



Reducing Community Carbon Footprint by a Circular Economy Approach in the Republic of Serbia

Part I: Project Information

GEF ID

10425

Project Type

MSP

Type of Trust Fund

GET

CBIT/NGI

CBIT

NGI

Project Title

Reducing Community Carbon Footprint by a Circular Economy Approach in the Republic of Serbia

Countries

Serbia

Agency(ies)

UNDP

Other Executing Partner(s)

Executing Partner Type

Other Executing Partner(s)

Ministry of Environmental Protection

Executing Partner Type

Government

GEF Focal Area

Multi Focal Area

Taxonomy

Energy Efficiency, Renewable Energy, Climate Change Mitigation, Climate Change, Financing, Land Degradation, Sustainable Land Management, Focal Areas, Income Generating Activities, Integrated and Cross-sectoral approach, Civil Society, Stakeholders, International Waters, Pollution, Plastics, Nutrient pollution from Wastewater, Sustainable Urban Systems and Transport, Chemicals and Waste, Waste Management, Industrial Waste, eWaste, Influencing models, Strengthen institutional capacity and decision-making, Transform policy and regulatory environments, Demonstrate innovative approach, Convene multi-stakeholder alliances, Deploy innovative financial instruments, Type of Engagement, Participation, Information Dissemination, Consultation, Partnership, Private Sector, SMEs, Individuals/Entrepreneurs, Financial intermediaries and market facilitators, Large corporations, Capital providers, Community Based Organization, Academia, Non-Governmental Organization, Beneficiaries, Communications, Behavior change, Education, Awareness Raising, Public Campaigns, Gender Equality, Gender Mainstreaming, Gender-sensitive indicators, Capacity, Knowledge and Research, Learning, Adaptive management, Indicators to measure change, Innovation, Capacity Development, Knowledge Exchange

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 2

Climate Change Adaptation

Climate Change Adaptation 0

Duration

60 In Months

Agency Fee(\$)

168,815

Submission Date

2/7/2020

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCM-1-3	GET	1,777,000	14,150,000
	Total Project Cost (\$)	1,777,000	14,150,000

B. Indicative Project description summary

Project Objective

Reducing Community Carbon Footprint by a Circular Economy Approach in the Republic of Serbia

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
1. An enabling institutional and policy framework	Technical Assistance	An enabling institutional and policy framework for reducing community carbon footprint by integrated participatory circular economy approach and related planning	Serbia Circular Economy Road Map Serbia Circular Economy Navigator Key legal, regulatory and institutional barriers to implementing innovative circular economy projects and business ideas identified and, to the extent possible, removed, including the introduction of specific incentives and other economic instruments to advance circular economy investments	GET	252,000	450,000

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
2. Implementation of new innovative project sourcing and financing modalities to promote low carbon circular economy development	Technical Assistance	New circular economy project and business ideas to reduce community carbon footprint identified and implemented	<p>The design of the Low Carbon Communities and Cleantech Innovation Platform (LCCCIP) finalized by applying an innovation challenge approach</p> <p>A LCCCIP facilitation team established to support the evaluation and further development of the projects selected for LCCCIP support with an initial focus on innovative circular economy projects and business ideas.</p> <p>The LCCCIP launched together with related public outreach, awareness raising and capacity building events and materials (including a dedicated LCCCISP website/portal)</p> <p>Project and business ideas selected for LCCCIP support ready for implementation, including, as applicable, public-private partnerships for project co-financing and implementation.</p> <p>Public outreach to encourage and facilitate the implementation of similar solutions in other Serbian municipalities, including TA support for structuring financing for them.</p>	GET	333,455	450,000

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
2. Implementation of new innovative project sourcing and financing modalities to promote low carbon circular economy development	Investment	New circular economy project and business ideas to reduce community carbon footprint identified and implemented	Financing arrangements for the implementation of the projects/business solutions selected for LCCCIP support completed	GET	950,000	12,800,000
3. Monitoring and Evaluation	Technical Assistance	Project results monitored, reported and evaluated	Project inception report Project mid-term and final evaluations Final project report, including monitored results of the supported project and business ideas and compilation of the lessons learnt	GET	80,000	50,000
Sub Total (\$)					1,615,455	13,750,000
Project Management Cost (PMC)						
					GET	400,000
					161,545	400,000
Total Project Cost(\$)					1,777,000	14,150,000

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Government	Ministry of Environment	In-kind	Recurrent expenditures	150,000
Government	Ministry of Environment (Green Fund)	Grant	Investment mobilized	3,500,000
Donor Agency	The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	Grant	Investment mobilized	2,500,000
Donor Agency	Climate KIC	Grant	Investment mobilized	850,000
GEF Agency	UNDP	Grant	Recurrent expenditures	150,000
Donor Agency	EBRD	Loans	Investment mobilized	2,000,000
Donor Agency	EIF and Procredit Bank	Loans	Investment mobilized	2,000,000
Private Sector	Serbian SMEs	Equity	Investment mobilized	3,000,000
			Total Project Cost(\$)	14,150,000

Describe how any "Investment Mobilized" was identified

The required financial resources to implement the project will be obtained by a mix of different sources including both public and private sector financing, as elaborated in further detail in Part I - Table C of this PIF. One of the main sources of co-financing will rely on the EU Pre-accession funds for Serbia for the EU negotiating chapter 27 (Environment and Climate change), supporting the establishment of municipal waste management centers (regional landfills), in the amount of US\$ 3.5 million as parallel co-funding. The government and other public sector resources (including those of public utility companies) are scarce, however, and cannot fulfill all the investment needs expected under Serbia's EU accession process. This is why the Ministry of Environmental Protection intends to involve much more the private sector and promote partnerships for blending of funds and bridging the financing gap. This project is also adhering to such approach in supporting the Government. UNDP and EBRD have long term collaboration in Serbia, including areas of climate change and local development. There are ongoing discussions with the EBRD Serbia team on formalization of collaboration in supporting sustainable city development. This collaboration will be further accelerated on the basis of ongoing projects and initiatives such as the EBRD "Green Innovation Vouchers Scheme", "Green Cities Initiative" and the joint EBRD, EU and Banca Intesa Belgrade support Serbian small businesses. The total cofinancing leveraged from these EBRD related initiatives contributing to circular economy

investments supported by the project has been estimated at US\$ 2 million in total. The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) has several projects in Serbia, which are addressing improved resource efficiency, circular economy, climate change and sustainable city development. Since the Ministry of Environmental Protection is one of the main beneficiaries of the GIZ led projects in Serbia, it was preliminary agreed to establish partnerships between the new UNDP/GEF project and the GIZ projects in Serbia in order to ensure complementarity and synergy in their implementation. One of these GIZ funded projects is the “Municipal Waste and Wastewater Management” project, (IMPACT)”, which can contribute as parallel co-financing at the overall amount of US\$ 2.5 million during the project implementation period as it concerns sustainable city and circular economy projects falling under this category. EIT Climate KIC is funded by the European Institute for Innovation and Technology. They have two programmes of interest to the new UNDP/GEF project, namely the “City Transformation Programme” and “Circular Cities Initiative”. Based on the initial discussions with the Climate KIC management team, an agreement was reach to jointly work in these areas corresponding well to the goals and efforts of the proposed new UNDP/GEF project. This partnership will particularly contribute to the improved work of public utility companies at the local level and strengthening public-private partnerships. The parallel co-funding from Climate-KIC project would amount US\$ 850,000 during the project implementation period. The InnovFin Programme is a joint initiative of the European Investment Fund (EIF) and the ProCredit group to increase lending to innovative SMEs and mid-caps with EUR 820 million through the ProCredit banks in Germany, Greece, Ukraine, Georgia, Albania, Bosnia and Herzegovina, Bulgaria, Macedonia, Moldova, Romania and Serbia. It provides an opportunity to utilise guarantees secured by the EIF and supported by Horizon 2020 - the EU Framework Programme for Research and Innovation, thereby enabling the mentioned ProCredit banks to offer innovative enterprises additional lending by reducing the collateral requirements, without passing the cost of increased risk on to the client. The total cofinancing to be leveraged from this financing source has been estimated at US\$ 2 million. In addition to the project co-financing sources described above, the project will have a specific focus on mobilizing private sector co-financing for new and innovative circular economy project and business ideas. One of the lessons learnt from the ongoing UNDP implemented GEF funded Climate Smart Urban Development (CSUD) project has been that the private sector interests into new markets and business opportunities are by far greater compared to all the other stakeholders. This is mainly due to the fact that the private sector is keen on using all available opportunities for investments and continuous growth. In an environment where investment opportunities are limited due to poorly developed markets, the private sector is perceiving circular economy as a good opportunity to invest in new resource use and production. The private sector is also typically more flexible than the public sector in benefitting from new knowledge, skills and partnerships due to less complicated corporate procedures. The CSUD project engaged a broad range of stakeholders, including CSOs, academia, public sector and individuals, which resulted in a number of very good ideas. At the end, however, only the private sector projects managed to come up with concrete and tangible co-financing plans. Therefore, much of the focus of this new project will also be in mobilizing private sector financing for new innovative circular economy business and investment opportunities. The estimated cofinancing as direct private sector equity contributions to finance the targeted circular economy investements has been estimated at US\$ 3 million.

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

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNDP	GET	Serbia	Climate Change	CC STAR Allocation	894,000	84,930	978,930
UNDP	GET	Serbia	Land Degradation	LD STAR Allocation	883,000	83,885	966,885
Total GEF Resources(\$)					1,777,000	168,815	1,945,815

E. Project Preparation Grant (PPG)

PPG Required

PPG Amount (\$)

50,000

PPG Agency Fee (\$)

4,750

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNDP	GET	Serbia	Climate Change	CC STAR Allocation	20,000	1,900	21,900
UNDP	GET	Serbia	Land Degradation	LD STAR Allocation	30,000	2,850	32,850
Total Project Costs(\$)					50,000	4,750	54,750

Core Indicators

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)	95000	0	0	0
Expected metric tons of CO₂e (indirect)	1638000	0	0	0

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

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)				
Expected metric tons of CO₂e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

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

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)	95,000			
Expected metric tons of CO₂e (indirect)	1,638,000			
Anticipated start year of accounting	2022			
Duration of accounting	20			

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

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

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

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	7,500			
Male	7,500			
Total	15000	0	0	0

Part II. Project Justification

1a. Project Description

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

As concluded by the Global Resource Outlook 2019 published by the UNEP International Resource Panel (IRP) in March 2019 [1]¹: “Over the past five decades, our global population has doubled, the extraction of materials has tripled and gross domestic product has quadrupled. The extraction and processing of natural resources has accelerated over the last two decades and accounts for more than 90 per cent of our biodiversity loss and water stress and approximately half of our climate change impact. By looking historical trends only, the report is projecting further growth in the use of natural resources by 110 per cent by 2060 leading, among others, to an estimated increase of greenhouse gas emissions by 43 per cent.

The process described above is closely linked also to the rapid urbanization of the global population. As concluded already by the earlier 2017 report [2]², “growing material use is driven by expanding populations, consumption trends in mainly developed economies and the transformation of developing economies. Demand for resources has shifted from renewable to non-renewable resources, reflecting the global trend away from traditional towards modern technologies, and from agriculture-based economies to urban and industrial economies”.

Resource efficiency describes the overarching goals of decoupling i.e. increasing human well-being and economic growth while reducing the amount of required resources and the negative environmental impacts associated with resource use. In other words, doing better with less. This includes strategies of dematerialization (savings, reduction of material and energy use) and re-materialization (reuse, remanufacturing and recycling) in a system-wide approach to circular economy, as well as infrastructure transitions within sustainable urbanization[3]³. The modelling undertaken by the IRP has indicated that with the right resource efficiency and sustainable consumption and production policies in place, by 2060 growth in global resource use could be slowed by 25 per cent, while global domestic product could still grow by 8 per cent – especially for low- and middle-income nations – and greenhouse gas emissions could be cut by 90 per cent compared to projections for continuing along historical trends. As such, advancing circular economy in the context of low carbon community development and their integrated planning can hardly be avoided.

The 2019 Circularity Gap report[4]⁴ warns the rate of raw material extraction at 92 billion tonnes per year is already exceeding planetary boundaries, and that due to population and economic growth this figure could swell to a staggering 184 billion tonnes per year by 2050. The report points out that only a mutually reinforcing combination of low-carbon development and resource efficiency can shift our world economy to a low carbon pathway. Consequently, a systematic and holistic approach to climate change is needed which doesn't focus on single sectors or industries and instead focuses on a new vision of sustainable, low-carbon growth while re-writing the narrative that reducing emissions is costly to the economy. Sustainable and circular cities and communities are recognized as part of the solution since built environments consume almost 50% of all global materials annually and generates around 20% of GHG emissions. The consultations conducted by UNDP/UNEP Global Support Programme indicate that the only way to attain the Paris Agreement 1.5 °C goal would be if the World become circular.[5]⁵

The importance of moving from a linear economy to a circular one has also been noted by the GEF Background Note on Circular Economy prepared for the sixth GEF Assembly meeting in June 2018: “The circular economy model provides tremendous opportunities for reducing natural resource extraction and emissions of hazardous chemical emissions and greenhouse gases, along with fast tracking the achievement of commitments by countries with the major international conventions”. How this aligns with the current GEF programming directions is discussed in further detail in the chapter “Alignment with the GEF focal area and/or Impact Program strategies”.

Similar messages have been delivered by the EU circular economy policies[6]⁶: “In a circular economy, the value of products and materials is maintained for as long as possible. Waste and resource use are minimized, and when a product reaches the end of its life, it is used again to create further value. This can bring major economic benefits, contributing to innovation, growth and job creation”.

From a linear to a circular economy



In the [Intergovernmental Panel on Climate Change \(IPCC\) Special Report on Global Warming of 1.5°C](#)^[7], it is stressed that system transitions including increase of adaptation and mitigation investments, policy instruments, the acceleration of technological innovation and behavior changes will contribute to limiting the risks from global warming of 1.5°C. Moreover, mitigation options consistent with 1.5°C pathways are associated with multiple synergies and trade-offs across the Sustainable Development Goals (SDGs), particularly for the SDGs 3 (health), 7 (clean energy), 11 (cities and communities), 12 (responsible consumption and production), 13 (climate action).

Starting with the Sustainable Development Goal No.13 and the Paris Agreement (PA), local and subnational governments are recognized as essential actors in fast tracking transformative action in the urban world. The Paris Agreement reflects the success of local government advocacy, enshrining local and subnational actors within an international climate agreement for the first time. There are clear indications in the PA, which indicate that capacities of local communities should be further strengthened to combat climate change, in particular for planning and implementation of both climate change adaptation and mitigation measures. Particular Decision at the CoP24 in Katowice was related to the Local Communities and Indigenous People Platform that was created in order to enhance the engagement and inclusion of local communities to facilitate the exchange of experience and the sharing of best practices and lessons learned on mitigation and adaptation in a holistic and integrated manner. The CoP24 Presidency affirmed its confidence in “local communities’ working together in pursuit of a sustainable and climate-resilient world that leaves no one behind.”

In line with this and in order to reach the PA goals, local action needs to be fostered in order to attain a sustainable, resilient, low-carbon future. There is a growing, vibrant movement of community-led initiatives on climate change and sustainability. People throughout Europe and the world are taking action in all facets of their lives. They are inspired by regenerative design principles, by participatory decision-making and by a desire to create solutions to the great challenge of our time, namely the climate change. This is about reconfiguring economic relations in a broad sense and the economy in its more conventional sense. A fundamental element of this transformational change is related to the way the communities are approaching and utilizing the available resources and forging their path towards circularity, GHG emissions reduction and climate resilience. To a

great extent, the community led low carbon initiatives are based on applying the concept of circular economy, encouraging a shift away from unsustainable production and consumption patterns and promoting new activities instead. These include sharing of assets and resources, improving the efficiency of resource consumption and related services as well as repairing, reusing and recycling products thereby moving from a linear to a circular economy.

Cities and other communities aiming to become sustainable and climate neutral and reduce their resource footprints, will not, however, be able to do it without significant involvement of the industry, private sector and without new and innovative approaches and technological solutions. During the 2018 Climate Change Conference (COP24 to the UNFCCC), there was a general conclusion^[8] that the role of private sector is crucial in climate financing and achieving climate change mitigation and resilience. Also, one of the conclusions indicate that raising the ambition of climate action is possible through applying the circular economy approach. This was also identified by the “Study on Circular Economy being Crucial to the Paris Goals” ^[9]⁸. With Sustainable Development Goals (SDGs) and the Paris agreement calling for development paths, which are less reliant on primary resource extraction, strategies for resource circularity are gaining increasing attention in developed and developing countries. For multiple reasons, circular economy strategies represent an indirect greenhouse gas (GHG) mitigation option, with potentially low abatement costs, carrying a number of co-benefits in income generation, reduction in pollution, promoting innovation, new jobs and calling for rethinking of trade patterns.

In addition to SDG13, the project will directly contribute to the achievements of the SDG 11 and 12 targets. The relationship between the nations’ Gross Domestic Product GDP and material flows, global land use and GHG emissions should be measured and targets should be set. According to UN population projections, the urban population is set to nearly double in size between 2010 and 2050, by which time as many as 7 billion out of 9.5 billion people may be living in urban settlements. Without new approaches to urbanization, the material consumption by the world’s cities will grow from 40 billion tons in 2010 to about 90 billion tons by 2050. The New Urban Agenda of 2016 elaborates how sustainable development should manifest in cities, and calls for systemic interventions to promote inclusion, resource efficiency and resilience. Moreover, by 2030 the global population is projected to need 40% more water than the planet can sustainably supply. Therefore, sustainable businesses must operate within economic, environmental and social thresholds.

As a result of growing population and income, in particular in urban areas, the demand for goods and services will only grow. This fact calls for a change from predominant economic models based on linear patterns of production, consumption and disposal to models which disconnect prosperity from resource extraction. Promoting such transformations based on decarbonization goals includes developing new economic sectors, which create jobs and generate additional sources of income. Illustrations were provided, such as for the case of manufacturing – much of it for international markets - which uses 54% of the world’s total delivered energy, especially in industries such as petrochemicals, metals and paper. For an idea of quantities involved, every year 322 million tons of plastic, 59 million tons of aluminum and 240 million tons of paper and paperboard are produced in the world. The result is 1.2 billion tons of garbage produced by 3 billion people living in cities every year.

Keeping materials longer in the economy could deliver CO₂ emissions reductions in the order of 33% by means of lower embedded emissions in products, allowing GHG mitigation at lower costs than other strategies. Losses of about €48 billion a year happen in E-waste alone, based on precious metal contents and other valuable materials which end up landfilled. Also, almost 100% of the organic fraction of communal waste can be recovered and reused. Some research indicates that greater resource efficiency and circular economy approach at the municipal level can partially close the gap that exists between the current mitigation commitments and the required effort to reduce emissions to a pathway, which is in line with the 1.5 °C target. Since 67% of the annual GHG emissions are from the extraction, transportation, processing and disposal of materials, improving resource efficiency can reduce emissions beyond current strategies, which mostly target the energy sector. In fact, benefits of applying the circular economy are clear as it represents a regenerative system, in which resource input and waste, emission, and energy leakage are minimized by slowing, closing, and narrowing energy and material loops. This can be achieved through long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing, recycling, and upcycling. However, inclusive communities vision and strategic approach is needed in order to maximize effects of community transformational shift from linear to circular way of functioning.

Also, it is important to mention that the project will contribute to the reduction of harmful effects of hazardous chemicals on people's health and environment, by applying new technologies for processing of waste and turning it again into usable resource/product. Better coordination with the industry and private sector is important as they represent a key link between the innovative policies and their effective implementation. Only in synergy it is possible to boost local markets and generate green jobs that are based on reuse, recycling of materials and greater resource and energy efficiency. Scientific and research community is a valuable source of new and innovative ideas for improved technologies and innovations for boosting circular economy.

Baseline scenario and any associated baseline projects

The environmental and climate change related policies and strategies in Serbia are under the jurisdiction of the Ministry of Environmental Protection, although indirectly associated also with the responsibilities of other ministries such as the Ministry of Mining and Energy. The Ministry of Environmental Protection is also the key institution in charge of the promotion of the concept of circular economy, by building upon the strategic directions such as those described in the National Cleaner Production Strategy and the Strategy for Sustainable Use of Natural Resources and Goods.

In Serbia, circular economy is mainly perceived from the perspective of resource and energy efficiency, while also recognized as one of the main tools for transition towards a carbon neutral economy. Also, as issues such as decarbonization, circular economy, sustainable development and urban planning policies are of inter-sectorial nature, the integration is ensured by multisectorial Government bodies such as the National Climate Change Council, Working Group for Circular Economy and Working Group for SDGs implementation. The Ministry of Environmental Protection plays a central role in these inter-institutional structures.

On the road towards circular economy, reduced carbon footprint and more efficient resource utilization, Serbia still has major steps to take, however. Managing the material streams is still inadequate, both in urban and rural areas. Collection of recyclable materials is poorly organized through the mostly inefficient Public Utility Companies (PUCs), while the lack of appropriate surveillance and control systems allow the use of non-compliant landfills and establishment of illegal dumpsites (more than 3,500 throughout the country), which beside wasting the resources, represent a major threat to the local environment with uncontrolled burning and pollution of air, soil and waters. The situation

prevents the realization of new circular economy oriented investments and diminishes the huge potential for using secondary raw materials, which could be extracted from the waste streams and fed back into the production with related local and global environmental benefits, including GHG emission reduction in line with Serbia's future enhanced ambition under the Paris Climate Agreement. Improved designs and characteristics of products can contribute to the same goal by prolonged lifespan of products and/or their reuse. Production and consumption patterns, in particular in urban areas, are also still highly energy intensive, thereby wasting a lot of energy.

At the moment, circular economy in Serbia is still predominantly perceived from the viewpoint of improved waste management in terms of reducing, reusing and recycling of waste. While this needs to remain as one core element of any circular economy initiatives, the proposed project also intends to further direct this narrative towards a more holistic and cross-sectoral circular economy approach addressing also other than the waste management sector alone.

The Ministry of Environmental Protection (MoEP) still lacks adequate capacities and resources for both policy making and its effective enforcement and implementation, which are common challenges also for other ministries in Serbia. In order to make the transition from linear towards a circular economy in order to reduce the carbon footprint of cities and other communities and to trigger green economic development and investments, the MoEP needs to adopt modern and effective resource management policies. It needs to establish new project management and financing structures, while also strengthening its enforcement capacity. An enabling policy and financing environment for circular economy is equally needed for local communities in order to boost their low carbon development based on greater resource efficiency, including prolonged responsibility principle for products entering the market as well as adoption of new green procurement schemes.

Key disruptive strategies for achieving sustainability of cities and communities by circular economy approach would also require actions such as: 1) designing new buildings and cities for a circular future and optimal lifetimes; 2) sustaining and extending the lifetime of built infrastructure by considering maintenance, renovation and transformation before demolition; and 3) recognizing the future value of built assets from the circular economy perspective by registering the assets and the materials they consist of thereby avoiding the lock-in of future environmental and health hazards and prioritising the use recyclable resources.

As a country characterized by high levels of landfilling, there will be a need to implement more efficient waste segregation, collection and sorting systems, build-up the required infrastructures; and develop the processes, technologies and secondary markets for recycling streams that are economically and environmentally viable over long term. According to initial estimates, approximately 50 million Euro's worth of usable resources are being deposited to non-sanitary landfills in Serbia every year with the estimated recycling rate from 5 to 7% only. Similar situation applies for municipal wastewater. Only 13% of municipal wastewater is treated. In most municipalities there is no infrastructure for sewage and wastewater treatment, but the wastewater is released untreated into the rivers. A significant amount of plastic from Serbia and other countries of the region is ending up to the rivers and further to the sea as well.

The biggest challenges to changing the situations are the lack of investments, incentive measures and sustainable business models, followed by the lack of legal procedures, general lack of information as well as the unfavorable behavioral habits of citizens. New initiatives and innovative ideas, policies, organizational improvements and financing (with the estimated gap of more than EUR 6,44 billion in the following years) are urgently needed, including the identification of areas for stronger co-operation between the private and the public sector as well as with the other countries of the region.

Based on the Law on Planning and Construction (Off. Gazette of the Republic of Serbia 37/19), the Government of Serbia adopted National Strategy for Sustainable Urban Development of Serbia by 2030. This strategy recognizes circular economy, low carbon emissions and resource and energy efficiency as tools for local economic development and prosperity. This was identified based on the EU Urban Agenda that recognizes circular Economy as one of the 12 main points of urban development.

In Serbia's EU accession process, resource efficiency based on circular economy approaches and other related topics, are included in Chapter 27 of the EU Acquis, for which the alignment of the Serbian legal and regulatory framework is subject to regular reviews. The screening report published in 2016 assessed that in general the legislation has satisfactory level of alignment with Chapter 27 of the Acquis and Serbia should be able to complete the alignment by the date of accession, although the implementation and enforcement are still at an early stage. The dismantling of the functional Chemicals Agency and Green Fund, the high turnover of the staff and limited financial resources in the relevant ministries and in the Environmental Inspection were listed as concerns. Among other recommendations it was suggested that Serbia should “finalize the setting up of systematic strategic planning, consolidate its strategic planning capacity and clearly link investments to strategic priorities; and to take measures to set up an effective and permanent financing system for environment and climate action, including substantial infrastructure investments and a stable financing of essential basic services, such as environmental monitoring”.

Pertaining to the EU goals of zero landfilling, the investments needs in Serbia have been estimated at approximately 6.2 billion EUR over the next 15 years. This goes hand-in-hand with the EU circular economy strategic framework and the long-term strategic vision of climate-neutral Europe by 2050, for which significant efforts in greater resource efficiency and sustainable consumption and production are required.

The National Programme for the Adoption of the Acquis (February 2018) makes indirect reference to circular economy and resource efficiency and includes, among others, the following post-2021 targets in the related fields:

- the establishment of waste management facilities network (2032-2034);
- implementation of the practice of separate collection and treatment of hazardous waste from households and industry;
- development of a system for fulfilling recycling rate of packaging waste of at least 55% and processing of at least 60% of packaging waste by 2025;
- establishment of a system for achieving the recycling rate of municipal waste of at least 50% by 2030; and
- establishment of a system for the management of special waste streams (waste tires, waste batteries and accumulators, waste oils, waste vehicles, waste from electrical and electronic equipment) in order to achieve a quantity of 4 kg per inhabitant of separately collected waste from electrical and electronic equipment from households by 2023 and at least 45% of batteries and accumulators by 2026.

Other objectives and targets for recycling and reuse are presented in the RS regulation on “Determining the Packaging Waste Reduction Plan” for the period of 2015-2019 ("Official Gazette" No. 144/2014). Activities planned for the period of 2018 – late 2021 include, among others:

- development of the Specific Implementation Plan for the Packaging and Packaging Waste Directive (2018, supported by the IPA 2013 project);

- implementation of the Waste Management Strategy and setting goals for recycling and processing;
- establishment of the system for return / collection and recycling / processing of used packaging and packaging waste, according to identification from the national strategy;
- improvement of information base for packaging placed on the market, produced, collected, recycled and processed packaging waste;
- improvement of economic instruments to support the achievement of objectives; and
- introduction of separation at the place of origin in 17 municipalities (with the support of IPA 2017 project "Establishment of primary separation of municipal waste in four regions for waste management: Duboko, Srem-Mačva, Pančevo and Pirot");

The Republic of Serbia also has National Strategy for Cleaner Production, adopted in 2010. The aim of the strategy is to improve processes, products and services to increase efficiency and reduce risks to humans and the environment. With support of UNEP and UNIDO, Serbia established in 2007, the Serbian National Cleaner Production Centre (NCPCS) with the purpose of identification and implementation of more efficient and cleaner production (RECP) opportunities and business cases. The strategy identifies options for introducing cleaner production in Serbia in order to attain sustainable development. Some of the measures refer to sustainable resource and material management, introduction of more efficient technologies that save energy and resources, maintenance for prolonged products lifespan and recycling.

The Concept of the Development of the Republic of Serbia by 2020 also indicates the need for greater introduction of renewable energy and energy efficiency. These goals are also embedded in the National Renewable Energy Action Plan which implies increase of the share of renewables at 27% by the year 2020. Cleaner production, greater resource and energy efficiency in production and consumption are also among priorities of Serbia's Sustainable Development Strategy.

Other key documents pertaining to resource efficiency and circular economy include: the National Strategy for Sustainable Use of Natural Resources and Goods (2012), National Environmental Protection Programme (2010), National Strategy on Water Resource Management (2016), the Law on Waste Management (Official Gazette of the RS", No. 36/2009, 88/2010 and 14/2016). The Law on Environmental Protection (Official Gazette of the Republic of Serbia 135/2004, 36/2009, 43/2011 etc.) includes complementary provisions for issuing environmental labels for products, the production, marketing, circulation, consumption and disposal of which cause less environmental pollution compared with similar products or if their raw materials are obtained from waste recycling. In addition, and in favor of circular economy approach, the Law on Environmental Protection is mentioning the need "to reduce spatial burden and consumption of raw materials and energy in construction, production, distribution and utilization; including the possibility for recycling".

Although some strategies and legislation are in place, there are still major challenges in their implementation. One of the main challenges is the lack of end-of-waste legislation for all such waste streams, which would enable better reuse and recycling of waste and boost circular economy in a broader context. Also, inadequate surveillance and enforcement of environmental legislation represent a major threat to the effective implementation of circular economy concept in Serbia, thereby hampering also the involvement of SMEs, which could be reliable partners to public companies and local self-governments for advancing circular economy and corporate environmental responsibility. The available incentives for private sector should be applied in a more transparent manner and by taking into account indicators, which promote circular economy and corporate environmental responsibility.

Redefining legal framework and incentives should be conducted by taking into account global trends on innovation, as well as by ensuring a fully participatory approach, including private companies.

As it concerns the associated baseline projects, one of the few projects, which has made a direct reference to circular economy at a community level in Serbia is the GIZ funded “Municipal Waste and Wastewater Management” project (IMPACT). The project was completed in 2017 with an objective to introduce and improve circular economy approaches for waste and wastewater management at the national and municipal level in Aleksandrovac, Bela Crkva, Krupanj, Kursumlija, Svilajnac and the region of Rasina. The key project partners included the Ministry of Agriculture and Environmental Protection, the Ministry of Economy, the Chamber of Commerce and Industry, the Provincial Secretariat for Urban Planning, Construction and Environmental Protection, the Standing Conference of Towns and Municipalities (SCTM), the Serbian Solid Waste Association (SeSWA) and the Serbian Environmental Protection Agency (SEPA). Reported results included, among others, improved management capacity, increased recycling rates of certain materials and better control of hazardous waste.

The UNDP GEF funded Climate Smart Urban Development Challenge (CSUD) project, which was started in 2017, attracted by the Innovation Challenge calls several new “climate smart” project and business ideas. Those that were evaluated as most promising and mature have received grants to help to catalyze private sector investments. Many of these new business ideas have included also elements of circular economy such as transformation of polyurethane foam from old refrigerators and freezers into new type of absorbent and creation of new type of biomass fuel from the production of essential oils (for further details see Table 1 below). In the frame of the CSUD project, however, there has been no broader policy and strategy focus on promoting circular economy in Serbia. Therefore, rather than a project focusing on promoting circular economy per se, the CSUD project can be primarily considered as a testing ground for a new implementation modality, where the details of the pilot and demonstration projects to be supported by GEF grant resources were not elaborated beforehand, but this was done during project implementation for proposals that were received and selected by a competitive challenge approach. Beside the type of projects that can be seen to directly contribute to circular economy, the CSUD challenge also attracted several other new "climate smart" project and business ideas that may not be directly classified as circular economy projects.

Table 1: Circular economy related investment projects supported under the CSUD project

Name of the project	Sector	Principles of CE
Less garbage, more happiness and wellbeing for all	Biodegradable waste	The project proposes an innovative business model to improve the existing practice of organic and inorganic waste separation, including new methods of organic waste treatment (for waste oils). Moreover, the project is based on principles of circular economy – <i>waste reduction</i> at the sources (reduction of the amount of food waste during the production, processing, manufacturing, as well as reduction of the generation of food waste by industry and consumption); <i>reuse</i> and resource recovery (expand the collection and processing capacity of food waste and using a new biobooster-based processing technology which will have several by-products such as energy, fertilizer). The project has a high potential to reduce the GHG emission that would otherwise be generated from disposal of such organic waste to landfills.

Polyurethane foams - End of waste	Electronic waste	The project contributes to the efforts of promoting the circular economy (such as converting previous waste – namely cooling devices - into new raw material), thus directly reducing the release of one of the most powerful greenhouse gases into the atmosphere (the F-gases). During the e – treatment useful resources such as aluminum, copper, gold and silver are recovered directly. Moreover, polyurethane foam which is left after the Freon is separated will be converted into a new product which shall become an absorbent that collects oily liquids such as gasoline and petrol, in case of their uncontrolled leaking into the environment (hence preventing unintentional burning of fossil fuel and related GHG emissions). Used absorbents are collected and safely treated.
Innovative approaches in production of pellets from medicinal herbs	Production of medicinal herbs	The project introduces the concept of a circular economy into the process of producing essential oils from medicinal herbs. During the distillation of medicinal herbs, remaining waste is cooked, partially dried and therefore presents good raw material for further processing, in order to obtain ecological fuel - pellets. By pelleting biomass produced as the by-product during the distillation of medicinal herbs would completely eliminate waste as a category in this production. The final product - the pellet will be used again in the distillation process instead of currently used fuel. The remaining pellets unused in the distillation process will be offered on the free market.

Since the approach tested by the CSUD project proved to be quite successful^[10]⁹ in advancing such new climate smart project and business ideas, which otherwise would have remained uncovered, the Ministry of Environment together with UNDP concluded that a similar approach and implementation modality should be used for finding new project and business ideas and related partnerships with a particular focus on advancing circular economy in Serbia and scaling up the related investments. As a difference to the CSUD project, however, the Ministry wants to have a more comprehensive and strategic focus on developing the circular economy concept in Serbia and plans to do this with a highly consultative process engaging not only public authorities, but also the civil society and the private sector. A model for this was found by the Circular Economy Roadmap process implemented only in few countries and cities so far. For further details, a reference is made to the chapter “Proposed alternative scenario with a brief description of expected outcomes and components of the project”, Outcome 1.

In other words, while some local communities and companies in Serbia have already been sensitized to circular economy through the pilot initiatives supported by the CSUD project, there has been no broader policy and strategy focus on promoting circular economy in Serbia yet, by which the circular economy approach can be mainstreamed. With this new project, the Government of Serbia wants to have a more comprehensive and strategic focus on developing the circular economy concept in Serbia. With the GEF support, it plans to do this by a highly consultative process, while also continuing to catalyze and boost new innovative circular economy project and business ideas and leverage co-financing for them. For this, the GEF grant is essential by using an already tested challenge based approach, which was proven to be effective in uncovering and catalyzing new business ideas and investments contributing to climate change mitigation. After all the circular economy related projects supported so far in the frame of the CSUD project present only a minor although still important segment of the opportunities, by which circular economy and related climate change mitigation can be effectively promoted.

Concerning the waste-to-energy schemes, the UNDP/GEF supported project “Reducing Barriers to Accelerate the Development of Biomass Markets in Serbia” provides a successful example on how agricultural waste residues can be turned into viable energy resource, while also triggering local businesses and boosting the local economy. This particular project was a clear case of blending private and public capital by mobilizing and leveraging almost \$30 million USD of private sector financing against 3,6 million USD of GEF funding. By this project, UNDP assisted the Government of Serbia in unlocking and de-risking the private capital investing in renewable energy leading to the achievement of national RE targets.

The UNDP in Serbia has already started preparatory work on initiation of Circular Economy actions for Sustainable Development in Serbia. This work implies shifting from current linear ‘take-make-dispose’ to a system that is restorative and regenerative by design, fosters "closing the loop" of product lifecycles through greater recycling and reuse and promotes sustainable consumption patterns. Activities are being conducted in collaboration with both traditional and non-traditional partners, from private sector (circular business), over public sector (circular change) to citizens (circular culture and mindset). This initiative mobilizes basic ecosystem to start up transformative activities, scale up piloted innovation, catalyse resources and sustain established partnerships for advancing circular economy agenda in Serbia. This is an initial step for promoting strategic partnership with the private sector for accelerated circular economy transition in Serbia, including guidelines for business actions along the value chain, as well building cases for private sector investments. The second action will result in enabling finance to support change toward circular economy, through testing and deploying innovative financial mechanisms and developing pipeline of circular economy projects. Finally, the third action will result in building the stakeholder network and facilitating transformative dialogue. Such actions will provide basic ground for the future work on reducing Community Carbon Footprint by a Circular Economy Approach in the Republic of Serbia.

The European Bank for Reconstruction and Development (EBRD) has launched the Green Innovation Vouchers (GIVs) scheme to boost the innovation capacity of domestic enterprises in the field of green technologies and resource efficiency by linking them to local R&D service providers. The resulting cooperation will enable participating enterprises to raise their environmental performance and competitiveness. Green Innovation Vouchers are grants that help enterprises to cover 90 per cent of the eligible R&D service costs, up to €20,000 for standard and €50,000 for mega vouchers (excl. VAT). The R&D service will enable SMEs to develop new products, services and processes or improve existing ones in order to improve resource efficiency. The scheme is funded by the Austrian DRIVE (Delivering Resource Efficiency Investments) Programme. The implementation of the scheme is supported by the Central European Initiative (CEI).

Although there is a growing number of start-up companies, which are developing eco-innovations and solutions to recycle waste originated from households and business, the traditional approach to resource management in Serbia is still oriented towards a linear use of raw materials. Recycling rates are very low, which leads to extensive consumption and import of raw materials, while the whole market of recyclables remains unutilized. Besides communal waste, other waste streams, such as for example construction waste, lacks basic legislation that allows their recycling and/or reuse. Also, product designs are still promoting short lifespan of products. By applying a new circular economy approach at the city and community level, the project will not only assist the Government in reducing GHG emissions, but will contribute to the creation of new green businesses, thereby assisting municipalities throughout Serbia to become circular, improve their resource efficiency, preserve the environment and attract investments.

While some initial steps towards advancing circular economy in Serbia has been taken, in general it can be concluded that much of the emphasis of the past and ongoing baseline activities has been on just bringing the Serbian legislation in line with the corresponding EU regulations. Some larger infrastructure projects such as landfills and waste water

treatment facilities, as well as using residues from agriculture and forestry for electricity and/or combined heat and power generation, have been developed as well. There has been less emphasis, however, on new ground-breaking bottom-up initiatives to promote cross-sectoral co-operation for new innovative ideas and business opportunities for more effective resource use, changing the patterns of production and consumption and applying the principles of circular economy, by which improved waste management would not be seen as an additional cost item only. Also, such new initiatives would boost many other aspects of sustainability by introducing policy guidelines, technologies and mechanisms for creation of circular resource/materials and energy flows. Particular focus would be on cities and communities as “hot-spots” of production and consumption with the largest carbon footprint.

Proposed alternative scenario with a brief description of expected outcomes and components of the project.

The transition towards circular economy is based on the following main principles:

- Improving the efficient use of resources;
- Identifying and creating new opportunities for economic growth and promoting the innovation and competitiveness of cities and their surroundings as well as their companies;
- Increasing investment opportunities at the community/city level by creating an enabling policy and incentive environment;
- Guaranteeing the security of supply of essential resources;
- Fighting against climate change and limiting the environmental impact of the resource use.

Some local communities and companies in Serbia have already been sensitized to circular economy through the pilot initiatives supported by the CSUD project. The proposed new project will take this one step further. By taking a system-wide approach to circular economy by dematerialization (savings, reduction of material and energy use) and re-materialization (reuse, remanufacturing and recycling) as essential elements of sustainable city and community development, the project seeks to establish an enabling policy and institutional framework and create a sustainable financing mechanism for facilitating the implementation of new technologies, processes and business initiatives. Switching the focus from responsive passive approach in environmental protection to a modern, circular/green economy-based concept will provoke structural changes and create a market for new green investments and green jobs, while at the same time improving Serbia’s overall resource efficiency and reducing the greenhouse gas emissions and other pollutants into the environment.

It is also important to note that promoting circular economy and communities is not only about supporting specific investments or facilities, but about supporting a change in people's way of thinking, which should go through the entire society. Moving from a linear to circular economy is not a project, but a process, which requires inputs and commitments from a variety of different stakeholders to work towards the same goal by hopefully recognized mutual benefits. Therefore, it is critical that from the very beginning the policy framework and suggested measures for moving towards circular economy will be developed by a broad consultative process in close co-operation between the public,

private, academic and civil society stakeholders. This offers an opportunity to better engage the civil society and also emphasize the important roles the women can play in this process. Furthermore, it helps to foster investments from the private sector and multilateral development banks and raise investors' awareness and transparency regarding the sustainability of their investments.

The project is following this approach by lending from the idea of a highly consultative, participatory and well documented process of developing cross-sectoral national and community oriented circular economy road maps, as recently piloted in Finland, France, Slovenia and the City of Amsterdam. This will serve as an initial platform for the required consultations, research and awareness raising and will be complemented by a funding mechanism to support and share the risks of new concrete initiatives and pilot/demo projects and business ideas.

As it concerns the actual investments and new circular economy business opportunities, the project will follow the methodology and tools already tested within the CSUD project in order to further blend and leverage funding for climate resilient development solutions. The tools and methodologies to be used include innovation awards, challenge-based approaches, new type of partnerships with the private sector, multi-stage evaluation of the proposals with strong ownership of national counterparts as well as incubation/acceleration type of technical assistance provided to the project teams. This is sought to be facilitated by launching the Low Carbon Communities and Cleantech Innovation Platform (LCCCIP) for facilitated interaction between the cities and communities, research institutions and companies (both, public and private) in order to produce creative circular economy business solutions.

Since innovation challenges have already proven to be a successful tool for wider stakeholder engagement and for attracting best-value-for-money ideas and solutions, the platform will use challenges to source creative, innovative and dynamic business proposals, while also ensuring facilitation through the mentorship and technical assistance, match-making and blending of funds, including crowd-funding, for those on-boarding the platform. Based on lessons learned from the CSUD project, the focus will be on the private sector by exploring opportunities for public-private partnerships, as this was proven to be a win-win solution for leveraging and capitalizing private investments. This is foreseen to attract also commercial banks and the credit lines of multilateral development banks, which can significantly upscale the seed funding provided by the GEF grant and other donors.

By building on the above, the project objective has been defined as "Reducing community carbon footprint by applying circular economy approach" with the direct greenhouse gas emission reduction target of 95 ktons of CO_{2eq} and an indirect target of 1 638 ktons of CO_{2eq}. The project seeks to stimulate at least five (5) circular economy pilot/demonstration projects and business ideas with the total investment value of at least USD 14,150,000 (including both GEF and project co-financing). Furthermore, by a participatory approach the project seeks to engage the community, private and public sectors as well as research institutions.

The project strategy by its outcomes and outputs is presented in Part I, table B with some further details below.

Outcome 1 is about strengthening institutional capacities and creating an enabling policy environment for tackling GHG emission reduction at the city and community level by fostering better resource efficiency and circular economy. The Ministry of Environmental Protection, other competent institutions and local communities, will be provided with an

option to bridge the existing institutional gaps and missing structures, while also creating an enabling environment for the required private investments and public-private partnerships (PPPs), as applicable.

The specific outputs and activities contributing to Outcome 1 include:

- development of a national Circular Economy Road Map to provide a framework for cross-sectoral consultations, planning and awareness raising, to identify priorities for and to clear the path for advancing resource efficient system-wide circular economy concept in Serbian cities and communities;
- developing and putting online a “Circular Economy Navigator” to help the public to find out how they can participate in and contribute to transforming their cities and communities from linear to circular, to help the proponents of new innovative business ideas and projects to market their services and products and to explore suitable implementation and financing partners (and modalities) for that. While taking full advantage of the available IT opportunities, the activities implemented within this framework may also encompass specific match-making events, trainings etc.
- an enabling institutional, legal and regulatory framework to effectively advance circular economy and related climate change mitigation in Serbia. Identified institutional, legal and regulatory barriers will be removed in order to support the launching and implementation of new circular economy business ideas and projects. The activities to be supported under this component will include: i) establishment of a specific department in the Ministry of Environmental Protection to develop and facilitate the adoption of required primary and secondary legislation for specific incentives and other economic instruments to support the circular economy related investments as well as to identify and remove other legal and regulatory barriers that may currently prevent such investments from taking place; ii) drafting and supporting otherwise the adoption of new laws and by-laws to advance the circular economy concept in Serbia based on the 3R principle (reduce, reuse and recycle); and iii) building the capacities of the participating pilot cities and communities to boost the transition from linear to circular economy at the local level. Due attention will also be given to the elaboration of such policy and regulatory mechanisms, which will facilitate better interaction between the research institutions and public and private companies in order to advance better science-policy interface and application of new and innovative technologies in practice.
- A livelihoods analysis will be undertaken to identify groups that could be potentially economically affected by project activities (specifically associated with informal/illegal waste collection), which analysis will provide a basis for a Livelihood Action Plan (or Framework).

The policy documents and the institutional mechanisms for the re-establishment and effective operationalization of the Green Fund belong to the related baseline activities. It shall support blending of financial sources from bilateral donors, private sector and other international sources such as EU IPA and other multilateral funds with a particular emphasis on resource efficiency. The project can support this process, however, with different institutional strengthening and capacity building activities.

While as a part of the EU accession process the Serbian legislation has already to a great extent been aligned with the related EU directives (as discussed earlier in pages 11-12), this work has not been completed yet. A more detailed analysis of the remaining legal and regulatory gaps will be done during the PPG phase and presented for final CEO endorsement together with the proposed activities to address those gaps. There are a few identified areas for improving the project related legal and regulatory framework, however, that can be mentioned already now.

Among others, the project seeks to support the development of a new Law on Waste Management, as well as the set of by-laws to enable the applying of circular economy principles in the management of each specific waste stream (food waste, textile, construction waste etc.). Particular attention will be given to the development of by-laws that will provide end-of-waste status for each specific waste stream, which will assist in expanding the market of secondary raw materials.

In Serbia, local self-governments are also obliged to produce local Waste Management Plans contributing to the national Waste Management Strategy and related targets. The majority of the local waste management plans are expiring in 2020 and have to be renewed. These local plans are defining the conditions and arrangements for functioning of the local waste collection and treatment (including contribution to the achievement of waste recycling targets), operationalization of regional waste management centers etc. These plans are the most effective entry point for advancing circular economy at the local level and will correspondingly addressed by the proposed project activities as well by strengthening circular economy related aspects and targets in the renewed plans.

As part of the envisaged TA activities of component 1, the project will also support further development of the Registry of by-products (as secondary raw materials) and the establishment of the quality certification system (including certification of the testing laboratories), which is important for the effective creation of the markets of secondary raw materials to support CE. These actions, in combination with practical projects in the field, will assist the Government of Serbia in the development of a system for fulfilling recycling rates, as planned by the National Programme for the Adoption of EU Acquis (incl. a target to process at least 60% of the packaging waste and establishment of a system for the management of special waste streams such as waste tires, waste batteries and accumulators, waste oils, waste vehicles, waste from electrical and electronic equipment according to circular economy principles).

In addition, the project will support further introduction of the relevant ISO standards and provide capacity building for the industry and commercial sector for identification and application of circular economy in their businesses. This will primarily be done in close cooperation with the Chamber of Commerce and Industry of Serbia and its Circular Economy Department, building upon the Circular Economy Academy recently established within the Chamber with UNDP support.

The project will also co-operate with the EU funded Eco-design and Energy Labelling Project in Serbia. By enhancing the conformity assessment and enforcement infrastructure in Serbia, the GEF support will be utilized to further establish eco-design requirements on material efficiency based on 3R principles. These requirements can also be adopted to the draft law on Green Public Procurement, which is currently pending public consultations and adoption. The project can further support the testing and operationalization of the new Law, once adopted.

As a part of the required policy work, the project will also explore the opportunities for further development of new circular economy-related laws, standards and codes for buildings in order oblige or encourage the residents to sort their wastes while dumping them and for facilitating the reduction, reuse and recycling of the waste by the 3R principle. The project will explore the opportunities for producers'/retailers' prolonged responsibility principle for the products that they produce or place at the market, including circulation of the packaging waste (such as paperboard and bottles) and improved source waste separation. Also, the project will look at opportunities and work closely with the manufacturing sector on how to improve the efficiency of the product manufacturing processes and designs in order to maximize product use and reduce its carbon footprint, as well as how to integrate the 3R principle into their production process.

In response to the risks identified regarding the marginalized and vulnerable groups, the project will support transformational changes and provide legal/regulatory/incentive recommendations and guidance on full integration of “illegal waste collectors” in the national social and employment policy. Also, in response to economic displacement risks, an ESMF will be developed. The project will develop a plan to reduce the impact of economic displacement of illegal waste collectors and their integration in the formal waste management sector.

A special gender responsive ESMF will be developed. Gender specific indicators will be designed as a part of the project results framework, collecting gender sensitive data on the project impact during its implementation.

Recommendations for the amendments of national employment health and social policy will be produced on the basis of the achieved project results.

Outcome 2 is about supporting the development and implementation of a portfolio of new, carbon neutral (or close to carbon neutral) pilot/demonstration projects and business ideas based on resource efficiency and circular economy approaches. These will be identified, implemented and monitored by launching the “ Low Carbon Communities and Cleantech Innovation Platform ” (LCCCIP) by building on the good experiences and lessons learnt from the ongoing GEF funded, UNDP implemented Climate Smart Urban Development (CSUD) project in Serbia. A particular emphasis in the project search will be given for new business ideas and initiatives seeking to combine local and global environmental benefits together with the associated local economic and social benefits. Beside the requested GEF grant incentives, the sources and modalities to co-finance the projects may include public grant financing (such as by the Green Fund), other bi- or multilateral international donor support, private lending, venture capital or, when applicable, crowd-funding.

The LCCCIP will be used for leveraging and de-risking the use of public funds as well as commercial and semi-commercial loans and investments by targeted mapping, match-making and by providing mentorships guidance and support. This type of incubation/acceleration support can be further enhanced by investing LCCCIP resources as seed money for testing and experimenting with new pilot initiatives. The use of these funds will be guided by the principles of local needs, multiple upscaling of seed grants and ensuring best-value-for -money solutions (focusing also at multi-benefits). By building on the lessons learnt from the CSUD project, the new project will particularly focus on those project elements that generate income, expand markets and attract co-funding from the private sector, IFIs and commercial banks.

The Ministry of Environmental Protection has been keen on testing a similar approach for attracting and screening proposals for the Green Fund[11]¹⁰ with a focus on those SMEs that have the largest potential in terms of their capacities, knowledge, skills and resources (their own or secured through partnerships, loans, grants etc.). UNDP’s new tools and modalities for working with the private sector, the so-called “Performance Based Payments”, will be further applied, as an innovative way of getting private sector on board as development partners and co-creators rather than mere implementers of pre-defined pilot and demonstration projects. Also, the project will ensure sustainability of the “Climate Incubator/Accelerator” of innovative ideas and solutions, by further piloting Country Office Support Platforms of the UNDP’s Strategic Plan.

The challenges will be formulated in close consultation with the communities and business sector, in order to obtain pilot/demo projects that are in line with the priorities and needs of the cities and other communities, while also leaving enough space for creative solutions and innovation to create revenues and new markets for the private sector. 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 the research institutions from EU countries. This particular segment will build upon the EBRD's programme "Green Innovation Vouchers Scheme" in Serbia for boosting the innovation capacity of domestic enterprises in the field of green technologies and resource efficiency by linking them to local R&D service providers. It will rely on the formal collaboration established between the UNDP's CSUD project and the mentioned EBRD initiative in the Republic of Serbia. New ideas and business proposals will have to follow the principles of applying the best available technologies, maximizing resource efficiency, reducing the community carbon footprint and practicing circular economy, taking into account both local and global environmental benefits as well as economic and social ones.

During the PPG phase, A set of criteria will be developed for the stakeholders interested in on-boarding the LCCCIP with their project and business ideas. One main criteria for project co-financing will be that the GEF grant does not exceed more than 20% of total project cost. **Another criteria will be that at least one project deals with the issue of circular economy and energy-efficiency in public buildings in order to build synergy with other UNDP GEF initiatives in Serbia related to energy efficiency in public buildings.** As the project envisages close co-operation with and involvement of the private sector in practicing circular economy, UNDP will apply innovative procedures for facilitating private sector engagement and blending of private funds with public funding. This includes innovation awards and performance based payments, as well as a possibility of piloting green bonds. **"Pay for results" (PIR or pay for performance/success/outcomes) or performance based payments is an umbrella term used to describe various schemes that pay a party upon the achievement of results, rather than for efforts to accomplish those results. The basic premise behind all "pay-for-results" schemes is that the achievement of results can be optimized by giving project partners a financial incentive. The performance based payments will be used as a former of credit enhancement and can be seen as equity for projects that increases their economic viability and makes it easier for them to achieve financial closure.**

Examples of projects that can be supported by the LCCCIP are those that can reduce unproductive disposal of usable resources e.g by transforming former waste into new products or usable raw materials (such as recovery of waste produced in the e-waste dismantling industry and using that for new products), generate waste-to-energy business models (e.g. transforming residues into high-quality energy fuels, thereby diversifying the RE market and increasing the share of RE), diverting organic waste from landfilling and including it into energy/fertilizer production and introducing new technical innovations for wastewater treatment and making the related facilities energy independent and climate neutral. Business solutions that support the reuse of excess energy in production processes, as well as composite design of products which allow for their prolonged lifecycle, favourising green procurement and improved technologies in industrial production that can lead to greater resource and energy efficiency can be considered as well. Further examples of the type of projects that could be eligible also for LCCCIP support can be found from the CSUD project website (<http://inovacije.klimatskepromene.rs/en/home/>).

The specific outputs and activities contributing to Outcome 2 include:

- Developing and launching the "Low Carbon Communities and Cleantech Innovation Platform" (LCCCIP) to source new resource efficient circular economy business ideas and models, to assist in creating a market for related start-ups thereby boosting also local economy and the creation of new green jobs;

- Mentorship and technical assistance facility as part of the LCCCIP to facilitate and accelerate the development of local circular economy business initiatives, match-making and partnerships with local communities and other partners (such as other companies and research institutions, including public-private partnerships) as well as blending of funds and resources to help the businesses to grow.
- Supporting the operationalization of the Green Fund as the main source of national co-financing of the projects and new business ideas responding to the Platform/Challenge

As common criteria for the evaluation of all proposals is that they would need to contribute to the achievement of national targets vis-a-vis reduction of GHG emissions (as per the NDCs) and increase the efficient use of resources by a circular economy approach. They also need to support ongoing processes at the national and municipal levels of integrated resource management, increase the share of renewable energy in total energy mix and/or improve the resource efficiency and environmental performance of the local industry.

The activities under Outcome 2 will also specifically encourage female innovators, entrepreneurs and experts to participate in the project implementation. A gender action plan will lay out how this will be done in detail. Promotion activities and trainings will be gender mainstreamed, targeting specific needs and roles of women, who are directly involved in circular economy related sectors or in any part of the product's lifecycle, and who would seek an opportunity to onboard the LCCCIP. To allow this, the project will incorporate gender related criteria.

There are also a few communities in Serbia, which have demonstrated some interest in taking more progressive steps towards becoming circular economy communities. Consultations with them will be continued during the PPG phase to assess the feasibility of such an entire community based demo project and the results of this assessment will be presented for the final CEO Endorsement.

Outcome 3 is focusing on the monitoring, evaluation and dissemination of project results and on sustaining the process towards the creation of resource efficient “circular communities” in Serbia also after the project.

The proposed project will further support the processes of mainstreaming human rights issues through its design and activities by a clearly defined human-rights based approach. It will support the implementation of open monitoring, information and knowledge management as well as broad community engagement and participation – starting from the preparation of the Serbia Circular Economy Road Map under Outcome 1. This will be done by a highly participatory approach, thereby seeking to improve 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 support the right to information, and will aim to reflect the views of various stakeholders, including minorities and marginalized groups in the project design and operation. More efficient and environmentally friendly use of limited natural resources is expected to contribute to the further improvement of quality of life and the advancement of equal human rights to safe and clean environment, while also creating new employment and business opportunities thus supporting the right for equal employment. Throughout the project implementation, specific emphasis will also be placed on gender related aspects and equal rights of men and women.

There is also a need to increase the awareness of the population on environmental issues in general, as well as on the meaning and benefits of circular economy. The project will build its awareness raising activities on the results of previously conducted circular economy oriented projects with due attention on the inclusion of marginalized groups.

Under the project management component, it is expected that support services will be provided during project implementation by UNDP to the Government upon the specific request of the national implementing partner. Types of activities to be supported by the UNDP during project implementation include organization of some international tenders, procurement of equipment, hiring of international consultants, hiring of national consultants, organization and arrangement of study tours. The cost of the support services to be provided by UNDP is currently estimated as USD 161,545; which includes approx. \$23,500 technical and \$9,500 administrative services. This will be further reviewed in the PPG phase.

Alignment with GEF focal area and/or Impact Program strategies

The project is contributing to the GEF-7 Focal Area Objective 1: "Promote innovation and technology transfer for sustainable energy breakthroughs". As outlined by the GEF-7 Replenishment Programming Directions (GEF/R.7/10 April 2, 2018): "Technology is key area for the UNFCCC and in Article 10 of the Paris Agreement, and is one of the key means to reduce, or slow the growth in GHG emissions, and to stabilize their concentrations. To that end, technology innovation with the private sector can help create or expand markets for products and services, generating jobs and supporting economic growth. Supportive policies and strategies are fundamental to catalyze innovation and technology transfer for mitigation and enhance private sector investment. Resources from the GEF play a key role in piloting emerging innovative solutions, including technologies, management practices, supportive policies and strategies, and financial tools which foster private sector engagement for technology and innovation." The Circularity Gap Report 2019, released during the annual meeting of the World Economic Forum in Davos recognizes circular economy as a regenerative system in which resource input and waste, emission, and energy leakage are minimized by slowing, closing, and narrowing energy and material loops. Such approach was reaffirmed by the UNFCCC Secretariat as well.

The innovation challenge approach was piloted and tested within in Climate Smart Urban Development Challenge project (CSUD) and the results were positively judged by the mid-term review process. The project is focusing on attracting and uncovering new private sector initiatives, which can in a meaningful way contribute to reaching the targets of the Paris Agreement and reduce greenhouse gas emissions. Typically, the GHG emission reduction impact from the project ideas received was resulting from energy savings by better resource efficiency or substituting the use of conventional fossil fuels with renewable energy. Based on practical experience and lessons learned through the CSUD project, many innovative technological solutions and business practices were relaying on the principles of circular economy in attaining the GHG emission reduction targets. Those innovative models were related to improved resource and energy efficiency, diversification of renewables and creation of new value chains in the production and consumption patterns. With the overall seed funding of 0.5 million usd, CSUD project managed to attract more than 11 million USD of private sector investments in climate related businesses.

Following this success story, the proposed new project with the focus on promoting circular economy will open a new avenue for exploring the link between different circular economy initiatives and their impact in terms of reducing energy consumption and other resource use or by bringing new type of renewable energy products into the market. New resource efficient building materials and construction techniques, biofuels using former waste as feedstock, improved logistics and technologies for handling different circular economy material, impacting product value chain and other resource streams to reduce the energy and transport related GHG emissions can be mentioned as examples.

By this, the project is closest to the entry point 4 of the focal area objective 1, namely "Cleantech innovation". As defined by the GEF-7 Replenishment Programming Directions, "the GEF will support countries that wish to foster technology deployment, dissemination, and transfer through entrepreneurship and with a special emphasis on SMEs and private

sector partnerships”. As further outlined by the Programming Directions, “through fostering of innovation and training a new generation of entrepreneurs, countries will be able to partner with the private sector to accelerate technology transfer, support small and medium enterprises, and create jobs”. This is exactly the type of work that was successfully already tested and started within the Climate Smart Urban Development Challenge project by the established Climate Incubators and Accelerators and which will be continued by the new project with the focus on new circular economy initiatives and entrepreneurs in particular. The purpose of this is to support small businesses and start-ups to develop their initial ideas into commercial products or feasible projects and attract financing for them.

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

The project is requesting funding for activities, which can contribute to, but are not directly included in any EU accession requirements or related Government action plans. Although fully aligned with the related EU and national policies and targets on integrated waste management, increased resource efficiency, climate change mitigation and increasing the share of renewable energy in a broader sense, they present complementary activities, which would not be implemented without the requested GEF support.

While about USD 1.78 million is requested from the GEF to contribute to the financing of the required TA and M&E activities as well as to provide complementary grant incentives to encourage and share the risks of new circular economy pilot and business initiatives, cost-sharing at the level of at least USD 14 million (collectively) is expected from the: 1) Ministry of Environmental Protection and the Green Fund to be established; 2) pilot/demo project owners; and 3) other financing partners to be identified and consulted during further project preparation. The latter may include bi- and multilateral donors, international and national banks etc. During implementation, the project will also explore opportunities for alternative financing such as crowd-funding for those new project and business initiatives that may be suitable for this type of financing. In this respect, the project will also co-operate with the new UNDP regional crowd-funding initiative (Solar Mayor;s Club, New Cities of the Future Initiative, City Experimentation Fund), EBRD Circular economy and Green Cities Initiative, Climate KIC“Circular Cities Initiative”, banks initiatives (such as the EIB Circular Economy Programme), Heinrich Bowl.

In the project investment component, the GEF grant of USD 950,000 will be used as catalytic seed funding to mobilize private sector investments as well as co-financing from domestic and international financing organisations (incl. bilateral donors, development agencies etc.) by using the same implementation and co-financing strategy for investments, which has already been successfully demonstrated in the frame of the ongoing Climate Smart Urban Development (CSUD) project. For the investment of GEF funds at the amount of USD 500,000, the CSUD project has already managed to leverage private sector co-financing at the amount of over USD 10 million for concrete investment projects. This new project attempts to do the same, but this time with the focus on circular economy projects in particular.

Regarding the baseline projects described in greater detail under table C of Part I, some of them provide a basis by which the circular economy approach can be advanced, facilitated and promoted (such as the establishment of municipal waste management centers), while others will be used as a co-financing source for new innovative circular economy business ideas and investments. As mentioned before, the value added of the GEF investment grant will be to provide catalytic seed funding for new innovative circular economy business ideas and investments by using a challenge based implementation modality, which has already been successfully tested and demonstrated in the frame of the ongoing CSUD project.

Given the chosen challenge call based approach, the specific investment projects to be supported with the GEF grant are not known yet, but as long as they fall under the category of promoting circular economy, they can also be in the building/construction sector. These can also include new standards and codes for extending the lifetimes and reusing and circulating the materials used for constructing new buildings or renovating old ones. As a typical example, different insulation materials re-using the materials from other processes can be mentioned. In fact, these standards, codes and new construction norms to advance the use of reused and circulated raw materials and improve the segregation of construction waste when demolishing old buildings or constructing new buildings is an extremely important segment of circular economy and should be reflected also in the related policy work.

UNDP has agreed to contribute with USD 150,000 in cash from its core resources to project financing. As it concerns other donor organizations, initial talks during the PIF preparation phase were held with the “Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (“GIZ”), European Institute for Innovation and Technology Climate-KIC project, Nordic Business Alliance about possible co-operation in implementation of this UNDP/GEF project, in particular in joint formulation of the project goals and providing policy and programmatic support for all three project outcomes. These consultations will be continued during further project preparation. In accordance with the UNDPs Strategic Planning framework, the project will apply the concept of the Country support platforms for the Sustainable Development Goals. This new approach was successfully tested by the Climate Smart Urban Development Challenge project, in particular regarding its advantages in mobilizing new and non-traditional partners, blending of funds and enabling match-making opportunities. UNDP will contribute to the project implementation by its know-how and expertise, as it concerns the organizing and applying the country support platform for this particular project;

Finally and similar to other initiatives including challenge type of interventions, the private sector has already invested or is likely to invest significant resources for bringing their ideas up to the stage that they can be presented as a response to the given challenge. This can be counted as co-financing as well.

The indicative amounts and sources of project co-financing by building on the initial discussions and estimates made during the PIF preparation stage are summarized in table C of Part I. This will be finalized during further project preparation and presented for final CEO Endorsement.

Global and local environmental benefits

The global environmental benefits of the project consist of direct and indirect greenhouse gas (GHG) emission reductions. In addition, by advancing resource use by circular economy approach, the project seeks to reduce the amount of plastic and other hazardous waste ending to international waters by the rivers running through Serbia.

The details of the investments supported by the GEF funds will only be known after the first projects for the LCCSP support have been selected. The minimum target for the direct GHG reduction impact of the project has, however, been set as 0.1 tCO₂e reduced for each USD of GEF funds invested. With the proposed allocation of USD 0.95 million of GEF funds to directly support the new pilot initiatives during the GEF project implementation, the direct GHG emission reduction target of the project can be counted as at least 95 ktons of CO₂e **over the respective lifetime of the investments** [12]. This can result, for instance, from energy savings by using recycled raw materials, increasing the share of

renewable energy production by different waste to energy applications, reducing methane or other GHG emissions from materials currently disposed into landfills, improved transport logistics of different resource streams etc. 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.

While the direct GHG emission reduction impact may look modest compared, for instance, to many methane reduction projects (due to 25 times higher global warming potential of methane compared to CO₂), the project aims at promoting new circular economy project and business ideas rather than just providing complementary grant funding for already quite common and well tested traditional methane reduction and utilization projects at landfills. While with the proposed project approach the initial direct GHG emission reduction impact can be more modest, the potential for replication by opening new avenues for circular economy and related incremental consequential GHG emission reduction can be far greater

The indirect GHG emissions reduction impact of the project (as per the GEF definition of indirect impact) will come from three sources: 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. An exact quantitative estimate for this is difficult to give at this stage, but by using as a reference the estimated total GHG emissions of 3 276 ktons of CO_{2eq} originating from the waste management sector in Serbia in 2014, an indirect GHG emission reduction target corresponding to about 5% of these emissions per year over the next 10 years after the project completion (equal to 1 638 ktons in total) appears as an achievable target.

The project will also contribute to achieving the goals set up in the impact programme on Food, Land Use and Restoration by preventing further degradation of land and ecosystems by illegal dumpsites. By fostering greater resource efficiency by a circular economy approach in communities, the project will support the efforts of Serbia and its communities in ensuring that productive lands are embedded within landscapes that are providing ecosystem services as well as protecting the natural ecosystems and soil on which they depend. Serbia's approximately 3.500 illegal dumpsites are located throughout the country affecting negatively on the quality of soil, deteriorating landscapes and very often polluting nearby watercourses and ground waters. By promoting more efficient resource management at the municipal level, the project will reduce the quantities of waste ending up to illegal or non-sanitary landfills. The project impact in this respect can be further elaborated during the PPG phase, but as an initial estimate it can be said that every 500 tons of segregated waste that can be circulated and reused reduces about 15 hectares of the need of land that otherwise would be occupied by non-sanitary landfills and dumpsites.

Circular economy will also reduce the need for new raw materials, thereby reducing the need for their extraction, which will again prevent degradation of landscapes, including prevention of disasters (landslides or flash floods) that can occur in the case of deforestation of mining sites. There are also large quantities of non-communal waste such as sludge waste from waste water processing, construction and demolition waste as well as waste ash created by coal combustion, which can degrade the landscapes, but which can

also effectively be mitigated. By developing appropriate business models and schemes based on circular economy, such wastes can be easily transformed into useful energy resource or construction materials[12]¹¹.

The annual amount of waste ending to the rivers running through Serbia and descending mainly to the Black Sea has been estimated at 1000 tons of organic waste (mainly biodegradable and food waste), 3 tons of plastic and 5 tons of packaging waste per year. Out of 164 officially registered non-sanitary landfills in Serbia, more than 40% of them are located up to 1000 meters away from the river beds, so that waste is very often washed away or drained to the river streams and adjacent underground waters. Out of about 2,5 million tons of communal waste generated in Serbia per year, 15% is plastics, 16,7% is paper, 31% biodegradable waste and the rest is comprised of textile and other packaging waste.

Innovation

The project includes several innovative elements both in Serbia and in the global context. It will support the transition from the current linear to a new circular economy-based approach that improves resource and product efficiency, creates green jobs and reduces significantly harmful emissions, including GHGs. In addition, an approach to promoting innovation that includes performance based payments and working closely with the private sector is by definition and innovative approach. The project will create an innovative new type of platform for closer interaction between the Government, local communities, companies, financing entities and research institutions in advancing circular economy in Serbia, thereby contributing also to the related policy development taking into account the findings of the scientific community and feedback from the private sector. Collectively prepared Circular Economy Road Maps have just been prepared for a few countries so far and Serbia would be among the first GEF programme country/ies to benefit from using these road maps to further define project selection criteria. Combining this approach, with the development of a "Circular Economy Navigator" may present a somewhat novel idea as well. On the financing side, the project will explore new green funding schemes and provide a new 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. Applying different incentive, risk sharing and co-funding instruments in an innovative and flexible way with the support of such platform still presents a novel approach to project financing in Serbia and would make the targeted circular economy investments and related business development more attractive also for 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 crowd-funding (with or without the PBPs) in financing circular economy investments. Finally, No medium or full-size GEF funded project with a specific focus on supporting sustainable city development by a circular economy and challenge based approach has been implemented yet. As such, the project can be considered to have some innovative elements also from this viewpoint.

Sustainability and potential for scaling up

For sustainability, it is essential that the supported pilot initiatives offer both long and short term “win-win” opportunities, including environmental, economic and, when applicable, social ones. Realistic cost-sharing opportunities of project owners and other key stakeholders will be taken into account from the very beginning together with the engagement of the private sector. The GEF contribution is limited up to 20% of the total investments, which can be considered as a reasonable cost-sharing ratio for de-risking new innovative project and business ideas not tested before, while also ensuring that the supported projects have an adequately healthy financial basis and risk profile without oversubsidizing them. As regards the sustainability of the proposed challenge based financing mechanism, the Ministry of Environment is currently looking for new financing vehicles, which would facilitate partnerships with the private sector, in particular the waste industries, to move away from direct subsidies towards blending of funds and leveraging private capital. After initiated by the GEF project, the proposed challenged based financing mechanism is envisaged to later become a part of the new Green Fund of the Ministry of Environmental Protection 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. Worth mentioning in this context is also the EUR 820 million InnovFin Programme of the European Investment Fund (EIF) and the ProCredit group allowing banks in Germany, Greece, Ukraine, Georgia, Albania, Bosnia and Herzegovina, Bulgaria, Macedonia, Moldova, Romania and Serbia to offer innovative SMEs and mid-caps additional lending by reducing the collateral requirements without passing on the cost of increased risk to the client, thereby also reducing the required grant funding to support such projects.

Potential for scaling up will be among the key criteria when evaluating the proposals submitted for LCCCIP. The required framework for this is provided by the preparation of the Circular Economy Road Map identifying the challenges and opportunities for improved resource efficiency and circular economy 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 the Road Map as a simple civil servant or consultancy work, the aim is to produce it by a truly consultative and participatory process by bringing different stakeholder together to discuss and work on concrete actions that are required to accelerate the process towards a more efficient use of natural resources in Serbia. As a part of this process, the awareness of the key decision makers and their trust on the benefits and opportunities of moving towards a concept of circular economy at the community level can be built also in general. The market transformation towards a low-carbon, resource efficient, circular economy and communities, will be further enabled and encouraged, as needed, by assisting the Government in drafting new legislative and regulatory acts to remove the identified barriers for related business ideas as well as 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, including the GEF supported Circular Economy Platform. Given the foreseen interest of several GEF programme countries to 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 moving from a linear to a circular economy as key means to combat climate change is likely to give a further boost for scaling up the project impact.

[1] <https://www.resourcepanel.org/reports/global-resources-outlook>

[2] www.unenvironment.org/news-and-stories/press-release/resource-use-expected-double-2050-better-natural-resource-use

[3] International Resource Panel, 2018: Re-defining Value – The Manufacturing Revolution. Remanufacturing, Refurbishment, Repair and Direct Reuse in the Circular Economy. Nabil Nasr, Jennifer Russell, Stefan Bringezu, Stefanie Hellweg, Brian Hilton, Cory Kreiss, and Nadia von Gries.

[4] <https://www.circularity-gap.world/>

[5] <https://vimeo.com/344373458>

[6] https://ec.europa.eu/environment/circular-economy/index_en.htm,

https://ec.europa.eu/growth/industry/sustainability/circular-economy_en

[7] Intergovernmental Panel on Climate Change (IPCC), <https://www.ipcc.ch/sr15/>

[8] <https://news.un.org/en/story/2018/12/1028051>

[9] <https://unfccc.int/news/circular-economy-is-crucial-to-paris-goals-study>

[10] The CSUD project has successfully mobilized, in the first phase of implementation (since 2017 to April 2018), 11 million USD of private sector investments, compared to 470,000 USD invested grant funds at a leveraging ratio of 23-1, resulting in estimated 0,5 million tons of CO2 eq emissions reduction over the 20 years of the lifetime of each supported business idea.

[11] envisaged to be re-launched in 2019

[12] [As defined by the Tool to Determine the Remaining Lifetime of Equipment". UNFCCC. \[Online\]: https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-10-v1.pdf](https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-10-v1.pdf) or other applicable methodology

1b. Project Map and Coordinates

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

N/A

2. Stakeholders

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

Indigenous Peoples and Local Communities No

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above, please explain why:

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.

The consultations with all three stakeholder groups listed above will be continued throughout the project preparation phase. Given the nature of the project, the targeted stakeholders will be primarily engaged through bilateral discussions with the entities representing those groups as well as by organising at least one larger project preparation workshop, where the findings so far and the proposed project strategy can be presented for and discussed with a broader audience. During further project preparation, the stakeholders are encouraged and expected to bring up their views on the main barriers to effective promotion of low-carbon, resource efficient circular communities in Serbia, on their possible role in removing those barriers as well as on those possible negative impacts and consequences, which the circular economy initiatives may have for certain groups of population in Serbia. As an example, the collection of recyclable materials from household waste in Serbia is often undertaken by informal waste collectors, mostly Roma people, which would need to be taken into account during further project preparation and implementation. Also, women, as well as children are currently heavily engaged in waste collection. While greater efficiency and formalisation are essential for increasing the recycling rates, there is also a need to take care of the continuing income opportunities of the current informal waste collectors. It is also possible that even after the project implementation and “formalization” of the employment of women in waste management, there may still be open gender equality/labor related issues.

Particular consultations have been conducted with the private sector to explore their interest and also experience in dealing with circular economy and their collaboration with communities. Consultations were conducted with the Nordic Business Alliance that encompasses companies such as Ikea, Volvo and Velux with good track record of experience in collaborating with communities in fostering circular economy and improving resource and energy efficiency. One of the main outputs of this collaboration relates to the improvement of public services that municipalities are providing to their citizens. The companies participating the Climate Incubator/Accelerator of the Climate Smart Urban Development Challenge project have also been consulted, by which their knowledge and know-how have been used as well.

In the period of December 2019 - March 2020, the project team also conducted consultative meetings with local self-governments, namely the Cities of Belgrade, Kragujevac, Nis and Krusevac. All of them expressed interest in further exploring and taking into account the principles of circular economy in city planning and operation of public utility companies, while also preparing to develop and present concrete investment projects to that effect. The cities also expressed the need for additional policy support for introducing circular economy value chains by creating enabling regulatory and financing framework at the local level.

Concerning the financing sector, the project team consulted IFIs and local commercial banks for available financing instruments, including less traditional ones such as green bonds, green guarantees and crowd-funding. Worth mentioning in this context is also the EUR 820 million InnovFin Programme of the European Investment Fund (EIF1) and the ProCredit group allowing banks in Germany, Greece, Ukraine, Georgia, Albania, Bosnia and Herzegovina, Bulgaria, Macedonia, Moldova, Romania and Serbia to offer

innovative SMEs and mid-caps additional lending by reducing the collateral requirements, without passing on the cost of increased risk to the client. Discussions with EBRD were held about their future plans to support circular economy related businesses in the entire Western Balkans region.

Other consulted groups have included representatives of relevant state institutions, academia and CSOs. These consultations were primarily held in the frame of UNFCCC CoP26 preparations, where circular economy was specifically pointed out as a still largely unexplored area for helping the countries to comply with the targets of the Paris Agreement. This was further reiterated by the establishment of a specific working group by the Ministry of Environmental Protection to serve as a multi-stakeholder consultative vehicle for developing and implementing circular economy in Serbia. The Working Group is comprised of state institutions, CSOs such as Mikser Organization and United for Better Society (Unbeso), private sector representatives as well as the Standing Conference of Towns and Municipalities. As the coordinator of the WG, the Ministry of Environmental Protection is expecting that the proposed GEF project can provide much needed support for final formulation and operationalisation of the CE concept in Serbia. UNDP acts as the secretariat for the WG and its inputs have been considered in the development of the proposed GEF project.

The project has also explored the possibilities for collaboration with the "Product Stock Exchange" – a public company that supports introduction of the market of secondary raw materials in Serbia.

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

In the "Development Partnership Framework 2016-2020" of the Government of Serbia, gender equality is regarded as a critical precondition for improvement of human rights situation and sustainable development. The project will support the development of a specific gender analysis and gender action plan together with gender sensitive data collection. Such action plan will also be reflected within the circular economy navigator and roadmaps for local communities. Gender related aspects will be taken into account by including gender specific indicators into the project results framework and collecting gender sensitive data on the project impact during its implementation. Project will specifically encourage female innovators, entrepreneurs and experts to participate in the project implementation and a gender action plan will lay out how this will be done in detail. Some challenges will particularly focus on the relation of circular economy and gender, and the project will ensure that all circular economy challenges are to be designed and implemented with a gender sensitive approach. 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 Low Carbon Communities and Cleantech Innovation Platform (LCCCIP).

The project will prioritize those future beneficiaries of the LCCSP that hire more women workers. Promotion activities and trainings 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 on a voluntary basis as promotion champions with the mission to raise awareness within their local communities/companies. Specific effort will be made to help women, mostly victims of violence, to improve their knowledge and skills and to obtain additional job trainings 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 Labour, 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. 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.

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

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

improving women's participation and decision-making; and/or Yes

generating socio-economic benefits or services for women. Yes

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

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

Private sector entities are absolutely critical for the project as initiators, implementors and financiers of new business ideas that will support the transition towards circular communities in Serbia. Therefore, private sector is sought to be actively engaged both during the PPG phase for the finalisation of the project document as well as during its implementation for the preparation of the Serbia Circular Economy Roadmap and the Circular Economy Navigator and as beneficiaries of the Low Carbon Communities and Cleantech Innovation Platform for the actual investments, which are foreseen to continue to operate also after the project. In order to secure sustainability of project intervention, the project will support the development of an incentive system for continuous private sector engagement in the circular economy and low carbon development initiatives. Performance based payments, as innovative tool for private sector engagement, is still UNDP's internal procedure and can only supplement the existing complicated Government procedures for engagement of private companies. However, in order to ensure continuity and efficiency of partnerships with the private sector, more sustainable mechanisms will need to be elaborated during the time span of the project for blending of funds and de-risking investments. In particular, UNDP will assist in transferring knowledge and mechanisms for the implementation of green impact bonds schemes in Serbia, by closely working with the Ministry of Finance and the Ministry of Environmental Protection, as key institutions.

In December 2015, the European Commission adopted a Circular Economy Package to promote recycling, repair, reconditioning, reprocessing and re-use of recyclable materials and products. The aim is to ensure that all resources are managed more efficiently over their full lifecycle, which is foreseen to foster economic growth and generate new jobs. As Serbia is seeking EU membership and is currently working to align its legislation with the EU, it is inevitable that Serbia will need to adhere to the transition towards a circular economy, in particular by applying innovation in the product lifecycle and improved resource management against the traditional landfilling. In this regard, the private sector can hardly be neglected either. It serves as a key actor to initiate and foster new circular economy business models, while also having legal responsibility for the life cycle of the products produced and distributed to the market.

The economic benefits of greater resource efficiency and circular economy approaches are estimated to promote livelihoods opportunities and represent a \$US4.5 trillion GDP opportunity by 2030. It is critical to foster the circular economy concept by bringing governments and the private sector together in developing economies, where it is increasingly important to accommodate their economic growth with the related environmental concerns. This can help to foster investments from private capital investors and multilateral development banks and also raise investors' awareness and transparency regarding the sustainability of their investments. The rise of the sharing and collaborative economy has an increasing impact on communities as it generates more open, transparent and participatory solutions, while boosting public innovation. It is creating high sustainability expectations for its potential to contribute to sustainable development such as contributing to a circular economy paradigmatic change beyond the 'take, make, dispose' extractive industrial model. Yet the disruptive impact of some models is still arousing huge controversy, while alternative modalities are opening up a new frontier of innovation for inclusive economies. It has become a top priority for governments around the globe.

Introducing circularity into business sector at a global scale could yield over \$1tn per annum in material savings. The industry will play a key role in transition towards greater resource efficiency and circular communities. The transition from the old linear model of truck and tip to landfill towards a resource management approach, where the businesses and industry act as providers of raw materials and energy to the rest of the economy, has already begun.

5. Risks to Achieving Project Objectives

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

The main identified risks to successful implementation of the project include:

- a) Political risk due to the lack of political will either at the central or local governmental level to effectively contribute to the development and implementation of the Serbia Circular Economy Road Map and/or the winning solutions of the project Challenge. This risk will be mitigated by developing the project in close consultation with the key stakeholders of the national and local self-governments as well as by proposing measures, which are fully aligned with and can contribute to the achievement of the national priority targets in the waste management sector.
- b) Financial risk that the national Government or the participating municipalities do not have the financial resources to support the proposed solutions or their effective replication. This also applies for the establishment of the Green Fund as the foreseen main cofinancing source of the project. While the risk associated with the establishment and operationalization of the Green Fund is sought to be addressed before requesting the final CEO endorsement of the project, a risk still remains for Green Fund to be subject to future political changes. This risk will be mitigated by having binding cofinancing letters from Government as a prerequisite for final project approval. A number of ongoing projects funded by both bi- and multilateral donors and the already existing environmental funds managed by local self-governments will also mitigate this risk, as the solutions showing success may also be picked up for their financing. A significant share of the required investments is also envisaged to be covered by the private sector.
- c) A risk that the Low Carbon Communities and Cleantech Innovation Platform does not motivate the targeted stakeholders i.e. no proposals of decent quality and amount are received. This risk will be mitigated by careful preparation and design of the call for proposals, including a comprehensive scoping study, consultations and capacity building of the targeted stakeholders in prior to announcing the call. The experiences and results from the ongoing CSUD Challenge also indicate that by good preparation and attractive marketing, this risk can be effectively addressed. The reward for winning solutions (in terms of money, recognition, visibility or potential for replication) should be assessed as high enough by the proponents considering their participation to justify the risk of not being awarded. Therefore, adequate follow-up in the program design will be secured for those non-awarded, but still promising solutions that may benefit from the complementary information sharing and networking activities of the project.
- d) Technology risk: Due to technical failure of the equipment and/or software used, the trust of the key stakeholders and investors on the proposed solution(s) is lost. Given the innovative nature of the proposed solutions, this risk is definitely present, but will be mitigated by adequate due diligence and, when applicable, pre-testing of the proposed solutions. Adequate emphasis also needs to be put on the network safety and data protection of any ICT solutions tested and taken into use. Also, inclusion of the research institutions into the project and on-boarding them on the LCCCIP platform will de-risk technological solutions, as they will be based on credible research and tested through the Mentorship and Technical Assistance Facility.

e) Environmental risk: The proposed solution(s) may generate waste that is harmful to the environment, if not properly managed and disposed. The project will mitigate this risk by having as an obligatory component for all proposals an environmental impact assessment (not a full-fledged, but of a scale corresponding to the type and stage of development of the solution) addressing also the waste issue.

The impact and consequences of climate change on this project can be considered from two angles:

First, it is likely to further highlight the essence and importance of better resource efficiency and related opportunities to improve energy efficiency and promote the increasing use of renewable energy in combating climate change. The importance of moving from a linear to a circular economy has also been emphasized in the GEF Background Note on Circular Economy prepared for the sixth GEF Assembly meeting in June 2018.

Secondly, the changing climate and weather patterns and the extreme weather conditions eventually appearing more frequently and more intensively may pose specific risks on those circular economy investment projects (including the possible infrastructure investments), which need to be duly taken into account during the preparation of those projects. At a more detailed and specific level this can only be done, once those projects are known.

f) Operational risk concerning inadequate local capacity to effectively implement the proposed measures. The strong focus of the project on capacity building and coaching is expected to mitigate this risk.

g) Operational risk due to inadequate and/or non-capacitated human resources of the core project team to successfully implement the project and support the mainstreaming of its results. Due to the innovative and somewhat unconventional project implementation approach, this risk is considered to be relatively high. Given the critical role that the project manager and the rest of the project team has in achieving the project results, duly emphasizing and taking into account the required qualifications for these positions (as presented in greater detail in their ToRs) will be of utmost importance for project success. Furthermore, this risk can be mitigated by the experiences and lessons learnt from the ongoing CSUD challenge program as well as by benefitting from the support of the mixed international and national coaching and mentoring team to be established under component 2 of the project.

Annex: SOCIAL AND ENVIRONMENTAL SCREENING TEMPLATE

The completed template, which constitutes the Social and Environmental Screening Report, must be included as an annex to the Project Document. Please refer to the [Social and Environmental Screening Procedure and Toolkit](#) for guidance on how to answer the 6 questions.

Project Information

Project Information	
1. Project Title	Reducing Community Carbon Footprint by a Circular Economy Approach in the Republic of Serbia
2. Project Number	6285
3. Location (Global/Region/Country)	Serbia

Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Overarching Principles in order to Strengthen Social and Environmental Sustainability?
<i>Briefly describe in the space below how the Project mainstreams the human-rights based approach</i>
<p>Since the break-up of former Yugoslavia, Serbia has actively adhered to the principles of mainstreaming human rights in the national legislation and government policies. The country has ratified and participates in a number of international human rights conventions and protocols. Additionally, the country has adopted national strategies towards gender equality and against discrimination. The proposed project will further support this process and will mainstream through its design and activities a clearly defined human-rights based approach.</p> <p>The project will support the implementation of open monitoring, information and knowledge management as well as broad community engagement and participation – starting from the preparation of the Serbia Circular Economy Communities (CEC) Road Map – through a highly participatory approach, thereby also seeking to improve 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 support the right to information, and will aim to reflect the views of various stakeholders, including minorities and marginalized groups in the project design and operation. More efficient and environmentally friendly waste management promoted under the project is expected to contribute to the further improvement of quality of life and the advancement of equal human rights to safe and clean environment, while also creating new employment and business opportunities thus supporting the right for equal employment. Throughout the project implementation, specific emphasis will also be placed on gender related aspects and equal rights of men and women, as described in detail below.</p>
<i>Briefly describe in the space below how the Project is likely to improve gender equality and women’s empowerment</i>

Although legislation in Serbia favors gender equality and women’s empowerment, there are still some social barriers preventing women’s equal participation in the economy, social life and decision-making processes. The project will further support the improvement of gender equality in the country by taking a gender responsive approach to promote gender equality and women’s empowerment in the design and execution of all project outputs.

To achieve this, the Project will, through involving UNDP gender focal point and hiring a gender expert at the PPG stage fully incorporate gender considerations into the project design. Additionally, during project Implementation, a gender expert will be hired to assist the Project Team.

Gender related aspects have already been and will continue to be taken into account by including gender specific indicators into the project results framework, collecting gender disaggregated data on the project impact during its implementation and specifically encouraging female innovators, entrepreneurs and experts to participate in the project implementation. Project activities will be implemented also by ensuring maximum consideration of gender responsiveness. Should at any point during the project implementation, the monitored data indicate that either one of the genders is significantly under-represented among the project beneficiaries, the reasons for that will be studied and depending on the findings, specific measures will be introduced by project’s adaptive management to address and correct the situation.

Briefly describe in the space below how the Project mainstreams environmental sustainability

Mainstreaming environmental sustainability is in the core of project strategy. Among others, environmental sustainability will be achieved by means of introducing and providing various tools for environmentally sustainable management and operation of all Serbian municipalities, with a strong focus on improved waste management practices.

Part B. Identifying and Managing Social and Environmental Risks

<p>QUESTION 2: What are the Potential Social and Environmental Risks?</p> <p><i>Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses). If no risks have been identified in Attachment 1 then note “No Risks Identified” and skip to Question 4 and Select “Low Risk”. Questions 5 and 6 not required for Low Risk Projects.</i></p>	<p>QUESTION 3: What is the level of significance of the potential social and environmental risks?</p> <p><i>Note: Respond to Questions 4 and 5 below before proceeding to Question 6</i></p>			<p>QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?</p>
<p>Risk Description</p>	<p>Impact and Probability (1-5)</p>	<p>Significance (Low, Moderate, High)</p>	<p>Comments</p>	<p>Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.</p>

<p>Risk 1: The collection of recyclable materials from household waste in Serbia is often undertaken by informal waste collectors, mostly Roma people, which may face a risk of losing their income opportunities by the introduction of new waste management practices.</p> <p>Principle 1 (1.1 and 1.3)</p>	<p>I = 4 P = 5</p>	<p>High</p>	<p>While greater efficiency and formalization of the sector are essential for increasing the recycling rates, there is also a need to take care of the continuing income opportunities for the current informal waste collectors. This risk has a very high probability of occurrence based on experience with waste management activities in the region and globally. The impact is assessed as medium-high, although this can be managed through an appropriate project design.</p>	<p>A livelihoods analysis will be undertaken during the PPG to identify groups that could be potentially economically affected by project activities (specifically associated with informal/illegal waste collection). Those findings will inform the design of the project, and a Livelihood Action Plan (or Framework) will be developed.</p>
<p>Risk 2: The implementation of the project may lead to concerns about the human rights of the affected marginalized social groups involved in waste collection, mainly Roma, and lead to potential conflicts.</p> <p>Principle 1 (1.7 and 1.8)</p>	<p>I=3 P=2</p>	<p>Moderate</p>	<p>As the project will involve change in the waste management practices and limit the supply of source of income of informal waste collectors, it may result in potential conflicts and raise concerns about human rights of the affected population. Similar cases have been observed in other projects related to waste management in the region,</p>	<p>Stakeholder analysis and comprehensive Stakeholder Engagement Plan will be developed during the PPG phase. Particular attention will be given to the Roma population that is involved in the waste collection. This risk will be further mitigated through the project design as the project will support transformational changes and provide legal/regulatory/incentive recommendations and guidance on full integration of “illegal waste collectors” in the national social and employment policy.</p>
<p>Risk 3: The project may have adverse impact on gender equality.</p> <p>Principle 2 (1.1 and 1.3)</p>	<p>I = 3 P = 3</p>	<p>Moderate</p>	<p>Women, as well as children are currently heavily engaged in waste collection practices. It is possible that even after the project implementation and “formalization” of the employment of women in waste management, they can still be treated as a cheap source of labor.</p>	<p>At the PPG phase, a special gender responsive ESMF will be developed. Gender specific indicators will be designed as part of the project results framework, collecting gender sensitive data on the project impact during its implementation. Additionally, the project will specifically encourage female innovators, entrepreneurs and experts to participate in the project implementation and gender action plan will lay out how this will be done in detail. Promotion activities and trainings will be gender mainstreamed, targeting specific needs and roles of women who are directly involved in the waste management or in any part of the product’s lifecycle.</p>

<p>Risk 4: Upstream impacts (risk of unintended social or environmental consequences of policy changes)</p> <p>Principle 3, Standard 1 (1.1 and 1.11)</p>	<p>I = 3 P = 3</p>	<p>Moderate</p>	<p>As the project involves policy changes, there is a medium probability of this risk occurring.</p>	<p>During the PPG phase, the details of Outcome 1 will be further designed to follow the SESA approach on policy development.</p> <p>The project design will also incorporate the assistance in improving national policy in the area of resource management by promoting reuse and recycling schemes for all waste streams. Inputs will be provided for the revision of the National Strategy for Sustainable Management of Natural Resources and Goods in terms of using waste as resource and reducing extraction industries. Additionally, the Waste Policy of Serbia will be amended by further supporting creation of “end of waste” policy for each waste stream and introducing incentive measures for reuse/recycling industry.</p> <p>By promoting circular economy approaches, the project will contribute to the reduction of pollution from extractive industries, waste disposal (soil contamination, water and air pollution), as well as GHG emissions from the landfills and dumpsites. Project will also promote alternatives and phasing out of harmful substances that are being used in production, processing and packaging processes by various industries and businesses.</p> <p>In this way, the project design will allow the mitigation and appropriate management of this risk.</p>
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<p>Risk 5: The project may pose potential risk to the health and safety of the individuals involved in the waste management activities under the project.</p> <p>Principle 3, Standard 3 (3.9)</p>	<p>I = 5 P = 2</p>	<p>High</p>	<p>The probability of occurrence of this risk is low as the project is not expected to deal with any harmful waste. However, this should be properly monitored and managed during the project implementation stage.</p>	<p>Occupational Health Management Protocol will be designed as part of the PPG phase. The project will also produce an action plan and promotion materials to support, in particular companies and individuals involved into circular economy schemes, as of how to undertake preventive measures to ensure occupational safety of workers.</p> <p>As part of the project design, trainings and awareness raising will be organized for stakeholders and practitioners to better understand ways of safe management of materials that are being placed in the circularity chains. The results of the project will feed into national employment health and social policy, providing recommendations for their improvements.</p>
<p>Risk 6: The activities under Outcome 2 may affect cultural heritage sites in Serbia.</p> <p>Principle 3, Standard 4 (4.1)</p>	<p>I=2 P=1</p>	<p>Low</p>	<p>Although cultural heritage sites exist in Serbia, waste management and collection takes place geographically far from those places, therefore, no specific risks exists for cultural heritage sites.</p>	<p>This will be studies in detail during the PPG phase.</p>
<p>Risk 7: Economic and physical displacement of illegal waste collectors</p> <p>Principle 3, Standard 5 (5.2)</p>	<p>I = 4 P = 3</p>	<p>High</p>	<p>There is a risk of economic displacement of the illegal waste collectors. Physical displacement may not occur, as this is not practiced in Serbia in relation to the closure of illegal dumpsites.</p>	<p>During the PPG phase, an ESMF will be developed. The project will also design a plan to reduce the impact of economic displacement of illegal waste collectors and their integration in the formal waste management sector.</p>

<p>Risk 8: The investments and other measures supported by the project may generate waste, which, if not properly and managed, may be disposed in an environmentally unsound manner.</p> <p>Principle 3, Standard 7 (7.1, 7.2, 7.3)</p>	<p>I = 5 P = 2</p>	<p>High</p>	<p>The project is aiming to introduce new measures for managing waste based on the principles of circular economy. Therefore, the probability of the waste not being properly managed is low, still the impact of the project is considered to be medium-high, especially in the initial project stages when the new measures are planned to be introduced.</p>	<p>The project will mitigate this risk by requiring all investment proposals seeking for project support to include a waste management plan incorporated into the project design in line with national Waste Management Strategy, circular/resource sharing economy principles (in particular applying waste reducing, reusing and recycling schemes), as well as the SESP requirements. Prioritization of resource re-use over the resource extraction will be promoted throughout all project activities, thus reducing the probability of the occurrence of this risk. The details will be further elaborated during the PPG stage, during which a waste management expert will be retained. All requirements will be verified by the Project Board including by the representatives of the line ministry in charge of waste management policy.</p>
QUESTION 4: What is the overall Project risk categorization?				
Select one (see SESP for guidance)			Comments	
<i>Low Risk</i> <input type="checkbox"/>				
<i>Moderate Risk</i> <input type="checkbox"/>				
<i>High Risk</i> <input checked="" type="checkbox"/>			<p>Although human rights mainstreaming, gender and environmental risks were identified as part of the screening, three of the risks were classified as medium risks, four as high and one as low. Therefore, the project is classified as a high risk project. During PPG phase, ESMF will be developed and it might require development of Livelihood Action Plan during project's first year of implementation.</p>	
QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?				
Check all that apply			Comments	

<i>Principle 1: Human Rights</i>	X	Livelihood analysis, stakeholder analysis and a stakeholder engagement plan will be developed.
<i>Principle 2: Gender Equality and Women's Empowerment</i>	X	Gender responsive ESMF will be developed during the PPG phase
<i>1. Biodiversity Conservation and Natural Resource Management</i>	X	Output 1 will be designed to fully reflect the SESP requirements,
<i>2. Climate Change Mitigation and Adaptation</i>	<input type="checkbox"/>	
<i>3. Community Health, Safety and Working Conditions</i>	X	An occupational safety management protocol will be designed during the PPG phase.
<i>4. Cultural Heritage</i>	X	
<i>5. Displacement and Resettlement</i>	X	ESMF will be developed.
<i>6. Indigenous Peoples</i>	<input type="checkbox"/>	
<i>7. Pollution Prevention and Resource Efficiency</i>	X	The SESP requirements will be fully incorporated in the design of the project to ensure that the project ensures resource efficiency and prevents the generation of additional pollution.

Final Sign Off

<i>Signature</i>	<i>Date</i>	<i>Description</i>
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QA Assessor		UNDP staff member responsible for the Project, typically a UNDP Programme Officer. Final signature confirms they have “checked” to ensure that the SESP is adequately conducted.
QA Approver		UNDP senior manager, typically the UNDP Deputy Country Director (DCD), Country Director (CD), Deputy Resident Representative (DRR), or Resident Representative (RR). The QA Approver cannot also be the QA Assessor. Final signature confirms they have “cleared” the SESP prior to submittal to the PAC.
PAC Chair		UNDP chair of the PAC. In some cases PAC Chair may also be the QA Approver. Final signature confirms that the SESP was considered as part of the project appraisal and considered in recommendations of the PAC.

SESP Attachment 1. Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental <u>Risks</u>	
Principles 1: Human Rights	Answer (Yes/No)
1. Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	Yes
2. Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups? [1]	No
3. Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	Yes
4. Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them?	No
5. Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	No
6. Is there a risk that rights-holders do not have the capacity to claim their rights?	No
7. Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	Yes
8. Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	Yes
Principle 2: Gender Equality and Women's Empowerment	
1. Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	Yes
2. Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	No
3. Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	Yes

<p>4. Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services?</p> <p><i>For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being</i></p>	No
<p>Principle 3: Environmental Sustainability: Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below</p>	
<p>Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management</p>	
<p>1.1 Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services?</p> <p><i>For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes</i></p>	YES
<p>1.2 Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?</p>	No
<p>1.3 Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)</p>	No
<p>1.4 Would Project activities pose risks to endangered species?</p>	No
<p>1.5 Would the Project pose a risk of introducing invasive alien species?</p>	No
<p>1.6 Does the Project involve harvesting of natural forests, plantation development, or reforestation?</p>	No
<p>1.7 Does the Project involve the production and/or harvesting of fish populations or other aquatic species?</p>	No
<p>1.8 Does the Project involve significant extraction, diversion or containment of surface or ground water?</p> <p><i>For example, construction of dams, reservoirs, river basin developments, groundwater extraction</i></p>	No
<p>1.9 Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)</p>	No
<p>1.10 Would the Project generate potential adverse transboundary or global environmental concerns?</p>	No

<p>1.11 Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area?</p> <p><i>For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned, then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.</i></p>	Yes
<p>Standard 2: Climate Change Mitigation and Adaptation</p>	
<p>2.1 Will the proposed Project result in significant^[2] greenhouse gas emissions or may exacerbate climate change?</p>	No
<p>2.2 Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?</p>	No
<p>2.3 Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)?</p> <p><i>For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding</i></p>	No
<p>Standard 3: Community Health, Safety and Working Conditions</p>	
<p>3.1 Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?</p>	No
<p>3.2 Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?</p>	No
<p>3.3 Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?</p>	No
<p>3.4 Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)</p>	No
<p>3.5 Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?</p>	No
<p>3.6 Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?</p>	No
<p>3.7 Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?</p>	No

3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and international labor standards (i.e. principles and standards of ILO fundamental conventions)?	No
3.9	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	Yes
Standard 4: Cultural Heritage		
4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No
4.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	No
Standard 5: Displacement and Resettlement		
5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	No
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	YES
5.3	Is there a risk that the Project would lead to forced evictions?[3]	No
5.4	Would the proposed Project possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	No
Standard 6: Indigenous Peoples		
6.1	Are indigenous peoples present in the Project area (including Project area of influence)?	No
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	No
6.3	Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the Project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)? <i>If the answer to the screening question 6.3 is “yes” the potential risk impacts are considered potentially severe and/or critical and the Project would be categorized as either Moderate or High Risk.</i>	No
6.4	Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	No

6.5	Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No
6.6	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	No
6.7	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	No
6.8	Would the Project potentially affect the physical and cultural survival of indigenous peoples?	No
6.9	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No
Standard 7: Pollution Prevention and Resource Efficiency		
7.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Yes
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	Yes
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs? <i>For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol</i>	Yes
7.4	Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	No
7.5	Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	No

[1] Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to “women and men” or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

[2] In regards to CO₂, 'significant emissions' corresponds generally to more than 25,000 tons per year (from both direct and indirect sources). [The Guidance Note on Climate Change Mitigation and Adaptation provides additional information on GHG emissions.]

[3] Forced evictions include acts and/or omissions involving the coerced or involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources that were occupied or depended upon, thus eliminating the ability of an individual, group, or community to reside or work in a particular dwelling, residence, or location without the provision of, and access to, appropriate forms of legal or other protections.

6. Coordination

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

On Institutional Arrangements, this project will be implemented using the National Implementation Modality (NIM) with the Ministry of Environmental Protection of the Republic of Serbia as the main implementing partner for this project. UNDP will provide oversight services to the project in accordance with the rule and procedures for implementing GEF projects.

There are three ongoing GEF financed activities in Serbia, which are relevant to the proposed new project. The envisaged co-ordination arrangements with these initiatives are briefly discussed below:

The medium-size project "Climate Smart Urban Development" (CSUD) was endorsed by the GEF in December 2016 and its implementation started in 2017 with the expected duration of five years. This is the first project in global GEF portfolio to introduce the challenge prize approach in sourcing pilot project ideas, which can contribute to the overall project development and GHG emission reduction targets at the project objective level. The results so far have been encouraging with over 100 proposals received from a variety of stakeholders, who were responding to the initial call. Several project ideas were also related to circular economy, beside contributing to climate smart urban development and GHG emission reduction in general. Beside Serbia, the innovation challenge based approach has created significant interest also in other UNDP and GEF programme countries and the Government of Serbia is currently considering its use for sourcing project ideas for the new Green Fund. The proposed project builds on this momentum, while also greatly benefitting from the experiences collected from and the strategies and materials prepared for and tested in the frame of the ongoing CSUD project.

The project "Removing Barriers to Promote and Support Energy Management Systems in Municipalities throughout Serbia" was endorsed by the GEF at the end of June 2015. The project objective is to introduce and support the implementation of municipal Energy Management Systems (EMS), including Energy Management Information Systems (EMIS), throughout Serbia to increase the energy efficiency investments in public buildings and municipal services and to facilitate their more energy efficient operation in general. While the minimum project target by the end of the project is to have at least 30 Serbian municipalities to formally adopt and start the implementation of EMS and EMIS, the project also seeks to facilitate their replication in other Serbian municipalities. The main connection point of EMIS with the proposed new project would be in an effort to go

beyond the energy related data currently collected for EMIS and complement it by a publicly accessible monitoring and information system for circular economy related targets e.g in reusing and circulating different raw materials. The feasibility of this, however, still needs to be explored and evaluated during further project preparation.

The implementation of the project "Reducing Barriers to Accelerate the Development of Biomass Markets in Serbia" was started in May 2014 with a focus on institutional strengthening, awareness raising, capacity building and creating an enabling policy framework for increasing the use of biomass as an energy source in Serbia. The project has supported the construction of six biogas plants using agricultural and food processing residues as feedstock for producing biogas and later electricity. Models for long term biomass supply agreements and appropriate licensing procedures necessary for developing the bioenergy market in Serbia and an online trading platform for biofuels (including organic waste) were also developed. As such, any new bioenergy activities that may fall under the circular economy approach could greatly benefit from the results, experiences and lessons learnt from this biomass project finalized in June 2019.

There are also several other donors, including both bilateral and multilateral donors supporting the implementation of Serbia's waste management strategy and which may include elements that can be associated with building low-carbon, resource efficient communities in Serbia by applying circular economy approach. The eventual connection points and areas of mutual interest will be explored during further project preparation and addressed in the final project documentation submitted for CEO endorsement. Some of these projects include the: "EU IPA funded project on revision of the Waste Management Strategy", the GIZ funded "Municipal Waste and Wastewater Management" project, (IMPACT)" and the EIT funded Climate KIC project on Circular Cities.

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assesments under relevant conventions

Yes

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

The project consistency with the national priorities has already been explained in section 1a (Project Description), so a reference is made to this section for further information.

In national communications and biennial update reports for Serbia, enhancing resource efficiency has been recognized to have a significant potential for reducing GHG emissions and achieving carbon neutral economy. At first place by reducing emissions from landfills, but also by the increase of resource efficiency by different reuse and recycling schemes. Beside focusing on the reduction of energy sector emissions, Serbia intends to invest further efforts in promoting carbon neutral technologies and greater resource efficiency also in other sectors.

8. Knowledge Management

Outline the Knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

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 within the national knowledge sharing platform and hub (CE Navigator), unless there is a specific reason for not doing so (e.g. for protecting some intellectual property rights). This applies also for project mid-term and final evaluations, which similar to all GEF financed UNDP implemented projects can be downloaded from the public UNDP website: web.undp.org/gef/evaluation.shtml.

For learning from corresponding initiatives in other countries and for ensuring that the latest global knowledge, best practices and technical developments can be taken into account in implementing the project activities, the project shall link up with other knowledge management networks and platforms dealing with the topic. This includes initiatives such as the European Circular Economy Stakeholder Platform (<https://circulareconomy.europa.eu/platform/knowledge>), Dutch Circular Economy Knowledge Hub (<https://www.circulareconomyclub.com/listings/case-studies/circular-economy-knowledge-hub/>) and the frontrunners in preparing national Circular Economy Roadmaps such as SITRA (<https://www.sitra.fi/en/topics/a-circular-economy/>) to just mentioned a few. The core project team will also be supported by a coaching team composed by 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.

Finally, the project 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. The larger Global Platform is led by the World Bank and joined by major global city-based networks advocating urban sustainability including, ICLEI and C40 and leading environmental think-tanks such as World Resources Institute (WRI). Through engagement with the GPSC, these technical partners and city-based networks provide knowledge sharing and technical expertise in support of participating cities, in partnership with Implementing Agencies, and National Governments. Also, the project will build interface with the European Circular Economy Platform (ECESP), a joint initiative by the European Commission and the European Economic and Social Committee, as well as other similar platforms for business sector, such as BusinessEurope CE platform that continuously brings new examples of innovative ways in which industry, SMEs and other business add to the circular economy in Europe.

9. Environmental and Social Safeguard (ESS) Risks

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

Since the break-up of former Yugoslavia, Serbia has actively adhered to the principles of mainstreaming human rights in the national legislation and government policies. The country has ratified and participates in a number of international human rights conventions and protocols. Additionally, the country has adopted national strategies towards gender equality and against discrimination. The proposed project will further support this process and will mainstream through its design and activities a clearly defined human-rights based approach.

The project will support the implementation of open monitoring, information and knowledge management as well as broad community engagement and participation – starting from the preparation of the Serbia Circular Economy Communities (CEC) Road Map – through a highly participatory approach, thereby also seeking to improve 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 support the right to information, and will aim to reflect the views of various stakeholders, including minorities and marginalized groups in the project design and operation. More efficient and environmentally friendly waste management promoted under the project is expected to contribute to the further improvement of quality of life and the advancement of equal human rights to safe and clean environment, while also creating new employment and business opportunities thus supporting the right for equal employment. Throughout the project implementation, specific emphasis will also be placed on gender related aspects and equal rights of men and women, as described in detail below.

Briefly describe in the space below how the Project is likely to improve gender equality and women’s empowerment

Although legislation in Serbia favors gender equality and women’s empowerment, there are still some social barriers preventing women’s equal participation in the economy, social life and decision-making processes. The project will further support the improvement of gender equality in the country by taking a gender responsive approach to promote gender equality and women’s empowerment in the design and execution of all project outputs.

To achieve this, the Project will, through involving UNDP gender focal point and hiring a gender expert at the PPG stage fully incorporate gender considerations into the project design. Additionally, during project Implementation, a gender expert will be hired to assist the Project Team.

Gender related aspects have already been and will continue to be taken into account by including gender specific indicators into the project results framework, collecting gender disaggregated data on the project impact during its implementation and specifically encouraging female innovators, entrepreneurs and experts to participate in the project implementation. Project activities will be implemented also by ensuring maximum consideration of gender responsiveness. Should at any point during the project implementation, the monitored data indicate that either one of the genders is significantly under-represented among the project beneficiaries, the reasons for that will be studied and depending on the findings, specific measures will be introduced by project’s adaptive management to address and correct the situation.

Briefly describe in the space below how the Project mainstreams environmental sustainability

Mainstreaming environmental sustainability is in the core of project strategy. Among others, environmental sustainability will be achieved by means of introducing and providing various tools for environmentally sustainable management and operation of all Serbian municipalities, with a strong focus on improved waste management practices.

Part B. Identifying and Managing Social and Environmental Risks

QUESTION 2: What are the Potential Social and Environmental Risks? <i>Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses). If no risks have been identified in Attachment 1 then note “No Risks Identified” and skip to Question 4 and Select “Low Risk”. Questions 5 and 6 not required for Low Risk Projects.</i>		QUESTION 3: What is the level of significance of the potential social and environmental risks? <i>Note: Respond to Questions 4 and 5 below before proceeding to Question 6</i>		QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?
<i>Risk Description</i>	<i>Impact and Probability (1-5)</i>	<i>Significance (Low, Moderate, High)</i>	<i>Comments</i>	<i>Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.</i>
Risk 1: The collection of recyclable materials from household waste in Serbia is often undertaken by informal waste collectors, mostly Roma people, which may face a risk of losing their income opportunities by the introduction of new waste management practices. Principle 1 (1.1 and 1.3)	I = 4 P = 5	High	While greater efficiency and formalization of the sector are essential for increasing the recycling rates, there is also a need to take care of the continuing income opportunities for the current informal waste collectors. This risk has a very high probability of occurrence based on experience with waste management activities in the region and globally. The impact is assessed as medium-high, although this can be managed through an appropriate project design.	A livelihoods analysis will be undertaken during the PPG to identify groups that could be potentially economically affected by project activities (specifically associated with informal/illegal waste collection). Those findings will inform the design of the project, and a Livelihood Action Plan (or Framework) will be developed.

<p>Risk 2: The implementation of the project may lead to concerns about the human rights of the affected marginalized social groups involved in waste collection, mainly Roma, and lead to potential conflicts.</p> <p>Principle 1 (1.7 and 1.8)</p>	<p>I=3 P=2</p>	<p>Moderate</p>	<p>As the project will involve change in the waste management practices and limit the supply of source of income of informal waste collectors, it may result in potential conflicts and raise concerns about human rights of the affected population. Similar cases have been observed in other projects related to waste management in the region,</p>	<p>Stakeholder analysis and comprehensive Stakeholder Engagement Plan will be developed during the PPG phase. Particular attention will be given to the Roma population that is involved in the waste collection. This risk will be further mitigated through the project design as the project will support transformational changes and provide legal/regulatory/incentive recommendations and guidance on full integration of “illegal waste collectors” in the national social and employment policy.</p>
<p>Risk 3: The project may have adverse impact on gender equality.</p> <p>Principle 2 (1.1 and 1.3)</p>	<p>I = 3 P = 3</p>	<p>Moderate</p>	<p>Women, as well as children are currently heavily engaged in waste collection practices. It is possible that even after the project implementation and “formalization” of the employment of women in waste management, they can still be treated as a cheap source of labor.</p>	<p>At the PPG phase, a special gender responsive ESMF will be developed. Gender specific indicators will be designed as part of the project results framework, collecting gender sensitive data on the project impact during its implementation. Additionally, the project will specifically encourage female innovators, entrepreneurs and experts to participate in the project implementation and gender action plan will lay out how this will be done in detail. Promotion activities and trainings will be gender mainstreamed, targeting specific needs and roles of women who are directly involved in the waste management or in any part of the product’s lifecycle.</p>

<p>Risk 4: Upstream impacts (risk of unintended social or environmental consequences of policy changes)</p> <p>Principle 3, Standard 1 (1.1 and 1.11)</p>	<p>I = 3 P = 3</p>	<p>Moderate</p>	<p>As the project involves policy changes, there is a medium probability of this risk occurring.</p>	<p>During the PPG phase, the details of Outcome 1 will be further designed to follow the SESA approach on policy development.</p> <p>The project design will also incorporate the assistance in improving national policy in the area of resource management by promoting reuse and recycling schemes for all waste streams. Inputs will be provided for the revision of the National Strategy for Sustainable Management of Natural Resources and Goods in terms of using waste as resource and reducing extraction industries. Additionally, the Waste Policy of Serbia will be amended by further supporting creation of “end of waste” policy for each waste stream and introducing incentive measures for reuse/recycling industry.</p> <p>By promoting circular economy approaches, the project will contribute to the reduction of pollution from extractive industries, waste disposal (soil contamination, water and air pollution), as well as GHG emissions from the landfills and dumpsites. Project will also promote alternatives and phasing out of harmful substances that are being used in production, processing and packaging processes by various industries and businesses.</p> <p>In this way, the project design will allow the mitigation and appropriate management of this risk.</p>
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<p>Risk 5: The project may pose potential risk to the health and safety of the individuals involved in the waste management activities under the project.</p> <p>Principle 3, Standard 3 (3.9)</p>	<p>I = 5 P = 2</p>	<p>High</p>	<p>The probability of occurrence of this risk is low as the project is not expected to deal with any harmful waste. However, this should be properly monitored and managed during the project implementation stage.</p>	<p>Occupational Health Management Protocol will be designed as part of the PPG phase. The project will also produce an action plan and promotion materials to support, in particular companies and individuals involved into circular economy schemes, as of how to undertake preventive measures to ensure occupational safety of workers.</p> <p>As part of the project design, trainings and awareness raising will be organized for stakeholders and practitioners to better understand ways of safe management of materials that are being placed in the circularity chains. The results of the project will feed into national employment health and social policy, providing recommendations for their improvements.</p>
<p>Risk 6: The activities under Outcome 2 may affect cultural heritage sites in Serbia.</p> <p>Principle 3, Standard 4 (4.1)</p>	<p>I=2 P=1</p>	<p>Low</p>	<p>Although cultural heritage sites exist in Serbia, waste management and collection takes place geographically far from those places, therefore, no specific risks exists for cultural heritage sites.</p>	<p>This will be studies in detail during the PPG phase.</p>
<p>Risk 7: Economic and physical displacement of illegal waste collectors</p> <p>Principle 3, Standard 5 (5.2)</p>	<p>I = 4 P = 3</p>	<p>High</p>	<p>There is a risk of economic displacement of the illegal waste collectors. Physical displacement may not occur, as this is not practiced in Serbia in relation to the closure of illegal dumpsites.</p>	<p>During the PPG phase, an ESMF will be developed. The project will also design a plan to reduce the impact of economic displacement of illegal waste collectors and their integration in the formal waste management sector.</p>

<p>Risk 8: The investments and other measures supported by the project may generate waste, which, if not properly and managed, may be disposed in an environmentally unsound manner.</p> <p>Principle 3, Standard 7 (7.1, 7.2, 7.3)</p>	<p>I = 5 P = 2</p>	<p>High</p>	<p>The project is aiming to introduce new measures for managing waste based on the principles of circular economy. Therefore, the probability of the waste not being properly managed is low, still the impact of the project is considered to be medium-high, especially in the initial project stages when the new measures are planned to be introduced.</p>	<p>The project will mitigate this risk by requiring all investment proposals seeking for project support to include a waste management plan incorporated into the project design in line with national Waste Management Strategy, circular/resource sharing economy principles (in particular applying waste reducing, reusing and recycling schemes), as well as the SESP requirements. Prioritization of resource re-use over the resource extraction will be promoted throughout all project activities, thus reducing the probability of the occurrence of this risk. The details will be further elaborated during the PPG stage, during which a waste management expert will be retained. All requirements will be verified by the Project Board including by the representatives of the line ministry in charge of waste management policy.</p>
<p>QUESTION 4: What is the overall Project risk categorization?</p>				
<p>Select one (see SESP for guidance)</p>			<p>Comments</p>	
<p><i>Low Risk</i> <input type="checkbox"/></p>				
<p><i>Moderate Risk</i> <input type="checkbox"/></p>				
<p><i>High Risk</i> <input checked="" type="checkbox"/></p>			<p>Although human rights mainstreaming, gender and environmental risks were identified as part of the screening, three of the risks were classified as medium risks, four as high and one as low. Therefore, the project is classified as a high risk project. During PPG phase, ESMF will be developed and it might require development of Livelihood Action Plan during project's first year of implementation.</p>	
<p>QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?</p>				
<p>Check all that apply</p>			<p>Comments</p>	

<i>Principle 1: Human Rights</i>	X	Livelihood analysis, stakeholder analysis and a stakeholder engagement plan will be developed.
<i>Principle 2: Gender Equality and Women's Empowerment</i>	X	Gender responsive ESMF will be developed during the PPG phase
<i>1. Biodiversity Conservation and Natural Resource Management</i>	X	Output 1 will be designed to fully reflect the SESP requirements,
<i>2. Climate Change Mitigation and Adaptation</i>	<input type="checkbox"/>	
<i>3. Community Health, Safety and Working Conditions</i>	X	An occupational safety management protocol will be designed during the PPG phase.
<i>4. Cultural Heritage</i>	X	
<i>5. Displacement and Resettlement</i>	X	ESMF will be developed.
<i>6. Indigenous Peoples</i>	<input type="checkbox"/>	
<i>7. Pollution Prevention and Resource Efficiency</i>	X	The SESP requirements will be fully incorporated in the design of the project to ensure that the project ensures resource efficiency and prevents the generation of additional pollution.

Final Sign Off

<i>Signature</i>	<i>Date</i>	<i>Description</i>
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QA Assessor		UNDP staff member responsible for the Project, typically a UNDP Programme Officer. Final signature confirms they have “checked” to ensure that the SESP is adequately conducted.
QA Approver		UNDP senior manager, typically the UNDP Deputy Country Director (DCD), Country Director (CD), Deputy Resident Representative (DRR), or Resident Representative (RR). The QA Approver cannot also be the QA Assessor. Final signature confirms they have “cleared” the SESP prior to submittal to the PAC.
PAC Chair		UNDP chair of the PAC. In some cases PAC Chair may also be the QA Approver. Final signature confirms that the SESP was considered as part of the project appraisal and considered in recommendations of the PAC.

SESP Attachment 1. Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental <u>Risks</u>	
Principles 1: Human Rights	Answer (Yes/No)
1. Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	Yes
2. Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups? [1]	No
3. Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	Yes
4. Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them?	No
5. Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	No
6. Is there a risk that rights-holders do not have the capacity to claim their rights?	No
7. Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	Yes
8. Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	Yes
Principle 2: Gender Equality and Women's Empowerment	
1. Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	Yes
2. Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	No
3. Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	Yes

<p>4. Would the Project potentially limit women’s ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services?</p> <p><i>For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being</i></p>	No
<p>Principle 3: Environmental Sustainability: Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below</p>	
<p>Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management</p>	
<p>1.1 Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services?</p> <p><i>For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes</i></p>	YES
<p>1.2 Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?</p>	No
<p>1.3 Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)</p>	No
<p>1.4 Would Project activities pose risks to endangered species?</p>	No
<p>1.5 Would the Project pose a risk of introducing invasive alien species?</p>	No
<p>1.6 Does the Project involve harvesting of natural forests, plantation development, or reforestation?</p>	No
<p>1.7 Does the Project involve the production and/or harvesting of fish populations or other aquatic species?</p>	No
<p>1.8 Does the Project involve significant extraction, diversion or containment of surface or ground water?</p> <p><i>For example, construction of dams, reservoirs, river basin developments, groundwater extraction</i></p>	No
<p>1.9 Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)</p>	No
<p>1.10 Would the Project generate potential adverse transboundary or global environmental concerns?</p>	No

<p>1.11 Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area?</p> <p><i>For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned, then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.</i></p>	Yes
<p>Standard 2: Climate Change Mitigation and Adaptation</p>	
<p>2.1 Will the proposed Project result in significant^[2] greenhouse gas emissions or may exacerbate climate change?</p>	No
<p>2.2 Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?</p>	No
<p>2.3 Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)?</p> <p><i>For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding</i></p>	No
<p>Standard 3: Community Health, Safety and Working Conditions</p>	
<p>3.1 Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?</p>	No
<p>3.2 Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?</p>	No
<p>3.3 Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?</p>	No
<p>3.4 Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)</p>	No
<p>3.5 Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?</p>	No
<p>3.6 Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?</p>	No
<p>3.7 Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?</p>	No

3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and international labor standards (i.e. principles and standards of ILO fundamental conventions)?	No
3.9	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	Yes
Standard 4: Cultural Heritage		
4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No
4.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	No
Standard 5: Displacement and Resettlement		
5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	No
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	YES
5.3	Is there a risk that the Project would lead to forced evictions?[3]	No
5.4	Would the proposed Project possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	No
Standard 6: Indigenous Peoples		
6.1	Are indigenous peoples present in the Project area (including Project area of influence)?	No
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	No
6.3	Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the Project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)? <i>If the answer to the screening question 6.3 is “yes” the potential risk impacts are considered potentially severe and/or critical and the Project would be categorized as either Moderate or High Risk.</i>	No
6.4	Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	No

6.5	Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No
6.6	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	No
6.7	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	No
6.8	Would the Project potentially affect the physical and cultural survival of indigenous peoples?	No
6.9	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No
Standard 7: Pollution Prevention and Resource Efficiency		
7.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Yes
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	Yes
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs? <i>For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol</i>	Yes
7.4	Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	No
7.5	Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	No

[1] Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to “women and men” or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

[2] In regards to CO₂, ‘significant emissions’ corresponds generally to more than 25,000 tons per year (from both direct and indirect sources). [The Guidance Note on Climate Change Mitigation and Adaptation provides additional information on GHG emissions.]

[3] Forced evictions include acts and/or omissions involving the coerced or involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources that were occupied or depended upon, thus eliminating the ability of an individual, group, or community to reside or work in a particular dwelling, residence, or location without the provision of, and access to, appropriate forms of legal or other protections.

Supporting Documents

Upload available ESS supporting documents.

Title

Submitted

6285 UNDP GEF pre-SESP 21052020-1

Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Goran Trivan	Minister of Environmental Protection and GEF Political Focal Point	Ministry of Environmental Protection	12/14/2018

ANNEX A: Project Map and Geographic Coordinates

Please provide geo-referenced information and map where the project intervention takes place

Not available.