triangular metropolitan designed.	MoEP
	Output 1.5 Serbian Sustainable Cities Platform launched to support inter-institutional collaboration, development of local green plans and financing of innovative green urban and nature-based solutions.	MoEP
	Output 1.6. Awareness raised and institutional capacities of the key national and local stakeholders enhanced to enable transfer of knowledge to other medium sized cities in Serbia and region	MoEP
Outcome 2	Output 2.1. Specific Challenge Call organized to source and support the implementation of innovative, digital and other types of solutions that provide low-carbon, energy-efficient and circular economy based communal infrastructure and services in three cities	MoEP with UNDP Implementation Support
	Output 2.2. Specific Challenge Call organized to source and support solutions that maintain natural capital and ecosystem services and promote nature-based solutions in peri-urban triangular metropolitan area	MoEP with UNDP Implementation Support
	Output 2.3. Selected ideas transformed into marketable businesses and products through the provision of technical support and advisory services on financial structuring and de-risking	MoEP with UNDP Implementation Support
	Output 2.4. Pilot investments supported into sustainable and smart city communal infrastructure and services in three cities supported through performance-based payments and innovation awards	MoEP with UNDP Implementation Support
	Output 2.5. Pilot investments supported into maintenance of natural capital, improvement of ecosystem services and nature-based solutions through performance-based payments	MoEP with UNDP Implementation Support
	Output 2.6. A Smart City Information System launched to support management of smart/green city infrastructure	MoEP with UNDP Implementation Support
	Output 2.7. Monitored and reported results of the supported investment projects, including good practice showcasing women empowerment	MoEP
	Output 2.8. Gender-sensitive public outreach conducted to disseminate results and promote replication and scaling up, including possible city fairs and other opportunities for presenting and pitching the winning ideas to other cities	MoEP
Outcome 3	Output 3.1. Lessons learned and conditions for further replication of integrated innovative solutions across the sectors and on gender distilled and disseminated.	MoEP

	Output 3.2. Sustainable City Partnership Initiative (association of cities and municipalities with green and sustainable vision) established and promoted, including organization of international, regional and national events to promote integrated city planning approaches.	MoEP
	Output 3.3 Capacity is built and learning enabled through the gender-sensitive exchange of information with the Global Platform for Sustainable Cities established, joint training and site visits	MoEP

Note: With reference to the outputs 2.1 – 2.5, the project team will develop operational manuals that will guide the deployment of the Innovation Challenge and the Performance-based Payment Agreements. The manuals, that will be developed during the first year of implementation, will contain the description of the development challenge, criteria, application process, evaluation criteria and acceleration of selected beneficiaries, the criteria for awarding and issuance of the PBPAs, expected impacts and monitoring and evaluation plans. The operational manuals will be reviewed and approved by UNDP CO, UNDP CCM RTA and endorsed by the project board prior to deployment of the two mentioned mechanisms

The observed decline in the Government capacity has occurred due to frequent government structure changes, either due to the elections or internal re-shuffling of the institutions. Such a trend also caused a massive outflow of qualified personnel from the institutions, affecting expert departments' capacities and those in charge of project management services. It is also important to indicate that Serbia's national institutional capacities are already suffering by being stretched and overburdened by strict requirements for managing the EU funded projects. This is confirmed and stated in the GEF OFP's execution support request. Even in the case of other donor financed projects (such as the EU IPA projects), the MoEP receives execution support from the donor by sub-contracting implementing entities. Yet, the implementation of many of these projects is lagging, and the absorption capacity for EU funds is low. Moreover, the existing market of other potential responsible parties is limited in terms of those that can be considered accountable, transparent and sufficiently capacitated. The trusted partners are already engaged in the ongoing GEF full NIM projects in Serbia.

The co-operation of the MoEP with municipalities on waste management and waste-water treatment is largely based on "business as usual" by using EU (IPA) funds and state loans as sources of financing, but without actively exploring new innovative or more effective ways of dealing with waste and wastewater management at the municipal level and how these sectors could contribute to the decarbonization of Serbian economy.

At the moment, the Government/MoEP conducts public calls only for procurements that have strictly detailed and predefined technical criteria, thereby leaving not much room for the offerors to suggest alternative, innovative and eventually more effective ideas to deal with the required service or product. Cooperation with the private sector in the recycling industry, for instance, is based on incentives that are paid according to such criteria. The budgets of public calls for NGOs and research organizations are limited and activities are focused on one-time research-oriented interventions with no development focus or monitoring of impact after the projects have ended. As a financing modality, there are no mechanisms in place to use performance-based payment agreements. In Human Resource management, MoEP has lengthy procedures for the selection of experts, which is imposing a serious risk to timely implementation of the project.

The UNDP's Innovation Challenge policy and Performance-based Payment Agreements are an integral part of this project (as presented in the approved PIF). In order to conduct the challenges and ensure implementation and proper M&E of the selected innovative solutions, the MoEP has requested UNDP execution support for these particular components of the project.

Together with the GEF funds and the co-financing of the project, including support for the private sector, UNDP has developed a mechanism based on performance-based agreements, as an integral part of UNDP's Innovation Challenge and PBP Policy, where payments are made only after fulfilling the defined milestones and verification of defined indicators by the Project Board. The MoEP does not have the legal basis nor operational capacity to perform such duties on its own but would need to delegate this to a third party, in this case the UNDP.

For effectively fulfilling the requirements of its supporting role, UNDP Serbia has already established and gradually built several partnerships with institutions such as Serbian Chamber of Commerce and Industry, National Association for Local Economic Development (NALED), the Innovation Fund, Standing Conference of Towns and Municipalities,

EU Delegation in Serbia, the Government of Sweden and the Government of Switzerland with a network of around 10,000 stakeholders in order to foster co-operation and facilitate exchange experience and peer-to-peer learning. All this cannot be simply transferred to a third party without losing the ingredients of this groundwork, which is essential for the successful implementation of the proposed project.

By building on UNDP's Innovation Challenge Policy, UNDP Serbia has established its capacity to effectively support national institutions in launching challenge-based procurement calls for innovative solutions and to ensure transparent and prompt evaluation process consisting of three steps (technical screening, independent experts' evaluation and final evaluation in cooperation with national partners) by engaging a number of experts of various professional background. By this, UNDP will also build the capacities of other institutions so that they can effectively provide similar services in the future in cooperation with the corporate sector and industries.

For ideas selected for further development, the proponents receive mentoring and other expert support from an "Incubator/Accelerator Clinic" to develop initial ideas and proposals into mature projects ready for implementation. These are unique mechanisms developed by UNDP Serbia that ensure fast track engagement of specific expertise, but also provide other types of assistance to innovative solutions, such as identification and establishment of partnerships, market research, business plan development, identification of funding sources (investors, commercial lending etc.). The Innovation Challenge Policy was already described in the approved Project Identification Form (PIF), as the main mechanism for sourcing, accelerating and implementation of the innovative green city solutions. The Government/MoEP cannot provide such de-risking assistance where payments are made only upon completion of the deliverables and in accordance with the accompanying project document signed with the beneficiary (e.g. in case of the PBP Agreements). Financial and other management of such supporting functions would be practically impossible to outsource for any other international agency either, which do not have specific operational procedures developed by UNDP for this purpose as an integral part of UNDP's Innovation Challenge policy.

In short, while launching the Serbian Sustainable Cities Platform proposed by the project and the challenge- based approach as a part of that will provide an entirely new entry mechanisms to advance the green city development in Serbia and to source new innovative ideas for it. The MoEP is not yet fully geared to implement this on its own. Therefore, it has requested UNDP support for implementation, thereby allowing the MoEP in parallel to also build its own capacity for eventually incorporating such support mechanism into its operations later on.

FINANCIAL PLANNING AND MANAGEMENT

The total cost of the project is **USD 139,385,235**. This is financed through a GEF grant of **USD 7,065,603** administered by UNDP, **USD 100,000** in cash co-financing to be administered by UNDP and additional support of **USD 132,219,632** (co-financing). UNDP, as the GEF Implementing Agency, is responsible for the oversight of the GEF resources and the cash co-financing transferred to UNDP bank account only.

Co-financing: The actual realization of project co-financing amounts will be monitored by the UNDP Country Office and the PMU on an annual basis in the GEF PIF and will be reported to the GEF during the mid-term review and terminal evaluation process as follows:

Co-financing source	Co-financing type	Name of Co-financier	Investment Mobilized	Co-financing amount
Recipient Country Government	**Grant**	Ministry of Environmental Protection	Investment mobilized	4,000,000
GEF Agency	**Grant**	UNDP	Investment mobilized	100,000
Other	**Public Investment**	City of Zrenjanin	Investment mobilized	7,500,000
Other	**Public Investment**	City of Belgrade	Investment mobilized	5,000,000
Other	**Public Investment**	City of Novi Sad	Investment mobilized	7,500,000
Private sector	**Equity Investment**	Serbian SMEs	Investment mobilized	108,219,632
Total Co-financing				**132,319,632**

Budget Revision and Tolerance: As per UNDP POPP, the project board may agree with the project manager on a tolerance level for each detailed plan under the overall multi-year workplan. The agreed tolerance should be written in the project document or approved project board meeting minutes. It should normally not exceed 10 percent of the agreed annual budget at the activity level, but within the overall approved multi-year workplan at the activity level. Within the agreed tolerances, the project manager can operate without intervention from the project board. Restrictions apply as follows:

Should the following deviations occur, the Project Manager/IP through UNDP Country Office will seek the approval of the BPPS/NCE-VF team to ensure accurate reporting to the GEF. It is **strongly encouraged** to maintain the expenditures within the approved budget at the budgetary account and at the component level:

a) Budget reallocations must prove that the suggested changes in the budget will not lead to material changes in the results to be achieved by the project. A strong justification is required and will be approved on an exceptional basis. Budget re-allocations among the components (including PMC) of the approved Total Budget and Work Plans (TBWP) that represent a value greater than 10% of the total GEF grant.
b) Introduction of new outputs/activities (i.e. budget items) that were not part of the agreed project document and TBWP that represent a value greater than 5% of the total GEF grant. The new budget items must be eligible as per the GEF and UNDP policies.
c) Project management cost (PMC): budget under PMC component is capped and cannot be increased.

UNDP is not in a position to increase the total budget above the amount approved by the donor, therefore any over-expenditure would have to be absorbed from non-GEF resources by the Implementing Partner (GEF Executing Entity)

Project extensions: The UNDP-BPPS-NCE team Executive Coordinator must approve all requests for extension of the Project Completion Date and for other milestone extensions with hard deadlines. All extensions impose additional time and cost burdens at all levels and the GEF project budget cannot be increased beyond its originally approved amount. A single extension may be granted on an exceptional basis and subject to the conditions and maximum durations set out in the UNDP POPP. The project management costs during the extension period must remain within

the originally approved amount, and any increase in PMC costs shall be covered by non-GEF resources; the additional UNDP oversight costs during the extension period must be covered by non-GEF resources, in accordance with UNDP's policy as set out in UNDP POPP.

For any extension request, UNDP CO and IP will consult and jointly present a clear plan indicating how and from which specific sources the additional oversight costs that will be incurred by UNDP will be covered during the extended period. The BPPS-NCE Executive Coordinator will consult the Regional Bureaux (RBX) and may reject the extension request if no (external co-financing by the IP or internal UNDP CO resources) can be identified.

All extension requests, along with all supporting documentation, shall be submitted by the IP to the UNDP CO in line with the requirements and within the deadlines set out in the UNDP SOPs and policies in UNDP POPP.

Audit: The project will be audited as per UNDP Financial Regulations and Rules and applicable audit policies. Audit cycle and process must be discussed during the Inception workshop.

Transfer or disposal of assets: In consultation with the Implementing Partner and other parties of the project, UNDP is responsible for deciding on the transfer or other disposal of assets. Transfer or disposal of assets is recommended to be reviewed and endorsed by the project board following UNDP rules and regulations. Assets may be transferred to the government for project activities managed by a national institution at any time during the life of a project, however, **must be done before the operational closure date**. In all cases of transfer, a transfer document must be prepared and kept on file[5]. The transfer should be done before the Project Management Unit completes their assignments.

Completion Date: The project completion date is the date of Project Document Signature plus project duration. This date can only be extended through a formal extension request. Prior to completion date, all UNDP-financed inputs must be provided and related activities for the Project completed. No activities, except for the final clearance of the Terminal Evaluation Report and the corresponding management response and the end-of-project review Project Board Meeting should take place after the Completion Date.

Project Closure: Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP. All costs incurred to close the project must be included in the project closure budget and reported as final project commitments presented to the Project Board during the final project review. The only costs a project may incur following the final project review are those included in the project closure budget.

- **Operational Closure**: **Operational closure must happen within 9 months from project completion date.** Prior to operational closure, the Terminal Evaluation must have been submitted and the corresponding TE management response and the end-of-project review Project Board meeting must have been completed. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed. Before Operational Closure, the project must have completed the transfer or disposal of any equipment that is still the property of UNDP.
- **Financial Closure: Financial closure must happen within 6 months of operational closure or after the date of cancellation.** The project will be financially closed when the following conditions have been met: a) the project is operationally completed or has been cancelled; b) the Implementing Partner has reported all financial transactions to UNDP; c) UNDP has closed the accounts for the project; d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision). Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to BPPS/NCE for confirmation before the project will be financially closed in Quantum by the UNDP Country Office.

Cancellation and Suspension: All projects considering going through cancellation or suspension must follow UNDP and GEF requirements. Guidance can be found in the UNDP POPP (SOPs for management actions of Vertical Fund projects escalated to the Executive Coordinator and Guidance for GEF project revisions).

[5] See https://popp.undp.org/ https://popp-prod.acquia.undp.org/policy-page/close-and-transition.

Refund to GEF: Should a refund of unspent funds to the GEF be necessary, this will be managed directly by the BPPS/NCE team Directorate in New York. No action is required by the UNDP Country Office on the actual refund from UNDP project to the GEF. Unspent project balance is not permitted to be transferred to any other projects.

TOTAL BUDGET AND WORK PLAN

Total Budget and Work Plan			
Quantum Award ID:	1377278	Quantum Output Project ID:	01000473
Quantum Proposal or Award Title:	Sustainable cities in Serbia SRB_GEF_ASL_01000473		
Quantum Business Unit	SRB10		
Quantum Primary Output Project Title	Green Cities Transformation		
UNDP-GEF PIMS No.	9584		
Implementing Partner	Ministry of Environmental Protection		

Quantum Outcome (GEF Component)	Quantum Output (GEF Outcome)	Quantum Activity (GEF Output)	Quantum Responsible Party (UNDP, IP, or Responsible Party)	Quantum Fund ID	Quantum Donor ID	Quantum Budgetary Account Code	Quantum Budget Account Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	See Budget Note: (reference as number, not as letter)
Component 1. Enabling framework for municipal sustainable and green strategic development and urban planning	Outcome 1: Integrated and participatory cross-sectoral green city planning methods, mechanisms and practices effectively taken into use for the development of the triangular metropolitan area	Output 1.1: A roadmap developed with recommendations for streamlining integrated inclusive green urban development into different local sectoral plans and incorporating national policy targets for smart climate resilient green city development, including gender related aspects	MoEP	62000	10003	71200	International Consultants	5,000	5,000	5,000	0	0	**15,000**	1
						71300	Local Consultants	2,000	10,000	10,000	10,000	0	**32,000**	2
						72100	Contractual Services - Companies	5,000	25,000	25,000	15,000	0	**70,000**	3
						71600	Travel	500	1,500	2,250	2,250	2,250	**8,750**	4
						75700	Training Workshop and Conference	2,500	2,500	3,000	3,000	3,000	**14,000**	5
			Total Responsible Party MoEP					**15,000**	**44,000**	**45,250**	**30,250**	**5,250**	**139,750**	
		Total Output 1.1						**15,000**	**44,000**	**45,250**	**30,250**	**5,250**	**139,750**	
		Output 1.2: Enhanced capacity of the participating LSGs to transform national	MoEP	62000	10003	71200	International Consultants	3,750	5,000	5,000	5,000	0	**18,750**	6

		regulations, programs and targets into integrated and inclusive local level action for green city development, including, but not limited to i) effectively operationalized systems for digital data collection and management (land use, mobility, biodiversity, buildings, energy (EMIS), emissions, waste), ii) strengthened human capacities and resources for data management, participatory planning and project preparation; and iii) streamlined institutional and sectoral co-ordination and co-operation				71300	Local Consultants	4,500	15,000	15,100	13,000	0	**47,600**	7
						72100	Contractual services - Companies	0	20,000	25,000	25,000	15,000	**85,000**	8
						71600	Travel	1,000	5,000	4,896	5,000	5,000	**20,896**	9
						75700	Training Workshop and Conference	0	5,000	5,000	5,000	5,000	**20,000**	10
		Total Responsible Party MoEP						**9,250**	**50,000**	**54,996**	**53,000**	**25,000**	**192,246**	
		Total Output 1.2						**9,250**	**50,000**	**54,996**	**53,000**	**25,000**	**192,246**	
		Output 1.3: Socio-economic impact and livelihood analysis and a Livelihood Action Plan with a specific focus on vulnerable groups and its gender specific dimensions potentially affected by suggested policy measures, plans and investments designed	MoEP	62000	10003	71200	International Consultants	5,000	25,000	0	0	0	**30,000**	11
						71300	Local Consultants	5,000	25,000	0	0	0	**30,000**	12
						72100	Contractual Services - Companies	10,000	40,000	0	0	0	**50,000**	13
						71600	Travel	500	1,500	0	0	0	**2,000**	14
						75700	Training Workshop and Conference	5,000	5,000	0	0	0	**10,000**	15
		Total Responsible Party MoEP						**25,500**	**96,500**	**0**	**0**	**0**	**122,000**	
		Total Output 1.3						**25,500**	**96,500**	**0**	**0**	**0**	**122,000**	

Output 1.4: An integrated and inclusive green cross-sectoral development plan for the triangular metropolitan area designed	MoEP	62000	10003	71300	Local Consultants	2,000	1,000	3,000	2,000	8,000	**16,000**	16
				72100	Contractual Services - Companies	15,000	15,000	25,000	30,000	30,000	**115,000**	17
				71600	Travel	500	1,500	2,250	2,250	2,250	**8,750**	18
				75700	Training Workshop and Conference	0	3,000	5,000	5,000	5,000	**18,000**	19
	Total Responsible Party MoEP					**17,500**	**20,500**	**35,250**	**39,250**	**45,250**	**157,750**	
Total Output 1.4						**17,500**	**20,500**	**35,250**	**39,250**	**45,250**	**157,750**	
Output 1.5: Serbian Sustainable Cities digital knowledge management platform launched to support inter-institutional collaboration, development of local green plans, and financing innovative green urban and nature-based solutions	MoEP	62000	10003	71200	International Consultants	3,750	3,750	3,750	5,000	3,750	**20,000**	20
				71300	Local Consultants	4,500	5,000	5,000	5,000	5,000	**24,500**	21
				72100	Contractual Services - Companies	10,000	30,000	35,000	20,000	10,000	**105,000**	22
				75700	Training Workshop and Conference	2,500	5,000	5,000	5,000	5,000	**22,500**	23
	Total Responsible Party MoEP					**20,750**	**43,750**	**48,750**	**35,000**	**23,750**	**172,000**	
Total Output 1.5						**20,750**	**43,750**	**48,750**	**35,000**	**23,750**	**172,000**	
Output 1.6: Awareness raised and institutional capacities of the key national and local stakeholders enhanced to enable transfer of knowledge to	MoEP	62000	10003	71300	Local Consultants	0	3,000	3,000	3,000	3,000	**12,000**	24
				72100	Contractual Services - Companies	0	30,000	30,000	30,000	30,000	**120,000**	25
				71600	Travel	1,000	5,000	4,514	5,000	5,000	**20,514**	26

		other medium sized cities in Serbia and region				75700	Training Workshop and Conference	0	15,625	15,625	15,625	15,625	**62,500**	27
			Total Responsible Party MoEP					**1,000**	**53,625**	**53,139**	**53,625**	**53,625**	**215,014**	
		Total Output 1.6						**1,000**	**53,625**	**53,139**	**53,625**	**53,625**	**215,014**	
	Total Outcome 1 (GEF)							**89,000**	**308,375**	**237,385**	**211,125**	**152,875**	**998,760**	
Total Component 1								**89,000**	**308,375**	**237,385**	**211,125**	**152,875**	**998,760**	
Component 2. Integrated approach to unlock and scale up investments into citizens centered sustainable and smart city infrastructure, natural capital, ecosystem services and nature-based solutions	Outcome 2: New innovative green city investments implemented with reported results	Output 2.1: Specific Challenge Call organized to source and support the implementation of innovative, digital and other types of solutions that provide low-carbon, energy-efficient and circular economy based communal infrastructure and services	MoEP with UNDP Implementation Support	62000	10003	71200	International Consultants	5,000	0	0	0	0	**5,000**	28
						71300	Local Consultants	2,000	0	2,000	0	0	**4,000**	29
						71600	Travel	500	500	500	0	0	**1,500**	30
						75700	Training Workshop and Conference	2,000	2,000	2,000	0	0	**6,000**	31
			Total Responsible Party MoEP with UNDP Implementation Support					**9,500**	**2,500**	**4,500**	**0**	**0**	**16,500**	
		Total Output 2.1						**9,500**	**2,500**	**4,500**	**0**	**0**	**16,500**	
		Output 2.2: Specific Challenge Call organized to source and support solutions that maintain natural capital and ecosystem services and promote nature-based solutions in peri-urban triangular metropolitan area	MoEP with UNDP Implementation Support	62000	10003	71200	International Consultants	5,000	0	0	0	0	**5,000**	32
						71300	Local Consultants	2,000	0	2,000	0	0	**4,000**	33
						71600	Travel	500	500	500	0	0	**1,500**	34
						75700	Training Workshop and Conference	2,000	2,000	2,000	0	0	**6,000**	35

		Total Responsible Party MoEP with UNDP Implementation Support					**9,500**	**2,500**	**4,500**	**0**	**0**	**16,500**	
Total Output 2.2							**9,500**	**2,500**	**4,500**	**0**	**0**	**16,500**	
Output 2.3: Selected ideas transformed into marketable businesses and products through the provision of technical support and advisory services on financial structuring and de-risking	MoEP with UNDP Implementation Support	62000	10003	71200	International Consultants		5,000	0	5,000	5,000	0	**15,000**	36
				71300	Local Consultants		16,000	16,000	5,000	2,500	0	**39,500**	37
				71400	Contractual Services - Individuals		15,000	10,270	10,270	10,270	10,270	**56,078**	38
				75700	Training Workshop and Conference		4,000	4,000	4,000	4,000	0	**16,000**	39
	Total Responsible Party MoEP with UNDP Implementation Support						**40,000**	**30,270**	**24,270**	**21,770**	**10,270**	**126,578**	
Total Output 2.3							**40,000**	**30,270**	**24,270**	**21,770**	**10,270**	**126,578**	
Output 2.4 Pilot investments into sustainable and smart city communal infrastructure and services in three cities supported through performance-based payments and innovation awards	MoEP with UNDP Implementation Support	62000	10003	71400	Contractual Services - Individuals		0	7,257	6,602	6,602	6,602	**27,062**	40
				72600	Grants		0	400,000	1,550,000	1,500,000	300,000	**3,750,000**	41
	Total Responsible Party MoEP with UNDP Implementation Support						**0**	**407,257**	**1,556,602**	**1,506,602**	**306,602**	**3,777,062**	
Total Output 2.4							**0**	**407,257**	**1,556,602**	**1,506,602**	**306,602**	**3,777,062**	
Output 2.5 Pilot investments into maintenance of natural capital, improvement of ecosystem services and nature-based solutions supported through performance-based payments	MoEP with UNDP Implementation Support	62000	10003	71400	Contractual Services - Individuals		0	10,270	10,270	10,270	10,270	**41,078**	42
				71400	Contractual Services - Individuals (Innovation awards)		0	90,000	60,000	60,000	0	**210,000**	43
				72600	Grants		0	200,000	400,000	400,000	200,000	**1,200,000**	44

		Total Responsible Party MoEP with UNDP Implementation Support					**0**	**300,270**	**470,270**	**470,270**	**210,270**	**1,451,078**	
Total Output 2.5							**0**	**300,270**	**470,270**	**470,270**	**210,270**	**1,451,078**	
Output 2.6: A Smart City Information System launched to support management of smart/green city infrastructure		MoEP with UNDP Implementation Support	62000	10003	71200	International Consultants	0	10,000	0	5,000	0	**15,000**	45
					71300	Local Consultants	5,000	9,000	6,000	2,500	5,000	**27,500**	46
					71400	Contractual Services - Individuals	6,404	6,602	6,602	6,602	6,602	**32,810**	47
					71600	Travel	0	500	500	1,500	1,000	**3,500**	48
					75700	Training Workshop and Conference	0	2,000	2,000	6,000	10,000	**20,000**	49
		Total Responsible Party MoEP with UNDP Implementation Support					**11,404**	**28,102**	**15,102**	**21,602**	**22,602**	**98,810**	
Total Output 2.6							**11,404**	**28,102**	**15,102**	**21,602**	**22,602**	**98,810**	
Output 2.7: Monitored and reported results of the supported investment projects, including good practice showcasing women empowerment		MoEP	62000	10003	71600	Travel	0	4,000	2,000	1,000	3,000	**10,000**	50
					72100	Contractual services-Company	0	2,000	2,500	2,000	0	**6,500**	51
		Total Responsible Party MoEP					**0**	**6,000**	**4,500**	**3,000**	**3,000**	**16,500**	
Total Output 2.7							**0**	**6,000**	**4,500**	**3,000**	**3,000**	**16,500**	
Output 2.8 Gender-sensitive3 public outreach conducted to disseminate results and promote replication and scaling up, including possible city fairs and other opportunities for presenting and pitching the winning ideas to other cities		MoEP	62000	10003	71600	Travel	0	0	2,000	2,000	2,002	**6,002**	52
					72100	Contractual Services - Companies	0	5,000	10,000	7,500	2,000	**24,500**	53
		Total Responsible Party MoEP					**0**	**5,000**	**12,000**	**9,500**	**4,002**	**30,502**	
Total Output 2.8							**0**	**5,000**	**12,000**	**9,500**	**4,002**	**30,502**	

	Outcome 2: New innovative green city investments implemented with reported results	UNDP	4000	000012	71400	Contractual services - Individual	13,650	13,650	13,650	13,650	13,650	**68,250**	54
		Total UNDP (TRAC)					**13,650**	**13,650**	**13,650**	**13,650**	**13,650**	**68,250**	
	Total Outcome 2 (GEF)						**70,404**	**781,898**	**2,091,742**	**2,032,742**	**556,744**	**5,533,530**	
Total Component 2							**84,054**	**795,548**	**2,105,392**	**2,046,392**	**570,394**	**5,601,780**	
3. Knowledge management (KM) and replication of successful pilots	Outcome 3: Comprehensive analysis, reporting and sharing of the project results and lessons learnt nationally and internationally	Output 3.1: Lessons learned and conditions for further replication of integrated innovative solutions across the sectors and on gender distilled and disseminated	MoEP	62000	10003	71300	Local Consultants	5,000	5,000	10,000	10,000	5,000	**35,000**	55
						72100	Contractual Services - Companies	6,500	6,000	6,000	6,000	6,000	**30,500**	56
						71600	Travel	3,103	2,000	3,000	2,000	3,000	**13,103**	57
						74200	Audio Visual & Print Products cost	5,000	10,000	10,000	10,000	10,000	**45,000**	58
						75700	Training Workshop and Conference	3,000	3,200	3,000	4,500	5,000	**18,700**	59
		Total Responsible Party MoEP						**22,603**	**26,200**	**32,000**	**32,500**	**29,000**	**142,303**	
		Total Output 3.1						**22,603**	**26,200**	**32,000**	**32,500**	**29,000**	**142,303**	
		Output 3.2: Sustainable City Partnership Initiative (association of cities and municipalities with green and sustainable vision) established and promoted, including organization of international, regional and national events to promote integrated city planning approaches	MoEP	62000	10003	71300	Local Consultants	0	5,000				**5,000**	60
						72100	Contractual Services - Companies	2,802	2,802	2,802	2,802	2,802	**14,010**	61
						75700	Training Workshop and Conference	0	4,000	4,500	3,000	5,000	**16,500**	62

			Total Responsible Party MoEP					**2,802**	**11,802**	**7,302**	**5,802**	**7,802**	**35,510**	
		Total Output 3.2						**2,802**	**11,802**	**7,302**	**5,802**	**7,802**	**35,510**	
		Output 3.3: Capacity is built and learning enabled through the gender-sensitive exchange of information with the Global Platform for Sustainable Cities established, joint training and site visits	MoEP	62000	10003	71300	Local Consultants	0	4,500	4,500	7,500	7,500	**24,000**	63
						71600	Travel	10,000	10,000	10,000	10,000	10,000	**50,000**	64
						75700	Training Workshop and Conference	0	0	5,000	5,000	5,000	**15,000**	65
			Total Responsible Party MoEP					**10,000**	**14,500**	**19,500**	**22,500**	**22,500**	**89,000**	
		Total Output 3.3						**10,000**	**14,500**	**19,500**	**22,500**	**22,500**	**89,000**	
	Total Outcome 3 (GEF)							**35,405**	**52,502**	**58,802**	**60,802**	**59,302**	**266,813**	
Total Component 3								**35,405**	**52,502**	**58,802**	**60,802**	**59,302**	**266,813**	
4. Monitoring and Evaluation (M&E)	Outcome 4 Project regularly monitored and evaluated, lessons learned compiled and disseminated	4.1 Project results and outcomes monitored and evaluated through comprehensive impact tracking system and knowledge management strategy to enable gender-responsive evaluation and institutional learning	MoEP	62000	10003	71300	Local Consultants	0	3,000	2,000	3,000	2,000	**10,000**	66
						71600	Travel	1,200	1,200	1,200	1,200	1,200	**6,000**	67
						75700	Training Workshop and Conference	7,500	0	0	0	7,500	**15,000**	68
			Total Responsible Party MoEP					**8,700**	**4,200**	**3,200**	**4,200**	**10,700**	**31,000**	
			MoEP with UNDP Implementation Support	62000	10003	71200	International Consultants	0	0	30,000		30,000	**60,000**	69
						71300	Local Consultants	0	0	0	0	15,000	**15,000**	70
						71400	Contractual Services - Individuals	5,000	16,000	7,000			**28,000**	71
			Total Responsible Party MoEP with UNDP Implementation Support					**5,000**	**16,000**	**37,000**	**0**	**45,000**	**103,000**	

Total M&E							**13,700**	**20,200**	**40,200**	**4,200**	**55,700**	**134,000**	
Project Management Cost (PMC) PMC	PMC	MoEP	62000	10003	71800	Contractual Services-Imp Partn	23,200	23,200	23,200	23,200	23,200	**116,000**	72
					71600	Travel	500	1,000	1,000	1,000	1,000	**4,500**	73
		Total Responsible Party MoEP					**23,700**	**24,200**	**24,200**	**24,200**	**24,200**	**120,500**	
		UNDP	62000	10003	74100	Professional services	0	3,000	3,000	3,000	3,000	**12,000**	74
		Total Responsible Party MoEP with UNDP Implementation Support					**0**	**3,000**	**3,000**	**3,000**	**3,000**	**12,000**	
		Total Project Management Cost (GEF)					**23,700**	**27,200**	**27,200**	**27,200**	**27,200**	**132,500**	
		UNDP	4000	000012	74596	Services to projects -GOE	6,350	6,350	6,350	6,350	6,350	**31,750**	75
		Total Responsible Party UNDP (TRAC)					**6,350**	**6,350**	**6,350**	**6,350**	**6,350**	**31,750**	
Total Project Management Cost							**30,050**	**33,550**	**33,550**	**33,550**	**33,550**	**164,250**	
						TOTAL GEF MoEP	**156,805**	**400,277**	**340,087**	**312,827**	**254,079**	**1,464,075**	
						TOTAL GEF MoEP with UNDP Implementation Support	**75,404**	**786,898**	**2,112,242**	**2,020,242**	**594,742**	**5,589,528**	
Total GEF							**232,209**	**1,190,175**	**2,455,329**	**2,336,069**	**851,821**	**7,065,603**	
Subtotal UNDP							**20,000**	**20,000**	**20,000**	**20,000**	**20,000**	**100,000**	
GRAND TOTAL							**252,209**	**1,210,175**	**2,475,329**	**2,356,069**	**871,821**	**7,165,603**	

Budget Note No.	Project Output (Description)
The following budget notes provide details on the assumptions for the budget and assign the responsibility for the various cost components to the Implementing Partner (IP), the Responsible Partner (RP) or UNDP.	
1	International project advisor on Sustainable and green cities support for Outcome 1, including support for annual planning and adaptive management during the first three years (20days *750USD fee)
2	Local Gender consultant (63days *250USD); Legal consultant (65days *250USD) (32,000 USD in total)
3	Contractual services for Outputs 1.1 including review and drafting public services related legal texts (e.g. energy efficiency in public buildings, urban mobility, waste management, circular economy, ecosystem services) ($70,000 in total)
4	Travel expenses (local and regional) for stakeholders' consultations (total of 8,750USD in five years)
5	Five workshops organized for consultation and presentation of the results under Output 1.1 (5*2,800USD)
6	International expert for digital data collection and management (30days*625USD)
7	Local experts for data systems at local level (2 persons * 68days*350USD)
8	Contractual services for Output 1.2 including development of data management system, supporting implementation of GIS based urban planning solutions and organizing training moduls on green urban planning (total of 85,000 USD)
9	International and local expert travel, including representatives of three cities (total of $20,896 in four years)
10	Eight Consultation workshop with key stakeholders (8*2,500USD)
11	International consultants International consultant for review of SES screening, development of EMSPs (if needed) and SESAs (2*persons*600USD/day*25days)
12	National stakeholders' engagement experts (2 persons*60days*250USD/day)
13	Contractual services for Output 1.3 including socio - economic impact and livelihood analysis ($50,000 in total)
14	International and local expert travel, including representatives of three cities (total of $2,000USD)
15	Workshops to ensure participation of all relevant stakeholders under Output 1.3 (2*5000USD)
16	National climate change policy expert (11,500 USD in total), Local Gender consultant (4,500 USD in total)
17	Contractual services for Output 1.4, including facilitating a consultative process for and drafting national low-carbon, climate resilient and sustainable plans & supporting the development of local sustainable development plans and/or local programs for specific urban services related sectors ($90,000), and methodologies and guidelines for developing, implementing and monitoring cross-sectoral development plans in cities ($25,000)
18	Local expert travel, including representatives of three cities (8,750 USD in total)

19	Seven workshops organized for consultation/coordination/presentation of green cross-sectoral development plans under Output 1.4
20	International expert for data management and urban planning (32days*625USD/day)
21	Data management and Information System Specialist (20days*500USD/day); National consultants to support identification and establishment of data collection mechanisms in various sectors (29*500USD/day).Total for this budget line 24,500 USD
22	Contractual services for Outputs 1.5, including designing, developing and testing Sustainable Cities Platform, (if possible, integration with other similar national platforms, including online training platform ($105,000)
23	Workshops organized for consultation/coordination processes and capacity building for using platform (1*2,500USD, 4*5,000)
24	Lead technical advisor (40 days*300USD/day)
25	Company to support the development of capacity building training materials and awareness raising campaign (total of 120,000USD in four years)
26	Travel expenses (local and regional) to enable sharing good practices/lessons learned among municipalities/regions (total of 20,514USD in five years)
27	Local and regional awareness raising and capacity building workshops and training (4*15,625USD in four years)
28	International consultant to provide assistance in developing Challenge Call (10days*500USD/day)
29	Local expert to design specific challenge calls (10days*400USD/day)
30	Travel (local) to promote challenge call
31	Public events to promote Challenge call (3 events, total of 6,000USD for three years)
32	International consultant to provide assistance in developing specific Challenge Call (10dasy*500USD/day)
33	Local experts to design specific challenge calls (10days*400USD/day)
34	Travel (local) to promote challenge call
35	Public events to promote Challenge call (3 events, total of 6,000USD for three years)
36	International GHG emission expert to support acceleration phase for 3 years (10days*500USD/day*3 years)
37	Local experts to mentor selected teams in Accelerator, including gender consultant (4 experts, 39,500USD in total)
38	Technical assistance of Local Technical Specialist and Technical Advisor
39	Three Accelerator workshops (in total 16,000USD)
40	Technical assistance of Local Technical Specialist and Technical Advisor

41	Performance Based Payments agreements with selected pilot investments (total amount of 3,750,000USD)
42	Technical assistance of Local Technical Specialist and Technical Advisor
43	Innovation awards for innovative solutions (in total 210,000USD). As per UNDP POPP, the cash thresholds for innovation prizes are lower than for LVGs. In the case of innovation prizes, the head of UNDP Business Units has the delegated authority to award a monetary prize up to a maximum of US $40,000 per awardee. Any innovation challenge envisioned to award a prize that is higher than $40,000 shall require the BU to seek the approval of the Chief Procurement Officer (CPO). The Head of the BU shall submit the concept and mechanics of the challenge, along with the justification for awarding a prize higher than the authorized amount indicated above to the CPO to obtain the approval.
44	Performance Based Payments agreements with selected pilot investments (total amount of 1,200,000USD)
45	International consultant for developing smart city information system (30days*500USD/day)
46	Local IT specialist (27,500 USD in total)
47	Technical assistance of Local Technical Specialist and Technical Advisor
48	Travel expenses (local) to promote Smart City Information System (in total 3,500USD for four years)
49	Training and workshops for stakeholders and promotion of Smart City Information System (in total 20,000 for four years)
50	Travel expenses (local) for monitoring innovative projects implementation (in total 10,000USD)
51	Company for developing methodology for monitoring GHG emissions (direct and indirect) of implemented innovative solutions (in total 6,500USD for three years)
52	Travel expenses (local and regional) to promote replication and scaling-up (total of 6,002USD in a period of three years)
53	Company to design/develop and conduct media campaigns and webinars, in total of 24,500USD for four years)
54	Technical assistance of Local Technical Specialist and Technical Advisor
55	National consultants to support the design and implementation of the KM Plan (6,000 USD), Communication specialist (29,000 USD, in total or four years). Total for this budget line 35,000USD.
56	Company to develop e-training platform (total of 30,500 USD)
57	Travel expenses (local) to enable sharing good practices/lessons learned among municipalities/regions (total of 13,103 USD in three years)
58	Audio visual material and printing cost of knowledge management material, in total 45,000USD for five years
59	KM workshops and trainings (4*4,675USD/day)
60	Local consultant to support preparation of Sustainable Cities Partnership initiative (12.5days*400USD/day)
61	Company to prepare framework and promotion plan for Sustainable Cities Partnership initiative (in total 14,010USD)

62	Organization of international, regional and national events (in total 16,500USD)
63	Local consultant to support capturing lessons learned and sharing information (80days*300USD/day)
64	Travel expenses (international) to enable sharing good practices/lessons learned among participating countries (total of 50,000 USD in five years)
65	Workshops and join activities with GPSC (in total 15,000USD for three years)
66	Short term local expert support for project monitoring (incl. GHG accounting) ($1,000 per week for 10 weeks), in total 10,000USD
67	Travel expenses for monitoring project results (in total 6,000USD for five years)
68	Inception and closing workshops (2*7.500USD/day)
69	International Evaluators for the MTR and TE (2 persons*30,000USD/person)
70	National evaluators for TE (50days*300USD/day)
71	Technical assistance of the Inno management team with a task manager and Assistant
72	Contribution of project manager by 160 weeks at the rate $400 per week and project assistant by 260 weeks at the rate of $200 per week to administrative project management
73	Project management related travel
74	Annual financial audits
75	Direct Project Costs (DPCs) (total 31,750USD) pertain to the expenses incurred by UNDP in providing administrative services related to human resources, procurement, finance, and other functions for the project. These costs will be calculated based on the UNDP Universal Price List or the actual corresponding service cost. The figures provided here are estimates, and detailed DPCs will be outlined during the annual project operational planning process, being incorporated into the yearly budgets. DPCs can only be utilized for operational costs per transaction and are not a flat fee.

LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Serbia and UNDP, signed on (date). All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner."

This project will be implemented by the Ministry of Environmental Protection ("Implementing Partner") in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply

RISK MANAGEMENT

1. Consistent with the Article III of the SBAA, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:

   a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;

   b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan.

2. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.

3. The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the United Nations Security Council Consolidated Sanctions List, and that no UNDP funds received pursuant to the Project Document are used for money laundering activities. The United Nations Security Council Consolidated Sanctions List can be accessed via https://www.un.org/securitycouncil/content/un-sc-consolidated-list.

4. The Implementing Partner acknowledges and agrees that UNDP will not tolerate sexual harassment and sexual exploitation and abuse of anyone by the Implementing Partner, and each of its responsible parties, their respective sub-recipients and other entities involved in Project implementation, either as contractors or subcontractors and their personnel, and any individuals performing services for them under the Project Document.

   (a) In the implementation of the activities under this Project Document, the Implementing Partner, and each of its sub-parties referred to above, shall comply with the standards of conduct set forth in the Secretary General's Bulletin ST/SGB/2003/13 of 9 October 2003, concerning "Special measures for protection from sexual exploitation and sexual abuse" ("SEA").

   (b) Moreover, and without limitation to the application of other regulations, rules, policies and procedures bearing upon the performance of the activities under this Project Document, in the implementation of activities, the Implementing Partner, and each of its sub-parties referred to above, shall not engage in any form of sexual harassment ("SH"). SH is defined as any unwelcome conduct of a sexual nature that might reasonably be expected or be perceived to cause offense or humiliation, when such conduct interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment. SH may occur in the workplace or in connection with work. While typically involving a pattern of conduct, SH may take the form of a single incident. In assessing the reasonableness of expectations or perceptions, the perspective of the person who is the target of the conduct shall be considered.

5. a) In the performance of the activities under this Project Document, the Implementing Partner shall (with respect to its own activities), and shall require from its sub-parties referred to in paragraph 4 (with respect to their activities) that they, have minimum standards and procedures in place, or a plan to develop and/or improve such standards and procedures in order to be able to take effective preventive and investigative action. These should include: policies on sexual harassment and sexual exploitation and abuse; policies on whistleblowing/protection against retaliation; and

complaints, disciplinary and investigative mechanisms. In line with this, the Implementing Partner will and will require that such sub-parties will take all appropriate measures to:

i. Prevent its employees, agents or any other persons engaged to perform any services under this Project Document, from engaging in SH or SEA;

ii. Offer employees and associated personnel training on prevention and response to SH and SEA, where the Implementing Partner and its sub-parties referred to in paragraph 4 have not put in place its own training regarding the prevention of SH and SEA, the Implementing Partner and its sub-parties may use the training material available at UNDP;

iii. Report and monitor allegations of SH and SEA of which the Implementing Partner and its sub-parties referred to in paragraph 4 have been informed or have otherwise become aware, and status thereof;

iv. Refer victims/survivors of SH and SEA to safe and confidential victim assistance; and

v. Promptly and confidentially, record and investigate any allegations credible enough to warrant an investigation of SH or SEA. The Implementing Partner shall advise UNDP of any such allegations received and investigations being conducted by itself or any of its sub-parties referred to in paragraph 4 with respect to their activities under the Project Document, and shall keep UNDP informed during the investigation by it or any of such sub-parties, to the extent that such notification (i) does not jeopardize the conduct of the investigation, including but not limited to the safety or security of persons, and/or (ii) is not in contravention of any laws applicable to it. Following the investigation, the Implementing Partner shall advise UNDP of any actions taken by it or any of the other entities further to the investigation.

b) The Implementing Partner shall establish that it has complied with the foregoing, to the satisfaction of UNDP, when requested by UNDP or any party acting on its behalf to provide such confirmation. Failure of the Implementing Partner, and each of its sub-parties referred to in paragraph 4, to comply of the foregoing, as determined by UNDP, shall be considered grounds for suspension or termination of the Project.

6. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (http://www.undp.org/ses) and related Accountability Mechanism (http://www.undp.org/secu-srm).

7. The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

8. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

9. The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds.

10. In the implementation of the activities under this Project Document, UNDP places reasonable reliance upon the Implementing Partner for it to apply its laws, regulations and processes, and applicable international laws regarding anti money laundering and countering the financing of terrorism, to ensure consistency with the principles of then in force the UNDP Anti-Money Laundering and Countering the Financing of Terrorism Policy.

11. The Implementing Partner will ensure that its financial management, anti-corruption, anti-fraud and anti-money laundering and countering the financing of terrorism policies are in place and enforced for all funding received from or through UNDP.

12. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org.

13. In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes in accordance with UNDP's regulations, rules, policies and procedures. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.

14. The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

    Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

15. UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud, corruption or other financial irregularity, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement. Recovery of such amount by UNDP shall not diminish or curtail the Implementing Partner's obligations under this Project Document.

    Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud, corruption or other financial irregularity, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

    Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

16. Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.

17. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.

18. The Implementing Partner shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled "Risk Management Standard Clauses" are included, mutatis mutandis, in all sub-contracts or sub-agreements entered into further to this Project Document.

MANDATORY ANNEXES

1. GEF Budget Template
2. GEF Execution Support Letter
3. Project Map and geospatial coordinates of the project area
4. Multiyear Workplan
5. Social and Environmental Screening Procedure (SESP)
6. UNDP Risk Register
7. Overview of technical consultancies/subcontracts
8. Stakeholder Engagement Plan
9. Environmental Social Management Framework (ESMF) or other SES frameworks/plans, including the Project's GRM, if required

Provided as separate Annexes to the GEF, but to be included as in the final project document to be signed:

10. Gender Analysis and Gender Action Plan
11. Procurement Plan – for first year of implementation especially
12. GEF focal area specific annexes (e.g. METT, GHG calculations, target landscape profile, feasibility study, other technical reports)
13. Additional agreements: such as cost sharing agreements, project cooperation agreements signed with NGOs (where the NGO is designated as the "executing entity"), letters of financial commitments etc.
14. Signed LOA between UNDP and IP requesting UNDP Support Services
15. GEF CEO Endorsement/Approval
16. On-Granting Provisions Applicable to the Implementing Partner
17. Terms of Reference for Project Board and Project Team

Prepared and presented as separate documents:

18. GEF and/or LDCF/SCCF Core indicators
19. GEF Taxonomy
20. Results of the Partners' Capacity Assessment Tool (PCAT) and HACT Micro Assessment

21. UNDP Project Quality Assurance Report (to be completed in UNDP online corporate planning system)

Annex 1: GEF Budget Template

Expenditure Category	Detailed Description	Component (USDeq.)						Total (USDeq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Sub-Total*	*M&E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)
		Outcome 1	*Outcome 2*	*Outcome 3*					
Grants	Performance Based Payments agreements with selected pilot investments (total amount of 3,750,000USD) - Performance Based Payments agreements with selected pilot investments (total amount of 1,200,000USD)		4,950,000		4,950,000			4,950,000	MoEP with UNDP Implementation Support
Contractual services-Company	Contractual services for Outputs 1.1 including review and drafting public services related legal texts (e.g. energy efficiency in public buildings, urban mobility, waste management, circular economy, ecosystem services) ($70,000 in total)	70,000			70,000			70,000	MoEP
Contractual services-Company	Contractual services for Output 1.2 including development of data management system, supporting implementation of GIS based urban planning solutions and organizing training moduls on green urban planning (total of 85,000 USD)	85,000			85,000			85,000	MoEP
Contractual services-Company	Contractual services for Output 1.3 including socio - economic impact and livelihood analysis ($50,000 in total)	50,000			50,000			50,000	MoEP
Contractual services-Company	Contractual services for Output 1.4, including facilitating a consultative process for and drafting national low-carbon, climate resilient and sustainable plans & supporting the development of local sustainable development plans and/or local programs for specific urban services related sectors ($90,000)	90,000			90,000			90,000	MoEP
Contractual services-Company	Contractual services for Outputs 1.4 including developing of methodologies and guidelines for developing, implementing and monitoring cross-sectoral development plans in cities ($25,000)	25,000			25,000			25,000	MoEP
Contractual services-Company	Contractual services for Outputs 1.5, including designing, developing and testing Sustainable Cities Platform, (if possible, integration with other similar national platforms, including online training platform ($105,000)	105,000			105,000			105,000	MoEP
Contractual services-Company	Company services for Outputs 1.6 to support development of capacity building training materials	120,000			120,000			120,000	MoEP

	and awareness raising campaign (total of 120,000USD in four years)								
Contractual services-Company	Company for developing methodology for monitoring GHG emissions under Output 2.7 (direct and indirect) of implemented innovative solutions (in total 6,500USD for three years)		6,500		6,500			6,500	MoEP
Contractual services-Company	Company to design/develop and conduct media campaigns and webinars under Output 2.8, in total of 24,500USD for four years)		24,500		24,500			24,500	MoEP
Contractual services-Company	Company to develop e-training platform under Outcome 3.1 (total of 30,500 USD)			30,500	30,500			30,500	MoEP
Contractual services-Company	Company to prepare framework and promotion plan for Sustainable Cities Partnership initiative under Outcome 3.2 (in total 14,010USD)			14,010	14,010			14,010	MoEP
Contractual Services - Individ	Innovation awards for innovative solutions (in total 210,000USD). As per UNDP POPP, the cash thresholds for innovation prizes are lower than for LVGs. In the case of innovation prizes, the head of UNDP Business Units has the delegated authority to award a monetary prize up to a maximum of US $40,000 per awardee. Any innovation challenge envisioned to award a prize that is higher than $40,000 shall require the BU to seek the approval of the Chief Procurement Officer (CPO). The Head of the BU shall submit the concept and mechanics of the challenge, along with the justification for awarding a prize higher than the authorized amount indicated above to the CPO to obtain the approval.		210,000		210,000			210,000	MoEP with UNDP Implementation Support
Contractual Services - Individ	Technical assistance of the Local technical Specialist		93,500		93,500	19,000		112,500	MoEP with UNDP Implementation Support
Contractual Services - Individ	Technical assistance of the Technical Advisor		63,528		63,528	9,000		72,528	MoEP with UNDP Implementation Support
Contractual Services - Individ	Contribution of project manager by 160 weeks at the rate $400 per week and project assistant by 260 weeks at the rate of $200 per week to administrative project management				-		116,000	116,000	MoEP
International Consultants	International project advisor on Sustainable and green cities supports for Outcome 1, including support for annual planning and adaptive management during the first three years (20days *750USD)	15,000			15,000			15,000	MoEP
International Consultants	International consultants for review of SES screening, development of EMSPs (if needed) and SESAs under Outcomde 1.3 (2*persons*600USD/day*25days)	30,000			30,000			30,000	MoEP

International Consultants	International expert for digital data collection and management under Outcome 1.2 (30days*625USD/day)	18,750			18,750			18,750	MoEP with UNDP Implementation Support
International Consultants	International expert for data management and urban planning under Outcome 1.5 (32days*625USD/day)	20,000			20,000			20,000	MoEP with UNDP Implementation Support
International Consultants	International consultant to provide assistance in developing Challenge Call under Outcome 2.1 (10days*500USD/day)		5,000		5,000			5,000	MoEP with UNDP Implementation Support
International Consultants	International consultant to provide assistance in developing specific Challenge Call under Outcome 2.2 (10days*500USD/day)		5,000		5,000			5,000	MoEP with UNDP Implementation Support
International Consultants	International GHG emission expert to support acceleration phase for 3 yearsunder Outcome 2.3 (10days*500USD/day*3 years)		15,000		15,000			15,000	MoEP with UNDP Implementation Support
International Consultants	International consultant for developing smart city information system under Outcome 2.6(30days*500USD/day)		15,000		15,000			15,000	MoEP with UNDP Implementation Support
International Consultants	International Evaluators for the MTR (37.5days*800USD/day)				-	30,000		30,000	MoEP with UNDP Implementation Support
International Consultants	International Evaluators for the TE (37.5days*800USD/day)					30,000		30,000	MoEP with UNDP Implementation Support
Local Consultants	Local Gender consultant under Outcome 1.1 (63days *250USD)	15,750			15,750			15,750	MoEP
Local Consultants	Legal consultant under Outcome 1.1 (65days *250USD)	16,250			16,250			16,250	MoEP
Local Consultants	National stakeholders' engagement experts under Outcome 1.3 (2 persons*60days*250USD/day)	30,000			30,000			30,000	MoEP
Local Consultants	National climate change policy expert under Outcome 1.4 (11,500 USD in total)	11,500			11,500			11,500	MoEP
Local Consultants	Gender expert under Outcome 1.4 (4,500 USD in total)	4,500			4,500			4,500	MoEP
Local Consultants	Local expert for data systems at local level under Outcome 1.2 (45days*300USD)	47,496			47,496			47,496	MoEP
Local Consultants	Data management and Information System Specialist under Outcome 1.5 (20days*500USD/day)	10,000			10,000			10,000	MoEP
Local Consultants	National consultant to support identification and establishment of data collection mechanisms in various sectors under Outcome 1.5 (29*500USD/day)	14,500			14,500			14,500	MoEP
Local Consultants	Lead technical advisor under Outcome 1.6 (40 days*300USD/day)	12,000			12,000			12,000	MoEP
Local Consultants	Local expert to design specific challenge calls under Outcome 2.1 (10days*400USD/day)		4,000		4,000			4,000	MoEP with UNDP Implementation Support

Local Consultants	Local expert to design specific challenge calls under Outcome 2.2 (10days*400USD/day)		4,000		4,000			4,000	MoEP with UNDP Implementation Support
Local Consultants	Local experts to mentor selected teams in Accelerator, including gender consultant under Outcome 2.3 (4 experts, 39,500USD in total)		39,500		39,500			39,500	MoEP with UNDP Implementation Support
Local Consultants	Local IT specialist under Outcome 2.6 (27,500 USD in total)		27,500		27,500			27,500	MoEP with UNDP Implementation Support
Local Consultants	National consultant to support the design and implementation of the KM Plan under Outcome 3.1 (6,000 USD)			6,000	6,000			6,000	MoEP
Local Consultants	Communication specialist ubder Outcome 3.1 (29,000 USD, in total for four years)			29,000	29,000			29,000	MoEP
Local Consultants	Local consultant to support preparation of Sustainable Cities Partnership initiative under Outcome 3.2 (12.5days*400USD/day)			5,000	5,000			5,000	MoEP
Local Consultants	Local consultant to support capturing lessons learned and sharing information under Outcome 3.3 (80days*300USD/day)			24,000	24,000			24,000	MoEP
Local Consultants	Short term local expert support for project monitoring (incl. GHG accounting) ($1,000 per week for 10 weeks)				-	10,000		10,000	MoEP
Local Consultants	National evaluator for TE (50days*300USD/day)				-	15,000		15,000	MoEP with UNDP Implementation Support
Trainings, Workshops, Meetings	Five workshops organized for consultation and presentation of the results under Output 1.1 (5*2,800USD)	14,000			14,000			14,000	MoEP
Trainings, Workshops, Meetings	Eight consultation workshops with key stakehodlers under Output 1.2 (8*2,500USD)	20,000			20,000			20,000	MoEP
Trainings, Workshops, Meetings	Workshops to ensure participation of all relevant stakeholders under Output 1.3 (2*5000USD)	10,000			10,000			10,000	MoEP
Trainings, Workshops, Meetings	Seven workshops organized for consultation/coordination/presentation of green cross-sectoral development plans under Output 1.4 (total 18,000USD)	18,000			18,000			18,000	MoEP
Trainings, Workshops, Meetings	Workshops organized for consultation/coordination processes and capacity building for using platform under Output 1.5 (1*2,500USD, 4*5,000)	22,500			22,500			22,500	MoEP
Trainings, Workshops, Meetings	Local and regional awareness raising and capacity building workshops and training under Output 1.6 (in total 62,500USD for five years)	62,500			62,500			62,500	MoEP

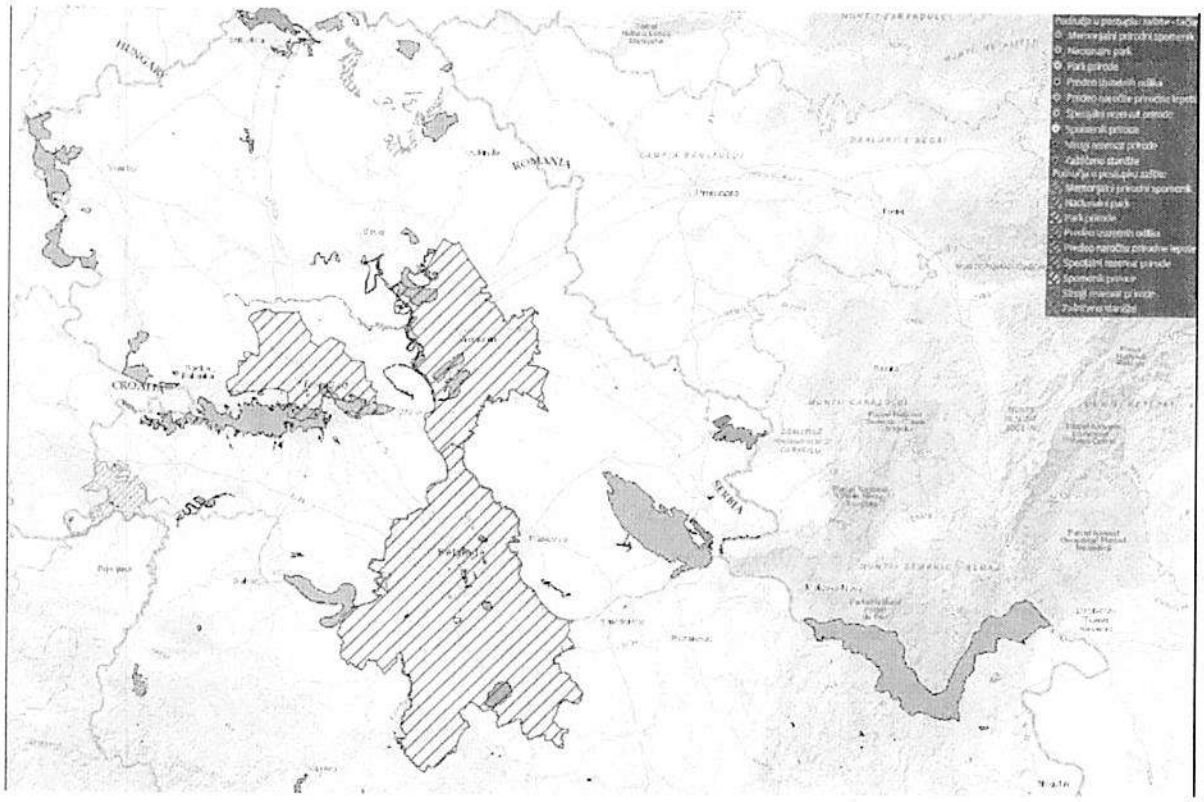
Trainings, Workshops, Meetings	Public events to promote Challenge call (3 events, total of 6,000USD for three years)		6,000		6,000			6,000	MoEP with UNDP Implementation Support
Trainings, Workshops, Meetings	Public events to promote Challenge call (3 events, total of 6,000USD for three years)		6,000		6,000			6,000	MoEP with UNDP Implementation Support
Trainings, Workshops, Meetings	Three Accelerator workshops (in total 16,000USD)		16,000		16,000			16,000	MoEP with UNDP Implementation Support
Trainings, Workshops, Meetings	Training and workshops for stakeholders and promotion of Smart City Information System (in total 20,000 for four years)		20,000		20,000			20,000	MoEP with UNDP Implementation Support
Trainings, Workshops, Meetings	KM workshops and training under Output 3.1 (4*4,675USD/day)			18,700	18,700			18,700	MoEP
Trainings, Workshops, Meetings	Organization of international, regional and national events under Output 3.2 (in total 16,500USD)			16,500	16,500			16,500	MoEP
Trainings, Workshops, Meetings	Workshops and join activities with GPSC under Output 3.3 (in total 15,000USD for three years)			15,000	15,000			15,000	MoEP
Trainings, Workshops, Meetings	Inception and closing workshops (2*7.500USD/day)				-	15,000		15,000	MoEP
Travel	Travel expenses (local and regional) for stakeholders' consultations under Output 1.1 (total of 8,750USD in five years)	8,750			8,750			8,750	MoEP
Travel	International and local expert travel, including representatives of three cities under Output 1.2(total of $21,000 in four years)	21,000			21,000			21,000	MoEP
Travel	Local expert travel, including representatives of three cities under Output 1.3 (total of 2,000USD in two years)	2,000			2,000			2,000	MoEP
Travel	International and local expert travel, including representatives of three cities under Output 1.4 (total of 8,750 USD in five years)	8,750			8,750			8,750	MoEP
Travel	Travel expenses (local and regional) to enable sharing good practices/lessons learned among municipalities/regions under Output 1.6 (total of 20,514 USD in five years)	20,514			20,514			20,514	MoEP
Travel	Travel (local) to promote challenge call under Output 2.1		1,500		1,500			1,500	MoEP with UNDP Implementation Support
Travel	Travel (local) to promote challenge call under Output 2.2		1,500		1,500			1,500	

Travel	Travel expenses (local) to promote Smart City Information System under Output 2.6 (in total 3,500USD for four years)		3,500		3,500			3,500	MoEP with UNDP Implementation Support
Travel	Travel expenses (local) for monitoring innovative projects implementation under Output 2.7 (in total 10,000USD)		10,000		10,000			10,000	MoEP
Travel	Travel expenses (local and regional) to promote replication and scaling-up under Output 2.8(total of 6,002USD in a period of three years)		6,002		6,002			6,002	MoEP
Travel	Travel expenses (local) to enable sharing good practices/lessons learned among municipalities/regions under Outcome 3.1 (total of 13,103 USD in three years)			13,103	13,103			13,103	MoEP
Travel	Travel expenses (international) to enable sharing good practices/lessons learned among participating countries under outcome 3.3 (total of 50,000 USD in five years)			50,000	50,000			50,000	MoEP
Travel	Travel expenses for monitoring project results (in total 6,000USD for five years)				-	6,000		6,000	MoEP
Travel	Project management related travel				-		4,500	4,500	MoEP
Other Operating Costs	Audio visual material and printing cost of knowledge management material, in total 45,000USD for five years			45,000	45,000			45,000	MoEP
Other Operating Costs	Annual financial audits				-		12,000	12,000	MoEP with UNDP Implementation Support
Grand Total		**998,760**	**5,533,530**	**266,813**	**6,799,103**	**134,000**	**132,500**	**7,065,603**	

Annex 2: GEF execution support letter

To be provided as a separate document

Annex 3: Project map and Geospatial Coordinates of project sites



Geo Name ID *Required field if the location is not an exact site*	**Location Name** *Required field*	**Latitude** *Required field*	**Longitude** *Required field*	**Location Description** *Optional text field*	**Activity Description** *Optional text field*
Special Nature Reserve Carska bara	Carska bara	45.2652	20.4017	Protected area/Ramsar site	
Special Nature Reserve Okanj bara	Okanj bara	45.4672	20.3003	Protected area	
Special Nature reserve Belo blato	Belo blato	45.2725	20.3743	Protected area	
Special nature reserve Koviljsko Petrovaradinski Rit	Koviljsko-petrovaradinski rit	45.1846	20.0320	Protected area/Ramsar site	

Annex 4: Multi Year Work Plan

Outcomes	Outputs	2025				2026				2027				2028				2029			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Outcome 1	Output 1.1. A roadmap developed with recommendations for streamlining integrated inclusive green urban development into different local sectoral plans and incorporating national policy targets for smart climate resilient green city development, including also gender aspects.																				
	Output 1.2 Enhanced capacity of the participating LSGs to transform national regulations, programs and targets into integrated and inclusive local level action for green city development including, but not limited to: i) operationalized systems for digital data collection and management (land use, mobility, biodiversity, buildings, energy (EMIS), emissions, waste), ii) strengthened human capacities and resources for data management, participatory planning and project preparation; iii) streamlined institutional and sectoral co-ordination and co-operation.																				
	Output 1.3 Socio-economic impact and livelihood analysis and a Livelihood Action Plan with specific focus on vulnerable groups potentially affected by suggested policy measures, plans and investments designed.																				
	Output 1.4 An integrated and inclusive green cross-sectoral development plan for the triangular metropolitan designed.																				
	Output 1.5 Serbian Sustainable Cities Platform launched to support inter-institutional collaboration, development of local green plans and financing of innovative green urban and nature-based solutions.																				
	Output 1.6. Awareness raised and institutional capacities of the key national and local stakeholders																				

	enhanced to enable transfer of knowledge to other medium sized cities in Serbia and region																				
Outcome 2	Output 2.1. Specific Challenge Call organized to source and support the implementation of innovative, digital and other types of solutions that provide low-carbon, energy-efficient and circular economy based communal infrastructure and services in three cities																				
	Output 2.2. Specific Challenge Call organized to source and support solutions that maintain natural capital and ecosystem services and promote nature-based solutions in peri-urban triangular metropolitan area																				
	Output 2.3. Selected ideas transformed into marketable businesses and products through the provision of technical support and advisory services on financial structuring and de-risking																				
	Output 2.4. Pilot investments supported into sustainable and smart city communal infrastructure and services in three cities supported through performance-based payments and innovation awards																				
	Output 2.5. Pilot investments supported into maintenance of natural capital, improvement of ecosystem services and nature-based solutions through performance-based payments																				
	Output 2.6. A Smart City Information System launched to support management of smart/green city infrastructure																				
	Output 2.7. Monitored and reported results of the supported investment projects, including good practice showcasing women empowerment																				
	Output 2.8. Gender-sensitive public outreach conducted to disseminate results and promote replication and scaling up, including possible city fairs and other opportunities for presenting and pitching the winning ideas to other cities																				

Outcome 3	Output 3.1. Lessons learned and conditions for further replication of integrated innovative solutions across the sectors and on gender distilled and disseminated.																					
	Output 3.2. Sustainable City Partnership Initiative (association of cities and municipalities with green and sustainable vision) established and promoted, including organization of international, regional and national events to promote integrated city planning approaches.																					
	Output 3.3 Capacity is built and learning enabled through the gender-sensitive exchange of information with the Global Platform for Sustainable Cities established, joint training and site visits																					

Annex 5: UNDP Social and Environmental Screening Procedure (SESP)

To be provided as a separate document

Annex 6: UNDP Risk Register

Project Title: Green cities transformation – smart, sustainable and low-carbon urban solutions in triangular metropolitan area	Project Number: 0100047	Date: 02-Sep-24

#	Event	Cause	Impact(s)	Risk Category and Sub-category *(including Risk Appetite)*	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
1	There is a risk that adequate political support for suggested measures is not received from the responsible ministry/-ies or participating LSGs.	As a result of competing or conflicting priorities or lacking human resources or other capacity to implement the suggested measures	Which will impact in meeting the project targets of component 1, in particular	**7. STRATEGIC (7.5. Government commitment) - UNDP Risk Appetite: OPEN TO SEEKING**	Likelihood: **3 - Moderately likely** Impact: **4 - Extensive** Risk level: **MODERATE (equates to a risk appetite of EXPLORATORY)**	From: 02-Sep-24 To: 31-Dec-29	*Project Manger*	Risk Treatment 1.1: Developing the project in close consultation with the key stakeholders of the responsible ministries and local self-governments, and proposing measures, which are fully aligned or can contribute to meeting the needs of the local administration Risk Treatment Owner: Project management
								Risk Treatment 1.2: Awareness raising on the impact and benefits of the proposed measures to local decision makers Risk Treatment Owner: Project management
								Risk Treatment 1.3: Assigning necessary budget allocations for overcoming the initial resource or capacity barriers Risk Treatment Owner: Project management

#	Event	Cause	Impact(s)	Risk Category and Sub-category *(including Risk Appetite)*	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
2	There is a risk that the responsible ministry(-ies) or the participating LSGs. do not have the financial resources to support the proposed measures or their effective replication	As a result of inadequate annual budget allocations or access to other resources.	Which will impact in financing and/or sustaining the envisaged projects or other measures.	**2. FINANCIAL (2.6. Budget availability and cash flow) - UNDP Risk Appetite: MINIMAL TO CAUTIOUS**	Likelihood: **2 - Low likelihood** Impact: **4 - Extensive** Risk level: **LOW (equates to a risk appetite of CAUTIOUS)**	From: 02-Sep-24 To: 31-Dec-29	*Project Manger*	Risk Treatment 2.1: Signed co-financing letters required at the CEO Endorsement as well as having several different co-financing sources, including bi- and multilateral donors and the environmental funds managed by local self-governments. A significant share of financing for the planned pilot projects is also expected from the private sector. Risk Treatment Owner: Project management
3	There is a risk that the challenge calls do not motivate the targeted stakeholders i.e. no proposals of decent quality and amount are received.	As a result of not matching with the challenge calls what the targeted stakeholders can offer.	Which will impact in meeting the stated overall projects targets and those of component 2 in particular.	**7. STRATEGIC (7.3. Stakeholder relations and partnerships) - UNDP Risk Appetite: OPEN TO SEEKING**	Likelihood: **2 - Low likelihood** Impact: **4 - Extensive** Risk level: **LOW (equates to a risk appetite of MINIMAL)**	From: 03-Sep-24 To: 31-Dec-29	*Project Manger*	Risk Treatment 3.1: Careful preparation and design of the call for proposals. The experiences and results from the previous projects also indicate that by good preparation and attractive marketing, this risk can be effectively addressed Risk Treatment Owner: Project management.

#	Event	Cause	Impact(s)	Risk Category and Sub-category *(including Risk Appetite)*	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
4	There is a risk that due to technical failure of the equipment and/or software used, the trust of the key stakeholders and investors on the solution(s) is lost.	As a result of supporting projects or measures not yet adequately tested.	Which will impact in meeting the stated overall project targets and cause also reputational damage.	**5. REPUTATIONAL (5.1. Public opinion and media) - UNDP Risk Appetite: CAUTIOUS**	Likelihood: **2 - Low likelihood** Impact: **3 - Intermediate** Risk level: **LOW (equates to a risk appetite of CAUTIOUS)**	From: 02-Sep-24 To: 31-Dec-29	*Project Manger*	Risk Treatment 4.1: Adequate due diligence and, when applicable, pre-testing of the proposed solutions + adequate guarantees from the suppliers. Risk Treatment Owner: Project management.
5	There is a risk that the supported investment projects or policy measures generate waste that is harmful to the environment and human health, if not properly managed and disposed.	As a result of unforeseen impacts of the supported investments projects or policy measures.	Which will impact in harming the environment and/or human health and cause also reputational damage for the suggested measures.	**1. SOCIAL AND ENVIRONMENTAL (1.6. Community health, safety and security) - UNDP Risk Appetite: CAUTIOUS**	Likelihood: **2 - Low likelihood** Impact: **3 - Intermediate** Risk level: **LOW (equates to a risk appetite of CAUTIOUS)**	From: 02-Sep-24 To: 31-Dec-29	*Project Manger*	Risk Treatment 5.1: Having as an obligatory component for all proposals an environmental impact assessment addressing also the waste issue. Risk Treatment Owner: Project management

#	Event	Cause	Impact(s)	Risk Category and Sub-category *(including Risk Appetite)*	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
6	There is a risk that the changing climate and extreme weather conditions eventually appearing more frequently and more intensively pose specific risks to the supported projects or other measures that may be exposed to such weather.	As a result of exceptionally extreme weather conditions, their unforeseen impacts or inadequate preparation for them.	Which will impact in meeting the stated overall projects targets and those of component 2 in particular.	**1. SOCIAL AND ENVIRONMENTAL (1.5. Climate change and disaster risks) - UNDP Risk Appetite: CAUTIOUS**	Likelihood: **2 - Low likelihood** Impact: **3 - Intermediate** Risk level: **LOW (equates to a risk appetite of CAUTIOUS)**	From: 02-Sep-24 To: 31-Dec-29	*Project Manger*	Risk Treatment 6.1: Taking the changing climate and the risk for more frequent and intensive extreme weather conditions into account in the calculations, in defining the technical specifications for the equipment and in ensuring their proper installation and that they have adequate guarantees from the suppliers. Risk Treatment Owner: Project management and suppliers
7	There is a risk that there is inadequate local capacity to effectively implement the proposed measures.	As a result of failed recruitment or assignment of duties	Which will impact in in meeting the stated overall projects targets.	**4. ORGANIZATIONAL (4.2. Execution capacity) - UNDP Risk Appetite: EXPLORATORY TO OPEN**	Likelihood: **2 - Low likelihood** Impact: **4 - Extensive** Risk level: **MODERATE (equates to a risk appetite of EXPLORATORY)**	From: 02-Sep-24 To: 31-Dec-29	*Project Manger*	Risk Treatment 7.1: Adequate assessment of the capacities of the candidates to implement the project, coaching and adaptive management Risk Treatment Owner: Project IP, Project Board and Project Management

Annex 7: Overview of Technical Consultancies/Subcontracts

Consultant	Time Input	Tasks, Inputs and Outputs
		For Project Management
Local / National contracting		
Project Manager *(located in the MoEP and budgeted from the MoEP allocation as a Responsible Party)* Rate: $400/week Budget note 74	Full time 260 weeks over 5 years, from which 160 weeks covered by GEF grant contribution	The Project Manager (PM) will be responsible for the overall management of the project, including the mobilization of all project inputs, supervision over project staff, consultants and sub-contractors. <u>Duties and Responsibilities</u> • Manage the overall conduct of the project. • Plan the activities of the project and monitor progress against the approved workplan. • Execute activities by managing personnel, goods and services, training and low-value grants, including drafting terms of reference and work specifications, and overseeing all contractors' work. • Monitor events as determined in the project monitoring plan, and update the plan as required. • Provide support for completion of assessments required by UNDP, spot checks and audits. • Manage requests for the provision of UNDP financial resources through funding advances, direct payments or reimbursement using the FACE form. • Monitor financial resources and accounting to ensure the accuracy and reliability of financial reports. • Monitor progress, watch for plan deviations and make course corrections when needed within project board-agreed tolerances to achieve results. • Ensure that changes are controlled and problems addressed. • Perform regular progress reporting to the project board as agreed with the board, including measures to address challenges and opportunities. • Prepare and submit financial reports to UNDP on a quarterly basis. • Manage and monitor the project risks – including social and environmental risks - initially identified and submit new risks to the Project Board for consideration and decision on possible actions if required; update the status of these risks by maintaining the project risks log; • Capture lessons learned during project implementation. • Prepare revisions to the multi-year workplan, as needed, as well as annual and quarterly plans if required. • Prepare the inception report no later than one month after the inception workshop. • Ensure that the indicators included in the project results framework are monitored annually in advance of the GEF PIR submission deadline so that progress can be reported in the GEF PIR. • Prepare the GEF PIR; • Assess major and minor amendments to the project within the parameters set by BPPS NCE-VF;

Consultant	Time Input	Tasks, Inputs and Outputs
		• Monitor implementation plans including the gender action plan, stakeholder engagement plan, and any environmental and social management plans; • Monitor and track progress against the GEF Core indicators. • Support the Terminal Evaluation process. • In addition to the administrative project management functions, the project manager will contribute by technical inputs to and supervision of all outputs under Outcomes 1, 2 and 3.
Project Assistant (incl. account management) *(located in the MoEP and budgeted from the MoEP allocation as a Responsible Party)* Rate: $200/week Budget note 74	Full time 260 weeks over 5 years	<u>Duties and Responsibilities</u> Under the guidance and supervision of the Project Manager, the Project Assistant will carry out the following tasks: • Assist the Project Manager in day-to-day management and oversight of project activities; • Assist in matters related to M&E and knowledge resources management; • Assist in the preparation of progress reports; • Ensure all project documentation (progress reports, consulting and other technical reports, minutes of meetings, etc.) are properly maintained in hard and electronic copies in an efficient and readily accessible filing system, for when required by PB, TAC, UNDP, project consultants and other PMU staff; • Provide PMU-related administrative and logistical assistance. • Keep records of project funds and expenditures, and ensure all project-related financial documentation are well maintained and readily available when required by the Project Manager; • Review project expenditures and ensure that project funds are used in compliance with the Project Document and Government financial rules and procedures; • Validate and certify FACE forms before submission to UNDP; • Provide necessary financial information as and when required for project management decisions; • Provide necessary financial information during project audit(s); • Review annual budgets and project expenditure reports, and notify the Project Manager if there are any discrepancies or issues; • Consolidate financial progress reports submitted by the responsible parties for implementation of project activities; • Liaise and follow up with the responsible parties for implementation of project activities in matters related to project funds and financial progress reports. • In addition to the administrative and financial project management functions listed above, the project assistant will contribute to all outputs under Outcomes 1, 2 and 3 by different organizational and logistic support

Consultant	Time Input	Tasks, Inputs and Outputs
For Technical Assistance		
Outcome 1:		
Local / National contracting		
Individual experts		
Local Technical Advisor *Rate: $300/day* *Budget note 25*	*Estimate total of 40 days over five years*	• Ensure alignment of project activities with national, regional and international policies and commitments related to climate change, circular economy, biodiversity and urban sustainability; • Oversee the impact assessment of sectoral policies and measures for green transformation of cities in Serbia; • Provide technical input to cities and national stakeholders on enabling policies for sustainable urban development; • Review the Roadmap and local sectoral documents and provide comments for improvement; • Provide advice for strengthening the inter-institutional coordination on green and sustainable transformation of cities; • Provide guidance on outreach and communications.
Legal/policy Consultant *Rate: $200/day* *Budget notes 2 and 16*	*Estimated total of 25 + 38,33 days over four years*	• Identify gaps and areas of improvement in the current local sectoral plans in three cities • Compile findings and recommendations into a detail report for improving the existing local sectoral plans • Support in incorporating national policy targets for smart climate resilient green city development
Gender Consultant *Rate: $250/day* *Budget notes 2 and 16*	*Estimated total of 16+15 days over four years*	• Mainstream gender in the main outputs under Outcomes 1.1. and 1.3, and provide advisory support for implementation of the national gender and climate change action plan; • Monitor progress in implementation of the project Gender Action Plan ensuring that targets are fully met, and the reporting requirements are fulfilled; • Oversee/develop/coordinate implementation of all gender-related work; • Review the Gender Action Plan annually, and update and revise corresponding management plans as necessary; • Work with the UNDP M&E officer and Safeguards Officer to ensure reporting and monitoring fully address the gender issues of the project.
Local expert for data system at local level *$300/day* *Budget note 7*	*Estimated total of 7 weeks over four years* *45 days*	• Conduct assessments of existing local databases at city level and provide recommendations for improvement, including technical requirements and technical capacities • Develop technical specification for enhancing data systems at city level and local databases • Support and guide the design, operations and maintenance of new data systems at city level • Provide technical support and data guidance for enhanced data collection, management and analyses
National stakeholders	*Estimated total of 13.4 weeks over four years*	• Identify and categorize key national and local stakeholders, analyze stakeholders roles, interests and develop a stakeholders database; • Develop stakeholder engagement strategy, including gender consideration;

Consultant	Time Input	Tasks, Inputs and Outputs
engagement experts *Rate: $300/day* *Budget note 12*	*2 x 33,4 days*	• Facilitate stakeholders consultations • Foster partnership and facilitate collaboration efforts among local self-government bodies, private sector, civil society, academia and local communities.
Subcontracts		
Support for implementation of outputs 1.1 *Budget note 3*	NA	• Reviewing and drafting public services related legal texts (eg. energy efficiency in public buildings, urban mobility, waste management, circular economy, ecosystem services), • Facilitating a consultative process for and drafting national low-carbon, climate resilient and sustainable plans & supporting the development of at least 5 local sustainable development plans and/or local programmes for specific urban services related sectors • Preparing methodologies and guidelines for developing, implementing and monitoring cross-sectoral development plans in cities
Support for implementation of output 1.3 *Budget note 13*	NA	• Completing a socio-economic impact and livelihood analysis with related recommendations and, as applicable, a Livelihood Action Plan for projects requiring that to mitigate the eventual harmful socio-economic impacts to vulnerable population groups, who may be affected by new sustainable and green policies. • Managing the work of the working groups by organising their meetings and preparing reports on their results
Support for implementation of Output 1.4 *Budget Note 17*	NA	• Facilitating a consultative process for and drafting national low-carbon, climate resilient and sustainable plans & supporting the development of local sustainable development plans and/or local programs for specific urban services related sectors, and methodologies and guidelines for developing, implementing and monitoring cross-sectoral development plans in cities
Support for implementation of outputs 1.5 *Budget note 23*	NA	• Developing and testing Sustasinable Cities Platfom as an online knowledge management and marketing platform serving as an online knowledge management and investment platform to support: (i) inter-institutional collaboration, (ii) transformative actions, (iii) development of local green plans and documents, (iv) promotion of innovative green urban and nature-based solutions.
Support for implementation of Output 1.6 *Budget note 27*		• Development of of capacity building and training materials
International / Regional and global contracting		

Consultant	Time Input	Tasks, Inputs and Outputs
International Project Advisor on Sustainable and Green cities *Rate: $650/day* *Budget note 1*	11,5 days over 3 years for Outcome 1	The international PA will be one position advising both Outcome 1 and 2 and funded jointly by the budgets of Outcome 1 and 2 <u>Duties and Responsibilities:</u> Support project management in planning the implementation of project activities under Outcome 1, including: • Drafting the inception report from the project workshop • Drafting Terms of Reference for the required expert and company contracts • Monitoring the project progress for Outcome 1, including review of the draft reports prepared by the contracted experts and making related recommendations • Support the project manager in conducting adaptive management for reaching the set targets for Outcome 1 otherwise, including support for drafting annual work plans for the first three years • Assisting with the selection of successful applicants under the performance-based payments mechanism • Assisting with the assessment of the pre-agreed results under the low-value performance-based payment agreements, prior to the validation of the achieved results by the Project Board
International Expert for data collection management, and urban plannning *Rate: $625/day* *Budget notes 6 and 20*	31,25 + 31,33 days over 5 years	• Identify and analyze existing digital data collection and management relevant for integrating local actions for green city development on international level, with the focus on cities participating at the Global Platform • Provide technical assistance to project team on possibilities for improving data management and urban planning in three cities • Provide recommendations on possibilities for strengthening human capacities and resources for data management, participatory planning and local green projects preparation, including framework for online training programme.
International consultants for review of SES screening, development of EMSPs (if needed) and SESAs *Rate: $600/day* *Budget note 11*	25 days over 5 years	• Review SES screening documentations • Provide impact assessment and mitigation measures related to ESMPs • Ensure all outputs comply with GEF and UNDP safeguard policies and national regulations • Establish monitoring framework for ongoing safeguard implementation • Prepare periodic progress reports and final assessments, including lessons learned and recommendations
Outcome 2:		
Local / National contracting		

Consultant	Time Input	Tasks, Inputs and Outputs
Local Technical Specialist *(part of the UNDP Innovation Challenge Support Unit and budgeted from UNDP allocation as a Responsible Party and UNDP TRAC)* Rate: $750/week	*Part time* *150 weeks over 5 years*	• Conduct in-depth technical reviews of project outputs, including reports, methodologies and analytic tools developed by consultants and service providers. Provide expert feedback to enhance technical rigor, accuracy and alignment with international best practices; • Deliver high-level technical guidance and recommendation to project stakeholders during technical meetings, capacity-building workshops and expert consultations; • Provide specialized advisory support to the MoEP for responding to various relevant initiatives within the country and provide critical advice on their relevance and complementarity with the sustainable cities project, in order to ensure maximum synergies and cross-benefits; • Provide technical support validate reports prepared by experts working on Innovation Challenge Calls; • Provide technical support for design of Innovation Challenge Calls, mobilization of potential applicants, contracting of independent evaluators; • Provide expert opinion for preparing documentation for selected teams necessary for paying Innovation awards following UNDP rules and procedures, monitoring progress and progress reports submitted by the awarded team; • Provide technical support to establish mentorship teams on an ad-hoc basis and as requested by beneficiaries (teams undergoing the acceleration process); • Provide technical support for completion of Due Diligence, assist responsible parties to prepare project document and supporting Annexes as obligatory documents of the Low-values Performance-Based Payments agreements (PBPs) under the UNDP rules and procedures, review progress reports, prepare documentation to be submitted to the Project Boards for approving tranches; • Assess opportunities for new partnerships and opportunities for co-ordination and co-operation with other ongoing and planned activities in Serbia and abroad, with a focus on innovative solutions; • Draft and validate the technical components of the Project Implementation Reports (PIR), ensuring their coherence with performance indicators and project milestones , in cooperation with the Knowledge Management and M&E Specialist; • Conduct expert-level assessments of project results and methodologies to inform the mid-term review and the terminal evaluation review Provide technical backstopping support for the terminal report two months before the ending date of the project and summarize key technical findings, project impact and future steps; • Provide expert technical input on outreach and communication materials, ensuring technical concepts are accurately conveyed to stakeholders and broader public; • Provide technical opinion and advice to the technical overview of the project's progress and identification of any difficulties and bottlenecks in implementation and suggesting alternatives for achieving the project's intended results • Provide expert input for UNDP assessments, spot checks and audits.

Consultant	Time Input	Tasks, Inputs and Outputs
		• Document key lessons learned during project implementation, focusing on technical challenges and recommendations for future programming.
Technical Advisor *(part of the UNDP Innovation Challenge Support Unit and budgeted from UNDP allocation as a Responsible Party and UNDP TRAC)* Rate: $450/week	*Part time* *161 weeks over 5 years*	• Provide technical analysis and quality assurance for project progress reporting frameworks and methodologies; • Develop and maintain technical financial tracking system; • • Implement technical system integrations between project management platforms and administrative databases; • Establish performance metric framework and technical verification protocols for Performance-Based Payment Agreements (PBPAs); • Provide support in preparation of financial document necessary for the payment of Innovation awards and tranches under the Performance-Based Payments Agreement per UNDP rules and procedures; • Provide technical support in organizing meetings, business correspondence and other communications with project partners; • Manage the related projects files and provide support in preparing the required financial and other reports necessary for monitoring and supervision of the project progress; • Provide necessary financial information as and when required; • Create advanced financial analysis tools to visualize projects expenses and resource utilization; • Ensure all project documentation (progress reports, consulting and other technical reports, minutes of meetings, etc.) are properly maintained in hard and electronic copies in an efficient and readily accessible filing system, for when required by PB, TAC, UNDP, project consultants and other PMU staff.
Subcontracts		
Support for implementation of Output 2.7 *Budget note 53*	*NA*	Developing methodology for monitoring GHG emissions (direct and indirect) of implemented innovative solutions
Support for implementation of Output 2.8 *Budget note 55*	*NA*	Supporting the project management in capturing project results and disseminating information and the results of the pilot projects to encourage their replication and making recommendations for required institutional and financing agreements to sustain project results.
Local / National contracting		

Consultant	Time Input	Tasks, Inputs and Outputs
Individual experts		
Local expert to design specific challenge calls *Rate: $ 400/days* *Budget notes 31 and 35*	*10 +10 days*	• Finalized design of a specific Challenge Call organized to source and support innovative and sustainable communal projects in urban and peri-urban areas • Finalized design of a specific Challenge Call organized to source and support innovative and sustainable projects based on nature-based solutions concepts, improving ecosystem services and sustainable tourism in urban and peri-urban areas
Local experts to mentor selected teams in Accelerator, including gender consultant *Rate: $400/day* *Budget note 39*	*4 x 10 days*	Mentors to provide guidance and technical support in developing initial ideas and projects to sustainable green investments in urban and peri-urban communal services and nature-based solutions and structuring financing from other public, semi-commercial or commercial funding sources for sharing the initial project costs and risks.
Local IT expert *Rate: $300/day* *Budget note 48*	*91,67 days*	• Analyzing existing systems, data repositories and IT infrastructure to determine integrated needs and gaps; • Develop the architecture of the Smart City Information System and propose technical solutions for integrating data streams from various sectors; • Design a robust framework for data collection, storage and analysis; • Ensure the platform is user-friendly; • Conduct end-to end system testing and gather user feedback to refine the system; • Facilitate collaboration with stakeholders and provide ongoing technical support during the preparation and implementation phase.
International / Regional and global contracting		
		•
Challenge call expert $500/day	*10+10 days*	Support for developing challenge calls

Consultant	Time Input	Tasks, Inputs and Outputs
Budget notes 30 and 34		
GHG emission analysis expert *$500/day* *Budget note 38*	*10 days*	Supporting the methodology development for and assessment of GHG emission reduction impact of the projects proposed for challenge calls
Smart city information system expert *$500/day* *Budget note 47*	*30 days*	Supporting the development of the of the smart city information system
Outcome 3:		
Local / National contracting		
Individual experts		
National consultants to support the design and implementation of the KM Plan *Rate: $ 300/day* *Budget note 57*	*20 days*	• Conduct assessment of existign knowledge management systems and identify areas for improvement • Develop Knowledge Management Plan for the project • Assist in capturing results, lessons learned and knowledge products • Collaborate with stakehodlers to ensure knowledge is captured and utilized effectively • Ensure compliance with organizational standards and best practices in knowledge management
Communication specialist *Rate: $300/day* *Budget note 57*	*96,67 days*	• Develop Communication strategy tailored to the green cities transformation project's goals, incorporate inclusivity, highlighting gender equality and the involevment of vulnerable groups, • Develop gigh-quality content (press releases, aryicles, newsletters, blog posts, case studies) to communicate the project's progressm, success stories and impact, • Support creation of digital media content, • Draft press kits, media briefind, organize media events, • Design and execute public awareness campaigns to promote green urban transformation and ecourage citizen participation,

Consultant	Time Input	Tasks, Inputs and Outputs
		• Organize events, including workshops and conferences.
Local consultant to support capturing lessons learned and sharing information *Rate: $300/day* *Budget note 65*	*16 weeks over four years*	• Support organization of lessons learned workshops with project teams, • Conduct interview and focus groups with local governmental officials, community representatives and other relevant stakehodlers to gather insights on project challenges, success and innovations, • Create a structured framweork for capturing lessons learned, • Prepare a comprehensive lessons learned reports, highlight examples and replicable practices, • Document lessons learned and provide support for knowledge-sharing platform and Global Platform.
Local consultant to support preparation of Sustainable Cities Partnership initiative *Rate: $ 400/day* *Budget note 62*	*12,5 days*	• Conduct a thorough assessment of the existing national and international initiatives on sustainable citie • Identify gaps and areas of improvement of existing nationala and local initiatives on sustainable and green cities • Compile findings and recommendations into a detail report and provide design of Serbian sustainable cities initiatives
Outcome 4:		
Local / National contracting		
Indiviual experts		
Short term local expert support for project monitoring *Rate: $200/week* *Budget note 68*	*10 weeks over four years*	• Provide support for project monitoring • Provide technical support for GHG emisions calculation of the project (direct and indirect), including methodology and tools • Assist in preparation of report on GHG emissions calculation • Provide technical support for improving monitoring framework during the project implementation and after the closure
National expert(s) for terminal evaluation *$300/day* *Budget note 72*	*50 days*	• Terminal evaluation of the project
Final report	*NA*	Drafting the final project report
International / Regional and global contracting		

Consultant	Time Input	Tasks, Inputs and Outputs
International evaluation expert *Budget note 71*	*2 x $25 000*	Mid-term and terminal evaluation of the project

Annex 8: Stakeholder Engagement Plan

To be provided as a separate document

Annex 9: Environmental Social Management Framework (ESMF) and other SES frameworks/plans if required

To be provided as a separate document

Annex 10: Gender Analysis and Gender Action Plan

To be provided as a separate document

Annex 11: Procurement Plan

To be provided as a separate document

Annex 12: GEF focal area specific annexes (GHG calculations)

In November 2014, the GEF Secretariat, in cooperation with STAP, started a review process aimed at further refining its GHG accounting methodologies, and exploring opportunities to harmonize them with those developed by relevant partners. The results of this exercise: "Guidelines for Greenhouse Gas Emissions Accounting and Reporting for GEF Projects" were presented to the GEF Council in 48th meeting in June 2015[6]. The GHG analysis conducted for the project considers these updated guidelines and recommendations as elaborated in further detail below.

While definition of the GEF on direct GHG emission reductions has remained unchanged as *"emission reductions, which are attributable to the investments made during the project's supervised implementation period and totaled over the respective lifetime of the investments"*, for *"indirect emission"* reductions the new guidelines recommend the use of the term *"consequential emissions"* instead, defined as *"those projected emissions that could result from a broader adoption of the outcomes of a GEF project plus longer-term emission reductions from behavioral change."*

No agreed GEF methodology for calculating GHG benefits of projects identified and specified by a challenge call approach during project implementation has been developed yet, but selected parts of the GEF methodology adopted in 2013 for "Calculating Greenhouse Gas Benefits of the Global Environment Facility Energy Efficiency Projects (Version 1.0) can be applied for this purpose. As defined in the methodology, the direct GHG emission reductions *"are those achieved by project investments such as technology demonstrations and discrete investments leveraged during the project's supervised implementation period"*. In contrast, GHG emission reductions achieved, for example, because of market facilitation and development through project-supported policy and institutional frameworks, capacity building, information gathering, and replication effects of demonstration activities, are considered indirect GHG emission reductions (or as later defined consequential emissions).

The methodology defines 4 different modules for determining GHG emission reductions, including the following:

- Standards and Labeling
- Building Codes
- Demonstration & Diffusion
- Financial Instrument

From these, the module of "Financial Instrument" is most applicable for the project under consideration since the final selection of the projects to be supported by Performance Based Payments has not been done yet but will be done during the project implementation. In addition, the candidate projects represent a variety of different sectors and different types of projects, for which different GHG assessment methodologies would need to be used.

The overall framework for using the *Financial Instrument* module for estimating the envisaged GHG reduction impact of the project is outlined in the tables of the Guidelines mentioned above, including the following:

General applicability conditions: Projects that involve direct finance of EE investments or support to financial intermediaries; interventions cannot be easily reduced to common technologies and penetration rates, given diversity of industries, etc.

Intervention types: Financing mechanisms (loan or revolving funds); ESCO creation/support

Project examples: Promoting energy efficiency markets in industrial, commercial, and public buildings sectors

Typical data requirements: MWh or GJ savings per investment unit (e.g., US$); investment in each year

Typical project-specific data sources: Audits; market studies of investment effectiveness, ESCO returns, etc.

Algorithms: Simple ROI model: savings per unit investment multiplied by amount invested

Baseline approach (with default values, where provided in parenthesis): Percent of activities implemented in the baseline (i.e., that would have occurred anyway in absence of the project) (10%)

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6 https://www.thegef.org/council-meeting-documents/guidelines-greenhouse-gas-emissions-accounting-and-reporting-gef-projects

By building on the above, a simple "ROI model" has been applied by defining a minimum GHG emissions reduction target of 0,2 tons of CO_{2eq} per 1 US$ of GEF funds invested as direct investment cost-sharing by performance-based payments. With US$ 5,400,000 envisaged to be invested by the mentioned financing instrument, the resulting direct GHG emission reduction impact can be estimated at about 1100 kilotons of CO_{2eq} over the 20 years lifetime of the supported investments. From this amount, about 18% has been estimated to result from energy efficiency and renewable energy investments in the building sector, 36% from projects reducing GHG emissions from waste and waste-water management and the rest 46% from yet unspecified innovative cross-sectoral green city investments and other measures to be identified and selected by the challenge calls and further developed in co-operation with the project proponents during the UNDP project implementation.

Analysis of GEF-funded prior projects showed that GHG reduction impact varied considerably across different investment types, ranging from 0 to 1.49 tons of CO2eq per USD 1 of GEF funds invested, with an average of 0.44 tons. Given the innovative nature of the interventions in the current project, a conservative average of 0.2 tons CO2eq/USD was selected for performance-based payments and 0.5 tons CO2eq/USD for performance – based grants.

The differentiated targets reflect the distinct nature of these financing mechanisms:

- Performance-based grants (0.5 tons CO2 eq / USD), this higher target reflects the more targeted nature of these grants, which are typically catalytic and targeted toward green infrastructure, resource-efficient technologies and circular business models. These grants often focus on projects that directly reduce energy consumption and avoid emissions from waste and other urban sources.
- Performance-based payments (0.2 tons CO2eq/USD), this more conservative target accounts for the higher innovation risk and diverse focus areas in the performance-based payment scheme. These investments often include initiatives whose primary benefits may extend beyond direct GHG reduction (circular economy models, biodiversity conservation, institutional strengthening) or whose full impact is seen during the life-cycle of the project. This lower factor reflects uncertainty and a risk-buffer, acknowledging that actual emissions reductions will depend on performance delivery and third-party verification.

The assumptions are available in the attached GHG emission spreadsheet. All values are based on national emission factors, project-specific technology benchmarks and UNDP-GEF historical project data.

Regarding the causality factor for indirect (consequential) emission reductions, figures presented in at the PIF stage are revised to align with standard GEF practice. Initial estimates of indirect GHG reductions were based on the total emissions from public service operations in Belgrade, Novi Sad and Zrenjanin, using 2022 municipal emission inventories as the baseline. Based on standard GEF methodology the causality factor has new been adjusted from 20% to 10% to reflect a more conservative and commonly accepted attribution benchmark in GEF projects, reducing the projected impact from 2,200 ktons of CO2eq to 1,100 ktons of CO2eq. This adjustment acknowledges that while the project's policy interventions, capacity building and demonstration effects in Belgrade, Novi Sad and Zrenjanin will catalyze broader change, the ultimate outcomes depend on multiple stakeholders and future investments beyond the project's direct control. This more conservative approach ensures that the project's GHG reduction claims remain credible and demonstrable, while still capturing the significant transformative potential of the interventions across the three cities.

Since all projects to be supported represent new innovative solutions, the baseline in this case has been assessed as zero. The reported emission reductions will be closely monitored and verified over the GEF project duration by a detailed MVR plan required from each supported pilot project as a prerequisite to receiving any GEF funds.

As regards the consequential (aka indirect) GHG reduction impact of the project, this can be generated by: 1) successful replication and/or scaling up of the pilot initiatives supported directly by GEF funds; 2) creating an

enabling institutional and policy framework for initiating new business ideas in the area of greater resource efficiency and circularity approach to resource management; and 3) contributing to a broader transformation from linear towards a low-carbon circular communities with related GHG reduction benefits.

Annex 13: Additional Agreements

To be provided as a separate document

Annex 14: Signed LOA between UNDP and IP requesting UNDP Support Services

To be provided as a separate document

Annex 15: GEF CEO Endorsement/Approval

To be provided as a separate document

Annex 16: On-Granting Provisions Applicable to the Implementing Partner

To be provided as a separate document

Annex 17: Terms of Reference for Project Board and Project Team

Terms of Reference for Project Board

Duties and responsibilities:

The Project Board (PB) is the main body to supervise the project implementation in accordance with UNDP rules and regulations and referring to the specific objectives and the outcomes of the project with their agreed performance indicators.

The main functions of the Board are:

- General monitoring of project progress in meeting its objectives and outcomes and ensuring that they continue to be in line with national development objectives;
- To provide strategic leadership and serve as a coordination mechanism for various partners involved;
- Facilitating co-operation between the different Government entities, whose inputs are required for successful implementation of the project, ensuring access to required information and resolving eventual conflict situations faced during project implementation when trying to meet its outcomes and stated targets;
- Supporting the elaboration, processing and adoption of the required institutional, legal and regulatory changes to support the project objectives and overcoming of related barriers;
- Facilitating and supporting other measures to mitigate the identified risks to project success;
- Approving annual work plans and progress reports, the first plan being prepared at the outset of project implementation;
- Approving project management arrangements; and
- Approving any amendments to be made in the project strategy that may arise due to changing circumstances, after careful analysis and discussion of the ways to solve problems.

Project board structure and reimbursement of costs:

Project Board will be chaired by the National Project Director (NPD) who is appointed by the Ministry of Environmental Protection and will include Resident Representative and Deputy Resident Representative from UNDP. The final list of the PB members will be completed at the outset of project operations and presented in the Inception Report. New members into the PB or participants in the Board meetings during the project implementation can be invited at the decision of the Board, by ensuring, however, that the Board will remain sufficiently lean to facilitate its effective operation.

The costs of the Board's work shall be considered as the Government's or other project partners' voluntary in-kind contribution to the project and shall not be paid separately by the project. They are also not eligible to receive any monetary compensation from their work as experts or advisers on the project.

Meetings:

It is suggested that the Board will have regular meetings, twice a year, or more often if required. A tentative schedule of the Board meetings will be agreed as a part of the annual work plans, and all

representatives of the Board should be notified again in writing 14 days prior to the agreed date of the meeting. The meeting will be organized provided that the executing agency, UNDP and at least 2/3 of the other members of the Board can confirm their attendance. The project manager shall distribute all materials associated with the meeting agenda at least 5 working days prior to the meeting.

National Project Director

- As a representative of the project's main Government Implementing Partner, the main duties and responsibilities of the National Project Director (NPD) include:
- Supervise and guide the project implementation directly as well as through the Project Board meetings chaired by the NPD by reviewing and commenting on project progress reports by meeting at regular intervals with the project manager;
- Coordinate the project activities with those of the Government and provide guidance on policy issues;
- Certifying the annual and as applicable, quarterly work plans, financial reports and ensuring their accuracy and consistency with the project document and its agreed amendments;
- Taking the lead in developing linkages with the relevant authorities at national, provincial and governmental level and supporting the project in resolving any institutional or policy related conflicts that may emerge during its implementation.

These terms of reference will be finalized during the Project Inception Workshop.

Annex 18: GEF Core indicators

To be provided as a separate document

Annex 19: GEF Taxonomy

To be provided as a separate document

Annex 20: Results of the Partners Capacity Assessment Tool (PACT) and HACT Micro Assessment

To be provided as a separate document

Annex 21: UNDP Project Quality Assurance Report (to be completed in UNDP online corporate planning system)

To be provided as a separate document