



Terminal Evaluation – TCNTM

Towards Carbon Neutral Tourism in Montenegro

a project of:

**Government of Montenegro (GOM)
United Nations Development Programme (UNDP)
Global Environment Facility (GEF)**

April 12, 2020

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Basic Project/ Terminal Evaluation Information and Acknowledgements

Basic Project Information

Official Project Title: *Towards Carbon Neutral Tourism in Montenegro*

Abbreviated Project Title: *TCNTM*

Country: Montenegro

Region: Europe and CIS

UNDP PIMS# 5149

GEF Project ID# 5098

IP and Other Project Partners: Project is “DIM” (directly implemented by UNDP). Ministry of Sustainable Development and Tourism (MSDT) is the key national project partner. Other project partners include, but are not limited to, Ministry of Transport and Maritime Affairs, Ministry of Economy, Ministry of Finance, Ministry of Agriculture and Rural Development, National Tourism Organization (NTO, which is under MSDT), municipal governments, municipal local tourism organizations (LTOs, which are under municipal governments), private sector companies, and NGOs.

GEF Operational Focal Area: Climate Change Mitigation (CCM)

GEF Strategic Programs:

Focal Area Strategic Objective (or “Operational Program”)	Strategic Program under Focal Area Objective (or “Key Expected Outcome” of Focal Area Objective)
CCM-4 Promote Energy Efficient, Low Carbon Transport and Urban Systems	Sustainable transport and urban policy and regulatory frameworks adopted and implemented
	Increased investment in less-GHG intensive transport and urban systems

TE Team Members

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TE Timeline

Mission: January 27 – February 7, 2020

Main Work: January 6 – March 31, 2020 (from start of document review to full draft report)

Reviews of Draft Report and Finalization: March 26 – April 12, 2020

Report date: April 12, 2020

Acknowledgements

The terminal evaluation (TE) team is highly appreciative of the contributions of the many stakeholders who supported the TE through generous contributions of their time, effort, and insights during, before, and after the mission. Their enthusiasm for and knowledge of the project and its activities in which they were involved provided us strong insights into this very important undertaking for Montenegro. In particular, the *Toward Carbon Neutral Tourism in Montenegro (TCNTM)* project team provided outstanding strategy and facilitation support for the extensive meetings and site visits of our mission. They also provided comprehensive and timely inputs for our many queries and requests for information during and after the mission. UNDP Montenegro Country Office leadership, UNDP CO team members associated with other projects, and the UNDP RTA in Istanbul provided us strong strategic inputs and historical perspective. At the national government level, MSDT through a number of its directorates, Ministry of Economy, and Ministry of Transport and Maritime Affairs all provided valuable inputs, as did the National Tourism Agency (NTO), the newly established Eco-Fund, and the National Parks Administration. Municipalities and their local tourism organizations (LTOs) provided critical insights on the impacts of *TCNTM* initiatives at the local level. These include officials from Podgorica, Cetinje, Budva, Tivat, Herceg Novi, Zabljak, and Pluzine/ Piva Nature Park, all visited during the mission and several providing additional feedback after the mission. It also includes Savnik, Danilovgrad, and Kolasin, interviewed by telephone after the mission. The private sector provided strong input on their involvement in *TCNTM*, especially with regard to pilot projects. The majority of these private sector entities were accommodations, though the group also included a recreation provider and a marina. Among private sector entities, Bella Boka, the new low carbon boat public transport company cooperating with the project, provided us extensive input to understand their very impactful activities. Sports teams and the International Olympic Committee provided us with additional and important perspectives. And, other NGOs, an association partner of the project, and the media provided us with such perspective as well. GIZ, whose donor work has had synergies with *TCNTM*, provided us with important insights. Lastly, consultants/ companies that had done work for *TCNTM* related to pilot projects, energy audits, tourism sector GHG emissions inventory, eco-certification of accommodations, Eco-Fund, and e-mobility all gave generously of our time to enhance our understanding of their work and its impact.

In sum, we thank all the individuals who shared their insights with us and helped facilitate our mission and document review work and fulfill our requests for additional information. If this report is in the end able to provide useful insights on the successes and challenges of *TCNTM* and valuable suggestions for the future, it will be the aggregate contributions of these individuals that will have made this possible. Specific organizations and individuals are noted with more detail in the realized mission and consultation schedule provided in Annex 1. We wish to thank all of those listed in Annex 1 as well as some who participated in meetings or site visits whose names are not included.

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Acronyms, Abbreviations, and Definitions

AC – air conditioning.

AWP – annual work plan.

CCM – Climate Change Mitigation. In this report, refers to the GEF focal area focused on reducing GHG emissions.

CDR – combined delivery report. UNDP document that shows realized project expenditures.

CEO – Chief Executive Officer.

CER – GEF CEO Endorsement Request. A project design document submitted, along with the project document (“ProDoc”), to the GEF once full project design has been completed.

CIS – Commonwealth of Independent States. Regional intergovernmental organization of nine states in Eurasia that were formerly part of the Soviet Union. “Europe and CIS” is the region within UNDP’s geographic organization of which Montenegro is a part.

CO – country office: used to refer to UNDP Country Office, in this case the one in Montenegro.

CO₂ – carbon dioxide.

CO₂eq – carbon dioxide equivalent. Refers to the equivalent amount of CO₂ in terms of warming effect represented by the aggregate effect of CO₂ and other greenhouse gases involved.

Co-financing: For a GEF project, co-financing is the funding provided by other sources to support the same outcomes and, often, the same outputs and activities as the GEF funds.

CTA – Chief Technical Advisor. Role often held by international consultants to support implementation of UNDP-GEF projects.

DIM – Directly Implemented. Refers to UNDP-GEF project directly implemented by UNDP, rather than nationally implemented (NIM) by the government of the host country. Among UNDP-GEF projects, DIM is much less common than NIM.

DPC – Direct Project Costs. UNDP costs directly attributable to a development project activity and thus charged to the project. UNDP, as a GEF IA, receives an agency fee from GEF for its standard support, such as quality assurance, to UNDP-GEF projects. Additional costs, such as specific administrative costs incurred in procurement/ recruiting, may be charged to the project under the DPC account code.

EA – Executing Agency. In UNDP-GEF projects, the agency responsible for day-to-day project implementation. For nationally-implemented projects, the EA is also known as the IP (Implementing Partner). Because *TCNTM* is a DIM project, UNDP is the EA (as well as being the IA).

EBRD – European Bank for Reconstruction and Development.

Eco-Fund: A government fund established by the project to provide support to environmentally related projects in areas such as waste management and energy efficiency/ climate change mitigation, including transport.

EE – energy efficiency.

e-mobility: Transport of persons by modes of transport that are powered by electricity, such as electric cars, electric buses, and electric bicycles.

EMW – European Mobility Week. Held every September starting in 2002, an annual event of the European Commission focused on promoting sustainable urban transport/ mobility in member, candidate, and potential candidate states.

Energy Audit: An audit of a facility’s efficiency of energy use. The audit typically makes recommendations that are cost-effective ways of reducing energy use.

EOP – end of project.

EPA – Environmental Protection Agency. Agency in Montenegro responsible, among other things, for preparing Montenegro’s GHG inventory.

ESCO – Energy Service Company. A company that provides retrofits to reduce energy use via energy performance contracting (EPC). The energy performance contract in such deals calls for the ESCO to provide the retrofits up front. The ESCO will then be paid back gradually over time by the client based on verified energy savings.

EU – European Union.

EU Eco-Label: A label of environmental excellence provided to products and services and coordinated by the EU. In this report, the EU Eco-Label for accommodations is a key area of interest and one of three types of accommodation eco-certification supported by the project. EU Eco-Label is considered the most appropriate type of eco-certification for smaller accommodations in Montenegro.

Euro or € Currency of EU and currency used in Montenegro. Often used in this report to show costs, though USD, being the standard currency for UNDP-GEF projects, is also used.

EuroVelo: Network of 16 long-distance cycling routes crisscrossing Europe. This report refers in particular to EuroVelo 8, or EV8, the Mediterranean route.

EV – electric vehicle. A vehicle powered by electricity. Most typically the term is used to refer to cars.

e-vehicle – electric vehicle. Used in this report to refer to a range of electric road vehicles including electric tourist trams and open-air “trolleys” that are road vehicles.

GCF – Green Climate Fund

GEF – Global Environment Facility. Core funding source of this project.

GEF INV – GEF funds designated for investment activities, such as installations or technical designs for installations.

GEF TA – GEF funds designated for technical assistance activities, such as promotion of new policies.

GHG – Greenhouse Gas.

GHG ER – Greenhouse Gas Emission Reduction. Refers to amount than an initiative or project reduces greenhouse gas emissions as compared to business-as-usual case. The amount is typically measured in tons or kttons of CO₂ or CO₂eq.

GIZ - German Corporation for International Cooperation GmbH. German development agency that provides services in the field of international cooperation.

GOM – Government of Montenegro.

Green Key: An eco-certification for the hospitality industry operated by the Foundation for Environmental Education. It currently has about 3,200 establishments eco-certified worldwide across 65 countries. One of the accommodations whose eco-certification was supported by *TCNTM* got the Green Key certification.

HH – household.

HN – Herceg Novi. Abbreviation used in this report for city in Montenegro.

IA – Implementing Agency. For the purpose of GEF projects, IAs are agencies selected by the GEF to support developing countries in implementing GEF projects. For *TCNTM*, UNDP is the IA.

IC – individual consultant.

ID – identification number. Used in this report to refer to project IDs.

IED – Industrial Emissions Directive. A 2010 directive of the European Parliament and Council on Industrial Emissions. Member EU states and applicants to the EU should harmonize their industrial emissions laws with this directive.

indirect GHG ER: GHG ER that is not due directly to project (in this case *TCNTM*) activities, but is stimulated through those activities, such as via replication of them. As an example, LED street lighting in a first city that results from a feasibility study supported directly through *TCNTM* activities results in direct GHG ERs. And, LED street lighting in a neighboring city that results from that second city noticing the benefits to the first city and choosing to do a similar projects, results in indirect GHG ERs.

INV – funds designated for investment in equipment and infrastructure (or, sometimes, feasibility and design work for these), in contrast with TA funds, which are to be used for services. The distinction between TA and INV is used in budget allocations for GEF projects.

IP – Implementing Partner. In a nationally implemented UNDP-supported GEF-financed project, the government agency responsible for implementation.

IPA – Instrument for Pre-Accession Assistance: EU financial assistance for countries that are candidates or potential candidates for accession to the EU.

kg – kilogram.

km – kilometer.

kt - kiloton. 1,000 tons or 1 M kg. In this report, typically refers to the mass of CO₂ or CO₂eq.

kW – kilowatt. A measure of electric power. One thousand watts.

kWh – kilowatt hour. A measure of energy, usually delivered through electric power. One kW of power delivered over 1 hour provides 1 kWh, as does 0.5 kW over 2 hours.

kWth – a unit of heat supply capacity to measure the heat output per unit time. SWH capacity can be designated in kWth.

LED – light emitting diode. A semi-conductor light source that is much more efficient than traditional incandescent lights and more efficient than previous generations of energy efficient lights, such as halogen lights and CFLs (compact fluorescent lights).

Lifetime GHG ERs: GHG ERs over the lifetime of equipment installed.

LTO – Local Tourism Organization: Municipal-level government organization in Montenegro responsible for promoting local tourism.

mo – month.

M – million.

M&E – monitoring and evaluation.

MONSTAT – Statistical Office of Montenegro

MOU – Memorandum of Understanding.

MSDT – Ministry of Sustainable Development and Tourism. Key national government partner for this project.

MTMA – Ministry of Transport and Maritime Affairs

MTR – midterm review. An evaluation of a project taking place midway through its lifetime.

NA – not available or not applicable.

NDC – Nationally Determined Contributions. Under the Paris Climate Agreement, a document that outlines and communicates a country’s plans for post-2020 actions to reduce GHG emissions.

NGO – non-governmental organization. NGOs are both non-profit and non-governmental.

NIM – nationally implemented project: A type of UNDP project where implementation is led by the Government of the host country.

NLB Bank – NLB Bank Podgorica: A part of NLB Group, the largest financial and banking institution in Slovenia. NLB Bank Podgorica is among the five largest banks in Montenegro.

NP – National Park. Abbreviation used in this report.

NTCF – National Tourism Climate Fund. Fund originally envisioned in *TCNTM* design to be established with support of project.

NTO – National Tourism Organization. State organization under MSDT that is responsible for promoting Montenegro’s tourism.

OP/SP – Operational Program/ Strategic Program. GEF terminology: OPs are programs under various GEF focal areas, such as the CCM focal area. SPs are sub-programs under OPs.

payback: In this report, used to indicate number of years it will take an investment to be paid back by the savings its generates or by the revenues it generates.

PB – Project Board

PIF – Project Information Form: initial proposal for a GEF project. The PIF is a rough concept document. Once approved, the GEF allocates funds for the full project, but detailed project design must be completed and cleared (via submission of ProDoc and CER) before funds can be released. (The GEF often provides separate funds for detailed project design – “PPG” - around the time of PIF approval.)

PIMS – Project Information Management System: A UNDP database system for its projects.

PIR – Project Implementation Review. A template-based document that is prepared mid-year each year for active UNDP-supported GEF-financed projects. The document reviews progress towards results and quality of implementation. It includes an update on the status of each project indicator.

PIU – Project Implementation Unit.

PM – Project Manager.

PMU – Project Management Unit.

PPG – Project Preparation Grant: GEF funds for the detailed design phase of a project.

PR – public relations.

PRF – Project Results Framework: Indicator table in UNDP-GEF ProDoc and CER.

ProDoc – Project Document. A full project design document. In the case of UNDP-supported GEF-financed projects, the ProDoc is submitted to the GEF along with the CER to receive approval of the full project design.

Project team: In the case of this report, refers to full-time members of the *TCNTM* project team working in the PMU Office located at UNDP Eco-House in Podgorica. At the time of the TE, the project team consisted of 5 persons, the project manager, three component coordinators, and the finance and administrative officer. At its peak, the project team had 6 persons, including 4 component coordinators, one for each of the project's 4 components.

PSC – project steering committee.

PV – photovoltaic. Refers to a system that uses sunlight to produce electricity. Solar PV panels are typically mounted on the roof or ground to absorb sunlight which is then converted into electricity by solar cells in the panels.

RE – renewable energy, such as solar energy, wind energy, hydro, and biomass energy.

RFP – request for proposals.

RTA – Regional Technical Advisor. For UNDP-supported GEF-financed projects, a regionally-based expert and manager who provides technical and management guidance to the design and implementation of projects in focal areas under his or her purview.

STAP – Scientific and Technical Advisory Panel: a group that advises the GEF and provides suggestions for improving project proposals.

SMART – specific, measurable, achievable, relevant, and time bound. SMART is used to refer in this case to the design of project indicators and whether they are appropriate and effective tools for guiding and measuring progress towards desired results.

SUMP – Sustainable Urban Mobility Plan. A local or regional plan for promoting a shift to more sustainable mobility and improved mobility for persons living in and visiting the area.

SWH – solar water heater. A system that heats water for a facility via solar panels that transfer heat from sunlight directly to the water or indirectly through a special fluid. This type of energy is “solar thermal” energy. No electricity nor photoelectric processes are involved.

t – ton. 1,000 kg. In this report, typically refers to the mass of CO₂ or CO₂eq.

TA – technical assistance. Funds designated for services, in contrast with INV funds, which are to be used for equipment and infrastructure. The distinction between TA and INV is used in budget allocations for GEF projects.

TBD – to be determined.

TCNTM – *Towards Carbon Neutral Tourism in Montenegro*. The title of the project that is the subject of evaluation covered in this report.

TE – terminal evaluation. An evaluation conducted towards the end of a project's lifetime. A TE is required for all UNDP-supported GEF-financed projects. This report presents the findings of the TE for *TCNTM*.

TOR – terms of reference. A document describing work tasks. Often used to recruit consultants or contracting firms for a project.

Travelife: Eco-certification system for travel businesses, including accommodations. Travelife is among the three eco-certification systems that *TCNTM* promoted for accommodations in Montenegro. It is considered to be appropriate to larger hotels and attractive to them as some large global tour operators prefer hotels with this certification.

UN – United Nations

UNDP – United Nations Development Programme. GEF Implementing Agency for the project.

UNDP CO – UNDP Country Office. In the case of the *TCNTM*, UNDP CO refers to the UNDP Montenegro Country Office.

UNDP-GEF: UNDP Global Environmental Finance. Refers to team within UNDP that manages/ advises GEF-financed projects and also projects supported by other global environmentally focused funds, such as the GCF.

UNDP-GEF Project: Project with core funding from GEF that is supported by UNDP as GEF Implementing Agency.

UNDP RR – UNDP Resident Representative, the head of a UNDP CO

UNEG – United Nations Evaluation Group

USD – US Dollar. UNDP-GEF project funds provision and accounting are carried out in USD.

VAT – value added tax. A tax applied to goods and services when sold or imported. In Montenegro, the standard VAT is 21%, but may be a lower amount for certain goods, services, or purchasing organizations.

WP – water polo. Abbreviation used in this report.

yr – year.

Project Summary Table

Project Title	Towards Carbon Neutral Tourism in Montenegro			
GEF Project ID	5098	Project Financing	<i>at endorsement</i> <i>(Million USD)</i>	<i>at completion</i> <i>(Million USD)</i>
UNDP Project ID	5149	GEF financing	3.090	2.906†
Country	Montenegro	IA/EA own (UNDP)	1.658	0.115†
Region	Europe and CIS	Government	117.929	4.109
Focal Area	Climate change mitigation	Other	2.321	7.356
FA Objectives (OP/SP)	CCM-4 Promote Energy Efficient, Low Carbon Transport and Urban Systems: (1) Sustainable transport and urban policy and regulatory frameworks adopted and implemented. (2) Increased investment in less-GHG intensive transport and urban systems.	Total co-financing	121.907	11.579
Executing Agency	UNDP (NIM Project)	Total project cost	124.997	14.485
Other Partners	Ministry of Sustainable Development and Tourism (MSDT), other ministries, municipal governments, private sector	ProDoc Signature (date project began)		Aug. 4, 2014
		(Operational) Closing Date:	Proposed:	Actual:
			Aug 4, 2019	May 4, 2020

†UNDP and GEF expenditures are as of end of Dec. 2019. As the project end date is May 4, 2020 and given project plans, it is likely that expenditures of GEF funds will reach the full allocated amount of USD 3.090 and that expenditures of UNDP funds will also increase. Other co-financing (“government” and “other” categories) is expected at EOP to be that given above.

Executive Summary

Background

- *Towards Carbon Neutral Tourism in Montenegro (TCNTM)* is a GOM-UNDP-GEF project with the objective of reducing GHG emissions from Montenegro's tourism sector. It has a designed 5-year and actual 5.75 year duration (Aug. 4, 2014 – May 4, 2020) and GEF grant financing of USD 3.09 M. Committed co-financing at design was USD 121.91 M.
- With over USD 1 B in revenues and accounting for over 20% of GDP in 2014 (year of project start), tourism is the largest sector in Montenegro's economy and is growing rapidly. Yet, in-country tourism activities accounted for 87 kt CO₂e emissions in 2014, just 3.9% of Montenegro's total GHG emissions that year.
- Project design has four targeted outcomes focusing on: (1) policy as relates to low-carbon tourism, spatial planning, and eco-certification of accommodations (GEF fund allocation of USD 528,000); (2) low-carbon transport (USD 470,000); (3) pilot low-carbon tourism projects and establishment of a tourism sector climate change mitigation fund (USD 1.3 M); and (4) awareness raising on low-carbon tourism and tourism sector GHG inventory (USD 645,000).
- The TE team carried out over 50 consultations and visited eight cities in Montenegro for these discussions and site visits. The aims of the TE are to: (1) Assess progress towards results, sustainability of results, and cost effectiveness, highlighting both achievements and challenges. (2) Identify lessons and recommendations for GOM, UNDP, and other interested parties. Recommendations will build on the project's experience to advise on how to: (a) enhance and sustain its results; (b) develop other relevant opportunities that have emerged; (c) better design and implement future projects.

Description of TCNTM – Highlights of Achievements and Strengths

TCNTM Project has been an impactful and well-implemented project, comprehensively addressing the wide range of initiatives included in its design. In practice, the project has worked to reduce GHG emissions in tourism-specific areas, such as accommodations and tourism-specific transport. Yet, it also emphasizes reducing emissions in areas that benefit tourism, but are much broader in scope, such as public transport and municipal street lighting. Indeed, some of the most impressive results are seen in these “cross-cutting” areas that build on “low-carbon tourism” as an attractive and motivating theme.

Top results: *TCNTM*'s most impressive achievements include: (1) establishment of Montenegro's Eco-Fund; (2) implementation of a broad and interesting range of 31 low-carbon pilot projects with a similarly broad range of municipal and private sector stakeholders; (3) cooperation with a company that has instituted public transport in Boka Bay via low carbon boats (one of the pilot projects); (4) stimulation of e-mobility in the country; and (5) awareness raising with extremely wide reach and effectiveness in the country so that most now understand “low-carbon” and its association with tourism. Highlights of key achievements for each of *TCNTM*'s outcomes, with more detail, are summarized later in this sub-section.

GHG ERs: GHG ERs are a key measure of results of GEF CCM projects; and *TCNTM* does well in this area. When lifetime direct GHG ERs for installations during the project and those expected with high certainty post-project (and also due directly to project activities) are considered, *TCNTM* meets and substantially exceeds (by 58%) its target for direct lifetime GHG ERs of 77.0 kt. The total expected lifetime direct GHG ERs of 121.8 kt is composed of 23.8 kt from installations by end of project and 98.0 kt from installations expected post-project. Among the top contributors of both the “by EOP” and “post-project” groups are municipal street lighting projects and Bella Boka's low-carbon public transport boats. This reflects the importance of cross-cutting areas to the efforts, while building on the motivation from the “low carbon tourism” theme.

Investment mobilization: The project has similarly done well in mobilizing non-GEF investment in “low-carbon” projects (both tourism and cross-cutting), with an estimated €3.98 M¹ mobilized during project (mostly for Outcome 3 “pilot projects”). In addition, €10.55 M is expected with high certainty post-project (more Bella Boka low-carbon boats and five municipal street lighting projects) due directly to *TCNTM* activities, bringing the total to €14.53 M. When broader co-financing is considered, the during-the-project amount is €10.25 M. This includes, in addition to the foregoing, some funds not necessarily mobilized by the project but integrated with project activities. The broader amount projected to be stimulated post-project is €2.11 M. This includes, in addition to the foregoing, the forecast amount of Eco-Fund financing over 5 years, the assessed minimum amount of time by which the project has sped up establishment of the Eco-Fund). This brings the broader co-financing during project and post-project stimulated financing total to €32.35 M. Thus, if investment mobilized by *TCNTM* for specific projects is considered, the leveraging ratio of GEF funds is 4.7. When broader co-financing and full post-project fund mobilization (including first 5 years of Eco-Fund) are considered, that ratio is 10.5.

Policy and accommodations outcome: Under Outcome 1, the project has achieved progress in eco-certification and policy drafting/ adoption, as well as contribution to an important green areas challenge. Achievements are: (1) Eco-certification of 31 accommodations in Montenegro, making information and experience with eco-certification much more available than at baseline, when there were just four such certifications. (2) Energy audits of 12 accommodations, providing information that might inform an accommodations strategy going forward. (3) Preparation and adoption of Montenegro’s *Industrial Emissions Law*, which is required for EU accession. This work was very successful, with only one minor comment from the EU review in Brussels. The Law has the potential to stimulate strong GHG ERs in the industrial sector. (4) *TCNTM* achievements presented in multiple sections of the *EE Action Plan of Montenegro*, adopted in June 2019. (5) For the first time, inclusion of “eco-fees” in the revised *Law on Road Transport*, adopted in 2020. These are associated with vehicle registration and tolls.² Their inclusion reflects direct impact of discussion of Eco-Fund Board, as facilitated by *TCTM*. It raises the possibility of an additional ≈ €4 M per year in funding for the Eco-Fund. (6) An innovative participatory experience with the public on use of a park in Budva. This is an important incremental step in the face of Budva’s limited remaining green spaces being lost to development under current spatial planning practices.

Transport outcome: Under Outcome 2, the project has achieved progress in range of areas, related to transport planning and non-motorized and motorized transport (both public and private), and encompassing not only road vehicles but also boats and potentially air travel. Achievements include: (1) Preparation of Montenegro’s first SUMP, a “polycentric SUMP” for the four cities of Kotor, Tivat, Herceg Novi, and Cetinje. Some SUMP recommendations have been implemented as *TCNTM* pilot projects. (2) Strong hiking and biking results: (a) As part of SUMP, origination of idea to develop Montenegrin portion of EuroVelo 8, one of several biking routes crisscrossing Europe, and support of its feasibility study. GOM is now supporting development of part (an initial 7.5 km) of Montenegrin portion of EuroVelo 8 via *Cultural Heritage* project implemented by UNDP. Tivat has already developed 4 km of signage for EuroVelo 8 portion. (b) 70 km of hiking and bike trails developed or improved with *TCNTM* pilot projects, including (i) 12.5 km of bike paths in Podgorica, one of five planned routes on existing sidewalk and roads; (ii) signage on 60 km of hiking and biking trails in Nature Park Piva near Pluzine; (iii) renovation of 600 m walking path to/ around historical site in HN; (iv) signage for 7.5 km of hiking/ biking trails on Lustica Peninsula in Tivat and HN. (3) Impacts in e-mobility area: (a) Montenegro’s first

¹ Total co-financing estimates are substantially higher. This conservative estimate focuses on those funds mobilized specifically for low carbon measures and does not include total investments beyond those measures, such as building of a new hotel or complete refurbishment of an existing hotel.

² The amount and manner of payment of these fees will be determined by a by-law that still needs to be prepared.

e-mobility study and its promotion. Findings suggest workshops related to the study contributed to new, nascent e-mobility initiatives in Montenegro, such as a service station offering electric charging and Ministry of Transport and Maritime Affairs and the electricity distribution company both now considering acquiring electric vehicles. (b) Charging infrastructure: *TCNTM* has installed 12 two-port EV charging stations across 7 cities, more than doubling the number in Montenegro and achieving agreement from partners to provide charging for free the first year on a promotional basis. (c) Means of increasing awareness of e-vehicles: *TCNTM* pilot projects of tourism e-trams that provide tours of Cetinje and open-air e-bus that takes tourists from Zabljak to a nearby resort area. (4) Five-year anti-idling campaign at border crossing and schools that gets people to turn off their ignition while waiting. Signs are still in place. (5) National park public transport: High visibility public transport initiative via pilot project in Biogradska Gora National Park, whereby a “train” (a road-based diesel tourist tram) will transport tourists to the lake. The National Park Agency is building a parking lot with co-financing to realize its plan of subsequently closing the park to cars of tourists. There is interest in pursuing a similar initiative, but with e-bus, in Lovcen Park in Cetinje. (6) Public boat transport operational and addressing serious road traffic congestion: Bella Boka, via its pilot project, is operating two low-carbon public transport boats in Boka Bay, one grid electric-diesel hybrid and one using combination of grid electricity and solar PV electricity. Two more boats expected before EOP and five more after EOP for total of nine over the next five years. Given its scale and addressing of critical congestion problems in tourist season along roads of Boka Bay, this pilot is considered among the most potentially impactful of the project. (7) UNDP implementation of GOM Airport Project: While *TCNTM* efforts to get a Montenegro airport eco-certified have not been realized, they resulted in this new cooperation that might possibly eventually realize the aim.

Pilot projects and Eco-Fund outcome: Outcome 3 work achieved strong results in both pilot projects and Eco-Fund establishment: (1) 31 pilot projects realized with good geographic distribution and good mix of government and private sector beneficiaries. Areas include (i) pilot motorized and non-motorized transport projects (as mentioned under Outcome 2 and including low-carbon public transport boats); (ii) support of accommodations with building energy efficiency and renewable energy (LED lighting, solar water heaters, biomass pellet heating, bio-septic tank); (iii) support of sporting venues with LED lighting; (v) greening of parks and hotels; (vi) solar PV panels for artisan dairy product families in mountain tourist areas; and (vii) LED streetlights in municipalities popular with tourists. (2) Feasibility studies for LED street lighting in five additional municipalities (Podgorica, Budva, Cetinje, and Danilovgrad) assessed as highly likely to be implemented, accounting for substantial share of *TCNTM*'s total direct GHG ERs and directly mobilized investments. (3) Eco-Fund officially established by GOM. This is unlikely to have occurred now or in near future without *TCNTM*. Given small size of the country, the decision made to support this broader effort required by Montenegro's legislation, rather than the project design's “Tourism Sector CCM fund,” is quite sound. The board of the Eco-Fund is appointed and managing director, hired, with plans to hire other staff soon. Eco-charges that are already being collected (0.5 to 1 M € per year) are virtually guaranteed for initial capitalization of Eco-Fund. The new *Waste Management Law* in the works is expected to substantially increase amounts available, so that domestic annual funding in 2022 and 2023 is at least €1+ M and could rise to €8 M by 2024. There is also a good likelihood of around €4 M per year more being provided for Eco-Fund capitalization by 2021 via ecological fees related to road transport (as indicated in recent revisions of *Road Transport Law*).

Awareness raising and tourism sector GHG inventory outcome: Outcome 4 work achieved very strong results: (1) Project's awareness work widely indicated to be outstanding and noticed by many of the citizens of Montenegro. Prior to project, most Montenegrins did not know what “low carbon” was and now most do. Key initiatives include: (a) Cooperation with film and music festivals to convert their events to “green festivals,” of which they were 10 with over 150,000 festival goers annually. At least some are expected to continue “green” measures post-project. (2) Green sporting events: Made the Games of Small States when held in Montenegro “green” and developed guidelines for future such events. Already, the “police games” have shown interested in adopting green games measures. (3) Rambo

Amadeus solar sailboat: Via pilot project cooperation, this famous singer and environmentalist is now providing sailing lessons to tourists and local youth and carrying out ecological awareness work with the boat. (4) Online tool (carbon footprint calculator) allowing tourists to check their carbon footprint in visiting Montenegro and perhaps make a donation to offset: Site is believed to have received many hits and create international awareness. It was widely promoted with donation boxes hosted by a number of partners. (5) European Mobility Week: Activities in a range of cities received very enthusiastic feedback. (6) Local TV: Ten 30-minute TV tourism programs on low carbon development and project activities aired in Montenegro. (7) Promotional video: Project-prepared video on low-carbon tourism in Montenegro used extensively by NTO at international tourism fairs. (8) Five-year anti-idling campaign as noted above. (9) Media: As estimated by project, it had about 3,000 guest appearances, newspaper articles, and online articles during its lifetime. Recognition of project among population bears out a very strong media presence. (10) International promotion: (i) video by Polish travel journalist and (ii) inclusion of *TCTNM* in German language show on tourism in Montenegro viewed by 3 million in Germany and Switzerland, prepared by German television station. (11) Tourism sector GHG inventory: This provided insights on the breakdown and changes over time of components of the tourism sector's GHG emission in Montenegro.

Implementation: Implementation, as evidenced by results, has been quite strong.

- Especially notable is the model adopted by UNDP Montenegro for this and other projects, whereby full-time staff of the project implement many project activities in their area of expertise, rather than the vast majority of such work being handed by consultants. This can provide better continuity and long-term engagement than a string of consultancy assignments, which are sometimes seen with projects struggling to deliver impact. And, when there were outsourced reports or studies, the *TCNTM* team ensured these were not to be just studies on the shelf by engaging stakeholders at the start of the assignments and in providing feedback and discussion when drafts were prepared.
- Of particular interest, the project had a full-time awareness specialist, seen to be critical in introducing the little known concept of “low carbon” into Montenegro. For similarly challenging missions, the project's success in awareness suggests other projects consider adopting this model as an alternative to short-term awareness consultancies. In addition to leading various awareness initiatives, the *TCNTM* awareness specialist supported each of the other component managers strongly in promoting various activities under their purview.
- Another strength of the project's implementation is how it addressed the challenge of a CCM project design that focuses on a sector that accounts for just 3.9% of a small country's GHG ERs. This has been done by broadening work to cross-cutting areas, such as municipal LED street lighting, and broadening its tourism fund to an Eco-Fund, rather than restricting all activities to pure tourism sector initiatives. While the project design achieved some broadening via its emphasis on certain transport initiatives, the project team has taken the approach further through adaptive management.
- An additional strength of implementation noted in consultations is that the project team listens carefully to the needs of GOM and is very responsive and adaptive to these needs. This careful listening and adaptiveness is considered a key factor in success of the project.
- Another important adaptation is that the project broadened its scope from a focus on municipalities in coastal areas to all municipalities and the private sector. It was able to engage the private sector via cooperation with the Chamber of Economy. Private sector cooperation greatly strengthened the impact of the project as well as results (e.g. Bella Boka, the low carbon public boat company is private sector).
- Lastly, a great implementation strength of the project is close cooperation with other UNDP projects and, indeed, developing some “spin-off” projects or sub-projects. As mentioned, the UNDP-implemented GOM *Cultural Heritage* project will carry on the EuroVelo 8 work initiated by *TCNTM*. And, the UNDP-implement GOM airports project has a strong link with the *TCTNM* project. Also importantly, the project team's expertise has been integrated with funding from Slovakia to

implement the five aforementioned municipal LED street lighting project feasibility studies that are likely to lead to very substantial GHG ERs.

Key Concerns and Challenges

While *TCNTM* is a strong project, it has, like most other good projects, still faced certain challenges and shed light on a number of concerns. With the benefit of hindsight, it is seen that some of these are due to aspects of project design could have been better. Others simply relate to the challenge of aiming to achieve very high impact results, given underlying constraints, such as government resources, interests of the private sector, etc. Some of these concerns/ challenges may be very difficult to overcome, particularly when targets are very ambitious. Yet, it's possible experiments with new and out-of-the-box approaches may be warranted for future projects (while not putting "all eggs in the same basket" of achieving such difficult targets), given the great benefits were some successes in these areas to be achieved.

Key concerns and challenges noted are as follows:

GHG ERs, tourism, and nature of project activities: Many of the pilot project have very low GHG ER benefits. This stems from multiple factors: (1) While the tourism sector makes up over 20% of GDP in Montenegro, its GHG emissions make up only 3.9% of total GHG emissions (2018). For a country with a population of only about 630,000, a major GEF CCM project may best target a broader scope accounting for a larger share of the nation's GHG emissions. (2) The nature of tourism is such that pure "tourism" plays often have low GHG ERs. For example, a vehicle used for public transport to replace cars and driven all day throughout the city (e.g. 200+ km per day) will provide strong GHG ERs for the amount invested. Yet, such a vehicle used for tourism might only be driven 10s of km per day on a short route. The awareness benefit is strong, but GHG ERs are not. (3) Projects of scale that require strong GHG ERs may require one or two years of preparation and preparation funds, such as for feasibility studies and technical design. (4) Projects of scale many require cooperation between municipalities in Montenegro. Given the lack of institutions for regional development, this is very difficult to achieve. The TE team finds that the project did the right thing at the right time, as great awareness was created by the pilot projects. And, with direct post-project contributions, GHG ER targets will be met and surpassed. Yet, now that a strong basis is set, future projects may need to build on learnings and be more strategic in targeting quantitative environmental results.

Tourism Sector GHG Inventory: A related challenge is that *TCNTM*, following project design, invested significant efforts in developing a tourism sector GHG inventory methodology for Montenegro, assessed the inventory for five years, got a third party to verify the methodology, and provided in-depth training to EPA staff. Yet, GOM is unlikely to carry on the tourism sector inventory work, so efforts are not sustainable. While the "snapshot" of five years of tourism sector inventory is useful, the TE team understands why, with tourism being only 3.9% of GHG emissions, GOM would not place high priority on continued separate assessment. Targeting sustainable, annual assessment, in hindsight, may have been a misguided aspect of design.

International travel: *TCNTM* conducted one small study related to EE of low-cost airlines coming to Montenegro and also developed an online carbon calculator for tourists. Yet, for the most part, the project did not put much effort into reducing GHG ERs from international travel that brings tourists to Montenegro. While this is understandable, as it presents both a huge challenge and potential risk of discouraging tourists from such travel, a theme of low carbon tourism and Montenegro must sooner or later address this area. When including international travel, *TCNTM's* Montenegro tourism GHG inventory found 2018 total emissions to be 708,090 tons of which 609,647 (or 86%) were international travel. Thus, while the part of the emissions occurring once international is excluded is only 3.9% of Montenegro's total emissions, the international travel portion is equivalent to 24% of those emissions.

Accommodations: The project's incremental activities in most cases did not achieve strong energy efficiency and GHG ER results in the accommodations sector. The biggest problem in this regard is the design's focus primarily on eco-certification of accommodations. TE findings indicate that eco-certification in Montenegro has not typically led to strong improvements in EE or GHG ERs, which are a key aim of CCM projects. Instead, it has mainly benefitted awareness. Further, though the design targeted a very high penetration of eco-certification (33% of hotels and 100 apartments), international comparison shows that such a large share is unrealistic. Thus, a project that puts a large portion of its focus on eco-certification misses the opportunity to have transformative, sector-wide impact. So, while one might at first consider it a problem that no sustainability mechanism is in place to continue eco-certification support post-project, a more important conclusion is that this is not necessarily the right path for Montenegro to achieve "low-carbon tourism," but instead a good "awareness tool." Finally, findings suggest that traditional EE retrofits for many accommodations are not cost effective, as the accommodations have high occupancy only during tourist season (so payback of improvements is reduced as compared to what they might be in a full-year use situation) and often are already fairly efficient.

Spatial plans: The project aimed to develop spatial plans, but this area is very sensitive in Montenegro as urban planning responsibility is no longer with the municipal level and controlled by the state. Thus, the project could not find a way to get directly involved in spatial planning, though did make an incremental contribution awareness-wise. In some places, particularly Budva, public green spaces are being lost at a rapid rate to developments. Thus, there is an urgent need to address the situation.

Policies specified in project design: Policy-wise, the design called for the project to influence some specific policies, particularly as relates to tourism.³ Yet, these were not necessarily the policies in which the GOM desired help and not necessarily the policies that could have the greatest impact in terms of CCM. Indeed a focus on transport policies may have been more impactful. And the work on industrial emissions, which the project ended up pursuing, similarly will probably have a higher impact.

SUMP: While some of the *TCNTM*-prepared SUMP's initiatives have been implemented as pilot projects, consultations do not give a strong impression of local level impact of this well-prepared document in the four included municipalities. Also, there has been no official adoption by the municipalities of the SUMPs (in full) as action plans.⁴ A focus on fuller implementation of the SUMP during the project's lifetime may have resulted in a more strategic approach to project selection for these four cities.

Cable car: One of the major targets of project design was to incrementally support an expected cable car project from Kotor to Cetinje. The cable car would have served to cut down on high summer road congestion. The incremental support was to enable the cable car to be powered by RE. The cable car project never happened. It turns out that the *TCNTM* co-financing commitment letter of USD 64.3 M from one of the associated municipalities did not represent funds that the city was sure to have on hand. Instead, the amount was based on projected investment should investors be secured. Despite the very high level of challenge and uncertainty, the project design included the cable car as a specific target in the PRF. On top of this, the aim to have the cable car powered by RE was not clearly explained in project design. If the cable car were to use grid electricity, of course, it is not possible to ensure it is powered by RE, though a nearby RE installation could provide a positive conceptual link between the two. *TCNTM*

³ Target in project results framework is "Amendments into the Law on Tourism, Tourism Sector Development Strategy, Law on Spatial Planning and Construction and, as applicable, other related documents to promote low carbon tourism adopted."

⁴ There is no legal obligation for municipal parliaments to adopt such plans. Yet, in the case of the SUMP that has been recently prepared for Podgorica, efforts are underway to get the SUMP adopted by the municipal parliament as an action plan.

carried out a feasibility study on the RE source; and hydropower was suggested. Some stakeholders, though, suggest the idea is not viable. Interestingly, the cable car (a reduced version – half the original length or so) is now back on the table. This raises the question of whether the project or projects like it in the future can take steps to help bring such challenging initiatives to fruition. Beyond the feasibility study on RE source, the TE team did not find evidence that *TCNTM* took a proactive role to stimulate realization of the project. Generally, there may be a feeling among implementers that a relatively small project lacks the ability to influence such large investments. Indeed, this may well be true. Yet, a certain investment of effort to test what's possible may be warranted.

Marine port and airport eco-certification and RE powering of yachts and cruise ships while in port: Other extremely ambitious PRF targets per project design were eco-certification of marine ports and airports and an aim to achieve RE powering of yachts and cruise ships while docked at one port. None of these targets were achieved, though, as noted, UNDP is now facilitating GOM's investments in airports as a result of early *TCNTM* efforts, including a proposal for eco-certification of Tivat Airport. The certification of marine ports was not pursued. Indeed, some marinas may already have some sort of certification that covers environmental aspects. Yet, achievement of eco-certification for ports that have a cargo focus, especially Bar Port, might be considered. At the same time, as is the case with accommodations, it is not clear that eco-certification is the best way to achieve EE and reduced GHG emissions for large entities like airports and ports. Pure EE support may be more effective. Finally, there is no evidence that any marina were approached by *TCNTM* to discuss the idea of powering boats in port by RE. This may be due to a feeling among implementers that relatively small projects lack the ability to influence such large investments. Further, initial feedback suggests this kind of initiative has not been achieved elsewhere in the world; and space limitations in Montenegro marinas would make it especially challenging. Yet, it would could be worth expending some effort to initiate exploratory discussions. Another step that could be taken is to assess whether RE aim for marinas is practicable and whether there are precedents elsewhere in the world or if perhaps some other type of RE initiatives at marinas could be pursued (e.g. rooftop power and SWHs for building energy).

Engagement of large companies and stimulation of large investment initiatives: The two items above raise a larger question of whether *TCNTM* and projects like it can influence large companies and stimulate large investments. While it's a great challenge, by diversifying efforts over several such companies and projects, while at the same time supporting a set of "surer thing" small initiatives, a project gives itself a better chance of hitting home runs. Further, engagement of large companies is something UNDP has success with in other locales around the world and might be considered for Montenegro. At the same time, project design should be careful to ensure targets have flexible means of being met. Including long-shot initiatives as specific outcome-level targets in the PRF reduces the utility of the PRF as a tool to support project implementation strategy. It also makes it difficult to make a reasonable assessment of what a project has achieved.

Bus stations: Project design called for investment in two bus stations to become "low carbon welcome centers" to provide information and bookings. These were included as a specific target in the PRF, making it difficult for the project team to conduct adaptive management. Support of the bus stations was in the end carried out, but with little enthusiasm or hope for impact. This included around €50,000 investment in Cetinje's bus station. It seems unfortunate that this had to be carried out "going through the motions" due to its inclusion as an indicator target.

Eco-Fund, including timeline and capitalization: While Eco-Fund establishment is truly a great achievement of the project and two new capitalization channels are expected, strong capitalization of the fund will not be achieved by EOP. Further, by EOP, it is likely that only the managing director will be on board, with other staff still remaining to be hired. And, the fund will certainly not be operational by EOP. The original project design called for a tourism climate change mitigation fund. Given above findings that

tourism sector domestic GHGs account for just 3.9% of total GHGs in Montenegro, a country with a population of only 630,000, it seems the project design was not very strategic in this area. This may have caused the project to lose time as it assessed the options and fortunately arrived at the strategic decision to support the broader Eco-Fund. Thus, given that the job of establishing the Eco-Fund is not fully complete, there are risks the Eco-Fund may hit roadblocks, particularly if there is not a channel for additional TA/ support to keep the process moving until the fund is well-capitalized and funding projects.

Design of awareness work and challenge of surveys to measure results: Even the very outstanding awareness work faced some challenges. These stem mainly from project design. The indicators for the awareness work focus on three things: (1) availability of new, low carbon tourism products and services (measured based on existence of “products” such as special booking systems, tourist welcome cards, and green meetings on tourism websites/ in marketing materials); (2) certified low carbon tourism services (measured based on their market share); and (3) share of visitors actively looking for low carbon services (measured based on survey). With hindsight, it can see that this design of awareness work indicators is quite weak and didn’t fit with the reality of what the project would be trying to do or what would be truly useful in building awareness. Fortunately, the project developed the ideas of “green festivals” and “green sporting events,” which are quite relevant and can perhaps be considered “low carbon tourism products.” As for measuring the third indicator, the surveys, while carried out per project design, do not seem that helpful in assessing the situation. There may have been a better way to design indicators to guide and measure the success of the awareness work. In the end, the survey was carried out three times, but the composition of the surveyed set of individuals and even the survey questions were not consistent, making it difficult to use the surveys for the original intent of measuring progress over time.

Assessment of Project to Date and Ratings: Please see the table below for assessment of progress towards the project objective and each of its four outcomes, as well as a summary of other evaluation ratings. The standard TE ratings scale is provided in Annex 5.

TE Ratings and Achievement Summary Table for TCNTM Project

A. Progress Toward Results	
<i>Objective or Outcome</i>	<i>TE Rating and Achievement Description</i> (See Annex 6 for rating scale.)
Objective: Reduce GHG emissions from Montenegro’s tourism sector and maintain the overall tourism sector related GHG emissions at the 2013 level or lower despite the rapidly growing number of visitors	Satisfactory: Project has done outstanding job of introducing the concepts of low-carbon tourism and ecological tourism to Montenegro, stimulating initiatives across the country in a range of tourism related areas, mainly transport, accommodation, and greening. An innovative highlight is solar PV/grid electric and hybrid grid electric/ diesel boats to transport tourists in Boka Bay. Through: (i) creating heightened awareness of ecological issues especially as related to tourism, (ii) realizing pilot demonstrations of low carbon tourism initiatives nation-wide, and (iii) achieving institutional set up of a national Eco-Fund, the project has enabled Montenegro to finally get on track to realizing its self-declared status as an ecological country. The project is on-track to meet its GHG direct emission reduction targets once highly likely post-project emission reductions due directly to project activities are realized. There are a few remaining challenging, high-profile initiatives in the project design for which further follow up (to encourage post-project support) might be considered. Continuation of Eco-Fund TA support to keep progress on track for full capitalization and launch is also highly desirable.
Outcome 1: Legal and regulatory framework supporting low carbon tourism and low carbon spatial development, including increased certification of both existing and new tourist accommodation facilities and related services by internationally	Satisfactory: (1) The project has had some impactful “wins” for low carbon development in the policy arena: New <i>Law on Industrial Emissions</i> drafted and adopted; potential funding for Eco-Fund incorporated into <i>Law on Road Transport</i> ; project achievements incorporated into <i>National Action Plan for EE 2019-21</i> . (2) In eco-certification of accommodations, the project did all it could, given constraints of market scale and interest, achieving 31 eco-certified accommodations. Of these, achievement of 19 EU Eco-Label accommodations surpasses certification: population ratios of top Eco-Label countries. To better contribute to project objective GHG ER targets, project design might instead have focused on EE/ RE for cost savings for accommodations and a mechanism to finance EE/ RE for accommodations, especially SWHs and PV systems. In final days, project may work to explore such a mechanism, such as through Eco-Fund, Investment Development Fund, or future Government donor projects. (3) With regard to spatial planning, given encroachment of development on green areas in Budva, <i>Go Green Initiative</i> for planning on use of a park in Budva important in stimulating public participation and awareness. Additional work is needed to address this serious issue. Project was not able to prepare actual spatial plans as intended due to

<p>recognized environmental certification scheme(s)</p>	<p>institutional issues, which have resulted in spatial planning authority being shifted from municipal level to national level. A SUMP, which may be considered as an “annex” to a spatial plan, was prepared as part of Outcome 2.</p>
<p>Outcome 2: Improved low carbon and carbon neutral transport infrastructure to support tourism sector related public and non-motorized transport.</p>	<p>Satisfactory: Project has strong achievements in low carbon transport related to tourism, both in terms of reducing GHGs and in terms of creating awareness and motivation for new investments through demo projects and analysis: (1) Highlight is the public transport by hybrid (grid electric and diesel) and solar electric (grid electric and solar PV) boats in Boka Bay, addressing traffic jams and providing substantial GHG ERs. Four boats (two of each type) will be operational by end of project and nine in total are expected within 5 years. (2) Project prepared quality polycentric SUMP for four cities (Kotor, Tivat, Herceg Novi, and Cetinje), the first SUMP in Montenegro. A few measures were implemented as <i>TCNTM</i> pilot projects (boats of preceding item and some trails in next item), while another important one introduced by the SUMP, Montenegrin portion of Mediterranean Euro-Velo (trans-Europe) biking trail, has now been recognized as an important target, with feasibility study prepared by <i>TCNTM</i>. Future efforts might work to implement more of the SUMP recommendations and assure SUMP adopted in full as action plan by each of the four cities. (3) Hiking and biking trails of 84.6 km (with total of 92.1 km expected) improved with signage or developed through direct influence of project provide GHG ERs and raise awareness. These include implementation of small portion of EuroVelo 8; and funding designated under UNDP-facilitated GOM <i>Cultural Relics</i> project will implement a second portion. (4) Project has stimulated nascent activity in e-mobility via road with its analysis (e-mobility analysis for Montenegro) and demonstrations. The latter include eight electric tourist trams used in Cetinje, Zabljak, and at a large hotel in each of Budva and Ulcinj. (5) Project will facilitate use of EVs via the 12 charging stations (each with two ports) it has established across 7 cities. Earlier issue with slower than expected charging (1 to 2 hours⁵) from the 22 kW port as compared to the 11 kW port in Podgorica city center station has been resolved. (6) Project has promoted closure of national parks to cars of tourists in favor of public transport. The first such closure, supported with national co-financing for a parking lot, will be achieved with a project supported “train” (open-air diesel road-based tram that looks like train) at Biogradska Gora National Park. Cetinje hopes to do something similar with an electric bus (and closing of the park to cars) at Lovcen National Park, pending regulatory support from the National Parks of Montenegro Public Enterprise. Needs and learnings from <i>TCNTM</i> are feeding into design of major public transport initiative. For some targeted, but especially challenging and unrealized initiatives of the outcome, project may consider preliminary follow up and facilitation of inclusion in future projects: (1) Earlier plans for eco-certification of airports as included in Government-funded <i>Airport Project</i> being facilitated by UNDP now uncertain and might be followed up upon. Yet, promotion of actual EE/RE at airports may be an alternative and yield more GHG ERs than eco-certification. (2) Initial discussion with cargo port such as Bar on eco-certification may be considered, though a direct focus on EE/RE may yield more GHG ERs. (3) Initial research and discussions to explore viability of RE-powering of yachts and cruise ships when docked in marina may be considered⁶. (4) Latest status of cable car project and potential to reinstate discussion of RE powering of it may be explored.</p>
<p>Outcome 3: Pilot investments to support low carbon tourism development implemented, followed up by the establishment of a sustainable financing mechanism to support climate change mitigation and adaptation actions in the tourism sector</p>	<p>Highly Satisfactory: Project achievements in the area of low-carbon tourism pilot projects have high potential for creating awareness and replication to increase their already significant benefits. Total pilot project financing for items specifically stimulated by <i>TCNTM</i> is about €5 M, surpassing target of €3.6 M, and including about €4.0 M in non-GEF mobilized funds. Additional pilot project non-GEF funds expected with high certainty to be mobilized post-project are about €10.5 M, bringing total of non-GEF funds mobilized by pilot projects to about €14.5 M or about 14.5 times GEF funds utilized for pilot projects and about 5.6 times the amount of non-GEF funds targeted to be mobilized for pilot projects. While EOP pilot project GHG direct ERs at 23.8 kt will be less than the targeted 77 kt, extremely likely post-project GHG ERs related to direct influence of project combined with EOP GHG direct ERs will be 121.8 kt, surpassing pilot project target by 58%. Post-project direct GHG ERs will be achieved by 4 LED street lighting projects, for which the project has provided feasibility studies and TE Team has confirmed very high likelihood of realization, as well as 5 additional Boka Bay low-carbon public transport boats. The 31 pilot projects are spread across the country and in a range of areas, including boat transport; e-vehicles; replacing of cars with public transport in national parks; hiking and bike trails; increased EE for accommodations via EE lighting, solar water heaters, biomass pellet heating, and bio-septic tank; solar PV electricity for artisan families in mountains of tourist areas; LED lighting for sports venues; greening of parks; and LED street lighting. The TE team was highly impressed with the quality of pilots visited and particularly in that many stakeholders are already making plans for replication or related projects. Achievement of Eco-Fund is directly due to project and supports Montenegro’s accession to EU. Eco-Fund will provide a sustainable mechanism for national funding of low carbon tourism and more general low carbon development in the future, as part of a broader fund that will address other ecological priorities as well. The board of the Eco-Fund has been appointed and the managing director is hired.</p>

⁵ Specification is 2 hours, though charging time will vary depending on vehicle.

⁶ Initial feedback suggests such initiatives have not been realized elsewhere in the world and that lack of space in Montenegro marinas make it especially challenging. At the same time, discussions might be initiated and alternative ideas, such as more extensive deployment of SWHs and rooftop PV to supply hot water and power marina buildings, could also be considered.

	Funds from eco-charges currently at €0.5-1 M per year will support fund and are expected to be significantly enhanced by pipeline new <i>Waste Management Law</i> . Projected domestic funding from such eco-charges is €1+ for each of 2022 and 2023 and could rise to €8 M in 2024. In addition, around 4 M €more per year from road transport related “eco-fees” as now specified in the new <i>Law on Road Transport</i> could further increase domestic funding. ⁷ So, very strong capitalization of Eco-Fund by 3-4 years post-project, if not sooner, depending on availability of transport sector eco-fees to Eco-Fund, is expected. ⁸		
Outcome 4: GHG emission monitoring system and increased public awareness about the carbon footprint of the tourism sector, its GHG reduction potential and measures.	Highly Satisfactory: A. Awareness/ promotion work is a true strength of the project. Before the project, most Montenegrins did not know what “low carbon” meant. Now, most do. Through its many promotional activities and media appearances the project and its theme of low-carbon tourism are known to many in the country. Low-carbon tourism “products” that especially impressed the TE team are: (1) The green concerts/ green festivals, including over 10 per year of the largest such events in Montenegro. It is likely many will continue green practices post-project. (2) Green sporting event, as instituted at the Games of Small States of Europe, and follow up cooperation with Montenegrin Olympic Committee on guidelines for green games. Interest of police games in replicating “green games” concept. (3) Opportunity to make carbon offset payments, with online calculator of CO2 emissions from visiting Montenegro getting many hits and thus raising awareness. Other awareness work highlights of the project include: (1) About 3,000 guest appearances or mentions in print and online media. (2) Video on low carbon tourism used extensively by NTO and MSDT at tourism events. (3) 5-year anti-idling campaign at border crossings and at schools. (4) Two major foreign media successes: Tourism film for Polish market featuring project and German language television show on Montenegro featuring project in addition to other aspects of tourism in Montenegro and reaching over 3 million viewers in Germany and Switzerland. (5) Extensive European Mobility Week activity at several locations across the country. B. Project has successfully estimated GHGs from tourism sector in Montenegro for each of 2014, 2015, 2016, 2017, 2018, with verification of methodology by outside firm. Government unlikely to continue this work, which may be reasonable, given low share in overall emissions. Yet, having the data for this period allows review of trends and could support inclusion of specific tourism related projects, or, more likely, cross-sector tourism inspired projects, for when Montenegro updates its NDCs. This would be a very positive development, which project may aim to influence, if possible.		
B. Summary of Evaluation Ratings: (See Annex 6 for rating scale of each area)			
1. Monitoring and Evaluation	<i>rating</i>	2. IA& EA Execution	<i>rating</i>
M&E design at entry	MS	Quality of UNDP Implementation	HS
M&E Plan Implementation	S	Quality of Execution - Executing Agency	NA
Overall quality of M&E	MS	Overall quality of Implementation / Execution	HS
3. Assessment of Outcomes	<i>rating</i>	4. Sustainability	<i>rating</i>
Relevance	R	Financial resources:	L
Effectiveness	S	Socio-political:	L
Efficiency	S	Institutional framework and governance:	L
Overall Project Outcome Rating	S	Environmental :	L
		Overall likelihood of sustainability:	L

Recommendations: Recommendations are shown in the table below, along with entities responsible for addressing each recommendation. A recommendation that cuts across outcomes is presented first. Recommendations related to Outcome 3 results, lessons, or insights are shown next, given their importance and potential significance for Eco-fund, followed by those related to Outcome 2, which are shown next given their potential significance for a potential pipeline transport project. Next, those related to Outcome 1, and then those related to Outcome 4, are given. A recommendation related to implementation is provided at the end.

TE Recommendations for TCNTM Project with Responsible Entities

#	Recommendation	Responsible Entity
A	Related to Cross-Cutting Results/ Lessons/ Insights	---
A1	<u>Leverage low carbon tourism theme with adjustments to maximize climate benefits:</u> Continue to build on the excellent awareness and pilot work associated with <i>TCNTM</i> 's	GOM, esp. MSDT, Eco-

⁷ The amount and manner of payment of these fees will be determined by a by-law that still needs to be prepared.

⁸ The amount and manner of payment of these fees will be determined by a by-law that still needs to be prepared.

	<p>“low carbon tourism theme,” but recognize the low share of domestic “pure” tourism in Montenegro’s total GHG emissions ($\approx 3.9\%$⁹). Thus, focus on using this theme to promote broader/ cross-sector efforts, such as in transportation and street lighting, to ensure GHG ERs are maximized. In this way, promote Montenegro as a low carbon tourist destination and the ecological country that, by its constitution, it is declared to be. <i>(This strategy, a key lesson of TCNTM, may be incorporated into Eco-Fund plans for low-carbon tourism and MSDT plans to promote Montenegro more generally.)</i></p>	Fund team, MTMA
B	Related to Outcome 3 (Pilot Projects and Eco-Fund) Results/ Lessons/ Insights	
B1	<p><u>Apply enhanced strategy to future sets of pilot projects and Eco-Fund work to maximize main environmental/ energy impacts targeted and co-financing stimulated:</u> In future sets of pilot projects or in fund-based efforts, ensure that main criteria (whether it be GHG ERs, waste management, area of forest sustainably managed, etc.) is strategically and quantitatively incorporated into project selection and project development approach:</p> <p>(a) Select types of projects that deliver relatively high level of main criteria per unit funding, based on clear quantitative analysis. Project concepts may be adjusted to ensure such benefits are maximized. For GHG ERs, for example, an electric vehicle driven 200 km per day will deliver much higher benefit than the same vehicle driven 30 km per day. <i>(UNDP may incorporate strategy into future GEF projects where a pilot project approach is adopted. Eco-Fund should incorporate this quantitative approach into its guidelines for each area including climate change/transport, waste management, etc.)</i></p> <p>(b) For types of projects that will have very good economic returns and strong contribution to main aim (e.g. GHG ERs), consider providing funds for feasibility studies and detailed technical designs to stimulate other investment to implement projects. <i>(UNDP can consider approach for future projects. Eco-Fund should be sure to include project development support for economically attractive projects among its priorities.)</i></p> <p>(c) Consider measures to ensure cooperation between cities to facilitate larger, higher impact projects. This, in turn, may require TA support for developing regional institutions and policies. <i>(UNDP may look for opportunities to provide needed TA support to facilitate regional cooperation. Eco-Fund may consider the support of inter-city projects.)</i></p> <p>(d) When possible, provide support for sourcing and identifying quality product for best cost, ensuring that attractive suppliers bid on opportunities. Such support may be especially worthwhile when more than one project of the same type (e.g. LED street lighting or EV tourist trams) is supported.</p>	UNDP CO (for future projects), GOM, especially Eco-Fund
B2	<p><u>Ensure continued TA support for Eco-Fund and emphasize approaches to ensure Eco-Fund’s success and impact.</u> Sub-recommendations (some overlapping with aspects of two recommendations above):</p> <p>(a) UNDP CO should find a means to continue TA support for Eco-Fund (e.g. through a new project) to ensure that the new institutional structure is developed, capitalization is realized, procedures developed, high-impact projects pursued/ developed¹⁰, and</p>	UNDP CO, UNDP RTA, GOM especially Eco-Fund and Eco-Fund

⁹ This share is based on 2014 estimates of total GHG emissions for the country and tourism sector emissions domestically. While official 2018 estimates of total GHG emissions for the country are not yet available, project work suggest tourism sector emissions have been growing at just half the rate of tourism sector revenues. Thus, it’s possible that despite the tourism sector’s faster growth than the economy as a whole, the share of domestic tourism sector emissions in the nation’s total has not risen.

¹⁰ Priorities for potential high-impact areas noted through experience and learnings of TCNTM that future TA for Eco-Fund may support include: public transport (within Podgorica, between different cities, and between the urban

	<p>visibility achieved, such as through initial low budget-projects and promotion during period when capitalization is still low.</p> <p>(b) Eco-Fund and UNDP CO may wish to ensure that there is cooperation between Montenegrin Eco-Fund and Croatian Eco-Fund, Slovenian Eco-Fund, and other eco-funds in the region and EU. ¹¹ In particular, Croatian Eco-Fund has funds from emissions trading system (ETS) that are to be used in 3rd countries on CCM projects. Such projects in Montenegro could be a chance for the two funds to cooperate and for Montenegro's fund to "learn the ropes" from Croatia's.</p> <p>(c) Eco-Fund should consider the following going forward:</p> <p>i. Please see B1 (a), (b), (c), and (d).</p> <p>ii. Put strong emphasis on full compliance with procurement procedures with zero tolerance for deviation to ensure transparency and good reputation that will attract donor funds as well.</p> <p>iii. For low-carbon tourism portfolio, as in A1, consider cross-sector projects that both substantially enhance tourism and maximize GHG ERs per Euro.</p> <p>iv. Consider starting deployment of funds as soon as possible to generate visibility and get the Eco-Fund known. If funding is low, a start with small projects, such as promotion of e-vehicles via purchase subsidies, could be pursued.</p>	Board, Croatia Eco-Fund
C	Related to Outcome 2 (Transport) Results/ Lessons/ Insights	---
C1	<p><u>Consider, for transport project and/ or transport initiatives going forward, opportunities and learnings from TCNTM:</u> Consider rolling the several transport-related opportunities identified and lessons learned in TCNTM (as below) into in-progress design of major low-carbon transport project for Montenegro. For initiatives that can't be rolled into this major project, consider other potential opportunities to pursue them.</p> <p>(a) Consider, for investment initiatives, including the following for: (i) priority (as already under discussion) - Podgorica low carbon bus system, low carbon inter-city transport and/or urban-rural transport, and more low carbon boat public transport; (ii) for discussion - low carbon cable car, marina in which docked boats are powered by RE, low carbon airport¹², and low carbon cargo port.</p> <p>(b) Design for investment initiatives may include "definite" priorities with public funding or public-private partnership (as in (a)(i)) and "aims" that either have mainly private sector funding or are otherwise especially challenging and that project will work towards but cannot guarantee (as in (a)(ii)). Inclusion of private sector will enable higher level of leverage of grant funds, which could make project more attractive to donors.</p> <p>(c) Include private sector via public-private partnership in investment initiatives if funder requires funds be disbursed to public entity only. For low-carbon boats, this may include public sector development of stations or provision of subsidies to local riders of boats. For cable car project, this may include direct investment via joint venture or investment in featured nearby grid-scale PV station. For marina powering, it</p>	GCF design team, UNDP CO, UNDP RTA, GOM partners for transport project and transport initiatives (MTMA, City of Podgorica, Cities of Cetinje, Kotor, Tivat, and HN, other cities, Bella Boka, Public Enterprise for Coastal Zone Management, Port of Bar,

and rural areas of municipalities); possible SWH and PV program for accommodations or buildings more broadly; support for feasibility and/or detailed designs for relevant municipal projects; regional waste management projects (requiring cooperation among municipalities); and further exploration of the development and implementation of circular economy principles in tourism sector, in particular when it comes to the food waste, via cooperation with Chamber of Economy and other relevant stakeholders.

¹¹ Already, TCNTM has initiated cooperation with the Croatian Eco-Fund and the Slovenian Eco-Fund, with a study tour initially planned for end of March 2020. Due to the COVID-19 pandemic, this study tour has been rescheduled for autumn 2020.

¹² Initial feedback suggests viability of RE powering of docked boats may be challenging due to lack of space, but this or an alternative, such as more rooftop SWH and PV for marina buildings, could be explored in preliminary discussions with marinas.

	<p>may include state investment in RE system. If municipal buses or inter-city buses are to remain privately operated, it may include a scheme of public investment and leasing of buses to private sector. An alternative might be joint venture between public and private sector for bus operations.</p> <p>(d) Regarding the low-carbon boat public transport efforts by Bella Boka in Boka Bay, seriously consider every kind of GOM and relevant institutional support possible for implementation and scaling up. Address the challenge of lack of clear institutional and administrative responsibilities vis-à-vis this initiative and the serious burden and pressure thereby placed on the investor. Given that the service provided is year-round public transport (and not just tourist seasonal transport), it is especially important for GOM to seriously consider what it can do to make the public transport effort successful for the long-run.</p> <p>(e) Ensure, as part of investment initiatives, implementation of measures of polycentric SUMP developed by <i>TCNTM</i>.</p> <p>(f) Include TA initiatives to build on work of <i>TCNTM</i> including: (i) TA support of Eco-Fund (to get it capitalized and operating). (ii) Development of the <i>National E-Mobility Strategy</i> that will focus on: nation-wide EV charging infrastructure deployment, grid adjustment, e-mobility tariff system and incentive programs for transition to EVs in private (citizens and businesses) and public sector. (iii) Policies to support low carbon transport, such as VAT reduction or elimination for EVs. (iv) Initiatives to reduce CO2 emissions associated with international travel to Montenegro (thus addressing 86% of GHG emissions for Montenegro tourism). This may include work to ensure lowest emissions possible of airlines flying to Montenegro (which might alternatively be a part of the <i>Airport Project</i>) and/or promotion/ assistance to alternative modes of international transport to Montenegro, such trains (instead of cars and planes), etc.</p> <p>(g) Include cost and sourcing analysis for investment initiatives, to ensure best deals for quality equipment are obtained. As part of this work, reach out to quality best price bidders to ensure they participate in RFPs.</p>	<p>airport authority, electricity generation and distribution company, Eco-fund, taxation authority, rail authority), marina operators, investors in large RE systems, potential investors in cable car, bus companies</p>
C2	<p><u>Pursue cooperation with large companies and stimulation of large investments:</u> While both of these are challenging to achieve, develop methods to create possibilities of success in these areas, while at the same time not putting “all the eggs” of project design into such initiatives. As for large companies, UNDP around the world has developed some successful partnerships that could be looked to as models. Large companies find the UNDP brand attractive and appreciate the environmental and social expertise. As for large investments, UNDP/ UNDP projects and their teams can play a facilitator/ deal maker role to stimulate the realization of large investments. Yet, it should be ensured that project M&E design does not measure success on the achievement of specific “long-shot” targets, but instead designs indicators and targets that can be achieved by multiple paths, including sets of small or medium-sized initiatives.</p>	<p>UNDP CO (future projects, general)</p>
D	<p><u>Related to Outcome 1 (Policy and Accommodations) Results/ Lessons/ Insights</u></p>	
D1	<p><u>Building on lessons learned, assess benefits of addressing GHG emissions/ EE of accommodations in Montenegro, and consider developing new strategy to do so:</u> Recognize that eco-certification is not the best vehicle for addressing GHG emissions/ EE of accommodations, both because GHG ERs/ EE may not be improved much by eco-certification and because it is difficult to impact a large proportion of accommodations through eco-certification. Recognize also that because of seasonality of many accommodations and their already fairly good EE levels, it is difficult to get good payback from many classic EE measures for them. Recognize that accommodations very significantly make up 33.4% (2018) of tourism sector GHG emissions domestically, though only 1.3% of national GHG emissions. Assess benefit</p>	<p>GOM – Eco-Fund, Ministry of Economy EE Directorate</p>

	of supporting accommodations in reducing GHG emissions (cost-benefit analysis), with comparison to rest of building sector, and preferred methods of achieving GHG ERs. Depending on results of cost-benefit analysis, consider follow up initiative to connect accommodations with funding sources (Eco-Fund, Investment and Development Fund, other donor projects) for low interest loans for SWHs and PV systems, which appear to be the highest potential GHG ER area for accommodations as a whole.	
D2	<u>Continue spatial planning related efforts to preserve green areas and, potentially, to promote low carbon cities:</u> While spatial planning continues to be a difficult area for a donor to work in, it presents an urgent and important need due to conversion of green areas for hotel development. UNDP may wish to consider creating further opportunities to support the preservation of green areas in places like Budva in the face of this continued, rapid building development. Ideally, UNDP may find an opportunity in the future to support incorporation of low-carbon and green area friendly development into spatial planning policy and to promote low carbon cities in Montenegro. In the meantime, incremental steps for green area preservation may be taken.	UNDP CO, Budva and other municipalities, MSDT, urban planners, the general public
D3	<u>Build on lessons of TCNTM to address high potential policy areas:</u> (a) Learning from good example of TCNTM, make policy work responsive to GOM needs. As such, project design should be flexible, not requiring support of specific policies, and instead focus on achievement of policies related to certain aims (e.g. policies that result in GHG ERs). (b) For CCM projects, focus on policies that may have the most climate benefits, such as transport sector policies. (c) To facilitate development of large-scale/ regional projects and to support Eco-Fund efforts to do so, consider supporting development of regional institutions and regional environmental protection projects, perhaps via environmental governance project.	UNDP CO
E	Related to Outcome 4 (Awareness and GHG Inventory) Results/ Lessons/ Insights	
E1	<u>Learn from tourism sector inventory findings and adopt appropriate strategy to incorporate “low carbon tourism” into NDCs:</u> Drop effort to get tourism sector GHG emissions included in national inventory annually. Yet, leverage work done in this area and TCNTM lessons to achieve effective inclusion of “low carbon tourism” theme in NDCs. Aim for inclusion in NDCs of projects that support low carbon tourism, but (per A1 and B1(a)) may be broader than tourism alone and thus bring the highest possible GHG ERs. In particular, consider including replication of LED street lighting projects and pursuit of transport projects (including improved public transport and EV uptake).	UNDP CO, especially UNDP GHG inventory officer, MSDT CC Directorate, EPA
E2	<u>Learn from experience of TCNTM’s awareness work including benefits of having an awareness officer and challenges of designing awareness indicators and surveys:</u> (1) For other projects that have a challenging message to convey and/or strong need for ongoing awareness work, consider full time awareness officer to both design and implement awareness strategy, instead of intermittent awareness consultancies. (2) Develop more effective indicator design for awareness outcomes in future projects. Indicators should measure the kind of impact the awareness is targeting. Typically, this may include reaching large numbers of people via various methods and ensuring that the campaign or other awareness effort has real impact on peoples’ thinking and/ or results in real learning by them. (3) If surveys are to be conducted to measure awareness results, emphasis should be put at baseline on a good survey design that can truly detect impact of the project’s awareness work. The same survey questions should be asked at baseline and EOP. The group of persons surveyed should have similar compositions at baseline and EOP.	UNDP CO, future project designers, future projects that have surveys

F	Implementation	
F1	Learn from TCNTM's strengths in implementation: (1) Consider having, as members of project team, a strong coordinator for each outcome. This coordinator will actually take part in implementation of many of the outcome's activities, thus reducing the need for contracts with outside consultants and companies and providing greater continuity and connection between activities. (2) For studies and reports prepared, ensure these are living documents by involving key stakeholders in the launch of the assignment, in follow up with the draft and its finalization, and in actual use of the product to stimulate action on the ideas contained.	Other UNDP country offices, other UNDP projects

1. Introduction to the Terminal Evaluation

This section presents the purpose, methodology, and limitations of the *TCNTM* Terminal Evaluation (TE), which is the topic of this report. It also introduces the content of this report.

Purpose: The purpose of the TE is two-fold: (1) Provide information on and assessment of the project, especially its progress towards targeted results, the sustainability of results, and the cost effectiveness of fund utilization. This is for the purpose of transparency, so that all who are interested can know how funds have been spent. It will include identification of achievements and strengths as well as challenges and weaknesses, which will in turn contribute to the second key purpose, which follows. (2) Identify lessons and recommendations for GOM, UNDP, and other interested parties, building upon findings with regard to the project's experience and its strengths and challenges. The recommendations will advise on: (a) Priorities for enhancing, sustaining, replicating, and building upon projects results. (b) Development of other relevant opportunities that are identified based on project experience or other information encountered during the evaluation process. (c) Ways to better design and implement future projects, based on the lessons (both strengths and challenges) of *TCNTM*.

Methodology: The TE work integrates three key methodologies: (1) extensive stakeholder consultations and site visits, including well over 50 interviews and visits to eight Montenegrin cities for these discussions and site visits; (2) document review; and (3) special information requests and related analysis. The quality of facilitation by the project team and responsiveness of stakeholders enabled the TE team to gather an extensive amount of information and insights about the experience of *TCNTM*.

Organizations/ roles of interviewees are summarized in Exhibit 1. Annex 1 includes a full list of organizations and individuals interviewed, as well as site visits and the timeline of the mission and follow-up consultations. Stakeholders interviewed are from a range of organizations/ roles, including *TCNTM* (project team), UNDP, national government ministries and agencies, municipal governments and their local tourism organizations (LTOs), private sector entities (especially those involved in pilot projects and including several accommodations, a recreation provider, a marina, and a boat public transport company), sports teams and organizers, NGOs, an association, the media, another donor, and consultants and companies that had done work for *TCNTM*.

More specifically and in terms of sequencing, methodology and work carried out include the following:

Pre-mission: Prior to its two-week mission in Montenegro, the TE Team reviewed key documents, namely, the CER, ProDoc, and PIRs. Then, in order to develop a focused plan, the TE Team carefully considered the targeted project objective, outcomes, and high-level indicators, as well as the key UNDP-GEF priority evaluation areas of (i) relevance, (ii) efficacy of results and broader impact, (iii) efficiency of spending, and (iv) sustainability. Based on these considerations, they preliminarily defined key questions the TE work would aim to answer. They next prepared a master interview guide (see Annex 3), with key questions that might be asked of various stakeholders, as relevant. From their reading, they identified possible organizations to interview. They then liaised with the *TCNTM* team, which had prepared a draft mission itinerary, regarding possible additions or modifications, as relevant.

Mission: The *TCNTM* TE mission in Montenegro took place from January 27 to February 7, 2020. It included visits to eight cities in Montenegro: Podgorica, Cetinje, Budva, Bar, Tivat, Herceg Novi, Zabljak, Pluzine, and Niksic. Most of the visits included site visits to pilot projects or other project-supported installations. During the mission, the TE team requested that the project team provide a list of contracts and contract values, including all individual short-term consultants and organizations providing

consulting services (above a certain minimum contract level), as well as expenditure breakdowns for each outcome and for project management. The TE team also began preparing internal notes from the meetings conducted. The mission ended with a debrief presentation by the TE Team of initial findings and recommendations to the UNDP RR and the project team, at which preliminary feedback was received.

Post-mission: Following the mission, the TE team carried out additional interviews via Skype and telephone, continued the document review, requested additional information from the project team, and commenced analysis. Additional information requests during this period included information on GHG ERs and methodology, financing mobilized by pilot projects, other types of co-financing, energy audit beneficiaries, and airport work. During this period, the TE Team completed preparation of internal meeting notes. They conducted further exchange via email with stakeholders they had met regarding follow up questions. And, they also carried out email consultations with some stakeholders they had not been able to meet. The TE team assessed progress towards GHG emission reduction targets and co-financing targets. They conducted additional interviews via telephone or Skype with cities for which the project had carried out LED street lighting feasibility studies, hotels and other accommodations for which the project had carried out energy audits, an additional hotel and a municipality that carried out pilot projects, and two international consultants/ consulting organizations that had provided services to *TCNTM*. They conducted “SMART” analysis of the existing indicators in the project results framework, assessing whether these indicators are “Specific, Measurable, Achievable, Relevant, and Time-bound” and had been well-formulated to guide project progress. They conducted review of documents related to project activities, as well as of project management documents not yet reviewed, and assessed findings from the extensive consultations conducted. They also conducted analysis of expenditures. After preparing a number of analysis tables, they prepared the draft report. The *TCTNM* team and UNDP reviewed the draft report, providing comments. Then, the TE team responded to these comments and finalized the TE report.

Challenges and limitations: The TE team faced both general challenges common to evaluation of UNDP-GEF projects and challenges specific to *TCNTM*. The strong facilitation of the project team and the very extensive set of consultations arranged, however, mitigated these limitations. In general, UNDP-GEF projects cover a large mass of information, many activities over several years, and many stakeholders. The amount of information cannot be comprehensively covered in the time allotted to the evaluation. To address this challenge, the team put the strongest emphasis on the questions of whether progress has been made towards the project objective and outcomes, whether results achieved are truly meaningful, whether this progress is due to the project, whether spending had been cost effective, whether results will be sustainable, and what can be done to leverage sustainability and replication of results into the future. Further, recognizing the benefit of direct stakeholder input, the team focused during the mission on interviewing as many key stakeholders as possible, saving any outstanding document review work and analysis until after the mission. Yet, despite these measures, the TE team must acknowledge the limitation that certain findings and conclusions in this report are not definitively proven, but instead represent the professional assessment of the TE team based on available information and our capacity to review and assess that information in the time period available. The main challenge specific to *TCNTM* is that the project has some potentially very strong results still in the pipeline. These include implementation of LED street lighting projects in five cities, an additional five low-carbon public transport boats, and capitalization and launch of operations of the Eco-Fund. Given the high value of these results, there is a need to understand how likely they are to be realized. To address this challenge, the TE team conducted several targeted consultations, follow-up queries with key organizations interviewed, and review of data and indicators, such as pay-back periods of investment projects or budget allocations for them. As such, the TE team was able to assess the likelihood that each of these potential pipeline results would be achieved.

Exhibit 1. Stakeholder Interviews and Site Visits

Well over 50 interviews conducted

TCNTM Team, UNDP, and other Donor	
TCNTM PM x 4 (1 in-person, 3 via Skype)	TCNTM Pilot Projects and Eco-Fund Coordinator
TCNTM Accommodations/ Policy/ GHG Coordinator	TCNTM Awareness Coordinator
TCNTM former Transport Coordinator	TCNTM Finance and Administrative Officer
TCNTM Project Team as Group x 2	UNDP RTA (via Skype)
UNDP Resident Representative	UNDP GHG Inventory Officer
GIZ (via Skype)	
National Government: Ministries and National Agencies/ Institutions	
MSDT: Directorate for Environment	MSDT: Directorate for Climate Change
MSDT: Directorate for Tourist Destination/Infrastructure	MSDT: Directorate for Int'l Cooperation
Eco-Fund: Managing Director and Board Members	MTMA: Directorate for Road Traffic
Ministry of Economy: Directorate for Energy Efficiency	National Tourism Organization (NTO)
National Parks of Montenegro	
Municipalities, LTOs, and Other Municipal Organizations	
Podgorica: Secretariat for Transport	Cetinje: Mayor and Team
Podgorica: former City Manager, current Head of Protected Areas Agency	Cetinje: Advisors to Mayor/ City
Budva: Deputy Mayor and Head of Int'l	Cetinje LTO (Q&A via email)
Budva LTO (Q&A via email)	Tivat: Secretariat for Env'l Protection and EE
Herceg Novi: former Int'l Cooperation Officer	Tivat LTO
Herceg Novi: LTO	Zabljak: Mayor and Municipal Manager
Pipeline municipal LED street lighting projects, responsible person: Podgorica, Budva, Cetinje, Danilovgrad, Kolasin (5 separate phone interviews)	Zabljak: LTO
	Pluzine: Piva Nature Park
	Savnik Municipality: Advisor (by telephone)
Accommodations	
Hotel Fobra (Podgorica)	Hotel M Club (near Budva)
EU Eco-Label Auditor for Montenegro (Bar)	Hotel Lighthouse (Herceg Novi)
Piva Eco-Hotel (Pluzine)	Budvanska Rivijera Hotel Group (via telephone)
Brief consultations with 7 accommodations receiving energy audit from TCNTM: Seapoint and Biljana (Tivat); Residence (Milocer); Klinici Hotel (Lustica); Apartment Bodganovic (Kotor); Apartment Sutomore (Sutomore); Hotel Lighthouse (Herceg Novi) (6 separate telephone interviews)	
Other Private Sector	
Bella Boka: CEO and team	Gorica Adventure Park
Porto Montenegro: Sr. PR and Marketing Manager	Solar sailboat pilot: Navigator Manufacturing
Sports Organizations	
SC Jadran Water Polo Club (Herceg Novi)	Montenegro Olympic Committee
	KK Buducnost (basketball team)
NGOs, Association, and Media	
Chamber of Economy of Montenegro	Bike Club Perun (Niksic)
TVCG (Public Television Network): TV Host	
Consultants and Contractors to TCNTM	
Nat'l Engineer for Pilot Projects and Energy Audits	Int'l Consultant, Pilot Projects (via Skype)
Nat'l Consultant for Tourism GHG Inventory	Link Creative Studio/ Dzada Film Festival
Hrvoje Pozar (Eco-Fund, e-mobility work) (via Skype)	
Site Visits	
Podgorica: Gorica Adventure Park, Hotel Fobra, Podgorica Sports Center (LED lights), bike path, solar bench, EV charger	Budva: Slovenska Plaza grounds and solar bench, park (Budva Go Green Campaign), EV charging station, Hotel M Club (near Budva)

Cetinje: Green Business Incubator, fire station with biomass pellet heating, electric road-based tram for tours, EV charger	Herceg Novi: JC Jadran water polo stadium (LED lights), restaurant with greening on terrace
Bar: Bella Boka low carbon boats (under maintenance)	Zabljak: LED street lights, EV charging station
Tivat: Solar sailboat	Pluzine: Piva Eco-Hotel (zip-line and SWH)

Content of TE Report: A summary of the main findings and recommendations of the TE can be found in the Executive Summary at the beginning of the report. The main text begins with two preliminary sections, this one, Section 1, on TE objectives, methodology, and limitations, and the following one, Section 2, presenting background on the project and country context. Section 3 presents assessment of project relevance (e.g. is the project needed and is it innovative and leading to different results than would occur in the absence of the project?) and project design. The next five sections focus on project results. Section 4 looks at overall results and also presents the required “traffic light” assessment of progress toward objective and outcome-level indicator targets. Sections 5-8 each focus on results achieved under one of the project’s three outcomes, covering the policy and accommodations outcome (Section 5), the transport outcome (Section 6), the pilot projects and Eco-Fund outcome (Section 7), and the awareness and tourism sector GHG inventory outcome (Section 8). Section 9 covers sustainability of results, though given that this is a key aspect of results, sustainability discussions are also interwoven with earlier discussions of progress towards results. Section 10 covers various aspects of implementation, notably institutional/ project team aspects and expenditures/ cost effectiveness. Section 11 presents conclusions, lessons, and recommendations. The TE Report has ten annexes, as listed in the Table of Contents. Of particular interest content-wise are: (i) Annex 1, which provides a detailed listing of organizations and persons consulted and site visits and (ii) Annex 5, which provides the standard TE rating scale, which may be used to better understand the ratings offered in the Executive Summary and the “traffic light” assessment of progress towards results. Annexes 8 - 10 are provided as separate documents.

2. Project Description and Background Context

Before moving to the TE team’s assessment of the project in subsequent sections, in this section we provide background on or related to the project, including: (i) a description of the project’s basic design; (ii) the background context vis-à-vis problems addressed by the project /areas in which the project works; (iii) brief project timeline; (iv) project implementation arrangements; and (v) main stakeholders.

2.1 Project Basic Design

Basic project information: *Towards Carbon Neutral Tourism in Montenegro (TCNTM)* is a GOM-UNDP-GEF project with the overall aim of reducing GHG emissions from Montenegro’s tourism sector. The project was launched on August 4, 2014 and has a designed duration of five years, with original end date of August 4, 2019. The project applied for and received a nine month extension, so will have an effective duration of 5.75 years and end on May 4, 2020. The project’s core funds are GEF grant financing of USD 3.09 M. The co-financing committed at design phase was USD 121.91 M. Of this, the top committed sources of co-financing are three municipalities, which each committed all-cash co-financing as follows: Cetinje - USD 64.3 M, Kotor - USD 27.4 M, and Tivat - USD 24.6 M.

The project design has four targeted outcomes focusing on: (1) policy as relates to low-carbon tourism, eco-certification of accommodations, and spatial planning; (2) low-carbon transport; (3) pilot low-carbon tourism projects and establishment of a tourism sector climate change mitigation fund; and (4) awareness raising on low-carbon tourism and tourism sector GHG inventory.

In terms of geographic aspects, *TCNTM* design, for local activities, puts its main focus on locales in coastal areas that are tourist destinations. The rationale, as explained in project design documentation, is that the vast majority of tourist spending and associated GHG emissions are in these locations, so that is where GHG emission reduction efforts should be focused. The documentation further explains that other donor projects have supported government efforts to stimulate tourism in non-coastal areas in the north. It notes, then, that such stimulation of tourism in the north will not be the focus of *TCNTM*'s work.

Objective and outcome statements: The objective and outcome statements, along with their associated indicators, are a key basis of project evaluation, and thus are provided here. The project's formally stated objective is: "Reduce GHG emissions from Montenegro's tourism sector and maintain the overall tourism sector related GHG emissions at the 2013 level or lower despite the rapidly growing number of visitors." The four project outcome statements are as follows:

1. Legal and regulatory framework supporting low carbon tourism and low carbon spatial development, including increased certification of both existing and new tourist accommodation facilities and related services by internationally recognized environmental certification scheme(s)
2. Improved low carbon and carbon neutral transport infrastructure to support tourism sector related public and non-motorized transport
3. Pilot investments to support low carbon tourism development implemented, followed up by the establishment of a sustainable financing mechanism to support climate change mitigation and adaptation actions in the tourism sector
4. GHG emission monitoring system and increased public awareness about the carbon footprint of the tourism sector, its GHG reduction potential, and measures

Outcome design: Key aspects of the design of each outcome are described below. Exhibits 2, 3, 4, and 5 show for each outcome, respectively, the project outputs to support the outcome, as originally designed. It should be noted that guidelines for implementation of UNDP-GEF projects allow for outputs to be changed via adaptive management if learnings or changes in situation mean that such changes will improve potential to achieve the relevant project outcomes. Changes in project outcomes, however, require approval from the GEF and are typically not pursued. Review of the outputs under each outcome can give the reader an idea of the scope of activities intended by the designers. Exhibits 2, 3, 4, and 5 also show the amount of GEF funds allocated for each outcome. All four outcomes have allocated GEF funding designated as technical assistances ("TA"). Outcome 3, in addition, has GEF funding allocated for investment ("INV"). INV funds are those meant to be invested directly in installations/ projects or the design of those. In this case, the INV funds are for grants for pilot projects and result in Outcome 3 having, in total, over double the allocated budget of each of the other three outcomes.

Outcome 1: Review of the ProDoc section on project strategy and its Project Results Framework (PRF – project indicators table) show that Outcome 1 is designed to have three major areas of activity and achievement: low carbon tourism policy, certification of accommodations, and spatial planning. The policy aspect targets adoption of amendments to the *Law on Tourism*, the *Tourism Sector Development Strategy*, the *Law on Spatial Planning and Construction* and other policies related to low carbon tourism. It also targets policy that eventually makes eco-certification of accommodations mandatory. As for actual eco-certification of accommodations, the design calls for one-third of all hotels in the country and 100 tourist apartments to become eco-certified. As for actual spatial plans, the design calls for the project to support four low-carbon spatial plans, each for a municipality in the Boka Bay area. A spatial plan is like a master plan or general plan for a municipality that includes zoning for different areas. The Outcome 1 strategy text in the ProDoc also includes discussion of EE and RE measures for accommodations and of building EE and street lighting EE for municipalities, but there are no specific outputs/ activities or indicators to translate this discussion into action. In the case of the EE and RE measures for buildings, though, it is mentioned that the one-stop shop for eco-certification can advise on such items.

Exhibit 2. Outcome 1 and Associated Outputs

<p>Outcome 1: Legal and regulatory framework supporting low carbon tourism and low carbon spatial development, including increased certification of both existing and new tourist accommodation facilities and related services by internationally recognized environmental certification scheme(s) (GEF TA target financing of USD 528,000)</p>
<p>Outputs</p>
<p>1.1 At least 33% of all officially registered collective tourist accommodation facilities and at least 100 private (non-collective) tourist accommodation facilities in at least 6 different coastal cities to be certified by EU Ecolabel or similar internationally recognized certification scheme, and of which 25% to operate on a fully carbon neutral basis</p> <p>1.2 Amendments to the <i>Sustainable Development Strategy, Transport Strategy, Law on Tourism, Law on Spatial Planning and Construction</i> and related guidebooks and other secondary legislation to effectively promote low carbon tourism development in Montenegro, including advancing of mandatory certification of all tourist accommodation facilities in Montenegro for their environmental and energy performance and/or to provide specific financial/fiscal incentives for the continued voluntary action¹³</p> <p>1.3 Improved division of responsibilities, co-ordination, and cooperation between the central government, local municipal administrations, and the private sector, and enhanced capacity of the key local stakeholders to implement, enforce, and further develop the new policies and regulations</p> <p>1.4 A web-based “one stop” eco-certification support and advisory center and hotline backstopped by trained staff of the NTO, local municipal tourist organizations, and/or Montenegrin hotel association established and an outreach campaign to reach potential candidates for eco-certification implemented</p> <p>1.5 Trained auditors and initial audits for eco-certification conducted for at least 200 tourist accommodation facilities (100 collective and 100 smaller private houses/apartments) with related recommendations for meeting the certification criteria¹⁴</p> <p>1.6 A shortlist of qualified equipment suppliers, planners, and installers (with complementary training, as needed) to support the tourist accommodation owners and managers with required retrofits + an associated feedback / quality control mechanism in place</p> <p>1.7 At least 5 trained and by the authorized organization certified Montenegrin auditors and, as applicable, third party certifiers of the promoted eco-certification scheme</p> <p>1.8 At least one low carbon spatial plan developed for each of the 4 participating municipalities, which will test impact of pilot investments from component 3 on local spatial development and explore its possible replication</p> <p>1.9 Provision of training and capacity building for other key stakeholders such as urban planners and architects on low carbon community development</p>

Outcome 2: Outcome 2 focuses on low carbon transport for tourism. Review of the ProDoc section on project strategy and PRF show that Outcome 2 is designed to have a wide range of proposed activity areas that are divided into two categories: (1) international/ cross-border transport related to tourism and (2) domestic transport related to tourism. On the international side, low carbon or eco-certification of ports and airports; powering of docked cruise ships with renewable energy at a marina¹⁵; promotion of rail travel; and awareness raising for international tourists of their carbon footprint are all indicated as project activity areas. On the domestic side, a sustainable transport action plan for Boka Bay; carbon neutral transport for greenfield resorts being developed; low carbon public transport for tourism (cable car from Kotor to Cetinje powered by RE¹⁶, low carbon boats in Boka Bay, low carbon tourist shuttles); low carbon tour buses and public transport buses; low carbon tourist information centers at transport hubs; and promotion of non-motorized transport, such as walking and biking are all raised. Among these many

¹³ The set of policies mentioned here are somewhat different than those indicated by the PRF to be targeted, which are included in our text description (outside of this table) of Outcome 1 design.

¹⁴ The eco-certification targets mentioned here are somewhat different than those indicated by the PRF to be targeted, which are included in our text description (outside of this table) of Outcome 1 design.

¹⁵ The marina would still be powered with grid electricity, but a nearby grid-connected RE installation could be conceptually linked to this power supply.

¹⁶ As with the marina, the cable car would be powered with grid electricity, but a nearby grid-connected RE installation could be conceptually linked to this power supply.

initiatives, the following subset is included as targets in the PRF: (1) eco-certification of ports, (2) eco-certification of airports; (3) RE powering of cruisers and yachts in marina;¹⁷ (4) Kotor to Cetinje cable car and its powering by RE; (5) two low carbon tourist information centers at transport hubs; and (6) 25 km of non-motorized transport trails approved for funding.

Exhibit 3. Outcome 2 and Associated Outputs

Outcome 2: Improved low carbon and carbon neutral transport infrastructure to support tourism sector related public and non-motorized transport (GEF TA target financing of USD 470,000)
Outputs
2.1 An intercity and intermodal low carbon sustainable transport management and development strategy and action plan for the tourism sector with a focus on Kotor Bay and other coastal area, addressing issues related to spatial planning and transport demand management, role of the public sector to encourage and facilitate increasing use of public transportation, possible incentive and marketing schemes, options for greening the existing fleet etc. 2.2 Development of the existing or planned new public transport initiatives such Kotor-Cetinje cable car and Kotor Bay marine transport as carbon neutral flagship transport projects driven entirely or primarily by renewable energy sources 2.3 At least 2 bus stations in different cities transformed to low carbon tourist welcome centers 2.4 Decision(s) to construct at least 25 km of new non-motorized transport corridors (walking and cycle lanes) around the Kotor Bay and along the coast completed and approved for funding, combined with improved bike transport services for longer intercity trips 2.5 The new transport services required by the new major green field developments such as Lustica, Kumbor, Sv. Marko Island, Velika Plaza and Ada Bojana resorts developed as low or no carbon initiatives 2.6 Low carbon / eco-certified international entry ports and corridors including, as applicable, the Podgorica and Tivat airports, Port Kotor and Bar and new yacht marinas, including an option to connect the visiting cruisers and yachts to public power grid backed up by onsite RE generation (such as PV or wind) rather than using vessels' own engines when in harbor, and raising the passengers' and yacht owners' awareness on the latest technology advances to reduce the carbon footprint of marine cruising and yachting and on possible carbon offsetting

Outcome 3: Review of the ProDoc section on project strategy and PRF show that Outcome 3 is designed to focus on financing of low-carbon tourism initiatives with two main areas of work: (1) pilot projects and (2) establishment of National Tourism Carbon Fund (NTCF). As for the pilot projects, *TCNTM* support is designed to be in the form of partial grant support for the public sector and NGOs only. An aim is that the pilot projects will be models for later replication by the NTCF. The grants will be for GHG reducing projects in the tourism sector. The areas targeted include: RE for buildings used in tourism, RE for public transport, and carbon sinks (up to 20% of funds). The limitations are that the maximum grant to any one project is €200,000 and that grants will at maximum be 25% of the cost of the GHG-reducing aspect of the pilot or €10 per ton of CO₂ reduced, whichever comes first. Each pilot will develop a system for monitoring and verification of its GHG ERs. As for the NTCF, the design calls for developing financing sources for the fund, such as an EU-harmonized eco-taxation, various forms of carbon offset programs (both mandatory and voluntary), and corporate social responsibility (CSR) programs. Targets for the pilot projects are focused on direct GHG ERs (over lifetime of equipment installed) of 77 kt and mobilization of about €2.6 million in co-financing. NTCF targets call for fund's establishment by end of year two of *TCNTM* implementation and capitalization of €2 M annually.

¹⁷ These first three items are merged into one indicator, so that there are four indicators for Outcome 2 in total.

Exhibit 4. Outcome 3 and Associated Outputs

Outcome 3: Pilot investments to support low carbon tourism development implemented, followed up by the establishment of a sustainable financing mechanism to support climate change mitigation and adaptation actions in the tourism sector (GEF target financing of USD 1.3 M, comprised of USD 250,000 of TA, and USD 1.050 M of INV)
Outputs
<p>TA</p> <p>3.1 Call for proposals for the pilot carbon mitigation projects to be cost-shared by the GEF resources and finalized selection of the projects</p> <p>3.2 Finalized design of the projects, including a monitoring, reporting and verification protocol</p> <p>3.3 Report of the initial results and lessons learnt from the pilot projects and finalization of a replication strategy and investment plan (including, as applicable, an initial project pipeline) for the use of the NTCF</p> <p>3.4 Establishment of the National Tourism Climate Fund and drafted legal and regulatory amendments for eventual new levies, carbon offset charges etc. to support the capitalization of the Fund</p> <p>3.5 Introduction of a set of mandatory and/or voluntary carbon offset schemes. For voluntary carbon offset schemes, selecting the partners and integrating the scheme(s) into Montenegro tourism related booking systems for transport, accommodation, tours etc. with related, “up-to-date” carbon footprint calculation tools</p> <p>INV</p> <p>3.6 New tourism sector related GHG mitigation projects financed at the amount of at least USD 4.2 million resulting in direct GHG reduction of at least 77 ktons of CO₂e over their lifetime¹⁸</p>

Outcome 4: Review of the ProDoc section on project strategy and PRF show that Outcome 4 is designed to focus on two main areas: (1) annual preparation of tourism sector GHG inventory and (2) awareness raising and low carbon tourism products and services. The inventory work calls for setting up a national working group and also developing a special methodology for computing tourism sector GHG emissions. As for awareness, various initiatives, called “green products and services,” such as a web-based carbon offset calculator; special tickets that connote environmental protection; special tourist welcome cards; green meetings; and green loyalty programs, are raised. In addition, a PR strategy and PR campaign are planned. Lastly, three surveys at project start, mid-term, and end are planned to measure: the presence of low carbon tourism products, market share of eco-certified services, and share of tourists desiring low carbon products and services. The PRF has four indicators for Outcome 4, the first being an annual tourism sector GHG inventory and the others being the three aforementioned aspects to be measured by the three surveys.

Exhibit 5. Outcome 4 and Associated Outputs

Outcome 4: GHG emission monitoring system and increased public awareness about the carbon footprint of the tourism sector, its GHG reduction potential, and measures (GEF TA target financing of USD 645,000)
Outputs
<p>4.1 A PR strategy and action plan for effectively promoting the different aspects of low carbon tourism in Montenegro among the visiting tourists and other key stakeholders</p> <p>4.2 Establishment of a working group consisting of MONSTAT, Environment Protection Agency, and tourism industry associations, such as the Montenegrin Hotel Association, to develop a methodology for and agree on the procedures for GHG emission accounting and baseline data setting in tourism sector</p> <p>4.3 Independently validated GHG emissions inventory and monitoring system for tourism sector and its sub sectors (accommodation, travel, waste, etc.) and regular annual reporting of tourism sector related energy consumption and greenhouse gas emissions by type of activities</p> <p>4.4 Guidelines for developing and setting up monitoring, reporting, and verification (MRV) protocols and systems for investment projects submitted for funding by the GEF, NTCF, or voluntary carbon offset schemes and finalization of the related documentation for at least one investment project as a model for others (with a link to output 3.2)</p>

¹⁸ The targeted pilot project investment amount of the relevant PRF indicator, at €3.6 M, is somewhat less.

- 4.5 Public awareness raising on the carbon footprint of different transport modes, development of the related web-based calculation tools and carbon offset offers and further promotion of the transport options with the lowest carbon footprint such as rail travel within the overall low carbon tourism offer of Montenegro
- 4.6 Upgraded Montenegro tourism website(s) with a stronger focus on environmental aspects, low carbon footprint calculators and booking systems providing priority access and/or specific visibility, logos and filtering systems for low carbon and carbon neutral tourism offers for accommodation, transport, and catering services
- 4.7 Outreach and public awareness raising on the NTCF and carbon offsetting
- 4.8 Development of new products for and introduction of other promotional measures and initiatives to support low carbon tourism such as: (i) Improve consumer awareness, transparency and standards/rulebooks for carbon footprint labelling of all tourism products, like transport tickets, accommodation, holiday packages, tours and other activities; (ii) “Green footprint” tourist welcome cards, which could be given, for instance, in return to visitors paying a voluntary or mandatory carbon offset fee and including rebates for and/or free use of local public transportation and bike lending services, rebates for “eco-labelled” accommodation, shops and restaurants etc; (iii) Green meetings; (iv) Green guest loyalty programs and promotion of “Leave no Trace” tourism
- 4.9: After being justified by the developments that have taken place, launch an international PR campaign to position Montenegro as an ecofriendly, low carbon or carbon neutral holiday destination and raise tourists' awareness about possibilities of offsetting their carbon footprint for any residual emissions
- 4.10: Three studies (one at the beginning, one at the mid-point, and one at the end) on the actual use of services that can be classified as “low-carbon tourist services” in the accommodation and transport sectors, including also surveys on the perception/ preference of the visiting tourists towards these services and Montenegro as a low carbon tourist destination in general for analyzing and monitoring the impact of the project activities and supporting PR work
- 4.11: Final project report, summarizing the key results and lessons learnt

2.2 Background Context

This sub-section reviews background of the situation in Montenegro as relevant to project design and implementation.

Basic country situation and tourism in Montenegro: Montenegro is a small Western Balkans nation with a population of around 630,000, estimated GDP of around USD 5.4 billion, and per capita GDP of around USD 8,600 (2018). Montenegro began its process for acceding to the EU in 2005. Currently, accession is considered possible in 2025, somewhat delayed from earlier plans. Montenegro is known for its lovely scenery and attractiveness as a tourist destination. Its most popular tourist areas are on its coast (Adriatic Sea) in the south, though its northern areas offer mountains and eco-tourism potential. Montenegro's constitution declares it to be an ecological nation, though action in this area at project baseline appears to have been limited. Revenues from tourism are currently over USD 1 B, reaching 1.224 B in 2018. This represents an average compound annual growth rate of 6.3% from baseline at the start of project in 2014 when the revenues were USD 959 M.¹⁹ That tourism sector growth rate is higher than Montenegro's overall GDP compound annual growth rate during the same period of about 4.1%. From baseline to the present, tourism sector revenues have continued to represent over 20% of GDP, more than any other sector in Montenegro's economy. According to MONSAT Data, tourist arrivals were 1.5 M in 2014 and rose to 2.2 M in 2018, suggesting a compound annual growth rate of 9.1%. In 2018, 94% of tourists were international tourists. Also according to MONSAT data, the top nine countries of origin of international tourists and their proportion among total international tourists in 2018 were: Serbia (19.7%), Russia (16.3%), Bosnia and Herzegovina (9.3%), Germany (4.3%), France (3.7%), Poland (3.3%), Albania (3.1%), United Kingdom (3.0%), and Ukraine (3.0%).

¹⁹ Montenegro tourism sector revenues are based on data provided by CEIC accessed on March 25, 2020 at <https://www.ceicdata.com/en/indicator/montenegro/tourism-revenue>.

GHG emissions of Montenegro and GHG inventory: Based on its *Second Biennial Update Report on Climate Change* (2019), Montenegro's GHG emissions (without sinks) were 3,305 kt CO₂eq in 2014, the year of project launch. That compares to 87 kt CO₂ eq that year from the tourism sector, or just 3.9% of total GHG emissions.²⁰

Accommodations in Montenegro: Tourist and other visitor accommodations in Montenegro are classified into two categories, hotels (or “collective accommodations”) and apartments. While apartment accommodations in theory could be single units, many of the apartments serving tourists are multiple units in the same location operated by one entity. Montenegro, according to MSDT, had 453 hotels in 2019.²¹ While the exact number of apartment accommodation available for rental by tourists is unknown, the total number of units is clearly in the thousands. A recent search on booking.com for example, indicates over 5,000 units on the Montenegrin Coast. While many may be individual units, assuming a typical proprietor owns 10 units, this might represent 500 such multi-unit businesses. Sources suggest that more tourists stay in apartment accommodations than in hotels. As for eco-certification, such as promoted by the project, at project baseline in 2014 there were only four eco-certified accommodations in the county. These became eco-certified via an earlier donor project that was supporting eco-certification on a small scale.

City planning in Montenegro: At the time of the TE mission, city planning, or the preparation of spatial plans (also known as master plans or general plans), which include decisions about zoning, was found to be under the purview of the national government. Previously, it was under the purview of the municipalities. This shift of control of city planning has created tensions. As for transport planning, at project baseline, Montenegro lacked experience with sustainable urban mobility plans or “SUMP.”

Transport in Montenegro: Montenegro has a range of transport options, though public transport within the country is not that strong. The nation has two airports, the main one in Podgorica and one to directly access the coast in Tivat. It has a number of marina ports (for docking of cruise ships and yachts). Yachts and cruisers often overnight in upscale marinas such as Porto Montenegro, where they connect to local power supply and stock up on provisions. Private bus companies provide public transport within the capital of Podgorica and between cities, but the services are not considered frequent nor comfortable enough to be desirable. Taxis in Podgorica (and other towns) are relatively low cost and popular. While there are many boats in Boka Bay, prior to project implementation there had been no public transport by boats in the bay for decades. During tourist high season, Montenegro experiences serious road traffic congestion between coastal cities and also on the road from the coast to Cetinje, which is a popular inland tourist destination and historical previous capital of the country, and Podgorica. The traffic jams between the coast and Cetinje are a key reason than an idea for a cable car from Kotor to Cetinje has been a recurring idea, on and off the table, for a number of years. The larger individual cities also experience traffic congestion, especially Podgorica and also Budva during tourist season.

National funds and eco-fees: Montenegro at project baseline had just one main national fund to support stakeholder initiatives through an application process. It is the Investment Development Fund (IDF). Established in 2009, the purpose of the fund is to support economic development. It provides loans and guarantees. Among supported sectors, the Fund provides loans to the tourism sector through four programs, one to support construction of new accommodations, one to support renovation of existing accommodations, another to support other tourist infrastructure, and a program to support micro, small and medium enterprises. In the area of infrastructure projects, IDF has a loan program for environmental,

²⁰ The tourism sector GHG emissions figure is based on inventory work carried out by *TCNTM*.

²¹ *Hotel News Resource*, “Will 2019 be another Record Year for Montenegro’s Booming Tourism Industry?” Oct. 7, 2019. <https://www.hotelnewsresource.com/article107404.html> accessed March 25, 2020.

renewable energy, and energy efficiency projects, though it appears the main beneficiaries of this program are to be municipalities and state or municipal owned companies.

Ever since 2003, the Government of Montenegro has been working on the idea of establishing an Eco-Fund to meet EU requirements, but without success. Finally, the *Law on Environment* adopted by the Parliament in 2016 in its Article 76 stipulates establishment of the Eco-Fund by August 2018. Yet, no real action prior to *TCNTM* implementation had been taken to establish the fund. Montenegro currently collects eco-fees from enterprises based on their emissions and waste. Current revenues are €500,000 per year. Legislation indicates these fees are to be used in the Eco-Fund. Yet, in the absence of an Eco-Fund, all such fees have been going into the national budget.

2.3 Project Timeline, Implementation Arrangements, and Stakeholders

Project timeline: Milestone dates in the project’s timeline are shown in Exhibit 6. As compared to other UNDP-GEF projects, the timeline of project development does not seem atypical or particularly slow. In fact, for some milestones, especially the time between concept approval and ProDoc signing (less than one month), the speed is rather good. Yet, one of the challenges of UNDP-GEF projects in general is that the timeline from design to implementation is lengthy; and the design can become dated in the process. In this regard, it is noted that, for *TCNTM*, the period from first submission of initial concept to beginning of work is 2 years and 2 months. If the inception workshop is considered the real full launch, then that time period becomes 2 years 8 months. Dissecting *TCNTM*’s timeline, areas where there might be more speed in the future is the period from first PIF submission to PIF approval (about 7 months in the *TCNTM* case) and the period between ProDoc signing (official project launch) to inception workshop (about 6 months in the *TCNTM* case). In terms of implementation, the project applied for and received a nine month extension. The need for extension was due to delays in getting the Eco-Fund launched. Some of the delay may be explained in that the design called for a tourism-specific climate fund that was later deemed not practical for such a small country. Thus, a broader Eco-Fund (something stipulated by the nation’s policy but never before implemented) was pursued. Perhaps if the original design called for an Eco-Fund, time would have been saved. At the same time, establishment of the Eco-Fund is quite a challenging process; and this also explains the need for more time.

Exhibit 6. Project Timeline

≈ Aug., 2012 ²²	April 12, 2013	July 11, 2014	Aug. 4, 2014	≈ Oct. 2014	March 30, 2015	June 12-16, 2017	Jan. 27 - Feb. 7, 2020	May 4, 2020
First submission of PIF	PIF (project concept) approved	Full project approved	ProDoc signed; official project start	Initial project team members begin work	Project Inception Workshop	MTR mission	TE mission	Project close date (with 9 month extension)

Project implementation arrangements: This section explains the implementation mode of *TCNTM* and describes the composition and role of the project team, the role of UNDP, key national partners, and key committees supporting the project.

²² The first comments on the PIF from the GEF Secretariat were made September 5, 2012. Based on this, it is estimated that the first PIF submission was in August 2012.

Implementation mode, UNDP, and project team: The project is directly implemented by UNDP (“DIM”), instead of nationally implemented (“NIM”) by an official government implementing partner (IP). The project office is located at the UN Eco-House in Podgorica. The project team at the time of the TE mission was comprised of five persons: a project manager, three project coordinators (each responsible roughly for a specific outcome), and a finance and administrative officer. The Outcome 1 coordinator is responsible for policy and eco-certification of accommodations, and also the GHG inventory work of Outcome 4. The Outcome 3 coordinator is responsible for the pilot projects and Eco-Fund. The Outcome 4 coordinator is responsible for awareness. Previously, the project had an Outcome 2 coordinator responsible for transport; and that position was held by two different persons over time. Yet, since April 2018, transport responsibilities have been covered by the PM and the Outcome 3 coordinator. One interesting aspect of *TCNTM*'s implementation model calls for the project coordinators and project manager to directly carry out a substantial portion of project activities, rather than only administer contracts for others to do so. Another interesting aspect is *TCNTM*'s having a full-time awareness/PR officer (the Outcome 4 coordinator), which is said not to be typical of such projects in Montenegro. In addition to carrying out pure awareness/Outcome 4 activities, this officer also supported each of the other outcome coordinators and the PM in promotion of the activities for which they were responsible. Her full-time and continuous involvement in *TCNTM* allowed for much more extensive awareness campaigns than might otherwise have been possible.

In addition to its role in direct execution of the project, UNDP plays an important role as GEF implementing agency (IA) for the project. In this regard, it provides quality assurance, technical guidance, and high level liaison and promotion. The TE Team found that the UNDP RTA based in Istanbul provides quality technical guidance to assure the project is focusing on key issues so as to be on track for high impact. It also found that the UNDP CO leadership had provided high level liaison and promotion for *TCNTM*, such as through signing: an MOU with Budva on preserving green spaces, MOUs with each of Tivat and Budva regarding co-financing of eco-certification, a Protocol on Cooperation with the Chamber of Economy etc.

National government partners: While *TCNTM* is a DIM project, there is strong national government involvement in various key activities. MSDT is the most closely involved government partner, with involvement including multiple directorates. Also, at the national level, Ministry of Transport and Maritime Affairs, through its Directorate for Road Traffic, and Ministry of Economy, through its Energy Efficiency Directorate, are important partners. In terms of national agencies, NTO, National Parks of Montenegro Public Enterprise, and the Environmental Protection Agency have all been involved in specific activities. New institutions actually created by the project are now partners as well. These are the Eco-Fund and the board of the Eco-Fund.

Project steering committee and pilot project selection committee: There are two key committees associated with the project, the project steering committee (PSC) and the committee responsible for selecting pilot projects. Findings suggest that the PSC serves as a positive forum for discussing key project issues and certain activities, rather than carrying out detailed decision making. As an example, notes from the third PSC meeting, held in Dec. 2015, include discussion of concerns that the Ministry of Finance would not accept the idea of an NTCF as it had not accepted the idea of an Eco-Fund in the past. The idea was also raised to involve Ministry of Finance in PSC meetings. There were 14 persons in attendance at this meeting, four from MSDT, three from municipalities, one from UNDP, and six from the *TCNTM* team. The *TCNTM* pilot project selection committee played an important role, as around USD 1 million in grants were distributed to pilot projects. There were three calls for proposals over three years; and this committee met one or two times per year. There was at least one meeting per call and a second meeting if needed. Members were provided with extensive materials to review in advance of meeting.

Other key partner: Another key partner in implementation is the Chamber of Economy. After the first call for proposals and the limited response in terms of applications, it was decided that the private sector should also be allowed to apply for pilot project support. Yet, UNDP cannot provide grants to the private sector directly. Thus, a partnership was formed with the Chamber of Economy. The Chamber promoted the grant opportunity to the private sector and, for the second two rounds, served to collect proposals from both the private sector and other applicants and to distribute grant funds.

Stakeholders: Exhibit 1, which shows the various organizations consulted for the TE, gives a good idea of key stakeholders involved in the project. Persons from the national-level ministries and agencies indicated above, as well as the Chamber of Economy, are important stakeholders. Further, municipal officials, including LTO staff, are key stakeholders. Persons with companies and working in the private sector are also important stakeholders, particularly those running tourist accommodations. Other important stakeholders include those from the sports sector that are involved in the project, as well as NGOs and the media. Very importantly, the citizens of Montenegro and tourists visiting Montenegro are considered key stakeholder groups that the project aims to influence.

3. Assessment of Project Relevance and Design

This section is focused on the strategy of the project as designed. It assesses project relevance, such as whether the project is really needed, whether it is innovative and different than what has been done before or what is being done in parallel, whether it is thus leading to different results than would occur in the absence of the project, and appropriateness of the design to address needs. Relevance of a project is broader than design alone, as it encompasses relevance achieved via decisions made during implementation. Yet, as the potential for relevance is in large part determined by the main areas the project design selects for focus, relevance is discussed here. After discussing broadly the relevance of the project overall in the first subsection, in the second subsection we assess the quality of the project's specific design, including the logical framework (objective, outcomes, and outputs) and indicators. As part of this, we address the appropriateness of specific aspects of design to address needs and the overall project aim.

3.1 Relevance of Project Overall

The TE team finds the project theme overall to be relevant to needs and highly innovative, but requiring key adjustment so that the theme and experience to date can be built upon to provide the high level of impact intended in the future. Evidence of the project's overall relevance is as follows:

- As noted, Montenegro's constitution declares it to be an ecological nation. Many stakeholders indicate, however, that Montenegro was not prior to this project doing a lot to truly be an ecological nation. The project, they say, has built widespread awareness and extensive activity that is putting the nation, finally, on that intended path.
- TE findings confirm that prior to the project, Montenegrin citizens were for the most part unaware of the meaning of the term "low carbon." Thanks to *TCNTM's* extensive awareness work, most are now aware.
- The selection of tourism as a focus of this project and the combining of tourism with low carbon and ecological aspects is innovative and relevant. As noted, tourism is Montenegro's largest sector (accounting for over 20% of GDP) and is growing faster than the economy as a whole. GOM is highly supportive of promotion of the tourism sector and therefore the project is highly in line with GOM priorities.

- Montenegro's tourism is tied closely to its natural beauty. As noted, the main tourist areas are its lovely coastal areas. Its northern mountainous areas also offer a high potential for tourism. Thus, developing low-carbon tourism could be highly beneficial to the promotion of Montenegro as a destination for environmentally friendly tourism. In addition, Montenegro's attractive natural sites, such as its national parks, provide opportunities to develop "eco-tourism," tourism motivated specifically by opportunities to view nature. Promotion of Montenegro as a low carbon tourism destination would have synergies with promoting the nation's "eco-tourism" opportunities.
- TE findings suggest that at project start, there had been a lack of sufficient EE and GHG emission mitigation activities/ installations in some specific areas addressed by the project. And, there was indeed a need for these. For example, there was a lack of bike paths and lack of good signage on hiking trails. There was (and still is) a lack of sufficient/ quality public transport. And there were and still are serious tourist season problems with traffic jams along Boka Bay, between the Bay and Cetinje, and within places like Budva, as well as year round traffic congestion in Podgorica. While electric vehicles have been promoted in many other countries for a good many years now, they were almost non-existent in Montenegro at project start and are very limited even today.
- There is a lack of sufficient funding support for low-carbon initiatives carried out by various segments of society in Montenegro. The main sources to date are funds for energy efficiency in hospital and school buildings (with support from the World Bank and KfW and administered by the Ministry of Economy's Directorate on EE) as well as for households (GOM funding also administered by Ministry of Economy's Directorate on EE). Yet, there is no such funding for accommodations or low carbon initiatives related to transport. While GOM has been interested in the idea of an Eco-Fund since 2003, with legislation calling for its establishment adopted in 2016, there had been no strong efforts to set up such a fund until *TCNTM* initiated these.

Yet, despite this strong evidence of relevance, there is also concern about the relevance of the project theme as designed. The concern has to do with sectoral scope and potential for impact. Namely, the concern is that a focus on "pure tourism" initiatives may result in a disappointing level of impact. While the tourism sector accounts for over 20% of GDP in Montenegro, its contribution to GHG emissions at baseline (2014) was just 3.9%. Added to this, Montenegro, given its small population, has one of the lowest country GHG emissions totals in the world. With GEF funding of USD 3.09 M, the *TCNTM* project targets 77 kt CO₂eq of direct GHG ERs over the lifetime of the equipment installed. Based on experience, while acceptable, this target is on the low end of targeted lifetime GHG direct ERs for a UNDP-GEF project with this level of funding. In theory, it could be viable to achieve this level of GHG ERs within the "pure tourism" sector alone. Assuming a weighted average lifetime of 15 years (lifetimes indicated for *TCNTM* installations realized are in the range of 10 to 20 years), this target suggests an annual reduction level of 5.1 kt CO₂. Compared to total tourism sector GHG emissions in 2014 (87 kt CO₂), this target accounts for 5.9% of total sector emissions. Probably, the project designers considered this rough proportion in concluding their approach to be viable. Yet, in practice, what is found from the *TCNTM* experience is that it is extremely challenging to deliver this level of GHG ERs with "pure tourism plays." This may be not only because the total emissions pool is small, but also perhaps because pure tourism organizations and activities are highly fragmented. Much higher cost effectiveness is seen in cross-sector areas such as public transport and LED street lighting. At the same time, international travel for tourist activities in Montenegro (which is not included in Montenegro's domestic accounting for GHG emissions) was estimated in 2018 to have emissions of 609,647 tons CO₂, which is equivalent to 24% of Montenegro's total emissions that year. Thus, a focus on the international travel aspects might be one way to make the project theme more relevant, though this in practice was assessed by the project team to be quite challenging. Project design does include some international travel aspects, but these may not be that impactful in terms of addressing the main constituents of the international travel emissions.

In sum, if efforts focus too narrowly on "pure tourism" sector activities, it may be difficult to achieve the kind of GHG ER impacts targeted and make the most cost effective use of funds. The better approach is

to be clear that, while tourism is the theme, there are cross-cutting areas that affect tourism and the whole country. In this approach, international travel for tourism, while challenging, could be included, but would just be part of the picture. A cross-cutting approach, where economic activities that are relevant to tourism, but not completely contained in the tourism sector are addressed, could result in more impact and greater cost effectiveness. In this approach, “low carbon tourism” becomes a theme suitable to Montenegro’s reputation as a tourist destination and potential future reputation as a low carbon tourist destination. Yet, low carbon efforts clearly target broader areas, such as public transport and municipal street lighting, with a strategic focus on those areas providing the highest cost effectiveness in terms of GHG ERs reductions and other environmental benefits.

As the reader will see, the project as implemented has included in parts of its work such a cross-cutting approach. And, even the project design refers to cross-cutting aspects, such as public transport. Yet, going forward, in future efforts that build on the *TCNTM*, such as tourism activities of the Eco-Fund, the strategy needs to be more clearly laid out. The cross-cutting strategy should be understood clearly and the prioritization of quantitative progress towards critical indicators (e.g. GHG ERs) be assured.²³ In the case of *TCNTM*, for which this was not clearly laid out, the aim of the design was confusing and probably hurt the delivery of GHG ERs from the pilot projects. For the situation during the lifetime of *TCNTM*, because awareness at project start was so low, the approach adopted may be considered appropriate. Many of the pilots are very strong in building awareness, but not strong in achieving GHG ERs. Now that good awareness has been achieved, however, there is a need to change approach. In project design, it was proposed that the Eco-Fund would replicate the pilot projects of *TCNTM*. Instead, it seems that Eco-Fund, for its CCM projects (even those inspired by tourism), may want to shift focus more towards cross-cutting projects or at least on projects that maximize GHG ERs per unit funding. In some cases, adjustments in design of a proposed project may help to deliver the higher GHG ERs sought. For example, an electric bus that is driven 250 km per day will deliver much higher GHG ERs over time than one that is merely driven on a short route a few times a day for total driving distance of 25 to 50 km per day, the sort of daily distance seen with some of the vehicles supported by *TCNTM* pilot projects. Thus, a proposal/ plan for use of such a bus, might be revised to ensure greater benefits. Another problem with relevance in terms of the GHG impacts is how the accommodation aspect was handled in project design, with the main focus on eco-certification. While accommodations might be a good target, a different approach is needed ensure substantial GHG ERs. This is discussed further in the next sub-section.

3.2 Design Quality, including Results Framework/Logframe

This sub-section addresses the quality of design, including an aspect of relevance, the appropriateness of the specifics of the design to address the overall project aim. While the relevance of the project objective is covered in the preceding subsection, here we begin by looking at each outcome statement. We then move on, outcome-by-outcome, to look at the design of specific outputs/ activities and the outcome’s indicators. For convenience of the reader, Exhibit 7 presents again the objective and outcome statements. The TE team finds the general themes of the four outcomes (*vis-à-vis* their outcome statements) to be of good quality. The four themes come together to create a multi-pronged approach towards achieving the project objectives. These “prongs” might be said to include: policy, plans, accommodations, transport, pilot projects, financing mechanism, awareness, and GHG inventory. Multi-pronged approaches that cover policy, planning, demonstration, financing, and awareness are typical of UNDP-GEF projects. And, this strategy has a track record of achieving success when barriers exist in multiple areas. Review of the more detailed content of the outcome statements suggest they are for the most part appropriate. With

²³ The strategy would not necessarily rule out “pure tourism plays,” but would ensure any included deliver cost effectively on indicator targets, such as GHG ERs. And the scope would be clearly defined to include cross-cutting activities, as well as qualified “pure tourism plays.”

hindsight, though, the TE team has concerns with the focus on eco-certification of accommodations within the statement for Outcome 1, as will be discussed further below.

Exhibit 7. Review of Objective and Outcome Statements

Objective: Reduce GHG emissions from Montenegro's tourism sector and maintain the overall tourism sector related GHG emissions at the 2013 level or lower despite the rapidly growing number of visitors.
Outcome 1. Legal and regulatory framework supporting low carbon tourism and low carbon spatial development, including increased certification of both existing and new tourist accommodation facilities and related services by internationally recognized environmental certification scheme(s)
Outcome 2. Improved low carbon and carbon neutral transport infrastructure to support tourism sector related public and non-motorized transport
Outcome 3. Pilot investments to support low carbon tourism development implemented, followed up by the establishment of a sustainable financing mechanism to support climate change mitigation and adaptation actions in the tourism sector
Outcome 4. GHG emission monitoring system and increased public awareness about the carbon footprint of the tourism sector, its GHG reduction potential, and measures

Outcome 1 design and indicators: With hindsight the design of Outcome 1 presents challenges in each of its main areas, eco-certification of accommodations, policy, and spatial plans.

Eco-certification of accommodations: Accommodations accounted for 33.4% of tourism sector GHG emissions in 2018 according to project findings. Yet, findings suggest that, for three reasons, putting all focus on eco-certification to address accommodation GHG ERs was a misguided aspect of design. First, benefiting from hindsight, it does not seem that the eco-certifications achieved by the project resulted in much if any GHG ERs. The accommodations instead were able to meet the energy aspect of certification requirements without major changes. Thus, eco-certification was good for awareness building and could be used as a promotional tool, but did not yield substantial GHG ERs. Second, an issue that should have been considered at the time of design, the potential penetration rate of eco-certification in the accommodation sector, based on international experience, is not high enough to achieve transformative change. Looking at data for the top EU Eco-Label (one of the key certifications pursued by the project) countries, the ratio of eco-certified accommodations to population would suggest a very low number of accommodations might achieve certification in Montenegro: Italy (population 60.5 M in 2018) had 176 hotels certified in 2018 or 1 per 341,000 persons. France (population 66.9 M in 2018) had 92 or 1 per 727,000 persons. Spain (population 46.7 M in 2018) had 49 or 1 per 953,000 persons. Switzerland (population 8.5 M in 2018) 47 or 1 per 181,000 persons. Austria (population 8.8 million in 2018) had 36 or 1 per 244,000 persons. Taking Switzerland's achievement as the highest ratio of certified hotels to population, a similar ratio would suggest just 3 or 4 eco-certified hotels in Montenegro. Third and lastly, the benefit of eco-certification to accommodation owners is not clear. While some research shows that customers view eco-certified accommodations favorably, there is not strong evidence in the literature that eco-certification increases business. The mix of origin of tourists in Montenegro (as noted in Section 2) also suggests benefits might be lower than in countries where Western European tourists dominate. Given the situation, it seems it would have been better if the design had focused on a means that had the potential to impact a larger number of accommodations and could assure GHG ERs in the process. Alternatives are discussed in Section 5 (the section on Outcome 1 results). The relevant indicator as designed reflects the unrealistic approach of focusing on eco-certification of accommodations. It targets that one-third of all hotels (there were 453 in 2019) and 100 tourist apartments in Montenegro be eco-certified by end of project. In the area of policy, discussed further below, the indicators target a policy that makes eco-certification of accommodations mandatory. This does not exist in other countries and also seems unrealistic.

Policy: The policy indicator target calls for “adoption of amendments to the *Law on Tourism*, the *Tourism Sector Development Strategy*, the *Law on Spatial Planning and Construction* and other policies related to low carbon tourism.” While inclusion of policy in the project design is applauded, hindsight reveals two concerns about the specific approach taken in the design: (1) It turned out not to be practical for the specific policies included to be addressed given government desires and priorities. In a sense, UNDP-GEF projects must remember that when it comes to policy, the government is a sort of “client” of the project’s policy work. Thus, policy indicators might be designed more flexibly with regard to which policies get adopted. (2) For the reasons given in the big picture discussion of relevance above, a focus on tourism oriented policies (given the low share of tourism in overall GHG emissions) may (had it been successful) have had less impact than a focus on policies in high-GHG areas, such as transport.

Spatial plans: Inclusion of spatial plans in the design is applauded, as they are very important. Yet, spatial plans are a very sensitive area in Montenegro. In the past, a lot of conflict of interest and even corruption has been associated with spatial planning.²⁴ More recently, authority for spatial plans/ urban planning has been taken away from the municipalities to be handled at the state level. Municipalities are generally not happy with this situation. Project indicator targets call for one low carbon spatial plan to be developed in each of four municipalities. Given the sensitivity of this topic, it might have been better had the design team dug deeper and developed a more detailed plan of how the project could strategically make progress, given the tricky situation.

Outcome 2 design and indicators: Outcome 2, as the transport outcome, provides quite a long list of low carbon transport activities. Many are interesting and worth pursuing. The main concern with the design is that the indicators select seven of these (across four indicators) as specific outcome-level targets. Given the substantial challenge associated, it may have been better to design an indicator with more flexibility. For example, one of the four indicators is the Kotor to Cetinje cable car, which required a USD 40 or 50 million investment. The funding had not been secured at the time of project design and was never able to get funding during the project’s lifetime. Or, as another example, there is a specific indicator target of two low carbon information centers at transport hubs. In the end, it seems the project implemented these as a requirement, because they were listed in the specific indicator targets. Yet, it does not seem the team saw them as something that would be impactful. Eco-certification of airports and ports is also included among indicator targets. Yet, as with accommodations, it is not clear that certification is the most effective means to achieve EE, RE installations, and associated GHG ERs at such facilities.

Outcome 3 design and indicators: Outcome 3’s focus, at a high level, on pilot projects and financing mechanisms is considered sound. The biggest weakness of the design is that Outcome 3 (and one of its indicators) calls for establishment of NTCF (National Tourism Carbon Fund) to focus on reducing GHG emissions from the tourism sector and perhaps providing support for tourism sector adaptation as well. In a country with only around 630,000 inhabitants, it does not seem practical to have a climate fund focusing only on the tourism sector. As noted, this design issue may have in the end created a lot of delay for the project. It would have been better to suggest a broader fund. In a sense, as we have discussed when looking at the broader relevance of the project’s theme, there is a need to leverage the theme of low carbon tourism, but make the scope more general. Low carbon tourism is an attractive and inspiring theme that can motivate action. Yet, given the small scale of the country, it’s important to broaden the scope of initiatives encompassed under the theme. As for the pilots, a clearer emphasis on broader scope may have helped to stimulate projects with more GHG ERs. Further, in hindsight, project design might have done better to provide some support for project development (feasibility studies and technical designs) in its first years, so as to have strong projects to invest in.

²⁴ *Urban Planning in Montenegro: Construction and Payoffs*, CCE (Center for Civic Education) supported by EU and Norwegian Embassy, 2014, <http://media.cgo-cce.org/2016/11/Urban-planing-in-Montenegro.pdf> accessed March 25, 2020.

Outcome 4 design and indicators: As for the general focus of Outcome 4, the awareness aspect is highly applauded. The GHG inventory work for the tourism sector is seen to be useful, though in retrospect not sustainable given the low share of the tourism sector in overall emissions. In some ways, the use lies partially in illuminating the need to broaden the scope of work under the “low carbon tourism theme.” The indicator targets for awareness, in retrospect, seem weak. They call for the launch of a number of “low carbon tourism products” and for a certain market share of “certified low carbon tourism services.” The only “certified low carbon tourism services” seem to be the eco-certified accommodations, which are measured by an Outcome 1 indicator. And, it’s not clear whether focus on specific “low carbon tourism products” should be the aim of the awareness work. While it is really challenging to come up with good outcome-level awareness indicators, it seems thinking about what a good awareness program would really achieve – reaching large numbers of people and changing their thinking and even their actions – should be the basis of designing awareness related indicators.

4. Project Results Overall

This section reviews two major areas of overall results, GHG emission reductions and financing directly mobilized for low carbon projects. It also presents “Progress toward Indicator Targets,” a required color-coded “traffic light” table covering progress towards the objective level indicators and the indicators of each of the four project outcomes. This table may also be seen as a summary of key points from the subsequent four sections of the text that review progress toward results for each outcome, respectively.

Overall GHG results: GHG emission reductions (ERs) are a key measure of results of GEF CCM projects. *TCNTM* does well in this area. When lifetime direct GHG ERs for installations during the project and those expected with high certainty post-project (and also due directly to project activities) are considered, *TCNTM* meets and substantially exceeds (by 58%) its target for direct lifetime GHG ERs of 77.0 kt CO₂. Exhibits 8, 9, and 10 show emission reductions associated with three different key areas of activity. Then, Exhibit 11 shows our computation of total direct ERs.

Exhibit 8 shows the lifetime direct ERs associated with each of *TCNTM*’s pilot projects completed by EOP. These 31 pilot projects are divided into three categories, transport (subtotal of 13.9 kt CO₂ GHG ERs), accommodations (subtotal of 3.1 kt), and miscellaneous (subtotal of 6.3 kt). The total for all three groups, at 23.2 kt, is far below the target of 77 kt. This, indeed, is a key finding related to our conclusion that future work in low carbon tourism should emphasize cross-sector work and maximization of GHG ERs for funds invested. Looking at the individual pilot projects, it is seen that the top four in terms of GHG ERs, and the only ones delivering over 1 kt CO₂ each in lifetime GHG ERs, are Bella Boka’s four low carbon boats (13.3 kt), Zabljak LED street lighting (3.1 kt), Podgorica Sports Center renovation including LED lighting (1.4 kt), and Savnik street lighting (1.2 kt). None of these are “pure tourism plays.”

Exhibit 9 shows the lifetime GHG direct ER contributions from an installations that is confirmed to have resulted from recommendations made by the project’s 12 energy audits. The contribution is relatively low, as only one instance of recommendation adoption was confirmed among the 12 accommodations, but still has interesting implications. Because information on implementation of audit recommendations was not available, the TE team worked to interview as many of these 12 accommodations as possible. We were able to reach seven of the 12 and found that only one had carried out a low carbon measure directly due to the energy audit recommendation. Yet, the lifetime contribution of 563 tons CO₂ for the PV system installed is positive. It suggests that if such systems could be deployed at a large number of accommodations, the cumulative effect could be substantial. For example, if 137 such systems were

deployed with similar GHG ERs on average, this alone would have met the project target of 77 kt CO₂ in GHG direct lifetime ERs. This suggests that the accommodation sector does have the potential to realize significant GHG ERs, but that significant contribution requires that the number of accommodations involved be high. Unfortunately, the project was unable to achieve such a transformative impact on the sector. As noted, the design's focus on eco-certification is believed not to have been the right approach to achieve such transformative change.

Exhibit 8. Lifetime Direct GHG ERs for Pilot Project Installed by EOP

Pilot Project (Proponent)	Annual Direct GHG ERs (t CO ₂)	Lifetime (years)	Lifetime GHG ERs (t CO ₂)
1. two electric tourist trams (Cetinje Municipality)	4.75	10	48
2. one open-air electric tourist bus/ tram (Zabljak Municipality)	8.64	10	86
3. one electric tram (Hotel Slovenska Plaza (Budva))	1.09	10	11
4. one electric tram (Hotel Palazzo Venezia (Ulcinj))	1.04	10	10
5. two diesel open-air "train-like" road vehicles (National Parks (for Biogradsko NP))	8.33	10	83
6. four low-carbon boats (Bella Boka (private company))	1,333	10	13,331
7. one solar PV sailboat (Rambo Amadeus (famous singer))	10.46	10	105
8. sixty km hiking/biking trail signage (Pluzine Municipality – Piva Nature Park)	1.50	10	15
9. hiking trails on Lustica Peninsula (Tivat and Herceg Novi Municipalities)	0.5	10	5
10. six hundred meter trail and visitor center (Herceg Novi LTO)	0.5	10	5
11. bike lane network on sidewalks, streets (1 of 6, Podgorica Municipality)	16	10	160
Transport Sub-Total	---	---	13,859
1. new build: 1.5 kWth SWH, LED lights, biomass pellet htg (Hotel Fobra, Podgorica)	27	20	540
2. SWH and heat pump for air and water (Hotel Aurel, Podgorica)	39.1	20	782
3. hotel renovations and SWH (Hotel Onogost, Niksic)	6.50	20	130
4. hotel renovations and SWH (Palazzo Venezia, Ulcinj)	5.86	20	117
5. hotel renovation: SWH, biomass pellet htg, LED lighting (Hotel Serdar, Mojkovac)	22	20	440
6. SWH and 1.4 km zip-line (Piva Eco-Hotel, Pluzine)	2.81	20	56
7. biomass pellet boiler for water heating (Hotel Lighthouse, Herceg Novi)	22	20	384
8. greening of terrace - potted plants; building of playground (City Café, Herceg Novi)	0.5	10	5
9. hotel renovation and bio-septic tank/ irrigation (Casa del Mare Hotel, Herceg Novi)	62.61	10	626
Accommodations Sub-Total	---	---	3,090
1. conversion of streetlights to LED (Zabljak Municipality)	206	15	3,090
2. conversion of streetlights to LED (Savnik Municipality)	79.12	15	1,187
3. conversion of lights in administrative building to LED (Tivat Municipality)	14.7	15	213
4. conversion of swim stadium, other lights to LED; new controls (Jadran WP Club)	4.80	15	72
5. reconstruction of Sports Center incl. LED lighting (Podgorica Municipality)	94.10	15	1,412
6. solar PV systems for 10 artisan households (Zabljak Municipality HHs)	1.68	20	34
7. solar PV systems for 30 artisan households (Pluzine Municipality HHs)	5.04	20	101
8. biomass pellet heating (Mojkovac Municipality)	1.31	10	13
9. modernization of irrigation system in City Park (Tivat Municipality)	15.37	10	154
10. irrigation system, greening: planting 140 trees, grass (Adventure Park, Podgorica)	0.50	10	5
11. greening of park areas (Pljevlja Municipality)	1.61	10	16
Miscellaneous Sub-Total	---	---	6,297
Total Lifetime Direct GHG ERs for All Three Groups/ All 31 Pilot Projects	---	---	23,236

Exhibit 9. Confirmed Lifetime GHG Direct ERs for Installations by EOP Resulting Directly from Accommodation Energy Audit

Note: TE Team attempted to reach out to all 12 of the accommodation audit beneficiaries. Of the seven that we were able to speak to, only one had implemented the audit recommendation. That hotel and the associated GHG ERs are included below.

Accommodation Audits: Implemented Recommendations (Proponent)	Annual Direct GHG ERs (t CO2)	Lifetime (years)	Lifetime GHG ERs (t CO2)
1. Klinci Hotel Lustica – PV system	37.5	15	563
Total	---	---	563

Exhibit 10. Estimating Direct Post-Project GHG ERs from Five Municipal Street Lighting Projects for which Project Prepared Feasibility Studies

(Note: see Exhibits 18 and 19 re details of these projects and evidence that they will be implemented.)

Municipality	kWh saved per year [A]	GHG ER per year (t CO2) [B=(A x 0.49 kg/kWh)/ 1,000 kg/ton]	GHG ER lifetime) (assumed 15 years) (t CO2) [C=B x 15 years]	Probability of Implementation [D]	Contribution to Direct Post-Project GHG ERs (t CO2) [E = C x D]
Podgorica	5,392,270	2,642 t	39,630	100%	39,630
Budva	3,878,607	1,900 t	28,508	95%	27,0832
Cetinje	1,431,829	701.6 t	10,524	100%	10,524
Danilovgrad	884,856	433.6 t	6,504	80%	5,203
Kolasin	374,509	183.5 t	2,752	80%	2,202
Total	---	---	---	---	84,641 tons CO2

Fortunately, the project has developed five pipeline municipal LED street lighting projects that are likely, with high certainty, to be implemented and that have quite substantial lifetime GHG direct post-project ERs. These projects and their estimated GHG direct post-project ERs are shown in Exhibit 10. The TE team conducted interviews with each of the cities and also collected other information, such as expected payback and budget allocations, to assess probability of implementation. All five projects were found to be quite probable. Exhibit 10 includes our estimated probabilities for implementation. The estimated GHG ERs are weighted by these probability factors. It can be seen that the first two of these projects (Podgorica and Budva) in their expected GHG ERs far surpass the scale of GHG ERs achieved by any of the pilot projects to date. Yet, it should be noted that Bella Boka’s low carbon boats are expected to double that pilot’s GHG ER contributions when post-project installations are considered. Thus, the total scale of low-carbon boat GHG ERs will then be in a similar range with these two stand-out LED street lighting projects. The other three LED street lighting projects offer GHG ERs in the range of the top four GHG ER performers among the pilot projects (considering their installations by EOP). The sum of estimated lifetime GHG ER contributions of these five municipal LED street lighting projects is 84.6 kt CO2, which alone surpasses the project target of 77 kt. This result contributes to our conclusion that cross-cutting initiatives that are related to tourism, but not necessarily encompassed within the tourism sector, could be a key approach to realizing strong benefits from “low carbon tourism” programs. Further, these municipal LED street lighting projects illustrate the use of funds in the project development phase (feasibility studies and/or technical design). When such projects are known (as confirmed via feasibility study and design work) to have good returns/ relatively short payback periods, further investment may be easily mobilized from other sources. Thus, the Eco-Fund may wish to consider as part of its strategy the approach of supporting feasibility studies and technical designs of promising projects. Such support

should be focused on projects that could potentially deliver strongly in terms of GHG ERs or the Fund’s other key criteria, as well as in terms of investment mobilization from outside sources.

Exhibit 11 brings together the information of the three foregoing tables and computes the total expected lifetime direct GHG ERs of the project, also showing the main constituents of this total. These include: (1) the lifetime GHG ERs for pilot project installations by EOP, (2) the lifetime GHG ERs for the one audit recommendation stimulated installation by EOP, and (3) the highly likely post-project direct ERs from the five municipal street lighting projects. In addition, as noted, (4) Bella Boka’s additional low carbon boats (which are considered part of the original pilot project) are expected with strong certainty. Their post-project direct ERs, weighted by a probability factor, are also included. The resulting total is 121.8 kt CO₂, composed of 23.8 kt from installations by end of project and 98.0 kt from installations expected post-project. Among the top contributors of both the “by EOP” and “post-project” groups are municipal street lighting projects and Bella Boka’s low-carbon public transport boats. This again reflects the importance of cross-cutting areas to the efforts, while building on the motivation from the “low carbon tourism” theme.

Exhibit 11. Total GHG Direct ERs

Item	Direct GHG ERs (t CO ₂)
Pilot Project Lifetime GHG Direct ERs (for installations by EOP)	23,236
Accommodation Audit Recommendations Implemented by EOP Lifetime GHG Direct ERs	563
<i>Subtotal for Direct ERs for Installations by EOP</i>	23,799
LED Street Lighting Lifetime GHG Direct Post-Project ERs	84,641
Low Carbon Boats in Boka Bay brought in service post-project GHG Direct Post-Project ERs*	13,331
<i>Subtotal for Direct Post-Project ERs (for equipment installed post-project)</i>	97,972
Grand Total Lifetime GHG Direct ERs (both for equipment installed by EOP and after EOP, but all directly influenced by activities of project)	121,771
Proportion of 77 kt CO₂ direct emission reduction target represented by the above: 158%	

*The Boka Bay Pilot Project targets a total of 9 boats, of which 4 will have been installed by EOP. Consultations imply likelihood is high that the other 5 boats will be put in service gradually over time within 4 to 5 years post-project. GHG ER estimate for these other five boats is based on GHG ERs for the 4 boats already in service and then modified by an 80% probability factor. The calculation then is 13,331 tons CO₂ x 5/4 x 80% = 13,331 tons CO₂.

Mobilization of financing results: Financing directly mobilized for GHG reducing projects is shown in Exhibit 12. Full project co-financing is given in Section 10. Amounts for pilot projects here have some difference with the full project co-financing, as only amounts considered to directly contribute to GHG emission reducing activities stimulated by *TCNTM* are included here.

The results show that the project has done well in mobilizing non-GEF investment in “low-carbon” projects (both tourism and cross-cutting). An estimated €3.98 M²⁵ was mobilized during project (mostly for Outcome 3 “pilot projects”) specifically for low carbon projects. Among the pilot projects, it is seen that the transport category not only mobilized the largest sub-total of co-financing among the three pilot project categories, but also that it has the highest leverage ratio, mobilizing 5.9 times the financing provided by GEF funds. That ratio for the accommodation pilot projects is 3.1; and for the miscellaneous category is 2.7. The one installation resulting from the 12 energy audits achieves a leverage ratio compared to the costs of all 12 audits of 4.8 times. This shows that if the audits could have a higher success rate in getting their recommendations adopted, they could be a very cost effective tool for

²⁵ Total co-financing estimates that are given in Section 10 are substantially higher. This conservative estimate focuses on those funds mobilized specifically for low carbon measures and does not include total investments beyond those measures, such as the full cost of building of a new hotel or the full cost of complete refurbishment of an existing hotel.

leveraging finance. In addition to the investments mobilized during the project, €10.55 M specifically for low carbon investments is expected with high certainty post-project (more Bella Boka low-carbon boats and five municipal street lighting projects) due directly to *TCNTM* activities, bringing the total to €14.53 M. This total when compared to all of *TCNTM*'s GEF funds of USD 3.09 M, suggests a leveraging ratio of 4.7. This ratio only considers investment mobilized by *TCNTM* for specific projects. When broader co-financing and broader post-project investment mobilization (such as for Eco-Fund) is considered (as in Section 10), the ratio is significantly higher.

Exhibit 12. Financing Mobilized and Expected to be Mobilized by *TCNTM* in Projects that Directly Reduce GHG Emissions (€)

Set of Projects	<i>TCNTM</i> GEF Financing in Projects that Directly Reduce GHGs (€)	Co-Financing Mobilized in Projects that Directly Reduce GHGs (€)
Transport Pilot Projects	500,226	2,922,082
Accommodation Pilot Projects‡	147,984	453,702
Miscellaneous Pilot Projects†	210,867	580,014
<i>Sub-sub Total Pilot Projects</i>	<i>859,077</i>	<i>3,955,798</i>
Implementation of Accommodation Audit Recommendations	5,440 (Amount spent on Energy Audits during <i>TCNTM</i>)	26,000
<i>Sub-Total Installed by EOP</i>	<i>864,517</i>	<i>3,981,798</i>
Post-Project LED Street Lighting Projects*	0.0 (Amount spent on feasibility studies during <i>TCNTM</i> : feasibility studies were co-financed)	8,869,727
Post-Project Boka Bay Boats‡	0.0	1,679,000
<i>Sub-Total Installed after EOP</i>	<i>0.0</i>	<i>10,548,727</i>
Grand Total Used/ Directly Mobilized for CCM projects	864,517	14,530,525

‡For four of the nine accommodation projects, the reported co-financing, which includes extensive hotel renovation or building of a new hotel, is not used in this specific analysis, because the focus here is on co-financing mobilized by *TCNTM* for CCM activities. Instead, a rough estimate of three times the *TCNTM* GEF funds provided is used for the co-financing estimates in the case of these four accommodations. In the computation of total project co-financing, however, the full amounts reported for hotel renovation used are included as: (i) this practice in reporting co-financing seems typical at times in various GEF projects, (ii) reconstruction is believed to have EE benefits, and (iii) the TE team had no other specific information on co-financing for these projects.

†As with the accommodations, the mobilized co-financing for two of these projects (Podgorica sports facility and Adventure Park) have been reduced to three times the *TCNTM* GEF funds provided, as the original co-financing reported is understood to be broader than the pilot projects. Yet, the reported co-financing amounts have been maintained in estimates of co-financing later in this report (in Section 10).

*Project investment amounts are each multiplied by our estimated probability for realization. These probabilities are: 100% for Podgorica and Cetinje, 95% for Budva, 90% for Danilovgrad, and 85% for Kolasin.

‡Post-project, 5 more boats are considered very likely to be added to the original 4 for a total of 9. A similar cost per boat as for the original 4 boats is assumed. The total estimated cost for 5 boats is then multiplied by a factor of 80%, the estimated probability for realization of all 5 boats.

Progress towards project indicator targets: Exhibit 13 shows the “Progress toward Indicator Targets” table. It is quite a detailed table and sums up many of the results related findings in this and the subsequent four outcome-by-outcome sections of this document. In the left column, the table lists the objective or outcome statement to which the indicator in the second column applies. The second and third columns show the value of the indicator at baseline (start of project) and the target value (for end of project), respectively. The fifth column from left (or second from right) first shows our estimate of the value of the indicator at the time of the TE. It then includes substantial discussion of our view of progress towards the indicator target. In some cases, there is also discussion with regard to the design of the indicator and targets themselves. The TE team finds in some cases the indicators and targets as designed do not show the real benefits of the project or are otherwise not well designed. In such cases, our view may be explained and additional information on related things the project has achieved be included. Each

cell in this column is color-coded showing a sort of rating for progress towards achieving the indicator target. The key for the color coding is provided at the bottom of the table. The far right column has only one cell for the objective and one cell for each outcome. It first provides our rating on project results for the objective or respective outcome overall. (This is distinct from the color coded ratings from individual indicator targets, as it is a more holistic rating for the objective or respective outcome overall.) The rightmost cell then explains our findings overall on results for the objective or outcome that have informed the rating. There may be some overlap with the discussions of each indicator, but overall these text in these cells is meant give a more holistic view of the important results or challenges associated with the objective or outcome.

Exhibit 13. Progress towards Results Matrix – TCNTM TE

Strategy	Indicator	Baseline	Target	Value at time of TE	Rating and Justification for Rating
Objective: Reduce GHG emissions from Montenegro’s tourism sector and maintain the overall tourism sector related GHG emissions at the 2013 level or lower despite the rapidly growing number of visitors	The tourism sector related GHG emissions compared to the estimated level in 2013	2013: 70-100 ktCO2 2020: 170 ktCO2	2020: 77 ktCO2 The tourism sector related total GHG emissions in Montenegro not exceeding the level in 2013.	2018: 98.44 kt (2019 and 2020 emissions won’t be available – 2019 data doesn’t come out until Dec. 2020). During 2013-2018, GHG emissions from tourism sector rose by only ½ the business as usual amount. <i>The baseline expected value for 2020 is too high given growth rate in tourism sector revenues, but the target for 2020 is also too challenging. According to https://www.cvtdata.com/en/indicator/montenegro-tourism-revenue Montenegrin tourism revenues rose 31.7% between 2013 and 2018. Assuming baseline in 2013 is 85 kt, then GHG emissions grew by just 15.8% during period – half of the growth rate of revenues. This is considered a positive result, worthy of “target achieved” assessment.</i>	Satisfactory Project has done outstanding job of introducing the concepts of low-carbon tourism and ecological tourism to Montenegro, stimulating initiatives across the country in a range of tourism related areas, mainly transport, accommodation, and greening. An innovative highlight is electric-solar PV and hybrid electric-diesel boats to transport tourists in Boka Bay. Through: (i) creating heightened awareness of ecological issues, (ii) realizing pilot demonstrations of low carbon tourism initiatives nation-wide, and (iii) achieving institutional set up of a national Eco-Fund, the project has enabled Montenegro to finally get on track to realizing its self-declared status as an ecological nation. The project is on-track to meet and surpass its GHG direct emission reduction targets once highly likely post-project emission reductions due directly to project activities are realized. Project has faced some special challenges, partially related to project design issues and partially related to country situation. Impact in the accommodations sector, in which a strong focus was put on eco-certification, was less than intended. Eco-certification was not found to stimulate substantial GHG ERs and demand for certification was also much less than expected. A focus on EE or RE measures for cost savings may have been a more effective design in terms of attracting mid-end hotels. Yet, lack of financing for EE/ RE in the hotel sector may have stymied such efforts as well and is something that might be pursued for the future. In the transport sector, some very challenging targets, such as a RE powered
	Amount of reduced CO2 emissions by the investments facilitated by the project	0 0	Direct GHG emission reduction impact: 77 ktons CO2eq over the 20-years default lifetime of the investments made during project implementation with direct GEF support. Indirect GHG emission reduction impact: Cumulative indirect GHG reduction impact of 173,7 ktons of CO2eq by the end of 2023 or over 360 ktons by the end of 2028.	Lifetime GHG direct ERs from installations during project are 23.8 kton CO2. Lifetime GHG direct post-project ERs with very high likelihood are 98.0 kton. So, total direct ERs will be 121.8 kt, surpassing target by 58%. <i>Considering this total, indicator highly likely to be met due to direct influence of project and is considered strong achievement.</i> Indirect emission reduction impact post-project not possible to verify. Suggest removing this indicator as was suggested by MTR.	
	Extent to which climate finance is being accessed to support low-carbon tourism: a.	a. Not adequately	d. Largely	At EOP, “c. Partially,” but target very likely to be met post-project (“d. Largely”) with establishment of Eco-Fund. <i>Eco-Fund established and climate change mitigation included in its scope. Eco-Fund board of directors set up and director of Eco-Fund has been hired. Fund not capitalized, but capitalization is considered extremely likely with eco-charges (currently collecting € 500,000 per year) as assured initial capitalization. New Waste Management Law in the works expected to substantially increase amounts available, so that annual funding in</i>	

	Not adequately, b. Very partially, c. Partially d. Largely			2022 and 2023 is at least €1+ M and could rise to €8 M by 2024. Also, good chance of around € 4 M per year more being provided for Eco-Fund capitalization by 2021 via ecological fees related to road transport (as indicated in recent revisions of Road Transport Law, believed to be motivated by discussions of Eco-Fund Board).	cable car, eco-certification of ports and airports, and RE to power cruisers and yachts when docked in marina, were set and not achieved. Yet, some progress has been made in some of these areas, with realization post-project or through follow-up project a possibility. Some inputs from the project in final month to stimulate such progress or follow-up projects may be possible. The vast majority of pilots have relatively small GHG ER benefits, reflecting the fragmented nature of much of the tourism sector. There is a need in the future (e.g. Eco-Fund CCM work) to focus more on cross-sector initiatives that are relevant to tourism but not “pure tourism plays” in order to achieve more substantial GHG ERs. A focus on some more large/high profile projects (such as Boka Bay public transport boats) may have yielded higher GHG ERs before project close. Yet, it is acknowledged that such projects, despite efforts, may have a low probability of realization. Support of project development (feasibility study and technical design) may be another means to stimulate projects with higher GHG ERs.
	Extent to which there is a system in place to access, deliver, monitor, report on and verify climate finance in tourism sector: a. Not adequately, b. Very partially, c. Partially d. Largely	a. Not adequately	d. Largely	“c. Very partially” at time of TE. Potential to achieve “d. Largely” by EOP or in follow-on activities, but additional work needed. <i>Project has developed methods to assess GHG ERs from CCM projects in tourism sector, including transport, buildings, and greening, for its pilot projects. Yet, there is no formal unified document or system in place that could be used, such as by Eco-Fund, to vet proposals and monitor and verify GHG ERs of proposed and invested projects. Such a document and system may be useful to ensure that Eco-Fund has a CCM category of investments and good protocol for assessing proposals in that category, as well as monitoring invested CCM projects. In its last month, project may prepare such a document and propose such a system. Or, alternatively, project, UNDP, and Eco-Fund, may work to ensure that follow-on work, supported by other Government-donor projects, does this. As suggested in this report, ideally, Eco-Fund vetting for CCM project will put strong emphasis on cost effectiveness vis-à-vis GHG ERs achieved per Euro. As such, capacity in estimating GHG ERs of applicant projects is needed.</i>	
Outcome 1: Legal and regulatory framework supporting low carbon tourism and low carbon spatial development, including increased certification of both existing and new tourist accommodation facilities	Status of suggested amendments to the <i>Law on Tourism, Tourism Sector Development Strategy, Law on Spatial Planning</i> and, as applicable, other related documents	Low carbon tourism related provisions not included in the Laws	Amendments into the <i>Law on Tourism, Tourism Sector Development Strategy, Law on Spatial Planning and Construction</i> and, as applicable, other related documents to promote low carbon tourism adopted.	Project has had policy successes to promote low carbon development generally, which contributes to low carbon tourism: New <i>Law on Industrial Emissions</i> prepared by project and adopted by GOM promotes reduced GHGs from industrial sector. Revised <i>Law on Road Transport</i> newly incorporates support for ecological purposes via fees collected, which presents good potential for ≈ 4 M € annual Eco-Fund financing. This aspect is believed to have been influenced by TCNTM stimulated Eco-Fund Board meetings. <i>National Action Plan for EE 2019-21</i> specifically recognizes achievements of project in relevant sections, including new discussion of project supported Eco-Fund, poly-centric SUMP (as part of newly introduced section in <i>Action Plan</i> on sustainable transport), and EE street-lighting work. Various laws and strategies now reference low carbon development in part, though not fully, due to both direct inputs and strong awareness raising work of project. <i>More flexible interpretation of indicator recommended, as it is impossible to know at the time of project design for which policies the government will be in need of and receptive to input. Great strength of</i>	Satisfactory: The project has had some impactful “wins” for low carbon development in the policy arena: New <i>Law on Industrial Emissions</i> drafted and adopted; potential funding for Eco-Fund incorporated into <i>Law on Road Transport</i> ; project achievements incorporated into <i>National Action Plan for EE 2019-21</i> . In eco-certification of accommodations, the project did all it could, given constraints of market scale and interest, achieving 31 eco-certified accommodations. Of these, achievement of 19 EU Eco-Label accommodations surpasses certification: population ratios of top Eco-Label

and related services by internationally recognized environmental certification scheme(s)	Share from all registered tourist accommodation facilities constructed and operated in accordance with the EU Ecolabel or similar internationally recognized certification scheme.	<1% (4)	At least 33% of all officially registered collective tourist accommodation facilities and at least 100 private (non-collective) tourist accommodation facilities in at least 6 different coastal cities to be certified by EU Ecolabel or similar internationally recognized certification scheme, and of which 80% completed a carbon footprint analysis and have active plans in place to meet defined neutrality.	<i>project is seen in its being sensitive to needs of government and providing support and facilitation, accordingly.</i> 31 tourist accommodations will have, by EOP, newly received certification (19 EU Eco-Label, 11 Travel Life, and 1 Green Key), meeting revised target of 30 new certifications. <i>Original target overly ambitious given both (a) comparison to other countries and (b) lack of interest/ incentive (via market justification) by tourist accommodations. As for (a), total EU Eco-Label certifications were just 500+ worldwide in 2018. Top nations in terms of total number of EU Eco-Label certifications (given much larger populations) actually had a much lower level of Eco-Label penetration vis-à-vis “population: Eco-Label certified accommodations ratio” than Montenegro has now with 1 EU Eco-Label accommodation per 33,000 inhabitants²⁶. While eco-certification may have benefits in terms of attracting customers, these benefits are not proven in a concrete enough way to be convincing enough to most accommodation owners and managers of small or mid-sized facilities to get them to participate. For the larger facilities, Travel Life certification may indeed help attract more business from large tour operators. Indeed, research has shown it is high-end tourists that are more willing to pay more for green features. The MTR suggested downwards adjustment of target; and project team proposed target of 30. TE team finds target of 30 to be quite reasonable, especially given the ratio of “population: EU-Ecolabel accommodations” in countries with the most such certifications. Given these ratios and lack of GHG ERs generated by the eco-certification process, however, it seems project design would have done better to focus on cost savings for hotels via EE/RE measures and retrofits and perhaps development of financing mechanisms to support such measures/ retrofits.</i>	countries. To better contribute to project objective GHG ER targets, project design might instead have focused on EE/RE for cost savings for accommodations and a mechanism to finance associated EE/RE measures and retrofits. This approach may have the potential to garner more participants and more GHG ERs than eco-certification approach, which was found not to have yielded much in the way of GHG ERs even in cases where eco-certification was adopted. For spatial planning, project prepared quality polycentric SUMP for four cities (Kotor, Tivat, Herceg Novi, and Cetinje). A few key measures (Boka Bay public transport boats and bicycle trail signage) were implemented as pilot projects, while another important one introduced by the SUMP, Montenegrin portion of Mediterranean Euro-Velo (trans-Europe) biking trail, has now been recognized as an important target and has partial funding from another project. While Tivat has adopted SUMP as a strategy and Cetinje is planning a traffic study as follow up, more local buy-in and engagement in the polycentric SUMP by each of the four covered cities might be pursued. And, efforts to get more of the SUMP implemented with support from future projects might be undertaken. In addition to the SUMP, TCNT has found a positive means of addressing the sensitive topic of spatial planning and topic of encroaching of green spaces: A high-level MOU between UNDP and Budva
	Number of municipalities covered by new low carbon spatial plan(s)	0	At least four (4) municipalities covered by new low carbon spatial plan(s)	Polycentric SUMP covering 4 municipalities (Kotor, Tivat, Herceg Novi, and Cetinje) prepared. A SUMP might be considered a sort of annex to a spatial plan/ master plan. While the SUMP is part of Outcome 2 activities, Outcome 2 has no such indicator, so SUMP can be included here. Some SUMP activities (particularly Boka Bay boat public transport) have been implemented under TCNTM as pilot projects. Another UNDP-implemented project is addressing key SUMP recommendation of developing Montenegrin portion of Euro-	

²⁶ For EU Eco-Label, on a per capita basis, the top EU Eco-Label countries all have a lower ratio of Eco-Label tourist accommodations than Montenegro. Italy (population 60.5 M in 2018) had 176 hotels certified in 2018 or 1 per 341,000 persons. France (population 66.9 M in 2018) had 92 or 1 per 727,000 persons. Spain (population 46.7 M in 2018) had 49 or 1 per 953,000 persons. Switzerland (population 8.5 M in 2018) 47 or 1 per 181,000 persons. Austria (population 8.8 million in 2018) had 36 or 1 per 244,000 persons. The conclusion: To really impact GHG emissions in the accommodation sector in Montenegro, as should have been the true underlying target of the outcome in order to contribute to the project objective, a different approach than eco-certification should be taken. It might have been more focused on cost savings for accommodation owners via implementation of low cost, or at least quick payback, EE measures and retrofits.

				<p>Velo Mediterranean biking route. Additional effort needed to ensure follow-up projects get other major SUMP initiatives implemented. In the case of Tivat, SUMP accepted as strategy document and some recommendations incorporated into Tivat Strategic Plan. Cetinje planning traffic study to build on SUMP. More might be done to assure each city adopts the well-prepared SUMP in full as “action plan.” Also important for spatial planning, former RR of UNDP Montenegro signed MOU with Budva regarding project’s <i>Go Green Budva</i> initiative to protect green spaces and develop public participation in deciding how to utilize them. Ensuing public participation exercise was innovative (for Montenegro) and raised awareness. <i>Spatial planning in Montenegro is a sensitive political issue. Power for spatial planning has been moved from municipal to national level. For this reason, project could not be expected to have worked with municipalities on making their spatial plans low carbon. Yet, the project’s polycentric SUMP, given that transport is an important element of spatial planning, is strong progress and innovative as the first SUMP in Montenegro. The Go Green Budva initiative was an impactful incremental means of addressing the spatial planning issue, given constraints posed by the political situation.</i></p>	<p>was signed on green spaces. And, participatory planning exercises regarding use of parks was undertaken via the <i>Go Green Budva</i> initiative. To build on this work, UNDP may wish to find ways to continue cooperation on preservation of green spaces with Budva.</p>
	Number of stakeholders educated on low carbon policies and principles	0	At least 30 professionals in the area of spatial planning in Montenegro educated on principles of low carbon spatial planning	<p>35 architects and urban planners trained in 2018 at <i>Montenegro Biennial Festival of Architects and Urban Planners</i>. While the foregoing was not a major activity of the project, per the indicator description itself (and not the target, which is more narrow), the project has introduced well over 100 distinct officials and professionals to low carbon policies and principles via various workshops, meetings, and conferences. <i>The TE Team suggests this latter figure, including both officials and professionals, may better reflect the strong contribution of the project.</i></p>	
Outcome 2: Improved low carbon and carbon neutral transport infrastructure to support tourism sector related public and non-	Number of air and/or marine entry ports certified as low carbon facilities	0	2 At least one main air and one main marine entry port certified as low carbon facilities, including “climate friendly” shore power supply for visiting cruisers and yachts	<p>0: TCNTM proactively pursued airport eco-certification. This resulted in UNDP facilitation of Government-funded <i>Airport Project</i>. Phase 1 of that project established new terminal at Tivat, meeting latest EE standards as required. Eco-certification of airports was earlier agreed upon with Government as a target of <i>Airport Project</i>. It might still be pursued in Phase 2, along with renovation of existing terminals at Podgorica and Tivat. Yet, plans for eco-certification are now uncertain, as airports may be contracted out to concessionaires. The project has not pursued eco-certification of marine ports nor RE power supply for yachts and cruisers in port. TE findings indicate yacht marinas may already have certification with eco-aspects (such as confirmed for the case of Porto Montenegro), but outreach to other types of marine ports, such as Bar Port, which has large cargo component, regarding eco-certification may be suitable. The idea of shore-based RE power supply for visiting cruisers and yachts may still</p>	<p>Satisfactory Project has strong achievements in low carbon transport related to tourism, both in terms of reducing GHGs and in terms of creating awareness and motivation for new investments through demo projects and analysis: (1) A highlight is public transport hybrid grid electric-diesel and grid electric-solar PV boats in Boka Bay, addressing traffic jams on roads around the bay during tourist season and providing substantial GHG ERs. Four boats (two of each type) will be operational by end of project and nine in total are expected within 5 years. (2) Hiking and biking trails of 84.6 km (with</p>

<p>motorized transport.²⁷</p>	<p>Number of low carbon tourist welcome centers</p>	<p>0</p>	<p>Bus stations in at least 2 cities established as low carbon tourist welcome centers.</p>	<p>be of interest; and exploratory discussions for future projects might be pursued.²⁸ On the other hand, consultations suggest viability is unclear due to space limitations in nearby onshore areas and large power demand involved. International examples might be researched.</p> <p>While the indicator target as described is roughly met, neither design nor implementation was considered impactful vis-à-vis <i>TCNTM</i>'s awareness and GHG ER aims. The indicator was achieved via: (1) reconstruction and equipping of bus station in Cetinje (GEF investment of €46,271 in first contract with smaller follow up contract) and (2) bike rack at bus station in Tivat. Much more impactful are: (1) several project activities related to e-mobility: (a) <i>TCNTM</i> prepared e-mobility analysis for Montenegro and promoted it in workshops. Feedback shows analysis has had an impact on relevant entities with regard to their nascent pursuit of e-mobility strategies. (b) So as to build awareness via highly visible use of EVs, the project has supported five tourist road-based e-trams for short distance transport: (i) two tourist e-trams in Cetinje, actively used by Cetinje LTO to give tours of city; (ii) one in Zabljak to take tourists to Vrazje Lake and Riblje Lake, Stecci, about 6 km from town, and; (iii) for transporting tourists and luggage around large hotel premises, one at Slovenska Plaza in Budva and one at a Palazzo Venezia in Ulcinj. (c) So as to build awareness via practical use of EV infrastructure, project has installed 12 EV charging stations across 7 cities (e.g. 2 located in Podgorica). Each EV charging station has two ports, one 22 kW and one 11 kW. Prior to this, there were just nine public charging locations across the country. The existence of these stations can facilitate European tourists driving their EVs to Montenegro, whereas before this was less practical. Earlier issue with slower than expected charging (22 kW port should charge vehicles in 1 to 2 hours³⁰) in Podgorica has been resolved. The project also carried out (2) five-year anti-idling campaign at border crossing and schools to encourage people to turn their cars off when waiting for a long time. The signs from this campaign are still up. <i>Original activity of "low-carbon welcome centers" at 2 bus stations was mainly carried out to meet target, though not believed by those consulted to be an effective design. They suggest a better design would have targeted more visible locations and more attractive means of promoting low carbon</i></p>	<p>total of 92.1 km expected) improved with signage or developed through direct influence of project, including feasibility study for and initial implementation of EuroVelo 8 Mediterranean cross-Europe biking route, provide GHG ERs and raise awareness. (3) Project has stimulated nascent activity in e-mobility via road with its analysis (e-mobility analysis for Montenegro) and demonstrations. The latter include five road-based tourist e-trams used in Cetinje, Zabljak, and at a large hotel in each of Budva and Ulcinj. (4) Project will facilitate use of EVs via the 12 charging stations (each with two ports) it has established over 7 cities. (5) Project has promoted closure of national parks to cars of tourists in favor of public transport. The first such closure, supported with national co-financing for a parking lot, will be achieved with a project supported "train" (open-air diesel road-based tram that looks like train) at Biogradsko Park. Cetinje hopes to do something similar with an electric bus (and closing of the park to cars) at Lovcen National Park, pending regulatory support from the National Parks of Montenegro Public Enterprise and securing of funding for the e-bus. (6) Pure awareness raising in transport sector achieved by five-year anti-idling campaign promoted at border crossing and schools, with signs still in place.</p> <p>Challenges are that project did not achieve two of the high-profile and potentially high GHG ER targets. Yet, it should be noted</p>
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²⁷ Note: The original indicator in ProDoc and Inception Report was "Number and type of new low carbon or carbon neutral intermodal transport hubs and corridors." To this, corresponded the four baseline and target "values" shown. In the PIRs, this one "indicator" statement, which is relatively broad, is replaced with four more specific indicators statements to correspond to each of the four baselines and targets. Ideally, indicators statements as well as targets will be kept broad in what they can encompass so that there will be alternative paths to get there, allowing the project to exercise adaptive management.

²⁸ Both the power delivered to the cruisers and yachts and RE power installation, per ProDoc, may be grid connected, but "conceptually" linked by proximity.

³⁰ Standard indicates charging within 2 hours, though charging time may vary by vehicle.

				<p>tourism at transport hubs, such as at border crossings or airports. In that regard, the anti-idling campaign, the EV charging stations (often in central locations), and various e-tourist trams noted above may play a more effective role in raising awareness of and promoting low-carbon tourism. Recommendation: Tourist e-trams might be clearly labeled as “all electric” to ensure awareness raising is maximized.</p>	<p>that in the outcome statement and original outcome indicator statement, the nature of sustainable transport initiatives is not specified. One of these targets was for a cable car from Kotor to Cetinje. While a co-financing letter for €64.3 M was provided by Cetinje, this funding had not actually been secured. Yet, the cable car project has recently reemerged, so that TCNTM may want to make efforts to ensure it will be low carbon if it happens. The other target was eco-certification of one port and one airport, as well as demonstration of RE power for yachts and cruise ships in port. While attractive, it’s not clear whether the onshore RE for yachts and cruise ships is a viable idea, due to onshore space limitations and high power requirements. The project may research whether there are such cases globally and discuss with marinas whether it is viable, as the idea continues to be on the table for future projects.²⁹ As for eco-certification of airports, UNDP initially agreed to support the government on eco-certification of its two airports, though viability is still not clear. Follow-up, if possible, should push for realization of this target. As for eco-certification of marine ports, findings suggest that marinas, such as was verified for Porto Montenegro, may already have relevant certification. Yet, eco-certification for non-marina ports – those including cargo and larger ships, particularly Port of Bar - might be investigated further.</p>
Number of km of new non-motorized transport corridors approved for funding.	0	At least 25 km of new non-motorized transport corridors approved for funding.	<p>In total, 84.6 km realized, with 7.5 km more expected soon, of improved or new biking and/or hiking trails: (1) Project has supported in its pilots 70 km of new or improved biking and/or walking trails, including: (a) Preparation of one of five planned bike trails on existing paved sidewalk and roads in Podgorica. This was the second such one to be developed in the city and a key part of the network, comprised of 12.5 km. (b) Signage on 60 km of hiking and biking trails (mostly pre-existing but with some work on basic trail in places) in Nature Park Piva near Pluzine. (c) Renovation of 600 m walking path to/ around historical site at Village Kameno in Herzeg Novi. (d) Development of 7.5 km of signage for hiking trails on the Lustica Peninsula in Tivat and Herceg Novi. (2) Project raised the idea of developing Montenegrin portion of Mediterranean Euro-Velo 8 route (cross Europe biking route) in its poly-centric SUMP and prepared feasibility study for this, with detailed plan for 15.7 km stretch of route. Funds of €100,000 of UNDP-implemented Government-funded <i>Cultural Heritage Project</i> will be used to develop signage on 7 km of this route. Tivat, with IPA funding, has already developed signage on 4+ km of route.</p>		
Status of Kotor-Cetinje cable car implementation as a carbon free transport corridor or with offsetting actions	Kotor-Cetinje cable car does not include any carbon emission reduction or offsetting measures	The new Kotor-Cetinje cable car developed and operated as a carbon free transport corridor or with offsetting actions	<p>Cable car has not been achieved. It is noted that Cetinje Municipality co-financing letter for around €64.3 M (all cash) provided for this reflected “hoped for” rather than secured funding. Project provided a feasibility study for carbon-free powering of cable car with small hydro, but this was not accepted. And, cable car was not built, anyway. During TE mission, it was learned that a new (shorter route/reduced budget) plan for the cable car had just begun to formally seek funding. Further, while Cetinje believes the small hydro station is not viable, it is now working to develop solar farms in its high elevation areas, though not necessarily linked to the cable car. While these latest developments are not due to the project, it is possible the target could be met. With the revival of the cable car plans, TCNTM/ UNDP might become active again to ensure that low carbon solutions for it are pursued and/or that it is linked “conceptually” with the aimed for solar PV installations and that these are achieved.³¹ At the same time, it is</p>		

²⁹ Preliminary feedback suggests space limitations may make viability difficult, though initial discussions and consideration of alternative ideas (such as more rooftop SWH and PV to directly serve marina buildings) could be pursued.

³¹ Both the cable car and the RE power installation, per ProDoc, may be grid connected, but “conceptually” linked by proximity.

				<p>noted that the original indicator statement in the ProDoc’s PRF did not specify mode of transport, remaining broad as outcome indicators should, though the target as designed was too specific. (Also, somehow, this too specific target began to be used as the actual indicator as shown in the PIRs.) A better formulated indicator target could have been met by other new modes of transport introduced by the project, including: (1) Especially, a major new mode of transport, hybrid electric-diesel and grid electric-solar PV boats for public transport in Boka Bay. This mode of transport is has high potential for cutting GHG emission due to tourism-related road transport around Boka Bay. (2) In addition, there are two other <i>TCNTM</i>-linked sustainable transport initiatives to reduce GHG emissions from tourism transport, both in national parks. (a) One, a <i>TCNTM</i> pilot project, is a public transport “train” (really a road-based diesel tourist tram) that is to transport tourists from Kraljevo kolo to Biogradsko Lake, so that they won’t use their cars in Biogradsko Gora National Park. The National Park of Montenegro Public Enterprise is building a parking lot with co-financing to realize this plan of closing the park to cars of tourists. (b) Cetinje, in part motivated by its initial e-tourist trams acquired with project support, is planning an electric bus for Lovcen National Park, also with the idea of closing the park to cars of tourists. This plan will require support of National Parks of Montenegro Public Enterprise to make the decision to close the park to cars. As such, what the Public Enterprise is doing in Biogradsko will be a positive experience in paving the way for Cetinje’s plans for Lovcen, which, if realized, might be considered a “replication” stimulated by <i>TCNTM</i>.</p>	
<p>Outcome 3: Pilot investments to support low carbon tourism development implemented, followed up by the establishment of a sustainable financing mechanism to support climate change</p>	<p>Status of implementation and resulting GHG emission reductions from the pilot projects</p>	<p>None</p>	<p>New tourism sector related GHG mitigation projects financed at the amount of at least EUR 3.6 million resulting in direct GHG reduction of at least 77 kt of CO₂eq over their lifetime.</p>	<p>€4,814,875 of tourism sector mitigation projects realized (conservative estimate including only GHG ER achieving activities stimulated by <i>TCNTM</i>); lifetime DERs of these projects are 23.2 kt CO₂. When post-project DERs of extremely likely installations due to project considered, total (realized plus expected) investment is €15,363,602 and total DERs 121.2 kt CO₂. Thus, total investment will surpass over 4 times targeted level; and GHG ER target will be significantly surpassed.</p> <p>The 31 Pilot projects achieved to date have good geographic distribution across the country and roughly equal mix of government and private sector beneficiaries. They achieve a very good subject matter mix of low carbon tourism projects ranging from: (i) sustainable motorized transport (low-carbon public transport boats, solar PV sail boat, tourist e-trams, replacement of cars with public transport in national parks); (ii) non-motorized transport (bike and hiking trails); (iii) support of accommodations with building energy efficiency and renewable energy (LED lighting, solar water heaters,</p>	<p>Highly Satisfactory Project achievements in area of low-carbon tourism pilot projects have high potential for creating awareness and replication to increase their already significant benefits. Conservatively calculated, funds mobilized already surpass target by around 50% and will surpass target by 450% when extremely likely post-project directly stimulated investments are included. While EOP GHG ERs at 23.2 kt will be less than the targeted 77 kt, post-project, extremely likely GHG ERs related to direct influence of project combined with EOP direct GHG ERs will be 121.2 kt. As a group, the 31 pilot projects carried out during project lifetime had less direct GHG ERs than targeted, but perhaps represent a compromise in that</p>

<p>mitigation and adaptation actions in the tourism sector</p>				<p>biomass pellet heating, bio-septic tank); (iv) support of sporting venues with LED lighting (including stadium lighting); (v) greening of parks and hotels (with planting of grasses and trees and installation of irrigation systems); (vi) solar PV panels for artisan dairy product families in mountain tourist areas; and (vii) LED streetlights in municipalities popular with tourists. The main challenge encountered is that the nature of the pilots achieved by EOP made it difficult to meet the GHG ER target of 77 ktons over lifetime of equipment. Assuming equipment has lifetime of 15 years on average, target is reduction of 5.1 kt per year or about 6% of tourism sector baseline emissions in 2013. As discussed, broader cross-sector pilots (that affect tourism, but are not wholly in the tourism sector) yielded the greatest GHG ERs and suggest broader approach for “low carbon tourism” going forward.</p> <p>Additional post-project investments that are extremely likely to be implemented include 5 municipal LED street lighting projects supported by project feasibility studies. TE Team consultations confirmed probability of these projects (Podgorica, Budva, Cetinje, Danilovgrad, and Kolasin) being implemented in few years after project is high.</p>	<p>project aimed to spread funds across a variety of locales and project types, with strong emphasis on awareness raising. Post-project direct GHG ERs will be achieved by 5 LED street lighting projects for which the project has provided feasibility studies and TE Team has confirmed very high likelihood of realization, as well as 5 additional low carbon public transport boats, also assessed to be likely to be realized. The 31 pilot projects are spread across the country and in a range of areas, including boat transport; e-vehicles; replacing of cars with public transport in national parks; hiking and bike trails; increased EE for accommodations via EE lighting, solar water heaters, biomass pellet heating, and bio-septic tank; solar PV electricity for artisan families in mountains of tourist areas; LED lighting for sports venues; greening of parks; and LED street lighting. TE team was highly impressed with quality of pilots visited, particularly in that many stakeholders are already making plans for replication or related projects.</p>
	<p>Status of the financing mechanisms and amount of financing leveraged for supporting climate change mitigation and adaptation actions in the tourism sector.</p>	<p>No mechanisms in place</p>	<p>Sustainable financial mechanism/s (e.g. National Tourist Climate Fund or alternative) established and mechanisms for its capitalization in place by at least 2 million euros annually.</p>	<p>Eco-Fund established due to effort of project. Government decision on fund establishment adopted on November 21, 2018. Given small size of country (estimated 2020 population around 630,000), establishment of broader Eco-Fund, which is already called for in Montenegro’s legislation, makes more sense than tourism CCM fund as initially targeted in project design. Board of Eco-Fund has been appointed (March 7 2019). Director of Eco-fund has been hired (starting work in Dec. 2019), with plans to hire other staff soon. Eco-charges already being collected (0.5 to 1 M €per year) are virtually guaranteed for initial capitalization of Eco-Fund. New <i>Waste Management Law</i> in the works expected to substantially increase amounts available, so that annual funding in 2022 and 2023 is at least €1+ M and could rise to €8 M by 2024. Also, good chance of around €4 M per year more being provided for Eco-Fund capitalization by 2021 via ecological fees related to road transport (as indicated in recent revisions of <i>Road Transport Law</i>, believed to be motivated by discussions of Eco-Fund Board).</p>	<p>Achievement of Eco-Fund is directly due to project and supports Montenegro’s accession to EU. Eco-Fund will provide a sustainable mechanism for national funding of low carbon tourism and more general low carbon development in the future, as part of a broader fund that will address other ecological priorities as well. The board of the Eco-Fund has been appointed and the managing director is hired. Funds from eco-charges of €0.5-1 M per year will support fund and amounts expected to be increase substantially due to results of new <i>Waste Management Law</i> in the works. Estimates of MSDT policy related funding to Eco-Fund are €1+ M in 2022 and 2023, with bump to €8 M by 2024. Also, there is good chance of additional €4 M/year by 2021 via ecological fees related to road</p>

					transport facilitated by recent revisions of <i>Road Transport Law</i> (believed to be motivated by Eco-Fund Board discussions).
Outcome 4: GHG emission monitoring system and increased public awareness about the carbon footprint of the tourism sector, its GHG reduction potential and measures.	Annually reported GHG emissions from tourism sector.	None	Verified, annually reported GHG emissions of tourism sector by type of activity.	Project has estimated GHG emissions from Montenegro’s tourism sector for each of 2014, 2015, 2016, 2017, and 2018. The methodology has been verified by an outside third party as sound. 2019 data will not be available until end of 2020, so not possible before EOP. The project has trained staff from the national Environment Protection Agency (EPA), which is responsible for reporting GHG emissions from various sectors per requirements. Trainings of EPA in methodology took place in two different years for one week each, with three persons trained each time. Government unlikely to continue tourism sector GHG reporting, which is understandable given that share in total GHG emissions (2014) is just 3.9% and reporting on sector not required. Yet, 2014-2018 estimates provide insights, including our conclusion that broader cross-sector approach to an ongoing “low carbon tourism” strategy is needed. This information may be used to facilitate tourism related projects (either cross-sector or “pure tourism plays”) being included in updated NDCs. Findings highlight that transport GHGs in tourism sector are growing faster than accommodation GHGs, likely because electricity grid in Montenegro is incorporating more renewable energy over time.	Highly Satisfactory Awareness/ promotion work is a true strength of the project. Before the project, most Montenegrins did not know what “low carbon” meant. Now, most do. Through its many promotional activities and media appearances, the project and its theme of low-carbon tourism are known to many in the country. Low-carbon tourism “products” that especially impressed the TE team are: (1) The green concerts/ green festivals, including over 10 per year of the largest such events in Montenegro. It is likely many will continue green practices post-project. (2) Green sporting event, as instituted at the Games of Small States of Europe, and follow up cooperation with Montenegrin Olympic Committee on guidelines for green games. Interest of police games in replicating “green games” concept. (3) Promotion of biking, including establishment of new bike repair services in small town of Pluzine. (4) Sailing classes using solar PV sailboat. (5) Low carbon postage stamp. (6) Opportunity to make carbon offset payments, with online calculator of CO2 emissions from visiting Montenegro getting many hits and thus raising awareness. Other awareness work highlights of the project include: (1) About 3,000 guest appearances or mentions in print and online media. (2) Video on low carbon tourism used extensively by NTO and MSDT at tourism events. (3) 5-year
	Availability of new promotional low/no carbon tourist products and services	None	New promotional low carbon products and services such as specific booking systems, low carbon tourist welcome cards connected with voluntary carbon offset fees, green meetings and other innovative products and services integrated into the offers of official and	Project’s awareness work widely indicated to be outstanding and noticed by many of the citizens of Montenegro. Prior to project, most Montenegrins did not know what “low carbon” was and now most do. Several items supported by project that may be considered “low-carbon tourism products and services” contributed to this awareness: (1) Probably most impressive and extensive among these are green/concerts green festivals, whereby the project cooperated with Montenegro’s largest music and film festivals to ensure that they and their participants were low carbon. Project indicates 10 such “green festivals,” which bring over 150,000 festival goers to Montenegro annually. Based on consultations, it appears that at least some major festivals, such as Lake Fest, Southern Soul, Sea Dance Festival, and Dzada Film Festival, will continue and expand “green” approach post-project. (2) “Green sporting events” is another outstanding product supported by project. <i>TCNTM</i> cooperated with National Olympic	

			<p>commercial tourism related websites and other information and marketing materials (incl. international travel fairs), local tourism offices and international travel agencies</p>	<p>Committee of Montenegro in Games of Small States of Europe (held in Montenegro) to brand it as “green games.” A total of 400 volunteers were trained in green games and 2,000 direct participants (900 of which were athletes) were exposed to the green games efforts. The Games were followed by 200 international journalists. <i>TCNTM</i> and the Montenegrin National Olympic Committee are now cooperating on guidelines to make all future games green. As evidence of replication, the Montenegrin Police are organizing international police games and have asked for guidance on making their games green. (3) Project has cooperated with Bike Club Perun to promote use of bicycles not only in their home town of Niksic, but also in the small town of Pluzine, where bicycle use is low. As a result, a local resident has newly set up shop in Pluzine to provide bicycle repair services. (4) Associated with the solar PV sailboat pilot project in Tivat, famous singer Rambo Amadeus, who owns the solar sailboat, is now providing sailing lessons utilizing the solar sailboat (and one other sailboat) to tourists and local youth. Amadeus has also used the solar sailboat to promote ecological thinking and living. (5) Project has developed the offering of “carbon offsets,” whereby tourists to Montenegro can make a payment/ donation to offset their carbon footprint in traveling to Montenegro. They could do this online or with donations at a number of partner locations. While total funds raised was not too high (€6,000), the number of hits to the website was quite high. Thus, calculation of the CO₂ equivalent cost of one’s carbon footprint in visiting Montenegro on this website is believed to have been valuable for awareness raising. (6) Project has also cooperated with ten existing hiking tours to brand them as “green,” by including a quiz on low carbon tourism as part of the tours. (7) Ten 30-minute special TV tourism programs were filmed on low carbon development and project activities and aired in Montenegro. (8) Low-carbon tourism postal stamp in 2016.</p>	<p>anti-idling campaign at border crossing and at schools. (4) Two major foreign media successes: Tourism film for Polish market featuring project and German language television show on Montenegro featuring project in addition to other aspects of tourism in Montenegro and reaching over 3 million viewers in Germany and Switzerland. (5) Extensive European Mobility Week activity at several locations across the country.</p> <p>Series of three surveys conducted, each including survey of 1,000 tourists, 100 businesses, and 20 institutional stakeholders. The 2019 survey report verifies increased importance of low-carbon aspects among tourism business owners, as compared to the 2015 and 2017 surveys. One weakness of the two earlier surveys is that the proportion of local tourists among all tourists surveyed is substantially higher than the 5% share in tourism that they play according to MONSTAT and NTO. The 2019 survey correctly reflects this share. There is also some variation in survey questions due to a different company carrying out the third survey. The really important issue, however, is that the indicator as designed (and thus the design of the surveys to measure it) are not a good means of assessing the very strong awareness achievements of the project.</p>
<p>Market share of certified low carbon tourism services among all registered tourism services in each respective field (accommodation, transport etc.)</p>	<p>31.7% of tourism businesses has services and/or products certified in accordance with standards</p>	<p>Market share of certified low carbon tourism services in accommodation and transport increased by at least 10% compared to baseline</p>		<p>This indicator is not practical to measure as market share is difficult to determine. Also, the indicated baseline of 31.7% (taken from most recent PIR) is too high. CER/ ProDoc level of “<1%” seems more accurate. Further, looking at the number of eco-certified accommodations (the main option in Montenegro that can be considered low carbon certification of a tourism enterprise) makes this redundant to the relevant Outcome 1 indicator. The result is: eco-certified accommodations rose from 4 at start of project to 31 at end of project, an increase of 675%, thereby surpassing the 10% target by far. Montenegro does not have certified low carbon transport services. Yet, the low carbon public transport boats of which there will be four by end of project might be considered. As these did not exist before in Montenegro, the increase in number of such boats is 400%.</p>	<p>Project has successfully estimated GHGs from tourism sector in Montenegro for each of 2014, 2015, 2016, 2017, 2018, with verification of methodology by outside firm. Trend shows transport GHG emission growing most quickly among tourism sector GHGs, because accommodations use grid electricity, which has achieved an increasing share of RE over time. Project trained persons from EPA for one week in each of two years (three persons trained each</p>

Towards Carbon Neutral Tourism in Montenegro – Terminal Evaluation

	<p>Awareness of and demand for low and no carbon tourism services, as measured by related visitor surveys</p>	<p>70% of the tourists willing to compensate their carbon footprint 49% of the tourists are willing to pay more to finance low-carbon tourism projects</p>	<p>10% increase in visitors' awareness as compared to baseline</p>	<p>Inter-comparability of the three surveys conducted by the project is difficult due to their somewhat different survey questions, different composition of tourists, and different times of year. For example, the guests were 50% national in 2015 and 2017, but only 5% national in 2019. (The 2019 survey more correctly reflects the share of local tourists in Montenegro's tourism overall as indicated by MONSTAT and NTO.) In each year, 100 business were surveyed. In 2015 and 2019, 50% were accommodations, but in 2017 only 15% were accommodations. Still, based on this data, the comparative conclusions in 2019 with regard to businesses surveyed is expected to be stronger than that with regard to tourists surveyed. About businesses, the report says the following, which suggests the target is met: "In comparison to the 2015 and 2017 reports, in 2019 the tourism industry shows an advanced attitude towards "green" tourism and low carbon tourism. Tourism entities now perceive "green" quality as a necessity they are obliged to undertake in order to serve customers' demand, and not as a "nice to have" or "add-on" like in previous years. Moreover, now they perceive "green" tourism not just as a means to approach new markets but also as their own obligation to preserve nature. This is shown by two aspects: first, they are willing to pay more for "green" suppliers but will not raise their own prices, and second, they support numerous "green" projects that are not related to their core business." While this indicator in its design is problematic (as discussed in the section on project design), the project's awareness work, in addition to items mentioned among the products discussed under the second indicator of Outcome 4, has a number of other very strong awareness raising initiatives that are worth noting here as better reflections of the project's true awareness achievements: (1) European Mobility week (EMW) – The TE team discussed with a number of locales the detailed planning and positive impacts on awareness of EMW activities, such as closing the street to motorized transport, holding a junior Dzada Film Festival for youth (and closing the street) in Podgorica, biking parade in Niksic, treasure hunt for children in Budva, etc. (2) Project prepared a video on low-carbon tourism in Montenegro that has been used extensively by NTO at tourism fairs. (3) Project has carried out an extensive 5-year anti-idling campaign to get people to turn off their cars when stopped for a long time, such as at the border and in school pick-up lines. (4) Project estimates a total of about 3,000 guest appearances, newspaper articles, and online articles during its lifetime. Recognition of the project among the population bears out a very strong media presence. (5) Project has had two major foreign media coverages: (a) a promotional video by a journalist in Poland who focuses on the Polish tourist market; and (b) a German language television show on tourism in Montenegro viewed by 3 million in Germany and Switzerland, prepared by German</p>	<p>time). Yet, government is unlikely to include calculations of tourism sector GHGs in its reporting as hoped, since it is short staffed and tourism is not a required sector for the reporting. This seems reasonable as tourism sector GHGs are only 3.9% of national total (2014). Yet, having the data for this period allows review of trends and could support including specific tourism related projects or cross-sector projects with strong relevance to tourism and high GHG ERs when Montenegro updates its NDCs.</p>
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				<p>television station that visited Montenegro and covered the project among other things.</p> <p>Clearly, awareness work has been very strong. Main weakness may be lack of support from NTO on its website due to delays in NTO getting funding for website revision (<i>TCNTM</i> helped support preparation of a TOR to make an RFP for such services) and getting Montenegro as low carbon destination on other foreign websites. Yet, the latter may also be considered premature, as Montenegro is still in the process of becoming a truly low-carbon destination.</p>	
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Indicator Assessment Color Code Key

Green= Achieved	Yellow= On target to be achieved	Red= Not on target to be achieved
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Rating Key: HS=Highly Satisfactory; S=Satisfactory; MS=Moderately Satisfactory; MU=Moderately Unsatisfactory; U=Unsatisfactory; HU=Highly Unsatisfactory (please see Annex 5 for explanation of these ratings). Per guidance, outcome ratings take into consideration not only indicators but outcome statement overall and various findings from TE mission and document review.

Note: We have added a light green category to distinguish between (i) achieved by EOP (dark green) and (ii) on clear track to be achieved (highly likely achievement post-project) (light green) and (iii) partially met or on track to potentially be achieved post-project (good chance) (yellow)

Green = highly likely achievement post-project

Note: We have added a gold category to distinguish between (i) partially met or on track to potentially be achieved post-project (good chance) (yellow) and (ii) could be achieved post-project but needs extensive course correction not currently being planned (gold).

Gold = Could be achieved post-project, but needs substantial course correction not currently being planned

5. Outcome 1 Results: Policy, Accommodations, Spatial Planning

This section presents findings on results associated with Outcome 1, which covers policy, accommodations, and spatial planning. Overall, Outcome 1 has some strong achievements. At the same time, of all the outcomes, Outcome 1 is the one probably most impacted by design issues, as discussed in Section 3. Achievements and challenges for each of the key areas of Outcome 1 are discussed below:

1. Policy: *TCNTM* had four significant policy achievements and probably was an important influencing factor in getting the concept of “low carbon” newly incorporated into a range other policies, given its strong role in raising awareness on the topic. The policy achievements were for policies different than those indicated in the project design. In this regard, *TCNTM* received high praise from stakeholders for being responsive to the real needs of government. Because the government is the “client,” it is important for donor projects to be responsive to their needs. The four significant achievements, along with the likely more general one are described below. The issue of policies initially targeted, but not achieved, is also covered.

Adoption of *Law on Industrial Emissions*: The top policy achievement of *TCNTM* is preparation and adoption (by Parliament in 2019) of Montenegro’s *Law on Industrial Emissions*, which is harmonized with EU standards. This law is expected to have significant impact. As of this year, because of the law, all Montenegrin industrial facilities (metal industry, the large aluminum plant, thermal power plants, etc.) need to have an integrated plan/ program of how to operate to meet requirements. *TCNTM* hired five experts to prepare the draft law, which was delivered within six months. Achieving harmonization is quite a challenge even for member states. It is quite impressive that Montenegro as a candidate country is fully harmonized. MSDT’s Environment Directorate, which is responsible for the law, is now developing ten bylaws and a specific implementation plan to support the law. An impressive aspect is that when the draft law was sent to the EU for review, there was only one minor comment – request for clarification of ownership of one of the large industrial companies. It is believed that *TCNTM* involvement in preparation of the law allowed for enhanced quality and a much speedier clearance by EU and adoption by Parliament than otherwise would have been possible. While the focus of the law is on local air quality, water, and soil, an expected resulting shift to natural gas to comply (with local air quality targets) will have a positive impact on GHG emissions. There is some concern that implementation will be a challenge, especially for smaller plants, as the regulations are quite strict.

EE Action Plan of Montenegro 2019-2021 – inclusion of *TCNTM* initiatives: Adopted in June 2019 and required by EU rules, the *Action Plan* includes achievements of *TCNTM* across different sections. The *Action Plan* is a planning document for the next three years that also elaborates what has been done in the previous years. *TCNTM*’s inclusion shows that its EE related activities are considered significant by the Ministry of Economy’s EE Directorate, which prepared the *Action Plan*. *TCNTM* items included are the Eco-Fund (not included in past *Action Plans*) in the “Institutional Framework” section, municipal LED street lighting pilots, and the polycentric SUMP in the “Sustainable Mobility” section, a new section added to the *Action Plan*, likely with influence from *TCNTM*.

Law on Road Transport – inclusion of eco-fees in updated version: Adopted in Jan. 2019, this new version has been revised so that a portion of vehicle registration and toll fees are considered eco-fees, thus with the potential to support the Eco-Fund. This is an idea that was proposed in *TCNTM*’s Eco-Fund study and raised in discussions of the Eco-Fund Board with regard to getting the fund capitalized. After eco-charges related to waste, these transport related eco-fees are considered the second most promising potential source of funds for capitalization of the Eco-Fund. According to some estimates, the eco-fees

from vehicle registration might yield €10 from the total of €300-400 per vehicle and total funds from this source might thus be €3 to 4 M per year. (The total share of eco-fees in vehicle registration will be 10-12%, but it is thought perhaps just 3% or so of vehicle registration fees might be made available to Eco-Fund.)³²

Inclusion of E-mobility in *Strategy for Transport Development*: In 2019, the *Strategy* included E-mobility for the first time. Sources directly involved indicate this is due to *TCNTM*, which carried out an E-mobility study for Montenegro and held workshops to discuss it.

Inclusion of term “low carbon” in various policies: The TE team found that a number of other policies in Montenegro now include reference to “low carbon.” Because the project was so instrumental in raising awareness on this term, previously unknown to most in Montenegro, it is believed that the project can be considered a contributor to the much more widespread use of the term in policies that is now found.

Best priorities for policy work and policies not achieved: As noted in Section 3, project design identified certain policies to target for inclusion of low carbon concepts, especially tourism sector ones (*Law on Tourism* and *Tourism Sector Development Strategy*), but the government, in the end, did not want assistance with these. For GHG ERs, transport and industrial sector policies, such as the project in the end influenced, may have the greater impact and thus be the preferred targets, anyway. Transport sector policies may be considered relevant to tourism. And, even industrial sector policies, if they make the country more attractive to tourists, are relevant to the sector. The project design also targeted to incorporate low carbon concepts into the *Law on Spatial Planning and Construction*, but the policy was deemed too sensitive for project involvement. As noted, this is a highly contentious law, as municipal planning authority has been taken away from the local level and is being handled at the national level. Sources indicate that there have been many protests and corruption cases with regard to construction.

2. Accommodations: This sub-section covers eco-certification, energy audits, and the potential way forward in the accommodation space.

Eco-Certification of accommodations: The project achieved 31 eco-certifications of accommodations in Montenegro, including 19 EU Eco-Label certifications, 11 Travel Life certifications, and 1 Green Key certification. At start of project, there were only 4 eco-certified accommodations in the country, so this result clearly made a significant difference in the space. *TCNTM* covered the cost of audit for eco-certification (in the case of Eco-Label, €300 per hotel) with GEF funds and NTO or Budva LTO covered the cost of the first year of membership (in the case of Eco-Label, €200 per hotel for one year). While the target was substantially reduced to 30 (from 1/3 of all hotels and 100 apartment accommodations), the achievement of 31 eco-certifications is considered a strong result, based on data of penetration of EU Eco-Label certification in countries in which this certification is most widespread for accommodations as follows:

For EU Eco-Label, on a per capita basis, the top EU Eco-Label countries all have a lower ratio of Eco-Label tourist accommodations to population than Montenegro. Italy (population 60.5 M in 2018) had 176 hotels certified in 2018, or 1 per 341,000 persons. France (population 66.9 M in 2018) had 92, or 1 per 727,000 persons. Spain (population 46.7 M in 2018) had 49, or 1 per 953,000 persons. Switzerland (population 8.5 M in 2018) 47, or 1 per 181,000 persons. Austria (population 8.8 million in 2018) had 36, or 1 per 244,000 persons. Now, Montenegro, with a population of 630,000 and 19 Eco-Label certifications, has 1 per 33,158, or 5.4 times the penetration of Switzerland, which has the next highest penetration level. Given that Montenegro has 453 hotels and also hundreds of apartment accommodation

³² The amount and manner of payment of these fees will be determined by a by-law that still needs to be prepared.

businesses, this international experience suggests it will be difficult for eco-certification to be the approach that will influence a large proportion of the nation's accommodations.

Considering foregoing and a couple of other factors as follows, it seems eco-certification may not be a path to transformative change across Montenegro's accommodations sector, particularly if GHG ERs is the target. Not only is the potential penetration level low, there is also an absence of definitive findings from the international literature that eco-certification increases business for small and medium-sized accommodations, though some customers do view it favorably. (There could be good business benefits for larger hotels, as discussed below.) And, in Montenegro, given the mix of national origins of tourists (see Section 2), this effect may be lower than in some other countries where the majority of accommodation guests are from Western Europe. Further, based on TE findings, most of those accommodations in Montenegro that did achieve eco-certification did not end up substantially reducing their GHG ERs due to the certification process. Lastly, while *TCNTM* put in strong efforts over five years to promote eco-certification and support accommodations in getting certified, TE findings suggest that no specific institution, whether it be NTO, LTOs, or MSDT, is ready to take on the role of continuing to provide this kind of promotion and technical support.

At the same time, there are benefits of eco-certification. It can be used as a promotion tool for individual accommodations, particularly if they are targeting Western European tourists. And, it can be used to promote Montenegro's tourism sector as a whole as low carbon or ecological, if handled well. And, individual accommodations find various benefits from it. For those larger accommodations that pursue Travel Life, there is believed to be a strong business benefit, as some large tour operators prefer accommodations with this certification. Reflecting the value larger hotels see in this, the Budvanska Rivijera Group pursued Travel Life for all five of its hotels. As a result, when Budva LTO opened up the opportunity for payment for the first year of eco-certification membership for ten accommodations, these spots went very fast, with five being taken by the Group. Small accommodations may experience some specific benefits from their learnings. For example, one apartment accommodation indicated they were able to cut laundry costs by following EU Eco-Label guidelines.

A final point is regarding the ProDoc target that eco-certification be made mandatory for hotels. Findings suggest that this is not a requirement anywhere in the world and is not practical. Accordingly, this target was not pursued by the project.

Energy audits and the way forward for accommodations: The project conducted 12 energy audits of accommodations. The main aim was to develop pilot projects. Yet, the TE team finds that the audits are useful in considering the best way forward for promoting low carbon tourism in the accommodations sector. Exhibit 14 shows the main findings and recommendations from the audits, as well as findings as to whether the audit recommendations were implemented. Out of 12 hotels, the main recommendation for 6 beneficiaries was a PV system. The main recommendations for another 2 was an SWH. For 2 others, there was no recommendation, as no measures were found to have cost effectiveness potential. And, the other 2 were already planning major renovations, so recommendations for minor adjustments or additions to those were made. In a few cases, occupancy sensors or "smart rooms" were also recommended. Findings from the audits suggest that accommodations tend to already be fairly energy efficient. Also, their seasonality makes energy efficiency measures less cost effective than they might otherwise be, as cost savings, too, are seasonal, rather than year-round. In terms of implementation of audit recommendations, only one of the seven accommodations contacted had taken action due to this audit. Yet, as noted earlier, the result was a PV system which yielded 563 t CO₂ lifetime GHG ERs, which occurred at very low cost to the project (perhaps €400 to 500 for the audit). Accommodations that did not implement recommendations sometimes pointed to lack of funds. Given these results, it seems that a focus on PV systems and SWHs may be the best way to generate GHG ERs in the accommodations space. Yet, some kind of financing mechanism, such as a loan program or up front financing by the installer to be paid back

Exhibit 14. Recommendations of Energy Audits and Impact/ Findings with Regard to Beneficiary Accommodations

Accommodation (location, size) (involvement, if any, in eco-certification or pilot project)	Findings and Recommendation of 2016 or 2017 Energy Audit	Impact of Audit and other Findings of Follow up in Early 2020 with Hotel or Apartment Accommodation
1. Sea Point (Tivat, ≈ 8 apartments)	Because full occupancy only 2.5 mos per year and already up to date, traditional EE measures not cost effective. PV system recommended pending more detailed analysis.	Did not implement recommendations. (Already had SWH and PV systems. Note: TE team not certain why PV system recommended if accommodation already had one.)
2. Biljana (Tivat, ≈ 8 apartments) (Note: Same ownership as Sea Point)	No classic EE measures would be profitable. A presence sensor and sensor for open windows recommended. A PV system suggested (11 yr payback calculated).	Did not implement EE recommendations. May do so once they renovate. Already had SWH and PV systems. (Note: TE team not certain why PV system recommended if accommodation already had one.)
3. Klinici Apartments (Lustica, ≈ 15 apartments across 5 villas)	Most EE measures would not be profitable, but since planning to replace split level system, suggest geothermal heat pump. Suggest occupancy sensors and PV system.	Smart room system (sensors for lighting and heating/ cooling) and PV recommended by audit both implemented, with strong cost savings. Had follow up support from other projects, but initial idea from this audit. Also have SWH (not part of audit recommendations).
4. Residence (Milocer, 32 units, comprised of 24 apartments and 8 rooms) (also eco-certification)	Classic EE measures will not have good payback as facility is already relatively EE. Consider PV system after more analysis.	Did not implement PV system recommendation – lack funds for this, but interested in this idea. Already have SWH. Saved some energy by reorganizing laundry. This was based on eco-certification guidelines rather than audit.
5. Hotel M Club (near Budva, 18 rooms) (also eco-certification)	Because full occupancy only 2.5 mos per year and already up to date, traditional EE measures not cost effective. PV system recommended.	Did not implement PV system recommendation. This hotel is impressively energy efficient with many up-to-date measures, such as smart sensors in rooms for lights and heating/ AC, though this appears to be based on hotel’s own research rather than the audit.
6. Apartment Bogdanovic (Kotor) (also eco- certification)	Suggestions to improve split-level system they plan to implement; sensors for rooms; and PV system.	Did not implement PV system. Has SWH, though not due to audit.
7. Apartments Sutomore (Sutomore)	Hotel has EE needs, but low use of building means they are not economic. Suggest considering SWH, though payback is 11 yrs	Did not implement SWH. They did adopt biomass pellet floor heating, but not due to the audit.
8. Hotel Krna (Becici) (also did eco-certification)	Recommended SWH with 7.7 yr payback.	NA
9. Apartment Val Maslina (Utjeha) (also did eco- certification)	Hotel has EE needs, but due to low use of just 2.5 months high season, can’t justify replacing things. Audit indicates SWH, with 14 yr payback, not attractive.	NA

<p>10. Hotel Lighthouse <i>(large hotel, near Herceg Novi) (also did eco-certification, pilot project)</i></p>	<p>Audit indicates hotel already planning reconstruction at time of audit. Suggests considering thicker insulation than planned.</p>	<p>Had done energy audit prior to <i>TCNTM</i> energy audit. Previous audit had recommended new windows and insulation. Appreciated <i>TCNTM</i> audit as it provided assurance of the path they were on, but it was not the source of these initiatives. (Implemented biomass pellet water heating, but this was as part of pilot project and not a recommendation of audit.)</p>
<p>11. Hotel Onogost <i>(large hotel, Niksic) (also did pilot project)</i></p>	<p>Audit indicates hotel already planning major reconstruction to improve insulation. Audit also recommended controls on radiators and new lighting.</p>	<p>NA</p>
<p>12. Palazzo Venezia <i>(large hotel, Ulcinj) (also did eco-certification, pilot project)</i></p>	<p>Audit assessed classic EE measures as not profitable; also considered automatic / intelligent lighting, but assessed as not profitable.</p>	<p>NA (Hotel renovation and SWH included as part of pilot project, but not recommendations in the energy audit.)</p>

over time is needed. Or, perhaps efforts to identify good quality systems at best price and order in bulk may have some benefits in reducing cost. Work might focus on setting up a financing and/ or sourcing system. Eco-Fund or IDF might, in the future, be involved.

3. Spatial Planning: While the project originally targeted support for developing low carbon spatial plans (or master plans) for four cities, this was not achieved or even pursued, due to the sensitivities surrounding spatial planning and because authority for spatial planning is now at the national rather than local level. In a more typical situation, the project might have worked with municipalities on their spatial plans. The project did support a “polycentric” SUMP for four cities, which is included in Exhibit 13 as the way in which the Outcome 1 target for four spatial plans is met. A SUMP can be considered an annex to a spatial plan. Yet, as the project design indicates SUMP-like work for Outcome 2, the transport outcome, we will discuss the SUMP under in the next section, which covers Outcome 2 results. Despite the sensitivities, *TCNTM* found a good way to make an incremental contribution to spatial planning. First, the UNDP RR at the time had a meeting with the then-mayor of Budva and signed an MOU to work on green spaces together. Budva, given its popularity as a tourist destination, is facing the challenge that it has very limited green spaces. Some of what remains is already being converted to building developments. Under the MOU, *TCNTM* carried out with Budva the Budva GoGreen Program. This program involved stakeholders from the general public in consultations to come up with and decide upon ideas about what to do with one of the city’s parks. An Australian consultant specializing in participatory design led workshops. As part of the work, surveys were first carried out on how the residents of Budva use green areas. The design workshop resulted in decisions on four items for the park: a structure for people to play on, a wall mural painting of indigenous species of plant, a black board to write ideas and wishes on, and a small open library in the shape of a wooden boat. Each of these items were installed in the park. Given the challenges that Budva and other Montenegrin cities face both in preserving green spaces and achieving low carbon urban design, it seems worthwhile to continue to consider how to achieve positive influence on this very challenging area.

6. Outcome 2 Results: Transport

Outcome 2 has many interesting and meaningful results. As a group, the efforts can be said to very solidly have promoted sustainable mobility in Montenegro, contributing both to awareness of low carbon transport and GHG ERs and introducing new transport models. Many of these transport achievements are really pilot projects, so partially funded with GEF funds under Outcome 3. Yet, to give a holistic view of transport efforts, they are discussed here. Key results with regard to transport are discussed below, by category or topic. This outcome also had some challenging targets that were not achieved. These, as well as the way forward in sustainable transport, are also discussed below. To preface the discussion below, the major achievements are seen to be Montenegro’s first SUMP, low carbon boat public transport in Boka Bay, substantial development of biking and walking paths or trails, substantial promotion of e-mobility stimulating a nascent market and achieving good visibility, and pilot public transport for national parks.

Polycentric SUMP: The project’s SUMP covers the four cities of Kotor, Tivat, Herceg Novi, and Cetinje. As the first SUMP in Montenegro, it is a significant achievement. The SUMP was published as a bilingual book, appears to have been developed with high quality analysis, and includes 24 main recommended measures. These include a broad range of items, such as bike trails for recreation, bike lanes in the cities, boat public transport in Boka Bay, improved road-based public transport between cities, park and ride set-ups, boat public transport on Skadar Lake, roads, and bypasses. The budget represented by some of the items is very large, the largest being €1 billion. Yet, some of the items, particularly boat public transport in Boka Bay, and some of the bike and walking paths, have been

implemented as *TCNTM* pilot projects or otherwise. Of particular note, the SUMP recommends that the Montenegrin portion of EuroVelo 8, one of a number of European bike routes criss-crossing countries, this one in the Mediterranean area, be pursued. *TCNTM* then prepared a feasibility study for the Montenegrin portion of the route. Already, this idea has gained traction and is on its way to being partially implemented. This progress is discussed further under the walking/ and biking related topic below. Tivat has adopted some of the items in the SUMP into its *Strategic Plan*; and Cetinje is now pursuing a traffic study, one of the recommendations of the SUMP. Yet, ideally, the SUMP would have been adopted as an action plan by the cities, as the recent Podgorica SUMP is now being adopted by that city. At the same time, it is noted that SUMP would not be legally binding for local parliaments, because it is not recognized in the nomenclature of spatial planning documents or action plans. Further, the polycentric nature of the SUMP might also suggest that regional and national support is needed for realization of the several initiatives that cut across municipalities. The regional aspect is particularly challenging, as the national lacks a regional institutional structure.

Low carbon boat public transport for Boka Bay: One of the top highlights of *TCNTM* as a whole, the low carbon boat public transport work has been carried out by the private company Bella Boka. The key issue addressed is major road congestion during the tourist season on the roads around the bay. This results in a doubling of travel time between cities, so that a 45 minute drive becomes a 1.5 hour drive or longer. Bella Boka has launched its work with two boats, one a diesel-grid electric hybrid, with a capacity of about 60 people, and the other a grid electric-solar PV boat (about 20% of second boat's latter's power comes from solar PV, the rest from the grid), with a capacity of about 35 people. By EOP, Bella Boka will add two more boats. These are already under construction. It is expected that in the next five years or sooner, Bella Boka will then add 5 more boats for a total of 9, and expand from two different routes to four. The biggest challenges at present appear to be the costs of docking rights, which need to be negotiated annually with each port. Another problem is that other boats, especially small motor boats, dock illegally where Bella Boka has already reserved (and paid for) space. An additional anticipated challenge is that ridership may be low in the off-season. Because of the value of this project, it is recommended that GOM and UNDP consider continued cooperation going forward. There may be room for a public-private partnership, with the public sector providing stations and perhaps subsidies to citizens for reduced price tickets. Another key area of potential support could be with regard to negotiating a long-term multiple-port deal for Bella Boka's docking rights to eliminate the uncertainties and high costs associated with the current need to renew these rights year by year and have separate agreements with each port. An additional idea for the future is that this low carbon boat public transport may be expanded to Skadar Lake and provide transport crossing the lake from Montenegro to Albania, perhaps building on the relevant recommendation in the SUMP.

E-mobility related work: The project has had a number of initiatives related to the e-mobility space and these appear to be having an impact in creating interest and activity in what is a very nascent area in Montenegro. The project prepared a study on e-mobility for Montenegro (*Feasibility Study on Introduction of E-Mobility Concept in Montenegro*) and held a workshop and presentations. Stakeholders provided very positive feedback on the events and seem to have been impacted by them. MTMA is now considering purchasing some e-vehicles for its own use and has newly incorporated e-mobility into its *Strategy for Transport Development* (issued in 2019), directly due to *TCNTM*. This is a positive development, though further support would be highly beneficial in moving progress forward.³³ The electric distribution company has also shown interest and is also considering acquiring e-vehicles as utility vehicles. The project has supported the installation of 12 EV charging stations, with 2 in Podgorica

³³ This *Strategy for Transport Development* mentions e-mobility and other sustainable transport options but not to the extent that would further facilitate true piloting of the e-mobility concept and its scale up in Montenegro. Thus, further support in this area, technical (TA) and financial (investment) is needed per the relevant recommendation made in this report.

and the other ten spread across 6 other cities. These stations are in highly visible locations, thus promoting the idea of e-mobility. Prior to their installation, there were just 9 such charging stations in the country. The ones installed by the project will be free of charge for one year (partners will cover the electricity fees). Each station has two ports, a 22 kW port and an 11 kW port. Earlier issue with slower than expected charging from the 22 kW port (which should require just 1-2 hours to charge a vehicle) in the city center charging station in Podgorica has been resolved.³⁴ A petrol station that expressed interest to the project now is providing fast charging (30 minutes) for a cost of about €5. Users see how this could substantially reduce fuel costs and suggest there may be a way to support purchase of EVs through future fuel savings. Podgorica recently adopted a policy that only 15 new taxis could get registration over a certain period of time and that these would be required to be EVs. So, now some EVs can be seen around the city. While Podgorica's plan is said to have pre-dated the e-mobility study, there may be synergies between the two. At the time of the study's survey work there were no charging facilities at service stations, though, as noted, one service station that interacted with the project's e-mobility work is now offering this service. What might be needed in the future is a change in policies to further promote e-mobility. This may include lowering the price of electricity at higher power levels, such as 50 kW, which is required for fast charging and is currently more expensive per kWh than lower power level energy. Also, the power network might be analyzed to determine the most strategic places for more charging stations. And, there might be measures put in place to reduce or remove the VAT for EV purchase and other fees and charges related to vehicles import, registration, etc. in the case of EVs. The idea of support for EV purchase, such as loans and possibly a plan to repay them through fuel savings might be considered.

Pilot projects have also involved the purchase of EVs, including 2 road-based tourist e-trams in Cetinje, one open air type e-bus in Zabljak, and a tourist e-tram for Slovenska Plaza hotel (used for guests and luggage) and one for Palazzo Venezia. While Slovenska Plaza has had such vehicles for decades already, for the other entities, especially the municipalities, they are very new. Both the Cetinje and Zabljak vehicles are used to transport tourists, which will be good for awareness raising. Yet, to be sure tourists understand the significance, it is suggested that the vehicles be clearly indicated on their bodies to be e-vehicles. One challenge about these municipal e-vehicles is that they are not driven many kilometers each day. Thus, in terms of investment per GHG ER, the results are not as strong as for an EV that, say, is driven 200 km per day.

Public transport in parks: One of the pilot projects that is especially interesting and innovative for Montenegro are two open-air train-like road vehicles (diesel) that will be used in Biogradska Gora National Park. The National Parks of Montenegro Public Enterprise is building a parking lot. The plan is in the future to close the park to private cars and use the public transport vehicles to transport people from the park entrance to Biogadsko Lake. This initiative seems a positive for both awareness and the park. Yet, the cost effectiveness in terms of GHG ERs is low. Total investment is €543,360 and lifetime GHG ERs are indicated to be only 83 tons CO₂, or €6,547 per ton CO₂. Although public transport reduces emissions, the number of km driven per day of these vehicles is not envisioned to be that high so that ERs are not as high as they would be for an investment that has more driving miles per day. A positive aspect, though, is that there is already interested in replicating the concept, but with an e-bus. Cetinje is looking into doing something similar in Lovcen Park, but with e-bus, if the National Parks of Montenegro Public Enterprise will agree to close that park to cars to facilitate the initiative.

Non-motorized transport – walking and biking: The project has supported quite a few initiatives in biking and walking, resulting in a total of 84.6 km improved or new biking and hiking routes, with 7.5 km more expected soon. Clearly, the extent of impact in the walking/ biking area is substantial. As a result of the proposal and feasibility study of *TCNTM* to develop EuroVelo 8 (EuroVelo Mediterranean route) in

³⁴ Standards indicate charging within 2 hours from the 22 kW port, though charging times will vary with vehicle.

Montenegro, a GOM-financed project implemented by UNDP, the *Cultural Heritage* project is allocating funds to develop signage on a 7.5 km stretch of the route. Already, Tivat with IPA funds has developed signage on 4+ km of the route. The project has further supported Podgorica (as a pilot project) in developing the second of five planned bike paths it is pursuing. The paths run along sidewalks and roads. In Nature Park Piva, near Pluzine, the project has developed signage on 60 km of hiking and biking trails (most pre-existing but with some limited trail construction also done). Similar work has been done for a hiking trail (7.5 km) in Lustica Peninsula in Tivat and Herceg Novi. And, the project has also supported renovation of 600 m of walking path to and around a historical site at Village Kameno in Herceg Novi. These last three items, as well as the EuroVelo work, contribute to the goal of transforming Montenegro's tourism industry to one that accommodates ecological tourism and eco-tourism or "active tourism," rather than only relaxing vacations on the beach, which constitute the vast majority of tourism in Montenegro today.

Other targets, some quite challenging and not met: The targets in the PRF include five other initiatives. One of these, tourist information centers on low carbon tourism at transport hubs is said to be met, but lack of information and feedback about the centers suggest that they are not a strong result of *TCNTM*. One of these two centers included an initial €46,000 in GEF grant funds plus a smaller amount of follow up funds to renovate Cetinje's bus station. The other was said to be for bike racks in Tivat. The design of this target did not seem to be attractive to those involved and may have just been addressed to meet the target. The other four targeted initiatives, spread across two indicator targets are eco-certification of airports, eco-certification of ports, a cable car from Kotor to Cetinje powered by RE, and RE power for cruisers and yachts docked in a marina. As for the last of these, RE powering of boats in port at a marina, it appears this kind of initiative was never pursued by the project. An international transport expert has advised *TCNTM* that this sort of intervention has not yet been proven feasible anywhere in the world. And, based on TE consultations, lack of space in the case of Montenegro, may present a special challenge. Still, there might be room to discuss the idea with marinas or look for alternatives, such as increased rooftop SWH and PV use for marina buildings. As for the eco-certification of airports, interestingly, pursuit of this has led to the development of *Airport Project* funded by GOM that UNDP is implementing. As part of this work, there had been agreement between GOM and UNDP to carry out airport eco-certification, for which *TCNTM* had earlier provided a supporting study (for the case of Tivat Airport). Now there are plans to set up a concession system for the airports; and it is not certain whether the eco-certification will still be pursued. As with the experience with accommodations, it is not clear that airport eco-certification will be the best way to reduce GHG ERs, anyway. Already under the *Airport Project*, a new terminal has been built at Tivat. It is considered relatively energy efficient as it was built to required standards. As for port eco-certification, the TE team found that marinas may already have a sort of certification that encompasses ecological aspects. Work with a cargo port might be an interesting alternative, but again, pure EE or RE work may be more effective in achieving GHG ERs than eco-certification would be. As for the cable car, as noted in the discussion of project design (Section 3), the USD64 M in co-financing committed by Cetinje for this was an aspiration rather than secured funding. The cable car project did not happen. *TCNTM* had prepared a feasibility study for small hydro to power the system (presumably through the grid but with this RE contribution nearby to the cable car). Yet, this feasibility study was not formally accepted. Some stakeholders suggest that the small hydro site is really not viable having low water flow in summer and being connected to an important water source that would be negatively impacted by such a station. Interestingly, the cable car project is now back on the table, but this time with half the original length and much less investment required. And, Cetinje is also pursuing grid-scale solar PV in its mountain areas. So, perhaps the two concepts (cable car and mountain grid-scale PV) could be merged to achieve something like the project designers had envisioned.

The way forward: In terms of the way forward, GOM and UNDP are already looking closely at low carbon public transport, particularly in Podgorica. This fits with the TE finding that cross-cutting areas related to tourism but not necessarily wholly in the tourism sector may be the most fruitful for low carbon

initiatives. A major new transport initiative may, in addition to public transport in Podgorica, consider intercity public transport and also public transport between cities and their rural areas. A very fruitful area might be to promote Bella Boka's efforts, perhaps through a public-private partnership to build stations and boost travel by citizens (via subsidy to reduce their ticket prices) or at least to resolve the company's docking problems. Expansion of the low carbon boat initiative to Skadar Lake could also be interesting. Whether the cable car supported with RE (nearby grid-connected) and the RE (nearby grid-connected) powering of cruisers and yachts in port is viable might be investigated. Further, international transport to Montenegro, while a challenging area, may also be considered as something to address. An important point found from *TCNTM*'s tourism sector GHG inventory is that international transport to Montenegro alone in terms of GHG emissions is over six times the GHG emissions of Montenegro's tourism sector domestically. Thus, despite the high level of challenge, future efforts may consider whether there are ways to make international transit into Montenegro more low carbon. Early on, the project did a study on the efficiency of low cost carriers to support government decisions on landing rights. Yet, this was not pursued too deeply. More work may be done on how to raise efficiency of air transit into Montenegro. Or, work might be done to try and shift more travelers from air and private cars to trains, such as through promotion or other support of train transport. Opportunities for greater efficiency of airports and possibly cargo ports may also be considered, though eco-certification may not be the best approach. Finally, given the attractiveness of low fuel costs, a program to support EV purchase may be considered. In addition to reducing the VAT on EVs, loan programs or other means to support purchase of EVs, perhaps paid back through fuel savings, might be considered. In its early stages, while its funding is still low and it is aiming to increase visibility, the Eco-Fund may begin with such a project to support EV purchase.

7. Outcome 3 Results: Pilot Projects and Eco-Fund

Outcome 3 is the financing outcome. It is focused on pilot projects and Eco-Fund establishment and also has some activity on carbon offsets. Both the pilot projects and Eco-Fund work are considered stand-out achievements. Many of the interesting pilot projects are in the transport area and have been discussed in the preceding section on the transport outcome. Below, this section reviews the pilot projects, Eco-Fund, and offset work, in turn.

Pilot projects: The pilot projects have a high potential for creating awareness and replication to increase their benefits. And, they are interestingly spread across a range of project types and a range of locales. The project carried out a total of 31 pilot projects via three rounds of calls for proposals. The first call was focused on coastal areas and four municipalities only (Kotor, Tivat, Herceg Novi, and Cetinje) and received limited applications. After that, the second and third calls were opened up to all cities and the private sector. This was done with the help of Chamber of Economy, as UNDP cannot provide grants directly to the private sector. The involvement of the private sector is considered a strength of the project. As noted, GHG ERs for the pilot projects achieved by EOP are somewhat weak. In a sense, many of the pilots focused more on awareness and this is justifiable, given the strong need for awareness. Yet, in the future, low carbon tourism efforts might make a shift to focus more on GHG ERs generated. As such, they may need to turn away from "pure tourism plays" and look at cross-sector areas that deliver a higher amount of GHG ERs. Yet, co-financing achieved is significant. And, when the five municipal LED street lighting projects very likely to be achieved post-project and additional Bella Boka boats likely to be achieved post-project are considered, total GHG lifetime direct ERs substantially surpass the target. More details on total funding mobilized and GHG ERs of the pilot projects are included in Section 4. This section provides some more details on each specific project, including nature of the project, funding, and meaningfulness, replication, or other additional insights, mainly through a set of tables. To present this information, we divide the pilot projects completed by EOP into three groups: (i) transport (Exhibit 15), (ii) accommodations (Exhibit 16), and (iii) miscellaneous (Exhibit 17). These are discussed, in turn,

below, though the greatest amount of information is included in the tables associated with the three exhibits. We also include (iv) the municipal LED street lighting projects expected to be installed post project (Exhibits 18 and 19) as a fourth group of pilot projects.

Transport pilot projects: Exhibit 15 provides more details on the pilot projects in the transport category. We divide these into four sub-categories: electric road transport, non-electric public transport, boat transport, and hiking and biking. These projects, in total, accounted for €500,266 of the grant funding distributed to the pilot projects, or 58.2% of the total. This shows how popular and important transport is in the overall scheme of *TNCTM* and low carbon tourism. All but one of these projects are included in the previous section's discussion on Outcome 2. The one project not included, however, is very interesting. It is a solar PV sailboat. The sailboat never uses any diesel or even grid electricity in its motor, which is completely solar electric. The proponent of the project is Rambo Amadeus, an internationally famous Montenegrin singer. Mr. Amadeus is using the boat to provide sailing lessons to local youth (for free) and to tourists (for a fee). He is an environmentalist and is further using the boat to promote environmentalism.

Accommodations pilot projects: Exhibit 16 provides more details on pilot projects in the accommodations category. There are 9 such projects. It is interesting to note that 6 of these include SWHs as part of their work, but in each case there are other elements as well. This suggests there may be a good demand for SWHs, so that this could be an area to pursue in the future for scale-up. There is one project focused on biomass pellet water heating and two on greening and irrigation. Some of these 9 projects have very large co-financing. Those generally represent cases in which large hotels underwent extensive renovations. Or, in one case, it represents new construction of a small hotel. While the total amounts of these large initiatives are counted in the overall co-financing of the project, as noted in Section 4, they are not included in calculations there of financing mobilized by *TCNTM* for low carbon projects.

Miscellaneous pilot projects: Exhibit 17 provides more details on the rest of the pilot projects completed by EOP. These 11 projects fall into 5 categories: 3 are municipal LED street lighting projects, 2 are sports facility projects where the main EE element is also LED lighting, 2 are distribution of PV systems to a group of artisan households that go to the mountains in the summer with the livestock, one is biomass pellet heating, and three are greening projects. The street lighting projects and one of the stadium projects, as mentioned earlier were, along with the low carbon boat public transport, the top deliverers of GHG ERs. The street lighting projects also have the benefit of serving as models for other cities. The sports facilities have the benefit of very strong visibility. Already, replication, though on a smaller scale, has been achieved with one of them. The PV systems for households appears to be a less innovative activity, as many other households have been supported in this way before, but obviously still serve an important purpose.

Post-project LED street lighting pilot projects: Exhibit 18 and 19 provide info on the five LED street lighting projects that are expected to be achieved post-project. *TCNTM* via co-financing from Slovakia has supported five feasibility studies, one for each of Podgorica, Budva, Cetinje, Danilovgrad, and Kolasin. The TE team contacted each city for interviews, reviewed paybacks, and reviewed available budget information to assess likelihood of implementation of these projects and has assessed all to be very likely to be implemented. As noted in Section 4, the GHG ERs of these projects are quite strong. Exhibit 18 describes the content of each project, the calculated investment with VAT, the annual kWh savings, the annual Euro savings with VAT, and, based on these, gives the estimated number of years for payback of the investment through money saved on electricity. Exhibit 19 provides additional qualitative information on the likelihood of implementation of each of these projects and the role of *TCNTM* in stimulating the project. The findings are quite positive. The table also includes evidence that each project will be implemented, expected benefits, timeline, and sources of funds. Podgorica is already carrying out a detailed technical design to follow up on the feasibility study, as the complexity of its project requires

Exhibit 15. TCTNM Pilot Projects Part 1 of 3 – Transport Related

Note: Transport Accounts for 11 of 31 Pilot Projects

Project Proponent	Project Description, Scale, and Use	TCNT M Contribution €	Co-Financing by Proponent or Others €	Meaningfulness/ Impact/ Stimulation of Additional Ideas/ Potential for replication
<i>Electric vehicles – road</i>				
1. Cetinje Municipality	<u>2 electric tourist trams</u> (one 14 seats and one 8 seats) for city tours by LTO (<i>purchase of bicycles also included</i>)	22,111	66,332	Used 7 mos/yr. Tours more popular than expected. TE team suggests clear signage to show these are EVs. Investment linked with bigger “green” plans of Cetinje, which hopes to building on this with tourist smart card including museums, trams, bikes, etc. Hopes to get 2 e-buses for Lovcen Park.
2. Zabljak Municipality	<u>1 electric tourist bus/ tram</u> (open air – used only in good weather) from town to Savin Kuk (6 km)	5,000	46,425	3 trips per day. Idea from NLB Bank, which is main source of funding. Fits with aim to declare Zabljak an eco-oriented tourist destination. Idea discussed at highest level of government. Desire to use in National Park, but not allowed. Want to buy electric bikes for tourists.
3. Hotel Slovenska Plaza (Budva)	<u>1 electric tram</u> (for transporting guests and luggage on grounds) (<i>also includes greening</i>)	14,475	38,488	Hotel has several of these electric trams and has bene using them since it first opened in the 1980s. Greening work was carried out at Hotel Aleksandar, located near Slovenska Plaza and a part of same group.
4. Hotel Palazzo Venezia (Ulcinj)	<u>1 electric tram</u> (for transporting guests and luggage on grounds)	5,158	15,473	---
<i>Public transport (non-electric)</i>				
5. National Parks (State Agency) for Biogradska Gora National Park	<u>2 diesel open air “train-like” road vehicle</u> for transporting guests to lake. Each holds 50 persons.	130,800	412,560	Will transport tourists from Kraljevo kolo to Biogradsko Lake in national park. Parking lot being built and tourists will be transported 4 km from there to lake instead of driving in. Road being improved. Rezoning park so that cars cannot drive in. Improving road for safety. Expect regular use 2021. Idea to replicate in Lovcen Park in Cetinje.
<i>Boats</i>				
6. Bella Boka (private company)	<u>4 low carbon boats</u> for public transport in Boka Bay (2 electric-diesel and 2 electric-solar PV)	150,000	1.679 M	Major contribution to reducing road transport and high season traffic jams around Boka Bay expected. Scale up to 10 boats expected within 5 years.
7. Rambo Amadeus (famous singer)	<u>1 solar PV sailboat</u> for training students to sail and for promoting environment	54,644	167,844	Motor fully solar PV electric – no diesel used. Already used by this famous singer to promote environment and train 50 students. For next project interested in developing a hybrid yacht with solar PV panels.
<i>Non-motorized transport (hiking and biking trails/ lanes)</i>				

8. Pluzine Municipality	60 km of hiking/biking trails in Nature Park Piva – mainly signage for existing trails	5,538	29,295	Also, 2 new camping grounds with roof cover. Proponent had goal of trail signage, but may not have done it without TCNTM support. Signs near road meant to attract more passersby to explore Nature Park Piva. With 32,000 ha and just 60 km of trails with signage, they hope to do more trails in the future.
9. Tivat and Herceg Novi Municipalities	Hiking trails on Lustica peninsula (7.5 km)	2,500	9,400	---
10. Herceg Novi LTO	600 m trail and visitor center at Village Kameno. Parking, stairs, sitting area.	15,000	21,065	As coastal city with mountains, Herceg Novi is trying to develop more “active tourism” away from beach and trail supports that strategy
11. Podgorica Municipality	Bike lanes on sidewalks and streets (1 of 6 networks)	95,000	436,200	2 nd of 6 cycling networks to be developed by the city
Total Transport	(All 11 Part 1 Pilot Projects)	500,226	2,922,082	--

Exhibit 16. TCTNM Pilot Projects Part 2 or 3 – Accommodation Related

Note: Accommodations account for 9 of 31 pilot Projects

Project Proponent	Project Description, Scale, and Use	TCNTM Contribution €	Co-Financing by Proponent or Others €
<i>Solar Hot Water (SWH) System, in some cases with other measures</i>			
1. Hotel Fobra, Podgorica	Building of new hotel with 31.5 kW _{th} SWH, LED lights, biomass pellet-based heating (9-room, 18-bed hotel; high level enthusiasm about being “green.”)	40,397	585,086*
2. Hotel Aurel, Podgorica	SWH and heat pump for air and water	8,597	27,224
3. Hotel Onogost, Niksic	Hotel renovations and SWH	9,399	1,136,096*
4. Palazzo Venezia, Ulcinj	Hotel renovation and SWH	2,172	6,517
5. Hotel Serdar, Mojkovac	Hotel renovation with SWH, biomass pellet space heating, LED lighting (small 4 star hotel)	41,000	567,403*
6. Piva Eco-Hotel, Pluzine	SWH and 1.4 km zip-line over lake. Purpose to attract more tourists and for longer tourist season. Longest zip-line in Montenegro. Hotel had idea of zip-line, but would have not done without TCNTM grant. Now installing replication (2 nd parallel zip-line).	9,991	29,009
<i>Biomass pellet- based water heating (without SWH)</i>			
7. Hotel Lighthouse, Herceg Novi	Biomass pellet boiler for water heating (replacing fuel oil boiler; cut fuel costs in half; idea from TCNTM)	5,466	24,534‡
<i>Greening and Irrigation</i>			
8. City Café, Herceg Novi	Greening of terrace with potted plants; building of children’s playground (owned by same group that owns Hotel Lighthouse)	962	4,030‡
9. Casa del Mare Hotel, Herceg Novi	Hotel renovation with conversion of septic tank to bio-septic tank so wastewater can be used for water plants	30,000	1,970,000*
Total - Accommodations	(All 9 Part 2 Pilot Projects)	147,984	4,349,899

*It is noted that the co-financing amounts include full construction or reconstruction costs of hotel, whereas TCTM contributions are focused on more narrow measures, such as SWH or bio-pellet based heating. At the same time, it is recognized that reconstruction can lead to increased energy efficiency.

‡Co-financing for the Hotel Lighthouse Project and City Café projects were initially reported as substantially higher at €520,989 and €18,531, respectively, but have been reduced based on findings from consultations.

Exhibit 16. TCTNM Pilot Projects Part 3 or 3 – Street Lighting, Sports Facility Lighting, Solar PV for Artisans, Greening, and Zipline
Note: Miscellaneous accounts for 11 of 31 Pilot Projects

Project Proponent	Project Description, Scale, and Use	TCNTM Contribution €	Co-Financing by Proponent or Others €	Meaningfulness/ Impact/ Stimulation of Additional Ideas/ Potential for replication
Municipal Street Lighting				
1. Zabljak Municipality	Conversion of streetlights to LED	49,605	147,871	Public lighting in city center. 429 fixtures and 45 poles replaced. 65% cost savings and 74% CO2 emission reduction. Municipality already had idea to do this, but it was likely done faster and in just one phase due to TCNTM Project. Hope to expand to 130 more fixtures and to a nearby village that needs lighting upgrade.
2. Savnik Municipality	Conversion of streetlights to LED	39,500	124,444	150 lighting fixtures and 40 poles included, covering whole city (administrative center of the municipality). Visual effect considered beneficial for tourism. 10-year pay back for city's share (paid up front out of municipal budget) anticipated. Municipality plans to replicate in smaller towns of Boan and Bukovica soon.
3. Tivat Municipality	Conversion of administrative building lights to LED	1,625	4,875	---
Sports Facility Lighting				
4. Jadran Water Polo Club, HN	Conversion of swim stadium and other lights to LED and new controls.	15,000	27,000‡	Not only cost/ energy savings, but also lighting is better.
5. Sports Center, Podgorica	Reconstruction of Sports Center Moraca including LED lighting	65,000	2,229,514*	LED lighting of basketball stadium, locker rooms, offices, etc. Key user KK Buducnost Team has noted improved quality of lighting and replicated by upgrade to LED lighting in its own facility.
Solar PV for Artisan Households in Mountains				
6. Zabljak Households	solar PV panel systems provided to 10 artisan households to power equipment	3,617	10,854	Household lacked electricity or used generators; migrate to mountains in summer with livestock and sell dairy products to tourists
7. Pluzine Households	solar PV panel systems provided to 30 artisan households to power equipment	12,115	36,345	As in above cell. This had already been done by other projects for other families; no need for replication after there 30 families.
Biomass Pellet Heating (Municipality)				

8. Mojkovac Municipality	Biomass pellet heating	1,193	3,578	---
Greening				
9. Tivat Municipality	modernization of irrigation system for City Park	13,362	647	Park has problem of high old trees, but very limited understory. Technical difficult to irrigate by hand. In protected area. TCTM stimulated municipality to do this by offering partial grant.
10. Adventure Park, Podgorica	irrigation system and greening: planting 140 trees, grass; irrigation system	7,350	109,970	Grounds had been mainly stone. 87 trees survived (sun very hot); water bills are high. As part of project bio-treat and recycle waster for irrigation. More greening needed (perhaps just 20% greened now)
11. Pljevlja Municipality	Greening of park areas	2,500	0	---
Total Misc.	(All 11 Part 3 Pilot Projects)	210,867	2,695,098	---

‡Initial reporting indicates just €3,359 in co-financing, but this may be for lighting fixtures only. Consultations indicate total cost, including lighting controls, which were replaced was €42,000.

*Amount includes reconstruction of sports center and not only energy efficiency aspects.

this. In general, the cities seemed to have specific ideas about how these projects will be carried forward and why they will be carried forward. Some already have budget allocations or a meeting scheduled with donors. Also notable is that the cities see additional benefits to these projects beyond the cost savings.

Exhibit 18. LED Street Lighting Projects Supported through Feasibility Studies

City	Lighting units to be replaced or added (combined), Cabinets to be replaced or added (separately)	Total Investment w/ VAT (€)†	Annual savings in kWh	Annual savings w/ VAT (€)	Simple Payback Period
Podgorica	11,164 lighting units to be replaced Remote management system for 175 cabinets	€3,672,165	5,392,270	€662,531	5.5 years
Budva	5,079 lighting units replaced or added 105 cabinets replaced, 34 cabinets modified	€3,047,028	3,878,607	€528,176	5.8 years
Cetinje	1,991 lighting units replaced or added 30 cabinets replaced, 49 cabinets modified	€1,215,437	1,431,829	€162,245	7.5 years
Danilovgrad	1636 lighting units replaced or added 8 cabinets replaced, 24 cabinets modified	€703,027	884,856	€78,252	9.0 years
Kolasin	937 lighting units replaced or added 15 cabinets replaced, 2 cabinets modified	€534,970	374,509	€33,214‡ or €24,154	16.1 years or 22.1 years

Note on Kolasin: Kolasin payback is significantly longer than that of other municipalities due to a confluence of factors (1) Their price for electricity is the lowest. (2) Their proposed project has a higher proportion of decorative park lighting fixtures, which are much more expensive than standard ones. (3) A lot of poles have two lighting fixtures which is more expensive and may be changed in the other cities, but will be maintained in Kolasin as they are on historical, decorative poles there. (4) 1/3 of all lighting fixtures already have LED lights, but they are old and not bright enough, so should be replaced. Yet, this will not bring cost savings. (5) A last issue is that current expenditures on maintenance are less than they should be, but this has already been incorporated into the calculations of annual expenses and payback that are shown in larger font in the relevant cells.

†For Budva, Cetinje, Danilovgrad, and Kolasin we decreased total investment as indicated in feasibility studies by 12.5%, because the consultancy preparing cost estimates used producer or distributor list prices to estimate total costs; and these can be reduced 10-15% via competitive tendering procedures, especially considering that realized market prices are generally lower than list prices. We did not reduce the Podgorica investment estimate by that amount, as we did not confirm with the consultancy whether they used list prices or market prices in their “bill of quantities.”

‡Kolasin’s savings based on current expenditures was just €24,154. Yet, according to the feasibility study preparer, expenditures on maintenance are only €5,400 per year, whereas they should be €14,460, which is used to estimate expenditures after implementation. Thus, for a fair comparison, €9,060 are added into the savings based on current expenditures, raising the savings (assuming required maintenance is carried out) to €33,214. This lowers payback to 16.1 years instead of 22.1 years.

Exhibit 19. LED Street Lighting Projects – Likelihood, Evidence, Expected Benefits, Timeline and Portion Expected to be Implemented

City	Likelihood and Recent Evidence	Expected Benefits	Expected Timeline for Implementation ³⁵ (Portion Expected to be Implemented and any broader plans)	Expected Source of Funding	Role of TCNTM Project
Podgorica	Extremely likely (municipality expresses certainty): 1. An earlier first phase was successfully completed in rural areas of city with very good results. 2. City has already initiated technical design as follow up to feasibility study. 3. €1 M already allocated in municipal budget for 2020	Financial safety, citizen’s safety in traffic, citizen’s safety in rural and suburban areas (previously lights turned off at midnight – now they will stay on throughout dark hours)	Within 2 years (100% though perhaps some adjustments once technical design completed. Eventually plan to do entire territory of Podgorica, not just city center.)	TBD: Considering capital budget, public-private partnership, ESCO financing	Critical in mapping out the baseline situation and needs
Budva	Extremely likely (municipality expresses certainty). Just completed feasibility study (early March 2020) and have already scheduled meeting with EBRD April 1 2020 to discuss.	Cost/ energy savings. Lighting quality. Better living conditions for citizens. Special ambient lights for “old town” (so tourism benefit)	Within 3 years [or 5] if city finances it itself. Within 2 years if other financing modalities used. (100% will cover whole city, including ‘old town’)	TBD: EBRD/Ministry of Economy, city’s own finances, or public/private partnership. Still discussing.	Budva previously had idea, but it’s not clear when the feasibility study would have been done and action taken were it not for TCNTM Project
Cetinje	Extremely likely (municipality expresses certainty). Mayor has already conducted needed meetings. City looking for best financing model/ already in communication with potential investors. Project is also part of <i>Cetinje Strategic Development Plan</i> , showing it is a priority.	Cost savings, reduce maintenance due to more modern equipment, promotion of Cetinje as a green and EE municipality	To be done in phases over 5 years. Will begin this year (2020) and finish several streets.	Part to be completed this year funded from municipal budget. The rest TBD: Already in communication with investors/ partners for PPP. Also very interested in European/ international funds.	Professional and advisory assistance of TCNTM very important.
Danilovgrad	Extremely likely (municipality expresses very strong likelihood)	Cost savings and environmental protection.	Likely within 3 [to 5] years (100%)	TBD: Public-private partnerships or donors	Prior to cooperation with TCNTM, did not have the initiative to do this project; study showed us all the possibilities.
Kolasin	Extremely likely (municipality expresses certainty)	Financial savings, quality of lighting, reputation of city as tourist destination	≈ 2 to 3 [or 5] yrs (100% city districts and suburban parts. Later other areas.)	TBD: Capital budget or partnership with private company	Quite beneficial

³⁵ Time for implementation estimates from city, with, in some cases, TE Team alternate estimate in brackets (“[.]”).

Eco-Fund: Achievement of Eco-Fund has the potential to be the most important of the project's results, as it could mobilize much funding over the years to promote low carbon projects in Montenegro. Findings suggest that the Eco-Fund has quite a good possibility in the long-run of being allocated several million Euros of funding annually and having 16 to 20 staff. While an interest of GOM since 2003 and called for by Montenegro's legal framework since 2016, it is unlikely progress would have been made on the Eco-Fund in the near-term without the direct and highly enthusiastic support of *TCNTM*. The GOM issued a decision on Eco-Fund establishment on November 21, 2018 and appointed the Eco-Fund Board in March 2019. The Director of the Eco-Fund was hired and began work in December 2019. The most promising source of funds for the Eco-Fund is eco-charges related to environmental regulations. Currently €500,000 in eco-charges are being collected and go in the general GOM budget. These are virtually guaranteed for initial capitalization of the Eco-Fund. The new *Waste Management Law* in the works and likely to be adopted in 2021. It is expected to substantially increase the amounts of eco-charges available to the Eco-Fund. Based on expected progress with eco-charge policy and eco-charge collection, annual funding in 2022 and 2023 is expected to be at least €1+ M and could rise to €8 M by 2024. There is also a good chance of around €4 M per year more being provided for Eco-Fund capitalization by 2021 via ecological fees related to road transport (as indicated in recent revisions of *Road Transport Law*, believed to be motivated by discussions of Eco-Fund Board). If the Eco-Fund can show itself to be a reliable and transparent entity, it may also attract funding from ministries that wish to administer funding programs without the constraints of annual budgets that hamper flexibility. Donor funds may also wish to channel their financing oriented activities through the Eco-Fund. Yet, in order for this to happen, the Eco-Fund, which will charge a management fee, must demonstrate a real value add that these donors do not get from their current approach, which is often to use their own operating procedures. The Eco-Fund is expected to work in a number of areas including environmental protection/ waste management and CO2 emissions reduction (including both EE/ RE and sustainable transport).

The Eco-Fund work of the project benefited from two studies. The first dealt with the original project design's target that a National Tourism Climate Fund be set up. As noted, for a country with only 630,000 people and one that already had a legal requirement to have an Eco-Fund for so many years, setting up an NTCF did not seem to make sense. This first study considered these two options (NTCF and Eco-Fund) and also provided some background on carbon offsets. Then, once a decision had been made to pursue setting up of the Eco-Fund, a second consultancy was commissioned. This consultancy provided deeper recommendations on the legislation and operational structure and rules of the Eco-Fund. Procedures outlined will be very important to ensure a highly transparent organization. These materials have been given high marks by stakeholders and are likely to continue to be used as work on the Eco-Fund start-up moves forward.

While the Eco-Fund faces some challenges in getting up and running, the fund appears to be supported at the highest levels of government. And, there is clear evidence that it is moving forward as hoped. Ideally, the fund will receive additional TA in the coming few years to ensure that momentum continues.

Carbon offsets work: The carbon offsets work was a more minor aspect of Outcome 3. *TCNTM* did not find it practical to promote carbon offsets as a major source of funding for the Eco-Fund, though one of the ProDoc's ideas was that it might be a main source of funding in the future. Instead, the project carried out a much smaller activities, setting up a website for calculation of carbon footprint in visiting Montenegro. Donations to offset one's carbon footprint can be made on the website or, during the project, at a number of donation boxes hosted by tourist sector partners. In the end, just €6,000 was collected, but it is believed that the more important result is that many people went to the website to calculate their footprint and awareness was thus raised.

8. Outcome 4 Results: Awareness and Tourism Sector GHG Inventory

Outcome 4 has two main areas of work, awareness raising and preparation of tourism sector GHG emission inventory. The awareness work is considered outstanding, making a true impact on awareness and knowledge levels of the citizens of Montenegro. The tourism sector GHG inventory work was well done and provides insights as a “snapshot in time,” though it is questionable whether a tourism sector GHG inventory on an ongoing annual basis makes sense for Montenegro.

Awareness work: The project’s awareness work is widely indicated to be outstanding and has been noticed by many of the citizens of Montenegro. Prior to the project, most Montenegrins did not know what “low carbon” was and now most do. The awareness work consisted of a series of promotional activities, as well as specific support for the activities being carried out under each of the project’s other outcomes. While the promotional activities are quite numerous, here we highlight some of the most impressive and impactful.

Green concerts and festivals: Probably the top highlight of awareness work are the green concerts and festivals. While this was not in the project design, it is an innovative idea developed by the Awareness Officer and project team. The project cooperated with Montenegro’s largest music and film festivals to ensure that they and their participants were low carbon. The project indicates that 10 such “green festivals” and over 150,000 festival goers annually were involved. Based on consultations, it appears that at least some if not several major festivals, such as Dzada Film Festival, will continue and expand this “green festival” approach post-project.

Green sporting events: “Green sporting events” are another outstanding and high-profile initiative supported by *TCNTM*. The project cooperated with the National Olympic Committee of Montenegro in the Games of Small States of Europe (held in Montenegro) to brand it as “green games.” A total of 400 volunteers were trained in green games and 2,000 direct participants (900 of which were athletes) were exposed to the green games efforts. More than 200 international journalists covered the games. *TCNTM* and the Montenegrin National Olympic Committee are now cooperating on guidelines to make games green. And, as evidence of replication, the Montenegrin Police are organizing international police games and have asked for guidance on making their games green.

Anti-idling campaign: *TCNTM* has carried out an extensive 5-year anti-idling campaign to get people to turn off their cars when stopped for a relatively long time, such as at the border and in school pick-up lines. The signs hung are still in place.

Films/ videos and media coverage: *TCNTM* has strong achievements related to media coverage and films/ videos. The project estimates a total of about 3,000 guest appearances, newspaper articles, and online articles during its lifetime. Indeed, the TE team found that recognition of the project among the population bears out a very strong media presence. As for films and videos, first, the project prepared a video on low-carbon tourism in Montenegro that has been used extensively by NTO and MSDT at international tourism fairs. Second, ten 30-minute special TV tourism programs were filmed on low carbon development and project activities and aired in Montenegro. Lastly, the project has had two major foreign media coverages: (a) a promotional video by a journalist in Poland, who focuses on the Polish tourist market; and (b) a German language television show on tourism in Montenegro viewed by 3 million in Germany and Switzerland, prepared by German television station that visited Montenegro and covered the project among other things.

European Mobility Week (EMW): The TE team discussed with a number of locales the detailed planning and positive impacts on awareness of *TCNTM*'s EMW activities, such as closing the street to motorized transport, holding a junior Dzada film festival for youth (and closing the street) in Podgorica, biking parade in Niksic, treasure hunt for children in Budva, etc. Feedback was highly enthusiastic across all stakeholders consulted on this.

NTO website/ international website promotion: The project did not achieve as much international website coverage as it might have. Yet, some may argue that Montenegro is not quite ready – has not yet become the low carbon tourism country it aims to be – so that messaging on this should wait. One aim was for the NTO website to promote low carbon tourism and eco-certified hotels. Upgrading of NTO's website was emphasized as a recommendation in *TCNTM*'s MTR. Post-MTR *TCNTM* helped NTO prepare a TOR for its website. Over €8,000 was spent for this “web portal design and development” in 2018, but NTO is facing challenges getting the funds to upgrade its website, so no action has been taken. Promotion on international websites was also encouraged in the MTR. Subsequently, stories about the project were posted on the GEF website and on the website of the ITB Berlin - one of the largest tourism exhibitions in the world.

Surveys: The project design required three surveys as a means of measuring the PRF indicators related to awareness. As noted in Section 3, the indicators are not considered that effective in measuring progress on awareness. And, the surveys had an additional challenge in that their questions and composition of their survey groups varied from year to year. For example, the proportion of international tourists in the surveyed tourist group varied. The share was much too low in the 2015 and 2017 surveys. The 2019 survey more correctly reflects the real situation (95% share of international tourists, as indicated by MONSTAT and NTO data). In future projects with surveys, more attention should be paid to this aspect. Yet, the more important point is that the design of the relevant indicator and of survey activities to support it are not an effective means of assessing the strong achievements of the project's awareness work. At the same time, one positive result of the surveys is that comparison of the three surveys, as indicated in the 2019 survey, shows that Montenegro-based tourism industry businesses have over time become more aware of the importance of being “green.”

Tourism sector GHG inventory: The project has estimated GHG emissions from Montenegro's tourism sector for each of 2014, 2015, 2016, 2017, and 2018. The methodology has been verified by an outside third party as sound. Data for 2019 will not be available until end of 2020, so 2018 will be the last year for which an inventory is done by *TCNTM*. The project trained staff from the national Environment Protection Agency (EPA), which is responsible for reporting GHG emissions from various sectors per UNCFCCC requirements. Trainings of EPA in methodology took place in two different years for one week each, with three persons trained each time. Findings show the Government is unlikely to continue tourism sector GHG reporting, as it's not required. While this may raise concerns about sustainability, it is important to ask the question, given the findings of this report, of whether it is reasonable to pursue tourism sector GHG inventory. First, as noted before, taking the baseline year of 2014, tourism sector GHGs were only 3.9% of Montenegro's total. Second, another important finding of the TE is that cross-cutting areas rather than pure tourism plays have so far been the ones that have been able to achieve the highest GHG ERs. Thus, in the future, Montenegro may continue to promote “low carbon tourism,” but might look to leverage the concept more broadly through promoting cross-sector initiatives with high GHG ERs, particularly in public transport and, possibly, in international transport. There is a good chance *TCNTM*'s 2014-2018 estimates can facilitate tourism related projects (whether these be pure tourism plays or cross-sector initiatives) being included in Montenegro's updated NDCs. Findings highlight that transport GHG emissions in the tourism sector are growing faster than accommodation GHG emissions. This is likely because the electricity grid in Montenegro is incorporating more renewable energy over time. Findings also highlight the fact that international transport for tourism to Montenegro has GHG

emissions at a level that is over six times that of Montenegro's total domestic tourism sector GHG emissions. These kind of findings are very useful as stakeholders look to discover how to make Montenegro's tourism truly low carbon going forward.

9. Sustainability of Results

TCNTM's results as a group have some strong sustainability features. There are both: (a) results that will last into the future and continue to have impacts and (b) results that will stimulate replication and other action into the future. Some highlights of sustainability include the policy achievements, particularly with regard to the *Industrial Emissions Law* and the inclusion of eco-fees in the *Law on Road Transport*, the impact of both of which will actually began to occur post-project. The inclusion of *TCNTM*'s achievements and a new section on sustainable transport in the *EE Action Plan 2019-2021* and the inclusion of e-mobility in the *Strategy for Transport Development 2019-2021* also have the potential to create impact in the future. While the strategies may be frequently updated (once every three years), new concepts included in one cycle's strategy have a good chance of influencing what is included in the next cycle's strategy. The Eco-Fund might be considered the center-piece of *TCTNM*'s sustainability achievements. Existence of the Eco-Fund will enable financing of low carbon projects into the future. *TCNTM*'s pilot projects also have good potential for sustainability. The estimated lifetimes of installations are 10 to 20 years. That is a substantial period for these installations to sustain their GHG ER contributions and for them to be visible so that replication may occur. The TE team found that pilots for the most part are up and running and running well, so it is expected they will achieve their estimated lifetime or extend even beyond that period. As noted, some of *TCNTM*'s work, is already leading to other projects or replications, which may also be considered a sustainability effect. The EuroVelo 8 (Mediterranean) bike route concept and feasibility study prepared by *TCNTM* has mobilized government funding for establishment of a portion of the route. The LED lighting for a stadium in Podgorica has stimulated Podgorica's KK Buducnost Basketball Team to install an LED lighting system in their own practice facility. E-mobility work is stimulating the MTMA and electricity distribution company to consider purchase of EVs. The Green Games efforts have stimulated the police to pursue making their games green. At least some of the festivals that cooperated on green festivals will continue to make their events green. These are a portion of the many ways in which the project has stimulated replication or other "chain-reaction" results. And, finally, the understanding by the populace of what "low carbon" is and their awareness of its connection with an ecological approach to tourism is something that has been achieved and is expected to be a sustainable mindset change on into the future.

The TE team did find a few aspects of the project that may face sustainability challenges. Yet, in the case of the two most obvious of these aspects, it may not, after all, be appropriate to try and sustain the activities into the future. These two aspects are eco-certification of accommodations; and tourism sector GHG emissions inventory. In both cases, the sustainability issues are linked to project design rather than implementation. That is, the related activities were well implemented, but fundamental design issues make sustainability very challenging.

In the case of eco-certification, sustainability of subsidies for membership fees might continue, but there is likely to be a lack of technical personnel to encourage and support accommodations in their pursuit of eco-certification post-project. The state incentive program run by NTO and MSDT allocated state funds of €10,000 annually from 2018 to 2020 towards eco-certification membership fees. (*TCNTM* had provided funds for the required audits, whereas government sources provided funds for membership fees.) It is possible government funds for eco-certification membership fees may continue to be allocated beyond 2020. As for technical support post-project, *TCNTM* proposed several solutions to the

government, such as interns, the state trainee engagement program, and outside consultants, but none have been adopted.

As has been discussed, while eco-certification can be a strong positive for promoting low carbon and ecological tourism, its potential to be transformative for the accommodations sector and its potential to bring substantial GHG ERs to each accommodation that undergoes certification is low. The TE team through consultations, worked hard to see if there might be a viable avenue to sustain the *TCNTM*'s eco-certification work. In the end, no likely channel was found. Yet, the analysis suggests continuing eco-certification promotion may be less important than other potential measures, such as a large scale PV and SWH support program, in achieving transformative change in the accommodations sector.

As for the tourism sector GHG inventory work, it was found that the GOM has no plans to sustain this work. Yet, the decision seems reasonable given (a) the small share of tourism in Montenegro's total GHG emissions and (b) the need for a low carbon tourism strategy to encompass cross-sector initiatives, such as public transport. The inventory work also showed the importance of addressing international travel into Montenegro, despite the great challenge, given the high level of associated GHG emissions. A final area that lacks sustainability may be international outreach. The project provided some limited support to NTO to develop a TOR for website upgrade, in hopes that low carbon tourism aspects would be included, but the upgrade has still not happened. And, there was also no outreach to other international websites for inclusion of the theme of low carbon tourism in Montenegro. Thus, while *TCNTM* did achieve some international exposure via the international press (inclusion in a Polish film and in a German television program) it is not clear whether that can be sustained. On the other hand, MSDT and NTO reportedly are continuing to use the promotional video prepared by *TCNTM* at international tourist fairs they attend.

There are a number of areas where sustainability can be strengthened. Indeed, sustainability considerations lead to some of the key recommendations of this report. In this regard, continued TA support and continued strong GOM buy-in for Eco-Fund is needed. Such support could ensure the additional steps needed to launch Eco-Fund activities and ensure the Fund's strong capitalization in coming years are taken. The quality SUMP that the project prepared could benefit from further promotion and potentially its adoption by involved cities. The low carbon boat public transport, while off to a very positive start, could benefit from further support from GOM and UNDP to ensure challenges and needs (such as docking rights, subsidies for ticket prices for locals, stations, problem of other boats docking in the low carbon boats' docking positions) are addressed. Finally, while an incremental contribution has been made in the area of greening/ spatial planning by the Go Green Budva Initiative, much more work is needed to achieve sustainable results in addressing the problem of conversion of limited green spaces to building developments and the aim of achieving low carbon spatial planning more generally. Spatial planning and protection of green areas are a very challenging area, but merit further attention.

UNDP-GEF TE requirements call for the rating of sustainability in four areas, as well as overall. These ratings are included in the Executive Summary. All four areas and sustainability overall have been rated as "L," "likely." Explanation for our sustainability ratings are below.

Financial Sustainability: Because of the Eco-Fund and various cost-effective operating pilots, financial sustainability of *TCNTM* results is considered very likely. The Eco-Fund provides a means of continuing to financially stimulate low carbon projects in Montenegro after *TCNTM* ends. While capitalization for the Eco-Fund looks very promising, there are some risks. For example, given the COVID-19 pandemic crisis at present, tourism revenues and thus government tax revenues will suffer in the near-term. While these revenues may not be the same revenues targeted for Eco-Fund, a government fiscal revenue crisis may mean that revenues otherwise intended for Eco-Fund (i.e. environmental eco-charges and vehicle

registration eco-fees³⁶) are channeled elsewhere. Aside from the pandemic crisis, there is a general risk that the plans for capitalization of the Eco-Fund will be realized very slowly. Yet, given very strong support at the highest levels of government and various other evidence, such as inclusion of the eco-fee language in the new version of the *Law on Road Transport*, as well as expected revision of current legislation and preparation of new legislation, it seems promising that capitalization will be realized in a relatively timely fashion. For the low carbon boat public transport, the biggest financial risks (aside from the pandemic) may be associated with the risk of low ridership in the winter (non-tourist) season and high docking costs. These are issues that may be addressed by some of the measures discussed above.

Socio-political: Because of the success of policy work and the very strong success of awareness work, socio-political sustainability of the project is likely. As noted, *TCNTM* policy results will extend beyond the life of the project. Also significantly, *TCNTM* has engaged a range of government stakeholders in substantive discussions. The feedback from such government stakeholders is positive and suggests their mindset has been influenced by various work in areas such as e-mobility and Eco-Fund. In terms of the broader Montenegrin society, findings indicate awareness of *TCNTM* and its low carbon tourism theme is very high. Mindset change has been achieved and sustainability of awareness related activities, such as green festivals and green games, will ensure social sustainability of this progress.

Institutional framework and governance: *TCNTM* results have also resulted in likely sustainability in the institutional framework and governance areas. Most importantly, the Eco-Fund has been set up, with the managing director hired. An Eco-Fund Board, which is cross-ministerial, has also been set up. The guidance documents prepared for the Eco-Fund by *TCNTM* provide detailed procedures for its operation. It is critical that these procedures are fully adhered to so that the Eco-Fund achieves a high level of positive governance and develops a good reputation, which will in turn attract donor and other government funds to its efforts.

Environmental: As a CCM project that also includes greening work, *TCNTM* by its nature has carried out activities that are positive for environmental sustainability. Thus, environmental sustainability is very likely. At the same time, there is a need for more work post-project in spatial planning, to achieve low carbon cities and protect green areas.

10. Implementation

This section covers key topics related to implementation. These are: (i) management arrangements and institutional aspects (sub-section 10.1); (ii) adaptive management and implementation strategy (subsection 10.2); (iii) expenditures and co-financing (sub-section 10.3); and (together in subsection 10.4) (iv) monitoring and evaluation, (v) stakeholder engagement, (vi) communications, and (vii) gender. Overall, the TE team found implementation of *TCNTM* to be extremely strong. This was evidenced in that we found that the vast majority of *TCNTM* initiatives, no matter how large or small in expenditures, were done with great care and strategic thinking. At the same time, the level of engagement and enthusiasm of stakeholders for the project was very high. The approach to implementation adopted by UNDP CO and the *TCNTM* may offer some valuable lessons to other projects.

³⁶ The vehicle registration eco-fees are not yet established. They are indicated in the *Law on Road Transport*, but a by-law is still needed to indicate their specifics.

10.1 Management Arrangements/ Institutional

Sub-section 2.3 has provided background information on implementation mode, UNDP, project team, national government partners, the project steering committee, the pilot project selection committee, and involvement of an additional partner, the Chamber of Economy. This sub-section provides assessment of the effectiveness of these management arrangements and institutional aspects, based on findings of strengths and weakness of the project.

Findings indicate management arrangements and institutional aspects of implementation have contributed very positively to the success of *TCNTM*. Strengths of management arrangements and institutional aspects of the project include extensive involvement of the project team in direct implementation of activities, engagement of a full-time awareness officer as member of the project team, creating spin-offs from *TCNTM* of other UNDP projects and activities, and creating cross-ministerial and national-municipal engagement and discussions in key areas the project promotes. Each of these strengths is discussed, in turn, below:

Project team extensive involvement in direct implementation of activities: For some UNDP-GEF projects, the project team is involved mainly in project management, developing TORs and managing a series of contract relations. The TE team found that *TCTNM* adopted quite a different strategy and one that appears to be used more generally by UNDP Montenegro for its projects. In this model, full-time staff of the project directly implement many project activities in their area of expertise, rather than the vast majority of such work being handed by consultants. This is found to provide better continuity and long-term engagement than a string of consultancy assignments, which are sometimes seen with projects struggling to deliver impact. With the “string of consultancy assignments” approach, sometimes there is a challenge that the work done is not utilized. *TCTNM* also had a good number consultancy assignments, but it was found the extensive involvement of the project team directly in many project activities led to a more cohesive project where almost all activities were carried out with care and associated positive results.

Full-time awareness expert: In contrast with other UNDP projects in Montenegro, *TCNTM* had a full-time awareness specialist, seen to be critical in introducing the little known concept of “low carbon” into Montenegro. For similarly challenging missions (e.g. that have a new, unfamiliar or otherwise challenging message to deliver), the project’s success in awareness suggests other projects consider adopting this model as an alternative to short-term awareness consultancies. The *TCNTM* awareness specialist led implementation of a highly energized awareness strategy with many positive successes, most notable being the green festivals (10 festivals with 150,000 attendees per year), the five-year anti-idling campaign, and truly extensive (about 3,000) appearances and mention of the project in the media. In addition to leading various awareness initiatives, the *TCNTM* awareness specialist supported each of the other component managers strongly in promoting various activities under their purview. In this way, not only the general themes, but also the specific activities of the project were well promoted.

Spinoff of initiatives to other UNDP CO projects or other funding sources: Another positive institutional aspect of *TCNTM* is its spinoff of new projects and of activities to other projects from *TCNTM* initiatives. The impression is that *TCNTM* had so much it was doing that some positive initiatives that it did not have the resources/ bandwidth to support were either spun off to other projects or attracted other donor resources to support implementation under *TCNTM*. As mentioned, the UNDP-implemented GOM *Cultural Heritage* project will carry on the EuroVelo 8 work initiated by *TCNTM*. And, the UNDP-implement GOM-financed *Airports Project* has a strong link with the *TCTNM* project. UNDP CO’s *Green Jobs* project is similarly said to have been stimulated by *TCTNM*. Also importantly, the project team’s expertise has been integrated with funding from Slovakia to implement the five municipal LED

street lighting project feasibility studies that are likely to lead to very substantial GHG post-project direct ERs. This builds on pilot project LED street lighting initiatives in Zabljak and Savnik.

Bringing government partners from different institutions together for meetings and initiatives: Another very positive institutional strength of *TCNTM* is that it brought together government partners from different ministries and different levels of government (e.g. national and municipal). During consultations, government stakeholders told the TE team that one aspect of *TCNTM* that they especially appreciated was the opportunity to exchange with these colleagues from different ministries or different levels, something that virtually never happened before. This exchange is considered to have been especially fruitful in the case of the Eco-Fund Board and discussions of e-mobility for Montenegro.

10.2 Adaptive Management and Implementation Strategy

Implementation also shows good strengths in adaptive management and implementation strategy. The TE team found the project adapted well to the challenge of providing policy support to GOM. It also adapted well to the issue of tourism's small share in overall GHG emissions in Montenegro by expanding efforts to cross-cutting areas. It further adjusted its approach from the project design's focus mainly on coastal areas and municipalities/ NGOs to inclusion of the private sector. Finally, to ensure full use of studies conducted, *TCNTM*'s implementation strategy called for organizing stakeholder engagement throughout the milestones of these studies. Each of these aspects is reviewed briefly below.

Adaptive management to achieve policy “wins” – responsiveness to government “client”: The project faced significant challenge in that the policy targets as designed turned out not to be things that the relevant GOM ministries and departments wanted help with. *TCNTM* exhibited adaptive management by responding to the needs expressed. In this way, it was able to achieve the policy “win” of the *Industrial Emissions Law*, which the project drafted and which has now been officially adopted. It has led to the now in-process preparation of bylaws and an action plan. While a first impression might cause one to question whether the *Industrial Emissions Law* has anything to do with tourism and the aims of the project, deeper assessment, as we have discussed, shows that this law likely has more potential for a side-benefit of GHG emissions reductions than the laws that were initially targeted. And, a country that improves its air, soil, and water quality through such a law will also be a more attractive tourist destination. Findings indicate that it is not always the case that donor projects in Montenegro exhibit this kind of flexibility to support the government “client” needs. This approach results in *TCNTM* being highly appreciated by stakeholders. Overall, it was found that *TCNTM* achieved success by frequently consulting government stakeholders, carefully listening to their needs, and being responsive and adaptive to those needs. This careful listening and adaptiveness is considered a key factor in success of the project.

Adaptive management to broaden efforts to be more cross-sectoral: Another strength of the project's implementation is how it addressed the challenge of a CCM project design that focuses on a sector that accounts for just 3.9% of a small country's GHG emissions. This has been done by broadening work to cross-cutting areas, such as municipal LED street lighting, and broadening its tourism fund to an Eco-Fund, rather than restricting all activities to pure tourism sector initiatives. While the project design achieved some broadening via its emphasis on certain transport initiatives that are cross-sector, the *TCNTM* team has taken the approach further through adaptive management. The focus towards the end of the project on stimulating five LED street lighting projects, with very substantial expected GHG post-project direct ERs is a prime example of this adaptive management.

Adaptive management to expand pilot project opportunity to private sector and broader geographic representation: Feedback from stakeholders indicate one special strength of *TCNTM* is engagement of the private sector. This reflects an important *TCNTM* adaptation in broadening its scope from a focus on

municipalities in coastal areas to all municipalities and the private sector. *TCNTM* was able to engage the private sector via cooperation with the Chamber of Economy. (UNDP policy does not allow it to distribute grants directly to the private sector.) Private sector cooperation greatly strengthened the impact of the project as well as results. As a key example, Bella Boka, the low carbon public boat company, is a part of the private sector and probably represents the most important pilot project in the group of 31 such projects. The expansion of geographic scope is also notable. On the one hand, the project designers had a strategic reason for their requirement that the vast majority of pilot project funds (80% or more) be used for pilots in coastal areas. The coastal areas have a much greater amount of tourism and thus a much greater amount of GHG emissions to be mitigated. Yet, broadening the geographic scope to a better national mix via adaptive management has good justification. First, as noted, being strategic to generate substantial GHG ERs benefits greatly from expanding to more cross-sectoral areas and being more cross-sectoral allows more GHG ER potential in non-coastal areas. Second, to be a transformative project, *TCNTM* wants to look not only where tourism is at the moment, but to the future potential. The theme of low carbon tourism fits well with the theme of more ecological tourism and eco-tourism, for which opportunities may be greatest in the non-coastal areas.

Implementation strategy that ensures high-level of stakeholder engagement throughout the cycle of consultancy assignments: When the project did have outsourced reports or studies, the *TCNTM* team ensured these were not to be just studies on the shelf by adopting a highly interactive stakeholder engagement strategy. For each major study (such as the Eco-Fund study or the e-mobility study), *TCNTM* gathered stakeholders at the start of the assignment to discuss its direction and brought them back together when drafts were prepared to provide feedback.

Design challenge vis-à-vis eco-certification of accommodations: With the great benefit of hindsight, the TE team sees that the eco-certification of accommodations was not the most effective design option for promoting the kind of transformative change in the accommodations sector that could lead to extensive GHG ERs. Ideally, this may have been an area in which adaptive management could have been applied. Yet, the project design was so clearly focused on eco-certification that realization of adaptive management to the extent of dropping the eco-certification in favor of an entirely different approach to reducing GHG ERs in the accommodations sector would have been quite difficult. Were it to have been realized early on that eco-certification could not provide the transformative benefits and GHG ERs targeted, it might have been better to spend the Outcome 1 efforts of the team in promoting installation of PV and SWH systems at accommodations, perhaps assisting so that a “good deal” on quality systems (e.g. via bulk purchase) were obtained or developing a special program at IDF for these. This would have been TA support, rather than investment support. While a good number of SWHs and PV systems were installed in accommodations via the pilot project, focusing Outcome 1 TA work on promoting more widespread adoption could have resulted in the sort of more transformative change targeted.

10.3 Finance: Expenditure Analysis and Co-financing

This section provides information and analysis on expenditures, cost-effectiveness, and co-financing. It begins with a look at spending of GEF funds overall by component and year, using data from UNDP’s reporting to the GEF. It then moves into the area of analysis of spending by major activities, which offers insights into cost effectiveness of spending. Last, it provides information on project co-financing.

Overall expenditures of GEF funds by outcome and by year: Exhibit 20 shows realized expenditures of GEF funds by outcome (and project management) and by year. The overall trend in annual spending is that full years of implementation tend to have annual expenditures from USD 400,000 to 500,000. The exception is 2017, which was a standout year, with over USD 1 million in expenditures, presumably due

to a ramp-up in pilot projects that year. By the end of 2019, all outcomes had reached over 90% of their targeted expenditures of GEF funds.

Exhibit 20. Expenditures of GEF Funds by Outcome 2014-2019

Outcome	2014	2015	2016	2017	2018	2019	Total	Target (CER)	% Target
1. Policy/Accommodation	10,089	83,942	110,579	144,917	62,208	68,636	480,372	528,000	91.0%
2. Transport	5,526	166,510	116,382	69,247	64,233	32,072	453,970	470,000	96.6%
3. Pilot/Eco-fund	2,322	52,636	92,174	710,622	191,956	195,033	1,244,741	1,300,000	95.7%
4. Awareness/GHG Inv.	0	144,217	110,853	133,656	113,530	83,789	586,045	645,000	90.9%
Project Management	10,722	29,692	29,058	26,776	25,316	18,932	140,496	147,000	95.6%
Total	28,660	476,997	459,046	1,085,217	457,243	398,461	2,905,624	3,090,000	94.0%
Remaining Funds for 2020: USD 184,376 (note: project close May 4, 2020)									

Source: UNDP reporting to GEF on expenditures.

Expenditure analysis by major expenditure area in each outcome: Exhibits 21, 22, 23, 24, and 25 show major expenditures for each of the four outcomes and project management, respectively. These tables were made using both the lists of company contracts and individual contracts requested from the project team as well as their accounting of expenditures by functional area as shared with the GEF. The approach below is meant to give a rough, high-level overview of how funds were spent rather than achieving a perfect accounting of expenditures. In this regard, there may be some differences of how we have categorized expenditures. In particular, we have placed the SUMP under Outcome 2, the transport outcome, as that is where the ProDoc puts it. Yet, differences with the accounting supplied to the GEF implies that, for accounting purposes, this item (which might also be conceptually considered supportive of Outcome 1’s spatial planning target) is included under Outcome 1.

Overall, the exercise of reviewing contracts, preparing these tables, and reviewing them suggests that expenditures for the most part match level of effort and level of results, so that the project is deemed cost effective in its use of funds. Indeed, considering overall spending of USD3.09 M, the project has achieved quite a lot and set sustainable initiatives in action that will leverage these funds well. Below, we review the outcome activity-wise expenditure tables one by one, offering comments on cost-effectiveness by various sub-totals, contract areas, or individual contracts. A general finding across outcomes is that the cross-cutting aspect of expenses, which includes project team salaries, as well as things like travel and office rental at times, is relatively high. This reflects the strategy discussed earlier of having the project team deeply involved in implementation, which, as noted earlier, is considered a good strategy. It is also considered a good use of funds, given overall results.

The cross-cutting expenses also include those for the CTA in 2015 and 2016. Based on the Project Manager’s evaluation, it was decided to cancel the long-term agreement with the CTA, due to the diversity of project areas to be covered and the challenge of any one person having the right expertise to comprehensively address these areas. The alternate strategy adopted was to utilize to the greatest extent possible the expertise of the project team and to engage technical experts for specific areas when needed (e.g. engineers for the definition of criteria for public calls for pilot projects, for energy audits of tourism accommodations, and street lighting feasibility studies, etc.). This resulted in significant cost reduction for the core team and increased effectiveness of resource utilization.

For Outcome 1 (Exhibit 21), the reader may wish to review the sub-totals shown to get a high-level view. The sub-totals for the policy, accommodation eco-certification and energy audit work, and preservation of green areas work each seem well within the cost effectiveness range (USD 44k, 29k, and 13k, respectively). The cross-cutting sub-total at USD 256k seems quite high, but when the project strategy is considered and all that Outcome 1 achieved, the value seems acceptable. Ideally, though, as much of this effort was focused on eco-certification, adaptive management may have been applied to shift efforts with

accommodations in a direction that would have delivered more GHG ERs and a more transformative impact on the accommodations sector. This would have been very challenging, but had it been successful could have achieved a higher level of cost effectiveness and better use of the team’s time.

Exhibit 21. Outcome 1 GEF Expenditures: Policy and Accommodations

Expenditure Item	USD
Legal Advisor (2015 - 2017)	16,950
3 national experts for transposition/ drafting of Industrial Emissions Directive (IED) (2017-2018)	27,438
<i>Policy Sub-Total</i>	44,388
International Consultant on Tourism Sector Eco-Certification (2015)	15,707
EU Eco-Labor Auditor (2015-2019)	7,458
Local Expert for Energy Audits of Accommodations to Develop Retrofit Projects (2017)	6,147
<i>Accommodations: Eco-Certification and Energy Audits Sub-Total</i>	29,312
Place-making workshops	13,391
<i>Spatial Planning Sub-Total</i>	13,391
Project Team working on relevant activities	206,318
International CTA (2015-2016)	12,424
Travel	23,338
Workshops	2,469
Office rental	7,718
Equipment	4,496
<i>Cross-Cutting Support for Outcome 1 Sub-Total</i>	256,763
Grand Total of Outcome 1 Expenditures	343,854
<i>Outcome 1 Total as in Reporting to GEF (for comparison)</i>	<i>480,371</i>

Sources: Project team-provided listing of individual and company contracts. Project reporting of expenditures to the GEF. TE team analysis.

Review of Outcome 2 expenditures (Exhibit 22) shows that key individual contract items delivered cost effectiveness, though some others did not. In a sense, though, it is normal to have wins and losses in terms of the impacts of activities; and the majority of contracts under this outcome appear to be wins. The SUMP at USD 98k, was a relatively high-cost item, but is considered a quality document. It will be important to try and ensure it is adopted in full as an action plan by the participating cities and/or gets some national level adoption, so that more of the recommendations will, in turn, be adopted. The EuroVelo 8 feasibility study at USD 43k, the e-mobility study at USD 50k, and the 12 EV charging stations at USD 47 k are all considered to be impactful. The things that are either not being used or that we did not hear much positive feedback about include Cetinje bus station reconstruction (USD 52k – did not hear anything positive about it), study for using RE with cable car (USD 14.7 k – not used), survey on low cost carriers (USD 16.8k – seems an interesting initiative, but did not hear of any real impact). The solar benches at USD 42k are an awareness raising too, but likely do not deliver much in terms of GHG ERs. (Solar power is mainly to be used for the charging of mobile phones.) Cross-cutting expenses are USD 213k. Given the strong results of the transport outcome, as reviewed in detail in Exhibit 13, this seems cost effective.

Outcome 3 expenditures (Exhibit 23) also seem cost effective. Looking at the sub-total of USD 1 M, the 31 pilot projects with their impressive range of activity and impacts, seem cost effective. As noted, GHG ERs generated by the pilots were less than targeted, so future initiatives with a low carbon mandate should consider how to maximize GHG ERs along with other criteria (such as need and innovativeness). Yet, in this case, awareness generated by the pilots is also considered very strong; and the gap in GHG ERs is more than made up for by the initiatives that are very likely to be realized post-project. The sub-total for Eco-Fund of USD 93k seems cost effective as well, given the great importance of the 2017 contract (USD 79k) in supporting this critical achievement. The value of the carbon offset work and whether this should have been part of the design might be debated, but the amount spent is not very high.

Cross-cutting expenses, which are assumed to have mainly supported Eco-Fund and pilot project work, at USD 130,000 seem cost effective given the great importance and substantial impact of this work.

Exhibit 22. Outcome 2 GEF Expenditures. Transport

Expenditure Item	USD
Reconstruction/ equipping of the bus station Cetinje – company contract (2015)	52,286
Study on Possibilities for Using RE to Power Kotor-Cetinje Cable Car – company contract (2015)	14,690
Development of SUMP for Boka Bay and Cetinje – company contract (2015 and 2016)	98,310
Survey on impacts of Low Cost Carriers presence in Montenegro – company contract (2016)	16,837
Feasibility study for EUROVELO 8 bike route through Montenegro – company contract (2017-2018)	42,940
E-mobility feasibility study – company contract (2019)	49,614
12 EV charging stations in 7 cities (2019 by telecom co through Chamber of Economy)	47,374
Smart solar benches – company contract (2016)	42,262
Specific Items Outcome 2 Sub-Total	364,313
Project team members working	127,942
International CTA (2015-2016)	14,884
Workshops	8,183
Travel	17,719
Rental	5,238
Other equipment: Cetinje bus station-add’l support, Tivat bike racks ³⁷ , 6 solar trees ³⁸ , office equipm’t	39,413
Cross-Cutting Support for Outcome 2 Sub-Total	213,379
Grand Total of Outcome 2 Expenditures	577,692
<i>Outcome 2 Total as in Reporting to GEF (for comparison)</i>	<i>453,970</i>

Sources: Project team-provided listing of individual and company contracts. Project reporting of expenditures to the GEF. TE team analysis.

Exhibit 23. Outcome 3 GEF Expenditures. Pilot Project and Eco-Fund

Expenditure Item	USD
Int’l Tech Expert for selection process and monitoring of pilot investments in tourism (2016, 2018)	16,394
Local Consultant – Expert for supervision of supported projects under the GEF funded project (2017)	5,085
Pilot projects: grant funding of up of 25% per pilot project	986,976
Chamber of Economy Fee for carrying out 2 nd and 3 rd call for proposals	14,279
Pilot Projects Sub-Total	1,022,734
International Consultant on Establishing a National Tourism Climate Fund (2015)	13,458
Program for establishment of the Eco Fund in Montenegro – company contract (2017)	79,089
Eco-Fund Sub-Total	92,547
International Consultant on Carbon Offset Scheme (2015)	12,102
On-line carbon footprint calculator – software development (2016)	7,345
Carbon Offset Scheme Sub-Total	19,447
Project Team	102,054
International CTA (2015)	2,099
Travel	17,045
Workshops	4,126
Equipment	4,647
Cross-Cutting Outcome 3 Sub-Total	129,971
Outcome 3 Grand Total on Expenditures	1,264,699
<i>Outcome 3 Total as in Reporting to GEF (for comparison)</i>	<i>1,244,741</i>

Sources: Project team-provided listing of individual and company contracts. Project reporting of expenditures to the GEF. TE team analysis.

³⁷ USD9,605 for Tivat bike racks.

³⁸ “Solar trees” and solar battery charger provided to six hotels as promotional tool (presumably including lights to light up the trees at night).

As for Outcome 4 (Exhibit 24), in reviewing the sub-totals of specific expenses, it is seen that these are USD 217 k for awareness and USD 90 k for tourism sector GHG inventory work. The awareness subtotal seems cost effective, given the magnitude of work and its success. Within that sub-total, however, the aggregate expenditure of USD 56k on the three surveys may not have delivered much benefit, perhaps largely a project design issue. And, while not very high, the technical work for the NTO web portal design and development (USD 9,391) has not been used and was explained to be only TOR preparation for a larger assignment for web portal updating that has not yet occurred due to NTO's lack of funds. At the same time, adaptive management might have been used to move away from the surveys towards a more effective means of measuring the impact of awareness work. The tourism sector GHG inventory work was well done, though given that this will not be an ongoing exercise, it's not clear the level of effort (USD 90 k) is fully justified. On the other hand, the use of the information from the years for which the inventory was computed is considered of value. The cross-cutting expenses of USD217k also seem cost effective given the strong awareness results achieved.

Exhibit 24. Outcome 4 GEF Expenditures. Awareness and GHG Inventory

Expenditure Item	USD
International Social Media and Advocacy Consultant (2015)	4,023
Technical Expert for Web Portal of NTO design and development (2018)	9,391
Survey #1 on low-carbon tourism in Montenegro – company contract (2015)	20,091
Survey #2 on low-carbon tourism in Montenegro – company contract (2017)	19,120
Survey #3 on low-carbon tourism in Montenegro – company contract (2019)	16,950
Promotional videos – company contract (2015)	12,419
Gender sensitive media promotion of climate change/ sustainable development – co. contract (2017)	3,390
Lake Fest support (green music festival) (2018-2019)	8,520
Green Sports Games support (2018-2019)	11,159
Postage stamps	5,368
Promotional bags	4,407
Graphics, banners, videos	5,085
Other printing and publication costs (wide range, including films)	97,519
Awareness Raising Sub-Total	217,442
GHG Emissions Accounting from Tourism Sector in MNE – int'l company contracts(2015-2017)	61,449
GHG Emissions Accounting from Tourism Sector – national co. contract, included training (2016)	9,605
Verification of GHG Calculation Methodology for Tourism Sector – company contract (2016)	18,871
Climate Inventory Sub-Total	89,925
Project Team	172,798
International CTA (2015)	2,165
Travel	20,992
Workshops	7,473
Rental	7,438
Equipment	5,987
Cross-Cutting Sub-Total	216,853
Outcome 4 Grant Total on Expenditures	524,220
<i>Outcome 4 Total as in Reporting to GEF (for Comparison)</i>	<i>586,045</i>

Sources: Project team-provided listing of individual and company contracts. Project reporting of expenditures to the GEF. TE team analysis.

Project management expenditures (Exhibit 25) are quite limited, kept to less than 5% of GEF fund expenditures. They seem quite a good value.

Exhibit 25. Project Management

Expenditure Item	USD
Project Team	81,958
DPC – General Overhead Expenses (GOE)	30,854
DPC – Staff	25,210
Communications	2,397
Project Management Total on Expenditures	140,419
<i>Project Management Total as in Reporting to GEF (for Comparison)</i>	<i>140,496</i>

Co-financing: Exhibit 26 shows *TCNTM* Co-Financing, comparing co-financing committed at the time of

Exhibit 26. *TCNTM* Co-Financing (USD)
(including funds directly mobilized post-project)

Co-financer	Cash Grant or Investment		In-Kind		Total	
	Planned	Actual	Planned	Actual	Planned	Actual
During Project	---	---	---	---	---	---
UNDP	1,657,500	114,858	---	---	1,657,500	114,858
Private Sector - pilot projects	---	7,218,072‡	---	---	---	7,218,072
Private Sector – energy audit follow up	---	26,000	---	---	---	26,000
Tivat Municipality	24,623,803	11,551‡	---	---	24,623,803	11,551
Kotor Municipality	27,359,781	0.0	---	---	27,359,781	0.0
Cetinje Municipality	64,295,486	74,955*	---	---	64,295,486	74,955
Other Local Government (pilot projects)	---	3,958,188	---	---	---	3,958,188
Other Local Government (other activities)	---	34,089†	---	---	---	34,089
<i>Local Government Sub-sub-total</i>		<i>4,078,783</i>	---	---	<i>116,279,070</i>	<i>4,078,783</i>
Ministry of SD and Tourism (MSDT)	1,500,000	NA	150,000	NA	1,650,000	0.0
National Tourism Organization	---	11,300	1.5 M	NA	1,500,000	11,300
National Government – Eco-Fund	---	18,833	---	---	---	18,833
Government of Italy	820,793	0.0	---	---	820,793	0.0
Government of Slovakia‡	--	111,644	---	---	---	111,644
During Project Sub-Total	120,257,362	11,579,490	1.65 M		121,907,362	11,579,490
After Project	---	---	---	---	---	---
Cetinje LED Street Lights	---	1,373,444	---	---	---	1,373,444
Other Local Governments, LED Street Lights	---	8,649,348	---	---	---	8,649,348
Boka Bay Low Carbon Boats (Additional)	---	1,897,270	---	---	---	1,897,270
Nat'l Gov't – Eco-Fund: May 2020 – 2024**	---	13,060,917	---	---	---	13,060,917
After Project Sub-Total	0.0	24,980,979	0.0		0.0	24,980,979
Grand Total	120,257,362	36,560,469	1.65 M		121,907,362	36,560,469

Note: Exchange rate of 1:1.37 USD:Euro was used for “planned”. For realized, 1:1.13 USD:Euro used.

‡Private sector amount for pilot projects is €6,387,674. Municipal amount for pilot projects, not including Cetinje and Tivat is €3,502,821.

‡Includes co-financing amounts for Tivat for three different pilot projects, with total co-financing of €10,222

*Cetinje pilot project of two tourist e-trams and electric bicycles co-financing of €66,332 assumed to include Cetinje co-financing channeled through UNDP accounts of USD 58,280.

†Recorded as co-financing from Budva and Bar that was spent via UNDP accounts. Budva funds are indicated to have been spent for Go Green Budva Campaign. Bar funds are indicated to be mostly for LED lights of sports center.

‡For LED streetlight feasibility studies for 5 cities, and associated costs.

**Using conservative projection of national funds for Eco-Fund. €33,333 for May – Dec., 2020, €120,000 in 2021, €1,365,000 in 2022, €1,610,000 in 2023, and €8,430,000 in 2024. These projections are considered conservative as all funds are projected to be eco-charges associated with the *Law on Waste Management*. Assuming successful capitalization from eco-charges associated with vehicle registration, an additional €3-4 million per year could be achieved. Eco-Fund capitalization from national government beyond 2025 is not counted as mobilized by *TCNTM* in this conservative case, given the possibility that without the project, the Government may have established the Eco-Fund and moved forward with capitalization efforts with about 5 years delay from when it was established with support of project.

project design (indicated in the table as “planned”) to that realized by the end of 2019 (indicated in the table as “actual”). The most obvious gap between committed and realized co-financing is the very large amounts committed by the municipalities of Cetinje (USD 64 M), Kotor (USD 27 M), and Tivat (USD 25 M), only a tiny fraction of which was realized. Findings about the Cetinje amount indicate the co-financing commitment was not based on existing or confirmed funds, but instead based on hoped for investment in the cable car, which never materialized. The situation with the other two municipalities is likely similar. Thus, given the nature of these major co-financing commitments, it can be seen that the project has actually done quite well in mobilizing co-financing. In Section 4, we provide information on funds mobilized for investments directly in pilot projects or other installations that have GHG ER achievements and were stimulated directly by the project. The co-financing included here is somewhat broader, in some cases including complete renovation costs or new build costs of some hotels and UNDP co-financing for costs such as office space. The exhibit also includes two subtotal rows, one for co-financing achieved by EOP and one for financing expected with strong confidence to be mobilized post-project. While the latter is, strictly speaking, not usually called “co-financing,” we include it here so that the sum of the co-financing by EOP and funds mobilized post project as a direct result of project activities can be assessed. The total co-financing achieved by EOP is USD 11.58 M or about 3.7 times GEF funding of USD 3.09 M. The post-project funds expected to be mobilized directly by project activities are USD 24.98 M. Thus, the total of co-financing by EOP and these directly mobilized post-project funds, is USD 36.56 or 11.8 times GEF funding. We believe this well-illustrates the strength of the project in engaging and stimulating the wider environment in which it has operated.

10.4 Other Implementation: M&E, Stakeholder Engagement, Communications, and Gender

Monitoring and evaluation: Monitoring and evaluation work has been carried out in a timely fashion and relatively completely. The TE team found the PIRs, in particular, useful for understanding the extent of work that *TCNTM* has done and also how the project team sees the various targets to have been met. One area for improvement in future projects may be to have a more concerted effort to revise the PRF (indicators table) at some point. A recommendation was made in the MTR to revise the target of eco-certified accommodations downwards. A downward revision to 30 eco-certified accommodations was proposed by the project, but this was never documented by a formal revision of the indicators table used in the PIRs. Additionally, per the discussion in Section 3 on project design, a number of other indicators could have been improved upon. For example, the transport outcome indicator targets are too specific. (For example, the target of “the new Kotor-Cetinje cable car developed and operated as a carbon free transport corridor or with offsetting actions” does not offer any alternative to the cable car for achievement.) Sometimes, project executors are not aware that UNDP-GEF guidelines allow for revision of outcome indicators (but not objective indicators). A serious revision of *TCNTM*'s outcome-level indicators based on adaptive management could have allowed the project to strategize more deeply about its direction and revise the indicators to guide it in that direction accordingly. Instead, the project was stuck with some weak indicators that were not that useful to it in providing strategic direction.

There are also some weaknesses in how the indicators and targets were adjusted from what was in the ProDoc to what was used either in the *Inception Workshop Report* or later in the PIRs. For example, the PRF has two distinct GHG related targets. One is for annual GHG emissions from the entire tourism sector. The original target was 70 to 100 kt per year, which is also the baseline in the Prodoc. (The target was that annual emissions from the sector would remain at the level of the baseline.) In the inception report, both the baseline and the target are revised to 77 kt per year. This creates a lot of confusion with the next indicator and its target of 77 kt, which are supposed to be the lifetime GHG emission reductions

achieved by the pilot projects. This second indicator is comprised of emission reductions for a period of 10 to 20 years, whatever the lifetime of the installed equipment. Changing the first indicator of annual tourism sector emissions to 77 kt per year may have been a matter of not really carefully taking the time to understand the difference between these two indicators.

Stakeholder engagement: As has been indicated in other parts of this report, stakeholder engagement of *TCNTM* has been very strong. At the level of the national government, stakeholders were actively engaged in major policy, institutional, and strategy initiatives, such as Eco-Fund establishment and e-mobility market potential assessment. A good number of municipalities were engaged through pilot projects. And, the private sector was also actively engaged through pilot projects. Extensive awareness work, especially activities such as green festivals and the anti-idling campaign, as well as *TCTNM*'s many media appearances and European Mobility Week activities, successfully engaged the broader populace of Montenegro.

Communications: Communications with the public is extremely strong, as evidenced through the awareness work described in Section 8. Findings indicate that project awareness work was especially effective in reaching the populace of Montenegro. Domestically, ten 30-minute television shows related to this topic were broadcast on TV in Montenegro. And, as noted, there were about 3,000 media appearances and mentions in the press, nationally. In addition, there were a number of initiatives that had strong international reach. The project prepared a promotional video on low carbon tourism in Montenegro (“Montenegro for the Greener World”) that has been extensively used by NTO and MSDT at over 20 international tourism fairs. Strong project visibility at music and film festivals in Montenegro that bring over 150,000 international festival goers to the country annually is another important aspect of international promotion, as is the fact that 200 international journalists covered the Games of Small States that the project helped to become “green games.” In terms of online presence to reach international audiences, the project got strong exposure through the social media channels and websites of their festival partners, including those that are truly international festivals, such as Sea Dance Festival and Southern Soul Festival. Further, not prepared by the *TCNTM* but stimulated by it, (a) a Polish film on tourism in Montenegro and including *TCNTM* activities and (b) a German television show (viewed by 3 million persons in Germany and Austria) similarly including some content on *TCNTM* are results that enhanced communications internationally. In these ways, the project covered a wide range of international audiences, as well as achieving extremely comprehensive coverage within Montenegro’s own populace.

One challenge with regard to communications may be a lack of progress in getting NTO’s website to extensively feature *TCNTM*'s low carbon tourism theme, a recommendation of the MTR. The problem is that NTO had been planning to upgrade its website, which is actually a complex web portal, and expected to add low-carbon tourism aspects when the upgrade was achieved. *TCNTM* spent USD9,000 on preparing a TOR for the web portal upgrade. Yet, the new NTO web portal targeted is anticipated to cost €100,000 or more and expected funds did not materialize. The reason for the high cost is that the NTO web portal is not just an interactive ecommerce website, but a much more complex and comprehensive platform that relies on an extensive database containing comprehensive data on the entire tourism offer of the country (accommodations, travel agencies, events, and other kinds of tourism related services) linked to the Central Business Register and Tax Administration. The portal is designed not to be used just by visitors but also the tourism industry. NTO had expected donor funding to upgrade the web portal, but the expected funding source fell through. In retrospect, *TCNTM*'s funds might have been used to incorporate low carbon tourism promotion into the existing portal, but, with the expectation of a new web portal to come online during the life of *TCNTM*, it was of course more strategic to target the new portal.

Gender: Consultations did not emphasize any gender specific work of the project. Expenditures show that there was a small contract (of USD 3,390) with a company for “gender sensitive media promotion of climate change/ sustainable development.” In general, women were well-represented among involved

stakeholders at the national and municipal levels as well as among private sector partners, so that greater investment in gender efforts was probably not necessary.

11. Conclusions, Lessons, and Recommendations

11-1. Conclusions and Lessons

TCNTM has been an impactful and well-implemented project, comprehensively addressing the wide range of initiatives included in its design. In practice, the project has worked to reduce GHG emissions in tourism-specific areas, such as accommodations and tourism-specific transport. Yet, it also emphasizes reducing emissions in areas that benefit tourism, but are much broader in scope, such as public transport and municipal street lighting. Indeed, some of the most impressive results are seen in these “cross-cutting” areas that build on “low-carbon tourism” as an attractive and motivating theme. More specific conclusions with lessons incorporated where relevant are given below organized into six sub-topics: “project overall,” each of the four outcomes, and implementation. Conclusions include both project achievements and challenges. Lessons are preceded by the word “lesson” in italics.

Project Overall – Top Achievements and Issues

- *TCNTM*’s most impressive achievements are below. (Highlights of key achievements for each of *TCNTM*’s outcomes, with more detail, are summarized later in this sub-section.)
 - Establishment of Montenegro’s Eco-Fund
 - Implementation of a broad and interesting range of 31 low-carbon pilot projects with a similarly broad range of municipal and private sector stakeholders
 - Cooperation with a company that has instituted public transport in Boka Bay via low carbon boats (one of the pilot projects)
 - Stimulation of e-mobility in Montenegro
 - Awareness raising with extremely wide reach and effectiveness in the country so that most now understand “low-carbon” and its association with tourism
- *TCNTM* does well in GHG lifetime direct ERs when lifetime direct GHG ERs for installations during the project (23.8 kt CO₂) and those expected with high certainty post-project (and also due directly to project activities, 98 kt) are considered. The total of 121.8 kt surpasses the target of 77 kt by 58%.
 - Among top contributors in both the “by EOP” and “post-project” groups are municipal street lighting projects and Bella Boka’s low-carbon public transport boats. This reflects the importance of cross-cutting areas to efforts, while building on motivation from “low carbon tourism” theme.
- *TCNTM* also does well in mobilizing non-GEF investment in “low carbon” projects (both tourism and cross-cutting):
 - €3.98 M³⁹ mobilized during project (mostly for “pilot projects”) and €10.55 M expected with high certainty post-project (more Bella Boka low-carbon boats and 5 municipal street lighting projects) due directly to *TCNTM* activities, bringing total to €14.53 M, 4.7 times GEF funds.
 - Broader co-financing (including the above and also some funds not necessary mobilized by project but integrated with project activities) during project is €10.25 M. Broader amount projected to be stimulated post-project (including above, but also first 5 years of Eco-Fund financing) is €22.11 M. Total is €32.35 M, 10.5 times GEF funds.
- Main overall concern: Many of pilot project achieved by EOP have very low GHG ER benefits. This stems from multiple factors as below. Team finds that *TCNTM* did the right thing at the time, as great

³⁹ Total co-financing estimates are substantially higher. This conservative estimate focuses on those funds mobilized specifically for low carbon measures and does not include total investments beyond those measures, such as building of a new hotel or complete refurbishment of an existing hotel.

awareness was created by the pilot projects. Yet, now that a strong basis is set, future projects may need to build on learnings and be more strategic in targeting quantitative environmental results.

- While tourism sector makes up over 20% of Montenegro's GDP, its GHG emissions make up only 3.9% of total GHG emissions.⁴⁰
 - *Lesson:* For a country with population of only 630,000, a major GEF CCM project may best clarify targeting of a broader scope, accounting for larger share of nation's GHG emissions.
- The nature of tourism is such that "pure tourism plays" often have low GHG ERs. E.g., a vehicle used for public transport to replace cars and driven all day throughout city (e.g. 200+ km/ day) will provide strong GHG ERs for amount invested. Yet, such a vehicle used for tourism might only be driven 10s of km per day on a short route. The awareness benefit is strong, but GHG ERs are not.
 - *Lesson:* In designing pilot projects consider strategies/ adjustments to maximize GHG ERs.
- Projects of scale that require strong GHG ERs may require one or two years of preparation and preparation funds, such as for feasibility studies and technical design.
 - *Lesson:* For funds or projects that target GHG ERs via a portfolio of initiatives, setting aside a portion of funds for feasibility studies and technical designs may be away to increase scale and cost effectiveness of fund use.
- Projects of scale many require cooperation between municipalities in Montenegro. Given the lack of institutions for regional development, this is very difficult to achieve.
 - *Lesson:* For funds or projects that target initiatives of scale, measures to go beyond the municipal level to the regional or multi-city level may be needed.

Outcome 1 – Policy, Accommodations, and Spatial Plans

- Outcome 1's main achievements include:
 - Eco-certification of 31 accommodations in Montenegro, making information and experience with eco-certification much more available than at baseline, when there were just 4 such certifications.
 - Energy audits of 12 accommodations, providing information that might inform an accommodations strategy going forward.
 - Preparation and adoption of Montenegro's *Industrial Emissions Law*, which is required for EU accession. This work was very successful, with only one minor comment from the EU review in Brussels. The Law has potential to stimulate strong GHG ERs in the industrial sector.
 - *TCNTM* achievements presented in multiple sections of the *EE Action Plan of Montenegro 2019-2021*, adopted in June 2019.
 - For first time, inclusion in *Law on Road Transport* (2020 update), of "eco-fees" associated with vehicle registration and tolls. This is attributed to *TCNTM* influence and raises possibility of an additional ≈ €4 M per year in funding for the Eco-Fund.
 - An innovative participatory experience with the public on use of a park in Budva. This is an important incremental step in the face of Budva's limited remaining green spaces being lost to development under current spatial planning practices.
- Main concerns with regard to accommodations: Focus on eco-certification did not achieve strong EE and GHG ER results and probably does not have potential for transformative impact on sector. Also, demand in accommodation sector for traditional EE may be low.
 - Eco-certifications did not typically lead to strong improvements in EE or GHG ERs.
 - While design targeted 33% of hotels and 100 apartments, international comparison shows that such a large share is unrealistic.
 - *Lesson:* Eco-certification is unlikely to bring sector-wide change. Its main benefit is awareness rather than EE.
 - Energy audits show seasonality and up-to-date equipment mean that classic EE retrofits may not be cost effective for accommodations. PV systems and SWHs may be more attractive.

⁴⁰ This is 2014 proportion, but current proportion expected to be similar.

- *Lesson:* A different approach is needed to achieve wide-scale low carbon results in accommodations sector. One such approach may be support for PV system and SWH installation.
- Challenge of spatial plans: *TCNTM* aimed to develop spatial plans, but this area is very sensitive in Montenegro, where urban planning is now controlled at national level. Project could not find a way to get directly involved in spatial planning. In some places, particularly Budva, public green spaces are being lost at a rapid rate to developments. Thus, there is an urgent need to address the situation.
- Policies in project design versus policies achieved: Design called for project to influence some specific policies, particularly as relates to tourism.⁴¹ Yet, these were not necessarily the policies in which the GOM desired help and not necessarily the policies that could have the greatest impact in terms of CCM. A focus on transport policies may have been more impactful. And, work on industrial emissions, which the project ended up pursuing, similarly will probably have a higher impact.
 - *Lesson:* Project design, instead of specifying policies, may wish to emphasize the desired impact of policies pursued. Listening carefully to the needs of the “client,” the government, as *TCNTM* did, is important in pursuing policy achievements.

Outcome 2 – Transport– Results

- Outcome 2’s achievements span across transport planning, non-motorized transport, and motorized transport (both public and private). It includes both road vehicles and boats. Achievements are:
 - Preparation of Montenegro’s first SUMP, a “polycentric SUMP” for 4 cities: Kotor, Tivat, HN, and Cetinje. Some SUMP recommendations have been implemented as *TCNTM* pilot projects.
 - Strong hiking and biking results:
 - As part of SUMP, origination of idea to develop Montenegrin portion of EuroVelo 8, one of several biking routes crisscrossing Europe. *TCNTM* supported feasibility study. GOM now supporting development of an initial 7.5 km of Montenegrin portion of EuroVelo 8 via *Cultural Heritage* project implemented by UNDP. Tivat has already developed 4 km of signage for it.
 - 80.6 km of hiking and bike trails developed or improved with *TCNTM* pilot projects, including (i) 1 of 5 planned bike routes on existing sidewalk and roads in Podgorica (12.5 km); (ii) signage on 60 km of hiking and biking trails in Nature Park Piva; (iii) renovation of 600 m walking path to/ around historical site in HN; (iv) signage for hiking/ biking trails on Lustica Peninsula (7.5 km).
 - Impacts in e-mobility area:
 - Montenegro’s first e-mobility study and its promotion, contributing to nascent e-mobility initiatives, such as a MTMA and electricity distribution company interest in acquiring EVs
 - Charging infrastructure: *TCNTM* has installed 12 two-port EV charging stations across 7 cities, more than doubling the number in Montenegro and achieving agreement from partners to provide charging for free the first year on a promotional basis.
 - Awareness-raising e-vehicles: *TCNTM* pilot projects of tourism e-trams that provide tours of Cetinje and open-air e-bus that takes tourists from Zabljak to a nearby resort area.
 - Five-year anti-idling campaign at border crossing and schools that gets people to turn off their ignition while waiting. Signs are still in place.
 - National park public transport: High visibility initiative via pilot project in Biogradska Gora National Park, whereby a “train” (road-based diesel tourist tram) will transport tourists to lake. National Parks of Montenegro Public Enterprise is building a parking lot with co-financing to realize plan of subsequently closing park to cars. There is interest in pursuing a similar initiative, but with e-bus, in Lovcen Park in Cetinje.
 - Public boat transport operational, addressing serious road traffic congestion: Bella Boka, via pilot project, now operating 2 low-carbon boats in Boka Bay, one grid electric-diesel hybrid and one

⁴¹ Target in project results framework is “Amendments into the Law on Tourism, Tourism Sector Development Strategy, Law on Spatial Planning and Construction and, as applicable, other related documents to promote low carbon tourism adopted.”

- grid electric-solar PV electric. Two more boats expected before EOP and 5 more after EOP. Given scale and addressing of critical congestion problems in tourist season along roads of Boka Bay, pilot is considered among the most potentially impactful of project.
- UNDP implementation of GOM *Airport Project*: While *TCNTM* efforts to get a Montenegro airport eco-certified have not been realized, they resulted in this new cooperation that might eventually realize the aim.
 - Concern about SUMP: While some SUMP initiatives have been implemented as pilot projects, local level impact is limited and SUMP not adopted (in full) by municipalities as action plans. A focus on fuller implementation of the SUMP during the project's lifetime may have resulted in a more strategic approach to project selection for these four cities.
 - *Lesson*: Closer involvement of municipalities in SUMP preparation may be needed.
 - Cable car target not met: A major target of project design, included in PRF, was to incrementally support an expected cable car project from Kotor to Cetinje with RE power supply. The cable car would have served to cut down on high summer road congestion. The cable car project never happened. Cetinje co-financing letter of (USD 64.3 M) did not represent funds on hand, but was aspirational. *TCNTM* carried out feasibility study on RE source and recommended small hydro. Some stakeholders suggest this is not viable. Now, cable car (half the original length) is back on the table. Cetinje is also planning grid-scale PV installations in mountain areas.
 - *Lesson*: A means should be developed to include “long-shot” aspirational investments in design, without basing assessment of project success on their achievement. At the same time, there may be a feeling among implementers that a relatively small project lacks the ability to influence such large investments. Yet, a certain investment of effort to test what's possible may be warranted.
 - PRF target of eco-certification of airport and port and RE powering of yachts and cruise ships while in port not met: It is not clear that eco-certification is the best way to achieve EE and reduction of GHG emissions at ports/ airports. Pursuit of EE efforts at cargo port (as marinas may already have certification and good EE efforts) and airport may be of continued interest. Idea of RE for yachts/ cruisers docked at marina not pursued. Viability and discussions could be explored, but initial feedback suggests this concept has not been realized elsewhere in world and space limitations at marinas in Montenegro make it especially challenging.
 - *Lesson*: Same as lesson for previous item. Also, item raises question of whether projects can engage and influence large companies/ organizations and stimulate large investments by them. Though a great challenge, by diversifying efforts over several such companies and projects, while at the same time supporting a set of “surer thing” small initiatives, a project gives itself a better chance of hitting home runs. Further, engagement of large companies is something UNDP has success with in other locales around the world and might be considered for Montenegro.
 - PRF target of “low carbon welcome centers” at transport hubs said to be met, but benefit not clear: This activity was not deemed positively by implementers, yet inclusion of it was pursued because of inclusion in PRF. Work included €50,000+ investment in Cetinje's bus station.
 - *Lesson*: Indicator targets for outcomes should not be “output-like,” so that path to achievement allows adaptive management and focus on initiatives deemed to be truly meaningful/ impactful.
 - International travel as target for GHG ERs: When including international travel, *TCNTM*'s Montenegro tourism GHG inventory found 2018 total emissions to be 708,090 t of which 609,647 t (or 86%) were international travel. Thus, while the part of the emissions occurring once international is excluded is only 3.9% of Montenegro's total emissions, the international travel portion is equivalent to 24% of those emissions. *TCNTM* conducted one small study related to EE of low-cost airlines coming to Montenegro and also developed an online carbon calculator for tourists, but did not put much effort into reducing GHG ERs from international travel. While this is understandable, as it presents both a huge challenge and potential risk of discouraging tourists from such travel, a theme of low carbon tourism and Montenegro must sooner or later address this area.

- *Lesson:* International travel, while challenging, warrants further attention for GHG ER initiatives, given its large share in total GHG emissions associated with tourism in Montenegro.

Outcome 3 – Pilot Projects and Eco-Fund

- Pilot projects achieved strong results with more expected post project:
 - 31 pilot projects realized with good geographic distribution and good mix of government and private sector beneficiaries. Areas include (i) pilot motorized and non-motorized transport projects (discussed under Outcome 2 and including low-carbon boat public transport); (ii) support of accommodations with building energy efficiency and renewable energy (LED lighting, solar water heaters, biomass pellet heating, bio-septic tank); (iii) support of sporting venues with LED lighting; (v) greening of parks and hotels; (vi) solar PV panels for artisan dairy product families in mountain tourist areas; and (vii) LED streetlights in municipalities popular with tourists.
 - Feasibility studies for LED street lighting in five additional municipalities (Podgorica, Budva, Cetinje, and Danilovgrad) assessed as highly likely to be implemented post-project, accounting for substantial share of *TCNTM*'s total direct GHG ERs and directly mobilized investments.
- Eco-Fund work achieved strong results: Eco-Fund officially established by GOM. Unlikely to have occurred now or in near future without *TCNTM*. Given small size of the country, decision to support this broader effort required by Montenegro's legislation, rather than project design's "Tourism Sector CCM fund," is quite sound. Eco-Fund Board appointed and managing director, hired, with plans to hire other staff soon. Eco-charges that are already being collected (0.5 to 1 M € per year) are virtually guaranteed for initial capitalization of Eco-Fund. The new *Waste Management Law* in the works is expected to substantially increase amounts available, so that domestic annual funding in 2022 and 2023 is at least €1+ M and could rise to €8 M by 2024. There is also a good likelihood of around €4 M per year more being provided for Eco-Fund capitalization by 2021 via ecological fees related to road transport (as indicated in recent revisions of *Road Transport Law*).
- Concerns about Eco-Fund timeline, institutional strengthening, and capitalization: Strong capitalization of fund will not be achieved by EOP, nor will fund be operational. Besides MD, other staff remain to be hired. Given small size of Montenegro and roughly 3.9% share of tourism in overall GHG emissions, project design's "National Tourism Climate Fund" was not very strategic and delayed progress. Given that the job of establishing the Eco-Fund is not fully complete, there are risks the Eco-Fund may hit roadblocks, particularly if there is not a channel for additional TA/ support to keep the process moving until the fund is well-capitalized and funding projects.
 - *Lesson:* Project design should be careful about proposing establishment of funds that are too niche for small countries. Capacity and practical considerations should be taken into account.

Outcome 4 – Awareness and Tourism Sector GHG Inventory

- Project's awareness work widely indicated to be outstanding and noticed by many of the citizens of Montenegro. Prior to project, most Montenegrins did not know what "low carbon" was and now most do. Key initiatives include:
 - Cooperation with film/ music festivals to convert to "green festivals," of which there were 10 with over 150,000 festival goers annually: Some expected to continue "green" measures post-project.
 - Green sporting events: Games of Small States when held in Montenegro made "green," guidelines developed for future events. "Police games" interested in adopting green games measures.
 - Rambo Amadeus solar sailboat: Via pilot project cooperation, famous singer now providing sailing lessons to tourists and local youth and carrying out ecological awareness work with boat.
 - Online tool allowing tourists to check their carbon footprint in visiting Montenegro and perhaps make a donation to offset: Site believed to have received many hits and created international awareness. It was widely promoted with donation boxes hosted by a number of partners.
 - European Mobility Week: Activities in a range of cities received very enthusiastic feedback.

- Local TV: Ten 30-minute TV tourism programs on low carbon development and project activities aired in Montenegro.
- Promotional video: Project-prepared video on low-carbon tourism in Montenegro used extensively by NTO at international tourism fairs.
- Five-year anti-idling campaign as noted above.
- Media: As estimated by *TCNTM*, about 3,000 guest appearances, newspaper articles, online articles during its lifetime. Recognition of project among population bears out very strong media presence.
- International promotion: (i) video by Polish travel journalist and (ii) inclusion of *TCTNM* in German language show on tourism in Montenegro viewed by 3 million in Germany and Switzerland, prepared by German television station.
- Challenge of awareness work indicator design and surveys: PRF indicators for the awareness work focus on: (1) availability of new, low carbon tourism products and services (measured based on existence of “products” such as special booking systems, tourist welcome cards, and green meetings on tourism websites/ in marketing materials); (2) certified low carbon tourism services (measured based on their market share); and (3) share of visitors actively looking for low carbon services (measured based on survey). With hindsight, it can be seen that this design of awareness work indicators is quite weak and didn’t fit with the reality of what the project would be trying to do or what would be truly useful in building awareness. The surveys, while carried out per project design, do not seem that helpful in assessing the situation. There may have been a better way to design indicators to guide and measure the success of the awareness work. In the end, surveys were carried out three times, but the composition of the surveyed set of individuals and even the survey questions were not consistent, making it difficult to use the surveys for original intent of measuring progress.
 - *Lesson:* Design of awareness indicators is challenging, but should be done with care so that they are not too theoretical and can measure the type of results that a project would realistically pursue. Surveys, if carried out for assessing indicator work, should likewise aim to measure project results. Questions and survey groups need to be consistent among surveys.
- Tourism sector GHG inventory: This provided good insights on the breakdown and changes over time (2014-2018) of components of the tourism sector’s GHG emissions in Montenegro.
- Concern regarding relevance of tourism sector GHG inventory work: Following project design, *TCNTM* invested significant efforts in developing tourism sector GHG inventory methodology for Montenegro, assessed the inventory for five years, got a third party to verify the methodology, and provided in-depth training to EPA staff. Yet, GOM unlikely to carry on the tourism sector inventory work, so efforts are not sustainable. While the “snapshot” of five years of tourism sector inventory is useful, the TE team understands why, with tourism being only $\approx 3.9\%$ of GHG emissions, GOM would not place high priority on continued separate assessment. Targeting sustainable, annual assessment, in hindsight, may have been a misguided aspect of design.
 - *Lesson:* Project design that targets sector-based GHG inventory work should assess whether this will be sustainable. If instead a “snapshot” in time is sought, lower cost approaches might be adopted.

Implementation

TCNTM’s implementation, as evidenced by results, is quite strong and offers lessons for future projects.

- UNDP Montenegro adopts a model whereby full-time project staff implement many project activities in their area of expertise. This can provide better continuity and long-term engagement than a string of consultancy assignments.
 - *Lesson:* Other COs may want to consider the model whereby a strong project team gets deeply involved in implementation of activities and not just contract management.

- When there were outsourced reports/ studies, the *TCNTM* team ensured these were not just studies on the shelf by engaging stakeholders at the start of the assignments, after drafts were prepared, and in formulating follow up actions.
 - *Lesson:* A very active stakeholder engagement strategy for each major study, plan, or other document prepared by consultants can ensure the use of these documents and that they don't end up being just "documents on a shelf."
- Project had a full-time awareness specialist, critical in introducing the little known concept of "low carbon" into Montenegro. In addition to leading various awareness initiatives, the specialist supported each of the other outcome managers strongly in promoting various activities under their purview.
 - *Lesson:* For similarly challenging messages, the project's success in awareness suggests other projects consider adopting this model as an alternative to short-term awareness consultancies.
- An important adaptation is that *TCNTM* broadened its scope from a focus on municipalities in coastal areas to all municipalities and the private sector. It engaged private sector via cooperation with the Chamber of Economy. Private sector cooperation greatly strengthened reach and results of project (e.g. Bella Boka, the low carbon public boat company, is private sector entity).
 - *Lesson:* When aiming for a portfolio of projects or to leverage grant funds with mobilized financing, engagement of the private sector will result in a broader range of applicant projects to choose from and potentially more mobilization of co-financing.
- A great implementation strength of *TCNTM* is development of some "spin-off" projects or sub-projects. As mentioned, the UNDP-implemented GOM *Cultural Heritage* project will carry on the EuroVelo 8 work initiated by *TCNTM*. And, the UNDP-implement GOM *Airports Project* has a strong link with the *TCTNM* project. Also importantly, the project team's expertise has been integrated with funding from Slovakia to implement the 5 aforementioned municipal LED street lighting project feasibility studies that are likely to lead to very substantial GHG ERs.

11-2. Recommendations

Recommendations are provided below, divided into the categories of: (A) cross-cutting results, (B) Outcome 3 results (presented first of the outcome results due to the paramount importance of the Eco-Fund and the recommendations' relevance to the Fund), (C) Outcome 2 results (presented second among outcome results due to the importance of these recommendations to the design of follow up initiatives in sustainable transport), Outcome 1 results, Outcome 4 results, and implementation. These recommendations are roughly the same (with revised formatting and some elaboration) as those presented in the Executive Summary, as are the recommended responsible parties for follow up. Explanation of motivation for or justification of each recommendation has been added, as has suggested timeline for follow up.

It is noted that there may be some overlap among recommendations, particularly between the first cross-cutting one and some of the other ones. Yet, we believe the current organization makes sense, as different recommendations may be most suitable to different initiatives. In particular and suggested above, Recommendations 2 and 3 (B1 and B2) may be considered especially pertinent to the Eco-Fund and Recommendation 4 (C1) may be considered particularly pertinent to design of a sustainable transport project. With the current organization, these recommendations, then, can be taken as full "packages" for those two important initiatives.

A. Derived from Cross-Cutting Results/ Lessons / Insights

Recommendation 1 (A1): Leverage low carbon tourism theme with adjustments to maximize climate benefits: Continue to build on the excellent awareness and pilot work associated with *TCNTM*'s "low

carbon tourism theme,” but recognize the low share of domestic “pure” tourism in Montenegro’s total GHG emissions ($\approx 3.9\%$ ⁴²). Thus, focus on using this theme to promote broader/ cross-sector efforts, such as in transportation and street lighting, to ensure GHG ERs are maximized. In this way, promote Montenegro as a low carbon tourist destination and the ecological country that, by its constitution, it is declared to be. (This strategy, a key lesson of *TCNTM*, may be incorporated into Eco-Fund plans for low-carbon tourism and MSDT plans to promote Montenegro more generally.)

Responsibility: GOM, especially MSDT, Eco-Fund team, MTMA

Timeline: May – August, 2020, for incorporation into Eco-Fund strategy. Ongoing for MSDT and MTMA.

Justification/ motivation: *TCNTM* experience suggests it is more difficult to achieve a high level of GHG ERs from “pure tourism initiatives” than from cross-cutting initiatives, such as low carbon boat public transport and municipal LED street lighting. Further, as Montenegro is a small country, targeting a broader share of emissions than is represented by the tourism sector’s $\approx 3.9\%$ is a preferred strategy for achieving cost effective results from donor and domestic CCM targeted funds.

B. Derived from Outcome 3 (Pilot Projects and Eco-Fund) Results/ Lessons/ Insights

Recommendation 2 (B1): Apply enhanced strategy to future sets of pilot projects and Eco-Fund work to maximize main environmental/ energy impacts targeted and co-financing stimulated: In future sets of pilot projects (such as included in future UNDP projects) or in fund-based efforts (such as Eco-Fund’s), ensure that the main criteria (whether it be GHG ERs, waste management, area of forest sustainably managed, etc.) is strategically and quantitatively incorporated into project selection and project development approaches. Sub-recommendations include:

- (a) Select types of projects that deliver a relatively high level of the main criteria per unit funding (e.g. GHG ER per Euro), based on clear quantitative analysis. Project concepts may be adjusted to ensure such benefits are maximized. For GHG ERs, for example, an electric vehicle driven 200 km per day will deliver much higher benefit than the same vehicle driven 30 km per day. (UNDP may incorporate this strategy into future GEF projects where a pilot project approach is adopted. The Eco-Fund should incorporate this quantitative approach into its guidelines for project selection or development in each of its key areas, including climate change/transport, waste management, etc.).
- (b) For types of projects that are expected to have very good economic returns and strong contributions to the main aim (e.g. GHG ERs), consider providing funds for feasibility studies and detailed technical designs to stimulate other investment to implement projects. (UNDP can consider this approach for future projects. Eco-Fund should be sure to include project development support for economically attractive projects among its priorities for funding.)
- (c) Consider measures to ensure cooperation between cities to facilitate larger, higher impact projects. This, in turn, may require TA support for developing regional institutions and policies. (UNDP may look for opportunities to provide needed TA support to facilitate regional cooperation and the establishment of regional institutions. Eco-Fund may consider the support of inter-city projects, through which Montenegro will gain experience in regional cooperation.)

⁴² This share is based on 2014 estimates of total GHG emissions for the country and tourism sector emissions domestically. While official 2018 estimates of total GHG emissions for the country are not yet available, project work suggest tourism sector emissions have been growing at just half the rate of tourism sector revenues. Thus, it’s possible that despite the tourism sector’s faster growth than the economy as a whole, the share of domestic tourism sector emissions in the nation’s total has not risen.

(d) When possible, provide support for sourcing and identifying quality products for the best price, ensuring that attractive suppliers bid on opportunities. Such support may be especially worthwhile when more than one project of the same type (e.g. LED street lighting, EV tourist trams, PV or SWH systems for accommodations) is supported.

Responsibility: UNDP CO (for future projects), GOM, especially Eco-Fund

Timeline: May – August, 2020, for incorporation into Eco-Fund strategy and procedures and then ongoing for Eco-Fund. As needed for future UNDP projects. May – October, 2020 for UNDP to explore potential design and funding for a project promoting environmental governance, including regional cooperation and regional institutions for environmental projects.

Justification/ motivation: For (a), experience with *TCNTM* pilot projects suggest more strategic approach to maximizing GHG ER benefits per Euro invested may be needed. Road vehicles supported in the pilots raise awareness through good visibility, but GHG ERs per Euro invested may be less than for vehicles driven more continuously. Further, cross-sector projects, as noted in Recommendation 1, may have more potential to be cost effective in delivery of GHG ERs. For (b), municipalities and other entities may lack funds for feasibility studies and detailed technical design, but have budget (or be able to attract funds) to implement projects once good economic returns are shown. Thus, project development funds for feasibility studies and technical designs can be a good investment. For (c), given the small size of many municipalities in Montenegro; the need to do regional projects (e.g. in transport or waste management) to achieve economies of scale; and the lack of inter-municipal/ regional cooperation to date: strong efforts are needed to stimulate inter-municipal/ regional projects. For (d), sourcing can raise cost effectiveness and thus attractiveness of investment projects. For example, for PVs and SWHs, accommodations may be willing to invest if payback periods can be improved.

Recommendation 3 (B2): Ensure continued TA support for Eco-Fund and emphasize approaches to ensure Eco-Fund’s success and impact. Sub-recommendations (some overlapping with aspects of the two recommendations above) include:

(a) UNDP CO should find a means to continue TA support for Eco-Fund (e.g. through a new project) to ensure that the new institutional structure is developed, capitalization is realized, procedures developed, high impact projects developed/ pursued,⁴³ and visibility achieved, such as through initial low budget-projects and promotion during period when capitalization is still low.

(b) Eco-Fund and UNDP CO may wish to ensure that there is cooperation between Montenegrin Eco-Fund and Croatian Eco-Fund, Slovenian Eco-Fund, and other eco-funds in the region and EU.⁴⁴ In particular, Croatian Eco-Fund has funds from emissions trading system (ETS) that are to be used in 3rd countries on CCM projects. While the amount of funding may not be that large, such projects in Montenegro could be a chance for the two funds to cooperate and for Montenegro’s fund to “learn the ropes” from Croatia’s.

⁴³ Priorities for potential high-impact areas noted through experience and learnings of *TCNTM* that future TA for Eco-Fund may support include: public transport (within Podgorica, between different cities, and between the urban and rural areas of municipalities); possible SWH and PV program for accommodations or buildings more broadly; support for feasibility and/or detailed designs for relevant municipal projects; regional waste management projects (requiring cooperation among municipalities); and further exploration of the development and implementation of circular economy principles in tourism sector, in particular when it comes to the food waste, via cooperation with Chamber of Economy and other relevant stakeholders.

⁴⁴ Already, *TCNTM* has initiated cooperation with the Croatian Eco-Fund and the Slovenian Eco-Fund, with a study tour initially planned for end of March 2020. Due to the COVID-19 pandemic, this study tour has been rescheduled for autumn 2020.

(c) Eco-Fund should consider the following going forward:

i. Please see Recommendation 2 (B1)'s (a), (b), (c), and (d).

ii. Put strong emphasis on full compliance with procurement procedures (as defined in guidebook provided by *TCNTM*'s documentation for establishment of the Eco Fund) with zero tolerance for deviation to ensure transparency and good reputation that will attract donor funds as well. (For donors to be attracted to have their funds managed by Eco-Fund, there should be good value-add for the management fees charged. Governance that surpasses other options in quality will be an important consideration.)

iii. For Eco-Funds low-carbon tourism portfolio, as in Recommendation 1 (A1), consider cross-sector projects that both substantially enhance tourism and maximize GHG ERs per Euro.

iv. Consider starting deployment of funds as soon as possible to generate visibility and get the Eco-Fund known. If funding is low, a start with small projects, such as promotion of e-vehicles via partial purchase subsidies for EVs or promotion of PV systems and SWHs for accommodations via such subsidies, could be pursued.

Responsibility: UNDP CO, UNDP RTA, GOM especially Eco-Fund and Eco-Fund Board, Croatia Eco-Fund, Slovenia Eco-Fund, and other eco-funds/ similar funds in the region and EU

Timeline: (a) May – August 2020 for identifying avenues for ongoing TA support of Eco-Fund (UNDP CO and UNDP RTA), (b) May – August 2020 for initial liaison with Croatia Eco-Fund, Slovenian Eco-Fund, and other relevant funds in region and EU (UNDP Co, Eco-Fund, Eco-Fund Board, Croatian Eco-Fund, Slovenian Eco-Fund, and other relevant funds in region and EU), (c) (i) – (iv) May-August to incorporate into Eco-Fund strategy and procedures and ongoing for implementation (Eco-Fund)

Motivation/ Justification: For (a), despite good progress in establishment of Eco-Fund, critical help is needed to ensure full launch. Eco-Fund achievement is very important in terms of the long term benefits it can achieve. Thus, all steps possible should be taken to ensure it is successful. For (b), while it is true some other Eco-Funds in the region have taken a long time to become fully operational, this does not have to be the case with Montenegro's Eco-Fund. While each country's Eco-Fund will have its own characteristics, Montenegro's has the potential to benefit from the experience of these nearby funds such as Croatia's, where a similar language is used. Thus, it doesn't need to reinvent the wheel. The opportunity to cooperate on projects with Croatia's Eco-Fund could further enhance the potential of learning from a fund in the region. There could also be similar benefits from cooperation with Slovenia's Eco-Fund and possibly other eco-funds or other similar funds in the region and EU. For (c-i), see Recommendation 2 (B1). For (c-ii), one of the greatest risks and reasons for skepticism about the Eco-Fund might be concerns about corruption. Experience with other funds in the region suggest that if procedures and guidelines are fully followed, corruption will not be a problem. It is when there is not full compliance with the detailed guidelines that there have been instances of corruption problems. For (c-iii), see Recommendation 1 (A1). For (c-iv), because the Eco-Fund may in its first few years have a low amount funding, there is a risk that the Eco-Fund will not be very visible and thus lose the strong support it now has at the highest levels of government. By carrying out small budget but high visibility projects in its early years (if indeed funding is low for the first few years), Eco-Fund can ensure that it gets the attention both of high levels of government and of the wider stakeholder pool in the country. Broad awareness of Eco-Fund across the country will, in turn, enhance the potential in the future to attract a wide range of candidate projects and thus enhance the quality level of selected projects.

C. Derived from Outcome 3 (Transport) Results/ Lessons/ Insights

Recommendation 4 (C1): Consider, for transport project and/ or transport initiatives going forward, opportunities and learnings from *TCNTM*: Consider rolling the several transport-related opportunities identified and lessons learned in *TCNTM* (as below) into in-progress design of major low-carbon transport project for Montenegro. For initiatives that can't be rolled into this major project, consider other potential opportunities to pursue them.

(a) Consider including, for investment initiatives, the following: (i) priority (as already under discussion) - Podgorica low carbon bus system, low carbon inter-city transport and/or urban-rural transport, and more low carbon boat public transport; (ii) for discussion - low carbon cable car, marina in which docked boats are powered by RE⁴⁵, low carbon airport, and low carbon cargo port.

(b) Design of investment initiatives may include “definite” priorities with public funding or public-private partnership (as in (a)(i)) and “aims” that either have mainly private sector funding or are otherwise especially challenging and that project will work towards but cannot guarantee (as in (a)(ii)). Inclusion of private sector will enable higher level of leverage of grant funds, which could make project more attractive to donors.

(c) Include private sector via public-private partnership in investment initiatives if funder requires funds be disbursed to public entity only. For low-carbon boat public transport, this may include public sector development of stations or provision of subsidies to local riders of boats. For cable car project, this may include direct investment via joint venture or investment in featured nearby grid-scale PV station. For marina powering, it may include state investment in RE system. If municipal buses or inter-city buses are to remain privately operated, it may include a scheme of public investment and leasing of buses to private sector. An alternative might be a joint venture between the public and private sectors for bus operations.

(d) Regarding the low-carbon boat public transport efforts by Bella Boka in Boka Bay, seriously consider every kind of GOM and relevant institutional support possible for implementation and scaling up. Address the challenge of lack of clear institutional and administrative responsibilities vis-à-vis this initiative and the serious burden and pressure thereby placed on the investor. Given that the service provided is year-round public transport (and not just tourist seasonal transport), it is especially important for GOM to seriously consider what it can do to make the public transport effort successful for the long-run.

(e) Ensure implementation, via investment initiatives, of more of the measures of polycentric SUMP developed by *TCNTM*. This may involve adoption of the SUMP as action plan by the involved cities and also incorporation at the national level into the relevant action plan.

(f) Include TA initiatives to build on work of *TCNTM* including: (i) TA support of Eco-Fund (to get it capitalized and operating). (ii) Development of the *National E-Mobility Strategy* that will focus on: nation-wide EV charging infrastructure deployment, grid adjustment, e-mobility tariff system and incentive programs for transition to EVs in private (citizens and businesses) and public sector. (iii) Policies to support low carbon transport, such as VAT reduction or elimination for EVs. (iv) Initiatives to reduce CO₂ emissions associated with international travel to Montenegro (thus addressing 86% of GHG emissions for Montenegro tourism). This may include work to ensure the lowest emissions possible of airlines flying to Montenegro (which might alternatively be a part of the *Airport Project*) and/or

⁴⁵ Initial feedback indicates this has not been achieved elsewhere in world; and space limitations at marinas in Montenegro make it especially challenging.

promotion/ assistance to alternative modes of international transport to Montenegro, such trains (instead of cars and planes), etc.

(g) Include cost and sourcing analysis, to ensure best deals for quality equipment are obtained for investment initiatives. As part of this work, reach out to quality best price bidders to ensure they participate in RFPs.

Responsibility: GCF design team, UNDP CO, UNDP RTA, GOM partners for transport project and transport initiatives (MTMA, City of Podgorica, Cities of Cetinje, Kotor, Tivat, and HN, other cities, Bella Boka, Public Enterprise for Coastal Zone Management, Port of Bar, airport authority, electricity generation and distribution company, Eco-fund, taxation authority, rail authority), marina operators, investors in large RE systems, potential investors in cable car, bus companies

Timeline: May – August 2020 for revision of sustainable transport project design work. Ongoing for inclusion of such activities in other projects, as relevant.

Justification/ motivation: For (a), consultations indicate that poor public transport in Podgorica is a major barrier to sustainable transport in the city that results (along with low cost of taxis) in high use of taxis when public transport might otherwise be used. It is also probably represents the greatest potential for impact among opportunities for public transport improvements in Montenegro. Quality inter-urban transport might also cut down on GHG emissions and traffic in high tourist season. Quality urban-rural transport is an unmet need in some locations that may not yet be addressed in the project design being considered. Findings indicate support of low carbon boat public transport can enhance its sustainability and enable it to expand. Other items are related to activities identified in *TCNTM* design, but not achieved. For (b), having a set of “certain” activities and a separate set of “reach” activities enables the project to pursue “long-shots” or less developed ideas, that would not otherwise be pursued due to avoidance of the of not meeting difficult-to-attain targets. For (c), a challenge of donor funding is that it is often designated to be used by the public sector only. Yet, the private sector has shown it can be a critical partner for public transport via the case of Bella Boka and low carbon boat public transport. Also, there are challenges in leveraging donor funds with additional investment when the government is the only partner. The private sector may enable a higher ratio of leveraging of donor funds as an alternative to increasing government debt levels. In the case of Bella Boka and *TCNTM* pilot project funding, for example, Bella Boka’s first round investment of USD 1 M is over 6 times that provided by *TCNTM*. Now, continuing investment in the pilot project, the company is investing in a second set of two boats without *TCNTM* support. For (d), Bella Boka is aiming to provide an important public transport service for the long-run that addresses serious road congestion problems, but the current institutional environment is making this very difficult, jeopardizing the long-term sustainability of the initiative. GOM support in providing a more amenable institutional environment will be win-win for the nation and the company, ensuring that the road congestion problems are addressed. For (e), *TCNTM* invested USD 98,310 in the polycentric SUMP, which is found to be of high quality. While some recommended initiatives (namely, low carbon boat public transport in Boka Bay and some bike and hiking trails, with initial EuroVelo work also in the pipeline) have been carried out, the majority remains unaddressed. For (f), as noted with regard to justification of Recommendation 3a (B1), ensuring the success of Eco-Fund should be among the highest priorities going forward. TA support is the best way to ensure the strong progress achieved in Eco-Fund establishment during *TCNTM* continues. As for policy work, policies have been shown to be a critical means of stimulating investments in sustainable transport in other countries, such as the case of EV subsidies in China shows. As for international transport, while challenging, given the high share of international transport in all GHG emissions connected to tourism in Montenegro, it is worthwhile to see if any useful initiatives can be developed in this area. For (g), viability of projects and mobilization of outside financing can be strongly enhanced by efforts to ensure that the best possible price for quality equipment is obtained.

Recommendation 5 (C2): Pursue cooperation with large companies and stimulation of large investments:

While both cooperation with large companies and stimulation of large investments are challenging to achieve, develop methods to create possibilities of success in these areas, while at the same time not putting “all the eggs” of project design into such initiatives. As for large companies, UNDP around the world has developed some successful partnerships that could be looked to as models. Large companies find the UNDP brand attractive and appreciate the environmental and social expertise. As for large investments, UNDP/ UNDP projects and their teams can play a facilitator/ deal maker role to stimulate the realization of large investments. Yet, it should be ensured that project M&E design does not measure success based on the achievement of specific “long-shot” targets, but instead includes indicators and targets that can be achieved by multiple paths, including sets of small or medium-sized initiatives.

Responsibility: UNDP CO (future projects, general)

Timeline: May – August 2020 (for consideration in projects currently under design), ongoing (for other projects)

Motivation/ justification: From the *TCNTM* experience, it is seen that when a very challenging target, such as achievement of the cable car investment, is included in the project results framework, this presents an excessively high hurdle for the project to be considered a success. Risk aversion to such targets may result in projects not having “reach” goals – initiatives that are worth pursuing but should not be required to be achieved in order for the project to be considered a success. At the same time, the strengths of UNDP and its project teams in promotion and liaison mean that they could be well positioned to bring large companies and significant investments to the table to address or at least be involved in initiatives addressing important environmental, social, and economic needs.

D. Derived from Outcome 1 (Policy and Accommodations) Results/ Lessons/ Insights

Recommendation 6 (D1): Building on lessons learned, assess benefits of addressing GHG emissions/ EE of accommodations in Montenegro and consider developing new strategy to do so: Recognize that eco-certification is not the best vehicle for addressing GHG emissions/ EE of accommodations, both because GHG ERs/ EE may not be improved much by eco-certification and because it is difficult to impact a large proportion of accommodations through eco-certification. Recognize also that because of seasonality of many accommodations and their already fairly good EE levels, it is difficult to get good payback from many classic EE measures for them. Recognize that accommodations very significantly make up 33.4% (2018) of tourism sector GHG emissions domestically, though only perhaps around 1.3% of national GHG emissions.⁴⁶ Assess benefit of supporting accommodations in reducing GHG emissions, with comparison to rest of building sector, and preferred methods of achieving GHG ERs (cost-benefit analysis, including consideration of prevalence of EE and RE equipment already installed in accommodations sector). Depending on results of cost-benefit analysis, consider follow up initiative to connect accommodations with funding sources (Eco-Fund, Investment and Development Fund, other donor projects) for low interest loans for SWHs and PV systems, which appear to be the highest potential GHG ER area for accommodations as a whole.

Responsibility: GOM – Eco-Fund, Ministry of Economy EE Directorate

Timeline: May 2020 – April 2021 to assess benefits and, if assessed to be worthwhile, develop possible program to support accommodations in purchase/ installation of PV systems and/or SWH systems.

Justification/ motivation: Findings from *TCNTM* energy audits of 12 accommodations suggest that traditional EE measures would not be cost effective for many of the accommodations but that PV systems and SWHs might. Findings from international comparison and the experience of *TCNTM* suggest it is not realistic to expect that a large share of accommodations in Montenegro will achieve eco-certification.

⁴⁶ Because a figure for total national GHG emissions for 2018 is not yet available, we have applied the proportion share of tourism sector GHG emissions in total emissions for 2014 – that proportion is 3.9%. As noted earlier, tourism sector GHG emissions have grown at only half the pace of sector revenues, so this extrapolation seems reasonable.

Findings further show that most accommodations that have pursued and achieved eco-certification in Montenegro did not substantially reduce GHG emissions in the process.

Recommendation 7 (D2): Continue spatial planning related efforts to preserve green areas and, potentially, to promote low carbon cities: While spatial planning continues to be a difficult area for a donors to work in, it presents an urgent and important need due to conversion of green areas for hotel development. UNDP may wish to consider creating further opportunities to support the preservation of green areas in places like Budva in the face of this continued, rapid building development. Ideally, UNDP may find an opportunity in the future to support incorporation of low-carbon and green area friendly development into spatial planning policy to promote low carbon cities in Montenegro. In the meantime, incremental steps for green area preservation may be taken.

Responsibility: UNDP CO, Budva and other municipalities, MSDT, urban planners, the general public

Timeline: May 2020 – October 2020 (consultations to determine opportunities to support preservation of green spaces and, potentially, promotion of low carbon cities); ongoing (potential support/ initiatives)

Justification/ motivation: Spatial planning is a sensitive area. Yet, the loss of green spaces that is occurring both reduces quality of life and makes Montenegro less attractive as a tourist destination. Further, Montenegro’s aim to be an ecological nation and a nation that attracts visitors via low carbon tourism should include efforts to transform its municipalities to low carbon cities.

Recommendation 8 (D3): Build on lessons of TCNTM to address high potential policy areas: (a) Learning from the good example of *TCNTM*, make policy work of future projects responsive to GOM needs. As such, project design should be flexible, not requiring support of specific policies, and instead focus on achievement of policies related to certain aims (e.g. policies that result in GHG ERs). (b) For CCM projects, focus on policies that may have the most climate benefits, such as transport sector policies. (c) To facilitate development of large-scale/ regional projects and to support Eco-Fund efforts to do so, consider supporting development of regional institutions and regional environmental protection projects, perhaps via environmental governance project. (As in Recommendation 2, inter-municipal cooperation is something that should be considered for all future initiatives, including various Eco-Fund projects and various UNDP projects. Here, in Recommendation 8, we are further suggesting that a specific UNDP project may be developed to pursue both establishment of the needed regional institutions that don’t yet exist and regional environmental projects. The latter is an area in which inter-municipal cooperation is particularly important, because areas such as waste management are in great need of economies of scale that cannot be offered by single municipality projects.)

Responsibility: UNDP CO

Timeline: For (c), May – December, 2020 for UNDP to explore potential design and funding for a project promoting environmental governance, including regional cooperation and regional institutions for environmental projects. Ongoing for (a) and (b).

Motivation/ justification: Regarding (a and b), project design and project indicators sometimes include very specific policy targets, indicating the name of the policy that the project should aim to draft and promote adoption of. Yet, the government may have other priorities. Further, the case of *TCNTM* illustrates that some of the policies targeted (tourism related) had less potential to achieve the project aim (reduce GHG ERs) than those policies finally influenced. Regarding (c), addressing this policy related need would allow projects that achieve economies of scale that are needed in the environmental area, but currently inhibited due to lack of regional institutions and governance.

E. Derived from Outcome 4 (Awareness and Tourism Sector GHG Inventory) Results/ Lessons/ Insights

Recommendation 9 (E1): Learn from tourism sector inventory findings and adopt appropriate strategy to incorporate “low carbon tourism” into NDCs: Drop effort to get tourism sector GHG emissions included in national inventory annually. Yet, leverage work done in this area and *TCNTM* lessons to achieve

effective inclusion of “low carbon tourism” theme in NDCs. Aim for inclusion in NDCs of projects that support low carbon tourism, but (per Recommendation 1 (A1) and Recommendation 2a (B1(a))) may be broader than tourism alone and thus bring the highest possible GHG ERs. In particular, consider including replication of LED street lighting projects and pursuit of transport projects (including improved public transport and EV uptake).

Responsibility: UNDP CO, especially UNDP GHG inventory officer, MSDT Climate Change Directorate, EPA

Timeline: May 2020 – Oct. 2020 for proposal of tourism-related ideas/ content (that may be cross-cutting sector-wise) for NDCs

Justification/ motivation: The share of domestic tourism sector GHG emissions in overall national emissions is small (e.g. just 3.9% in 2014 and probably similar today), but projects that cut across sectors will allow the nation to continue to emphasize its important theme of low carbon tourism, while achieving the greatest GHG ERs possible.

Recommendation 10 (E2): Learn from experience of TCNTM’s awareness work, including both the benefits of having an awareness officer and the challenges of designing awareness indicators and surveys:

(1) For other projects that have a challenging message to convey and/or strong need for ongoing awareness work, consider full time awareness officer to both design and implement awareness strategy, instead of intermittent awareness consultancies. (2) Develop more effective indicator design for awareness outcomes in future projects. Indicators should measure the kind of impact the awareness is targeting. Typically, this may include reaching large numbers of people via various methods and ensuring that the campaign or other awareness effort has a real impact on peoples’ thinking and/ or results in real learning by them. (3) If surveys are to be conducted to measure awareness results, emphasis should be put at baseline on a good survey design that can truly detect impact of the project’s awareness work. The same survey questions should be asked at baseline and EOP. The group of persons surveyed should have similar compositions at baseline and EOP.

Responsibility: UNDP CO, future project designers, future projects that have surveys

Timeline: Ongoing for other projects or for design of other projects as relevant.

Motivation/ justification: TCNTM’s awareness raising work was extremely successful. This is in large part due to having a talented and experienced full-time awareness officer. The PRF’s indicators and indicator targets for awareness work are not very effective in measuring the impact of that work and similarly did not contribute strongly to guiding that work. Other solutions are needed for awareness indicators for future projects. The kind of questions covered in TCNTM’s three commissioned surveys with aggregate expenditures of around USD 56k don’t seem to reflect or capture the true impact of the awareness work. And, as noted in the 2019 survey, they are not intercomparable and thus cannot really be used to assess progress, anyway.

F. Implementation

Recommendation 12 (F1): Learn from TCNTM’s strengths in implementation: (1) For future projects (around the world), consider having, as members of project team, a strong coordinator for each outcome. This coordinator will actually take part in implementation of many of the outcome’s activities, thus reducing the need for contracts with outside consultants and companies and providing greater continuity and connection between activities. (2) For studies and reports prepared, ensure these are living documents by involving key stakeholders in the launch of the assignment, in follow up with the draft and its finalization, and in actual use of the product to stimulate action on the ideas contained.

Responsibility: Other UNDP country offices, other UNDP projects

Timeline: Ongoing.

Motivation/ justification: TCNTM’s approach of having a component coordinator for each outcome that is actively involved in implementation of specific activities, rather than just coordinating contracts for such implementation, has proven to be effective. TCNTM’s approach of active engagement of stakeholders

throughout the process of consultancies preparing guidebooks, policy recommendations, studies, etc. has also proven to be effective and appreciated by government stakeholders.

Annex 1. Terminal Evaluation Interviews and Site Visits – Realized Schedule

Consultation Segments

Pre-Mission via Skype: December 26, 2019, and January 23, 2020

Mission: January 27 – February 7, 2020

Post-Mission via Skype or telephone: March 6 - 17, 2020.

Post-Mission follow-ups with new stakeholders and previously consulted stakeholders via email: February 11 – March 14, 2020. Several stakeholders interviewed in Montenegro were contacted with follow-up questions during this period and provided helpful feedback. These “email consultations” are not included in the below listings, though we do include a few email consultations with persons that were not initially interviewed during the mission.

Consultations

1. Pre-Mission (via Skype)

Date	Name, Role, and Organization
December 26, 2020	TCNTM Project Manager: Ms. Aleksandra Kikovic (via Skype)
January 23, 2020	TCNTM Project Manager: Ms. Aleksandra Kikovic (via Skype)

2. Mission in Montenegro: Jan. 27- Feb. 7, 2020

January 27 (Monday) Podgorica
1-1. TCNTM Project Team: Ms. Aleksandra Kikovic, Project Manager; Ms. Radica Zekovic, Coordinator for Awareness/ Promotion (Comp. 4); Ms. Ana Pajevic, Coordinator for Eco-Fund, Pilot Projects, and Offsets (Comp. 3); Mr. Viktor Subotic, Coordinator for Eco-Certification of Accommodations, Policy, and GHG Emission Inventory (Comp. 1 and Comp. 4); Ms. Irena Lakovic, Financial and Administrative Officer.
1-2. UNDP CO Resident Representative: Ms. Daniela Gašparikova
1-3. TCNTM Project Coordinator for Eco-Fund, Pilot Projects, and Offsets (Comp. 3): Ms. Ana Pajevic
1-4. UNDP Project Manager for National Communications and Biennial Updates: Snežana Dragojević (also served on Pilot Project Selection Committee)
1-5. TCNTM Coordinator for Awareness/ Promotion (Comp. 4): Ms. Radica Zekovic
1-6. TCNTM Coordinator for Eco-Certification of Accommodations, Policy, and GHG Emission Inventory (Comp. 1 and Comp. 4): Mr. Viktor Subotic
January 28 (Tuesday) Podgorica
2-1. Directorate for Environment, Ministry of Sustainable Development and Tourism (MSDT): Ms. Ivana Vojinovic, General Director
2-2. Directorate for Climate Change and Mediterranean Affairs, MSDT: Mr. Esef Husic, General Director
2-3. Directorate for the Development of Tourist Destination and Tourist Infrastructure, MSDT: Mr. Cazim Hodzic, General Director, and Mr. Nikola Raznatovic, Advisor
2-4. Directorate for International Cooperation and EU integration, MSDT: Mr. Radovan Sekulic, Advisor
2-5. Engineer Consultant to Project for Developing and Monitoring of Pilot Projects and for Conducting Audits of Accommodations: Mr. Zarko Despotovic, Executive Director, Dencon

2-6. Gorica Adventure Park, Explorer Tourism Company (pilot project beneficiary): Mr. Igor Begović, Director, Gorica Adventure Park. Meeting included visit to sites of pilot project at Gorica Adventure Park
January 29 (Wednesday) Podgorica
3-1. Directorate for Road Traffic, Ministry of Transport and Maritime Affairs: Mr. Dalibor Milosevic, General Director, and Mr. Demir Desevic, Advisor 3-2. Secretariat for Transport, Capital City – Podgorica: Ms. Lazarela Kalezic, Secretary 3-3. TCNTM Project Manager: Ms. Aleksandra Kikovic (1 st interview) 3-4. Former City Manager and Current Head of Sustainable Development: Mr. Dragutin Dekovic, including tour of sites supported as pilot project 3-5. Hotel Fobra: Ms. Natasa Obradovic, Executive Director, including visit of hotel facilities supported as pilot project 3-6. UNDP RTA: John O'Brien, Regional Technical Advisor on Climate Change Mitigation, UNDP Istanbul Regional Hub
January 30 (Thursday) Podgorica
4-1. Chamber of Economy of Montenegro: Mr. Pavle D. Radovanovic, Secretary General; and Protocol Officer 4-2. Eco-Fund: Mr. Jovan Martinovic, Director of Eco-Fund; Ms. Slavica Braunovi, Member of Board of Directors of Eco-Fund and Lawyer of Directorate for Environment, MSDT; Ms. Jelena Kovacevic, Member of Board of Directors of Eco-Fund and Officer of Directorate for Environment, MSDT, with knowledge of Law on Industrial Emissions work of project 4-3. Directorate of Energy Efficiency, Ministry of Economy: Mr. Bozidar Pavlovic, Senior Adviser for Energy Efficiency 4-4. Former TCNTM Project Coordinator for Transport and Spatial Planning: Ms. Sladana Lazarevic (currently Program Manager for Government-funded Cultural Heritage Project at UNDP; ongoing Coordinator for European Mobility Week since 2011; and ongoing Montenegro point person for EuroVelo Mediterranean route since around 2015/2016) 4-5. TCNTM Project Manager: Ms. Aleksandra Kikovic (2 nd interview)
January 31 (Friday) Cetinje and Budva <i>(morning travel from Podgorica, returning to Podgorica in evening)</i>
5-1. Old Historical Capital of Cetinje: Mr. Aleksandar Kascelan, Mayor; Chief of Staff of Mayor; Mr. Milos Ivanisevic, Adviser; Protocol Officer; and another Adviser. 5-2. Cetinje site visits with Advisors Mr. Milos Ivanisevic and other Advisor to: (a) Green Incubator, (b) Fire Station, (c) Electric Tram, with Mayor Kascelan and team joining at Fire Station. 5-3. Budva Municipality: Mr. Marko Markovic, Vice Mayor; Dr. Ana Tripkovic-Markovic, Head of the Unit for International Cooperation and former Professor of Tourism 5-4. Budva site visits with Head of Unit for International Cooperation Dr. Tripkovic-Markovic to: (a) Hotel, (b) Park (Budva Go Green Campaign), and (c) EV charging 5-5. Hotel M Club: Mr. Slobodan Pejovic, owner, including site visit within hotel (EE heaters and AC, evacuated tube solar water heater, rooms that turn off heating/AC when window or door is open, etc.)
February 1 (Saturday) Bar <i>(morning travel from Podgorica, returning to Podgorica in afternoon)</i>
6-1. Bella Boka - Electric and Solar Boats Operator: Mr. Riccardo Bonneti, Founder and CEO; Mr. Luka Mitrovic, Operations Manager; Mr. Borislav Vicjnc, Media and e-Marketing; Ms. Denisa Dobrovic, Assistant/ Secretary (note: Boats were in Bar for maintenance) 6-2. EU Eco-Label Accommodation Certification: Mr. Michael Bader, EU Eco-Label Auditor in Montenegro and Tourist Apartment Owner (based in Bar)
February 2 (Sunday) Podgorica
7-1. GIZ: Ms. Jasna Sekulovic, Open Regional Fund for South East Europe, Energy Efficiency (ORF-EE), Regional Project Manager (<i>via Skype</i>)

<p>Feb. 3 (Monday) Tivat and Herceg Novi <i>(morning travel from Podgorica, returning to Podgorica at night)</i></p>
<p>8-1. Tivat Municipality: Ms. Tatjana Jelic, Secretary of the Secretariat for Environmental Protection and Energy Efficiency 8-2. Porto Montenegro: Mr. Danilo Kalezic, Senior PR and Marketing Manager, Adriatic Marinas d.o.o. Porto Montenegro 8-3. Tourism Organization of Tivat: Ms. Gabrijela Glavocic, Director 8-4. Solar PV Sailboat Pilot Project: Mr. Miodrag Kovacevic, Navigator Manufacturing (constructor of boat and supporter of Rambo Amadeus’ new sailing school in Herceg Novi) and viewing of boat 8-5. Former International Cooperation Officer for Municipality of Herceg Novi: Ms. Branka Mračević, now Director of the NGO Center for Local and Regional Development Support 8-6. SC Jadran (famous water polo club): Discussion with Mr. Boro Mracevic, President of the Assembly, Ms. Lidija Vlahovic, Secretary of Club, and Mr. Stevo; and viewing of LED stadium lights supported via <i>TCNTM</i> pilot project 8-7. Hotel Lighthouse: Mr. Zeljko Vlaovic and colleague 8-8. Herceg Novi Tourism Organization: Ms. Tonka Tomasevic and colleague</p>
<p>February 4 (Tuesday) Zabljak and Podgorica <i>(morning travel from Podgorica, returning to Podgorica early afternoon)</i></p>
<p>9-1. Zabljak Municipality: Mr. Veselin Vukicevic, Mayor; Ms. Gorica Vukovic, Municipal Manager 9-2. Zabljak Tourism Organization: Ms. Vanja Krgovic Sarovic and two colleagues 9-3. Zabljak site visits: (a) LED street lights (near City Hall) and (b) EV charging station (by Sport Stadium) 9-4. Project GHG Expert: Mr. Pedgra Novosel (<i>in Podgorica</i>)</p>
<p>February 5 (Wednesday) Pluzine and Niksic <i>(morning travel from Podgorica, returning to Podgorica at night)</i></p>
<p>10-1. Piva Nature Park (in Pluzine), Mr. Slobodan Delic, Director, and Ms. Marija Bakrac 10-2. Piva Eco-Hotel (in Pluzine): Ms. Marija Bakrac, co-owner 10-3. Viewing project sites in Piva: solar water heater and zip-line of Piva Eco-Hotel 10-4. Bike Club Perun (in Niksic): Ms. Ana Petrović Njekoš, President</p>
<p>February 6 (Thursday) Podgorica</p>
<p>11-1. Montenegrin Olympic Committee (Partner on Games of Small States) and Podgorica Basketball Club (user of new LED lights in stadium of Podgorica Sports Center): Ms. Zagorka Bozovic, International Relations, Montenegrin Olympic Committee; Mr. Milorad Šutulović, Logistics and Organization, KK Buducnost 11-2. National Parks of Montenegro: Mr. Elvir Klica, Director, and Ms. Nela Vesovic Dubak, Head of Department for Promotion, Education, and Marketing 11-3. Link Creative Studio, Marketing Company behind Dzada Fest: Ms. Nina Lončar and Ms Dusica Jaredic, Owners /Directors 11-4. TVCG (Public Television Network): Ms. Ana Jovović Popović, TV Host and News Editor, Radio-Televizija Crne Gore (Public Media Service of Montenegro)</p>
<p>February 7 (Friday) Podgorica</p>
<p>12-1. TCNTM Financial and Administrative Officer: Ms. Irena Lakovic (along with PM Ms. Aleksandra Kikovic at times) 12-2. Mission debrief with UNDP CO and Project Team: Ms. Daniela Gasparikova, Resident Representative, UNDP CO; Ms. Aleksandra Kikovic, Project Manager, TCNTM; Ms. Radica Zekovic, Coordinator for Awareness/ Promotion (Comp. 4), TCNTM; Ms. Ana Pajevic, Coordinator for Eco-Fund, Pilot Projects, and Offsets (Comp. 3), TCNTM; Mr. Viktor Subotic, Coordinator for Eco-Certification of Accommodations, Policy, and GHG Emission Inventory (Comp. 1 and Comp. 4), TCNTM; Ms. Irena Lakovic, Financial and Administrative Officer, TCNTM</p>

12-3. Review of written debrief contents with TCNTM Project Team: same attendees as in above meeting minus Resident Rep. and Coordinator for Awareness/ Promotion
 12-4. National Tourism Organization (NTO): Ms. Biljana Bozovic, Manager, International Cooperation and Normative Legal Affairs

3. Post-Mission (via Skype or telephone)

Date	Name, Role, and Organization
March 6, 2020	TCNTM Project Manager: Ms. Aleksandra Kikovic (<i>via Skype</i>)
March 9, 2020	International Consultant to TCNTM for Pilot Projects (design of call for proposals, technical support for evaluation team, GHG emission estimation methodologies, confirmation of GHG estimates): Mr. Goran Cacic (<i>via Skype</i>)
March 9, 2020	Each of the 5 municipalities carrying out LED Street Lighting Feasibility Studies with TCNTM support: (1) Podgorica (Mr. Drago Djekovic), (2) Budva (Ms. Ana Markovic), (3) Cetinje (Mr. Milos Ivanisevic), (4) Danilovgrad (Mr. Drazen Kalezic), and (5) Kolasin (Danilo Medenica) (<i>via telephone</i>)
March 11, 2020	International Consultancy for Eco-Fund Development and for E-Mobility Study: Hrvoje Pozar: Ms. Vesna Bukarica, Department for Renewable Energy, Energy Efficiency, and Environmental Projection (<i>via Skype</i>)
March 11, 2020	Brief consultation with Budva Local Tourism Organization: Mr. Aleksandar Armenko (<i>Q&A via email</i>)
March 13, 2020	Budvanska Rivijera Hotel Group: Ms. Ivana Vuksanović, Deputy Director, (<i>via telephone</i>)
March 13, 2020	Savnik Municipality: Vlado Bečanović, Advisor of Šavnik regarding LED street light pilot project (<i>via telephone</i>)
March 14, 2020	Brief consultation with Cetinje Local Tourism Organization: Mr. Oskar Huter, Director (<i>Q&A via email</i>)
March 12-17, 2020	Brief consultations with 7 accommodations receiving energy audit from TCNTM: (1&2) Seapoint and Biljana in Tivat (Mr. Mario Matijevic, Owner); (3) Residence in Milocer (Mr. Zlatibor Milic, Director); (4) Klinci Hotel in Lustica (Mr. Bogdan Kaludjerovic, Owner); (5) Apartment Bodganovic in Kotor (Ms. Danijela Bogdanovic, Owner); (6) Apartment Sutomore in Sutomore (Ms. Milena Plamenac, Owner); (7) Hotel Lighthouse in Herceg Novi (Mr. Zeljko Vlaovic)

Annex 2. Summary of Field Visits

A summary of field visits is provided below, organized by date. All field visits were day trips from Podgorica. The description includes a brief listing of meetings and sites visits for each municipality visited. And, meetings in Podgorica that included site visits are also included.

Jan. 28, 2020

1. Gorica Adventure Park, Podgorica: Met with the Director of the Adventure Park, which is owned by Explorer Tourism Company, visited the site of the *TCNTM* pilot project where grass and trees and been planted and irrigation system installed, with partial grant from *TCNTM*.



Part of *TCNTM* pilot project site of greening and irrigation at Gorica Adventure Park, Podgorica

Jan. 29, 2020

1. City of Podgorica: Met with Former City Manager and Current Head of Sustainable Development for discussion and site visits as follows:

- EV charging station (center city) – supported by *TCNTM*
- Bike path along sidewalks and roads – *TCNTM* pilot project
- Solar bench – supported by *TCNTM*



Podgorica – city center EV charging station (2 ports, 22 kW and 11 kW) with new EV taxi charging. Charging station supported by *TCNTM*.

2. Hotel Fobra, Podgorica: Met with manager of this EU Eco-Label eco-certified, which also had pilot projects including SWH and LED lighting, as a part of its new construction. Then had tour of hotel, seeing:

- Biomass pellet heating system
- Recycling bins (put in place for Eco-Label eco-certification)
- LED lights
- Rooms with door cards



Hotel Fobra, Podgorica – Recycling bins put in place for EU Eco-Label eco-certification. Bags of biomass pellets for heating system can also be seen.

Jan. 31, 2020

1. Cetinje: During the visit to the Old Historic Capital of Cetinje, the TE team met with the mayor and his team. Then, with advisors to the mayor, the TE team visited:

- The Green Incubator – a building associated with UNDP’s *Green Jobs* project that will be a place for start-up companies that have green elements. The building will have a PV system on its roof.
- Fire station with biomass pellet heating system – the system is substantially cutting fuel costs. The mayor also joined for this visit. This system may have been supported by another project.
- Two electric trams with partial support from *TCNTM* as pilot projects. The TE team rode in one of the trams and saw that it operates well
- EV charger site – viewed from a distance



Cetinje EV tourist trams: Used to take tourists on tours of city. *TCNTM* pilot project – partial grant support.

2. Budva: Meeting with Deputy Mayor and Head of International Cooperation, followed by site visits with Head of International Cooperation

- Slovenska Plaza grounds: viewed group of e-trams through window – hotel was closed; saw solar bench
- Park in which Budva Go Green Campaign was carried out – viewed book exchange site
- EV charging station and special parking spots for charging



Book exchange site of Budva Go Green Campaign in local park

3. Hotel M Club (near Budva): Meeting with owner and tour of hotel. Hotel has EU Eco-Label eco-certification and has state of the art EE features

- EE space heaters and AC
- Evacuated tube solar water heater
- Rooms that turn off heating/ AC when window or door is open
- Attachment to faucet to conserve water

Feb. 1, 2020

1. Bar – Bella Boka boats: Boats were onshore for maintenance: Had meeting with Founder/CEO and team. View boats, which are *TCNTM* pilot project, receiving partial grant funding from *TCNTM* and started providing public transport in Boka Bay in August 2019:

- 60-seater diesel-electric hybrid
- 35-seater all electric (grid electric-solar PV electric- PV accounts for about 20% of power)



Bella Boka – 35-seater all electric public transport boat with solar PV panels atop (*TCNTM* pilot project)

2. EU Eco-Labor Montenegro auditor: Had meeting with the Bar-based Montenegro auditor for EU Eco-Label.

Feb. 3, 2020

1. Tivat: Meetings and site visits as follows:

- Meeting with Secretariat for Environmental Protection
- Meeting with and visit to Adriatic Marinas' Porto Montenegro
- Meeting with Tivat LTO

2. Herceg Novi: Meetings and site visits as follows:

- Meeting with Navigator Manufacturing, constructor of Rambo Amadeus' solar PV sailboat, a *TCNTM* pilot project



Rambo Amadeus solar PV sailboat in Herceg Novi – a *TCNTM* pilot project

- Meeting with former International Cooperation Officer for Herceg Novi Municipality
- Site visit and discussion with SC Jadran (famous water polo club) regarding their LED lighting *TCNTM* pilot project
- Meeting with Hotel Lighthouse regarding their Travel Life Eco-Certification and their *TCNTM* pilot projects (viewing of one of their pilot projects – greening of restaurant terrace)
- Meeting with Herceg Novi LTO re their pilot project, etc.

Feb. 4, 2020

Zabljak: Meetings and site visits as follows:

- Meeting with mayor and city manager to discuss their LED street lighting *TCNTM* pilot project and *TCNTM* pilot project to distribute PV panels to dairy artisan households
- Meeting with LTO
- Site visit to see LED street lights
- Site visit to see EV charging station



One of the LED streetlights in Zabljak town center (LED street lighting is *TCNTM* pilot project)

Feb. 5, 2020

1. Pluzine: Meetings and site visits as follows:

- Meeting with Director of Piva Nature Park and colleague. Park had pilot project for 60 km of hiking and biking trail signage
- Meeting with co-owner of Piva Eco-Hotel and site visit: Hotel has EU Eco-Label certification and did pilot project with SWH and zip-line

2. Niksic: Meeting with Bike Club Perun about European Mobility Week in Niksic and other joint activity with project to promote biking in Pluzine



Zipline at Piva Eco-Hotel (part of *TCNTM* pilot project – 5 km zipline – longest in country; other part of pilot project is SWH for hotel; owner now plans to install second, parallel zipline)

Feb. 6, 2020

Podgorica Sports Center: Meeting with Montenegrin Olympic Committee to discuss Green Games initiative with *TCNTM* and with KK Buducnost Basketball Team to discuss *TCNTM* pilot project of LED lighting in Sports Center. Viewing of Sports Center renovations, including LED lighting for stadium and LED lighting in offices and locker rooms.



Podgorica Sports Stadium – part of *TCNTM* pilot project: LED lighting in basketball stadium.

Annex 3. Master Interview Guide

I. Big Picture

1. What do you see as the most important / most impactful achievements of the project?
2. What do you think should be done to follow up on the achievements of the project? Are there risks to sustainability of achievements? What should be done about this?
3. What do you see as the greatest challenges or shortcomings of the project?
4. Is the project relevant/ needed vis-à-vis the situation in Montenegro? Have other projects already done what this project aimed to do? Is the project innovative and doing things that would not happen without the project?

II. Outcome 1: Policy, Accommodations, and Spatial Plans

Please discuss the following if you know about them and/or are involved with them. What has happened and what is the status? Is it due to the project? What is the impact? How is the item different than what's come before? Are the results being used/ making a difference? If not, what can be done to get these results to be more impactful?

1. Eco-Certification of Accommodations. In addition to above general questions, also: a. Has eco-certification made the accommodation more energy efficient? Did the accommodation have to incorporate EE or RE to get certified? b. Does eco-certification bring benefits to the accommodation? c. Will accommodation continue certification after someone else is no longer paying for membership? d. Why aren't more accommodations interested in eco-certification? e. Who can continue to support accommodations technically in getting certification once the project is over?
2. Policy. In addition to above general questions, also: Which policies did the project help to draft? Were these policies adopted? What was or will be the impact of the policies? Were there other policies that the project influenced? What will be the impact of those policies? Were there policy needs that the project should have addressed but did not?
3. Did the project prepare spatial plans? For which cities? How were they prepared? What was the impact? Are these plans really low carbon? How will they reduce GHG emissions? Will they be used?

III. Outcome 2: Transport

Please discuss the following if you know about them and/or are involved with them. What has happened and what is the status? Is it due to the project? What is the impact? How is the item different than what's come before? Are the results being used/ making a difference? If not, what can be done to get these results to be more impactful?

1. SUMP: What are the benefits of the SUMP? Is it being implemented? What kind of recommendations does it have? Was the SUMP adopted by the involved municipalities in full as an action plan? Did the project carry out recommendations of the SUMP? Which ones? What is the impact to date of the SUMP? Expected future impact?
2. Low carbon boat public transport: How is ridership? How much are tickets? How are the boats reducing carbon? How much do the boats reduce travel time? What is the investment? Is it sustainable? What are next steps? What kind of support is needed to get more ridership and make this successful? What support did you get from the project? Where did you get the idea?
3. Hiking and bike trails: Are these newly paved or newly developed or is the main addition signage? Are they a new thing in your area? What is use like? What are your future plans?
4. E-trams: What is the tram being used for? Is it effective? Do riders know that it is an e-vehicle? What are your future plans? Where did you get the idea?
5. National park diesel train like road vehicle: Why is this not being used regularly? What are next steps? How will this save energy? We heard it might be used in a different park. Is that correct? Will you use such a vehicle in other parks in the future? Where did you get the idea?

6. Cable car: Why wasn't this done? What kind of RE was going to be used? Is this project still a possibility? Will it use grid electricity? Can a follow up project or other work make this happen?
7. Airport and port eco-certification: What is the status of this? Were any efforts made? If so, why were they not successful? Is energy efficiency the main target of the eco-certification? What will be the benefits? Are there follow up steps that can achieve this?
8. Marina cruisers and yachts powered by RE: Was this pursued? What were the barriers? Was the RE going to be grid connected? Is this something that might still be pursued in the future?
9. Low carbon information centers at transport hubs? What are these like? Are they useful?
10. Low cost airline EE study: What was this about? What was the result of it?

IV. Outcome 3: Pilot Projects and Eco-Fund

1. What were the challenges of the pilot projects as a group? What were the successes? How were they selected?
2. What are the most notable pilot projects?
3. If you are the implementer of a pilot project, please tell us about the impact? What are the benefits? What was the cost? Where did you get the idea? Is there or will there be replication?
4. How are GHG ERs for pilot projects calculated?
5. Eco-Fund: What is the status of capitalization? What is the likelihood it will be capitalized? Where exactly will the funds come from? What is the status of other aspects of the Eco-Fund? What kind of projects will the Eco-Fund focus on? Is there a chance the Eco-Fund will just disappear / fail to launch? What is support in the government like? When is the fund expected to do projects? What additional support is needed to make the Eco-Fund successful? How can corruption be prevented? Would the Eco-Fund have been established anyway without the support of the project?

V. Outcome 4: Awareness and Tourism Sector GHG Inventory

1. Please tell us about the key awareness activities.
2. What about the low carbon products and services?
3. What about the green festivals? Where did this idea come from? What exactly is being done to make these festivals green? What is the impact? The sustainability?
4. What are green games? What is the impact? The sustainability?
5. What kind of media coverage did the project get?
6. What kind of international promotion was there? Did the NTO website get done? Did the project promote low carbon tourism on the NTO website or on other international websites?
7. What did you do for European Mobility Week?
8. What were the campaigns of the project?
9. Did mindset in Montenegro change as a result of the awareness work?
10. What about the surveys – what did they show?

VI. Design: Please discuss project design: Has it been appropriate? What's good about the design? What doesn't fit? Lessons learned? Were the indicators appropriate? Were the indicators revised after mid-term?

VII. Implementation: Please discuss successes and challenges with regard to:

1. Project Team
2. Government Partner
3. Project Board
4. UNDP's role

VIII. Cost effectiveness

1. Which activities have been a good value for the money and why?
2. Which activities were not a good value for the money and why?

3. Is there a way to get the cost down of any of the main installation types for future efforts? How was the source of equipment determined?
4. How has co-financing been?

IX. Other topics

1. Sustainability of results: Please discuss whether key results will be sustainable. What needs to be done to make them so?
2. M&E: Have M&E processes been useful or more a bureaucratic drain? How can they be more useful?
3. Stakeholder engagement
 - a. Who are the key stakeholders?
 - b. How involved are they?
 - c. What needs to be done if anything to increase stakeholder engagement?
4. Gender
 - a. How are women being engaged in project implementation?
 - b. Should more have been done to involve women?

X. Closing and next steps

1. Do you have any additional recommendations not yet discussed of how to build on any areas of this project?
2. Do you have suggestions for future projects?
3. What questions should we have asked that we didn't or what else would you like to say?

Annex 4. Documents Reviewed

The documents reviewed for the Terminal Evaluation are listed below, organized into five groups, based on when they were provided and source.

1. Documents Found Online prior to Mission

1. PIF
2. PPG Request
3. GEF Review Sheet
4. STAP Review
5. CER
6. AWP 2017-2018

2. Documents Provided by Project Team before Mission

1. ProDoc
2. Inception Report
3. MTR Report
4. MTR Report Management Response
5. 2016, 2017, 2018, and 2019 PIRs
6. Links to project promotional stories
7. Links to social media platforms
8. Individual summaries of pilot projects

3. Documents Provided by Project Team during Mission

A. Outcome 1 Documents

1. Eco-certification brochure
2. Documents on Budva incentive program for eco-certification and MOUs with Budva accommodations
3. Documents on Tivat incentive program for eco-certification and MOUs with Tivat accommodations
5. Documents on NTO incentive program for eco-certification
6. NTO brochures promoting “active” tourism
7. Link to map of eco-certified accommodations
8. GHG Inventory: Documents for tourism sector GHG inventory for each of 2014, 2015, 2016, and 2017
9. Report on MRV System for Tourism Sector GHG Inventory in Montenegro (2015)
10. SGS verification of methodology for tourism sector GHG inventory
11. Energy Efficiency Action Plan 2019-2021 (in Montenegrin)
12. Proposal for a Plan for the Implementation of the Industrial Emissions Directive (in Montenegrin)
13. Decree on the Promotion of Industrial Emissions Law (in Montenegrin)
14. 2018 academic article: “Ecological Certification in the Tourism Sector in Montenegro”

B. Outcome 3 Documents

1. Public Call for Proposals for EV Charging Stations (in Montenegrin)
2. 2016 Call for Expression of Interest in Pilot Projects: application Form, minutes from four meetings of review committee, report from technical commission
3. 2017 Call for Expression of Interest in Pilot Projects: application Form, minutes from two meetings of review committee, report from technical commission
4. 2018 Call for Expression of Interest for Pilot Projects: minutes from two meetings of review committee, report from technical commission
5. Capacity Assessment of Chamber of Economy
6. Carbon Offset Report

7. Eco-Fund Plans: Situation Analysis, Model Summary, Work Program and Financial Plan (4 documents)
8. E-Mobility Study: Situation Analysis, Market Analysis, Cost Benefit Analysis, Proposal for Financial Incentives (4 documents)
9. List of pilot projects with GHG ERs, grant amount, and total investment.
10. Proposal for next steps in Eco-Fund technical assistance

C. Outcome 4 Documents

1. Communications and Advocacy Strategy (2016)
2. Social Media Strategy (2015)
3. Green Games Handbook
4. Polish film about project
5. Promotional video: *Montenegro for the Greener World*
6. German video about tourism in Montenegro, which includes content on *TCNTM*
7. Surveys on Low Carbon Tourism in Montenegro – 2015, 2017, and 2019
8. Ten “exposure” stories about the project (links provided)
9. Two blogs about the project
10. Ten TV programs about the project activities

D. Project Finance Documents/ Materials Prepared in Response to Request

1. Expenditures as Reported to GEF
2. Co-Financing that was channeled through UNDP procurement
3. List of contracts with individual contracts
4. List of contracts with organizations

4. Documents Provided by Stakeholders (aside from Project Team) during or after Mission

1. From Bella Boka: Various promotional videos and documents, CO2 emissions reduction calculations, information on two new boats purchased
2. From M Club Hotel: Eco-Certification document
3. Green Games Brochure (provided by Montenegrin Olympic Committee)

5. Documents Provided by Project Team after Mission

1. Proposals on Measures for Tivat Airport Carbon Certification (in Montenegrin)
2. Final Report on GHG Emissions Reduction from Tourism Sector (2018 data)
3. Updated list of pilot projects with GHG ERs, grant amount, and total investment; list of projects that might have resulted from accommodation energy audits and their GHG ERs; list of municipal LED street lighting projects for which project prepared feasibility studies and their GHG ERs
4. Report of each of the 12 accommodation energy audits carried out by the project (in Montenegrin)
5. Feasibility study for municipal LED street lighting project for each of five cities (Podgorica, Budva, Cetinje, Danilovgrad, Kolasin)

Annex 5. Ratings Scale

Below, this annex provides definitions for the rating scales used in the “TE Ratings and Achievement Summary Table for *TCNTM* Project” found in the Executive Summary and in Exhibit 13, the “Progress towards Results Matrix,” found in the main body of the text in Section 4. The rating scales are based on guidance from *Project Level Evaluation: Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects* (UNDP Evaluation Office, 2012).

Ratings for Outcomes, Effectiveness, Efficiency, M&E, IA & EA Execution

- 6: Highly Satisfactory (HS): The project had no shortcomings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency
- 5: Satisfactory (S): There were only minor shortcomings
- 4: Moderately Satisfactory (MS): there were moderate shortcomings
- 3. Moderately Unsatisfactory (MU): the project had significant shortcomings
- 2. Unsatisfactory (U): there were major shortcomings in the achievement of project objectives in terms of relevance, effectiveness, or efficiency
- 1. Highly Unsatisfactory (HU): The project had severe shortcomings

Relevance ratings:

- 2. Relevant (R)
- 1. Not relevant (NR)

Sustainability ratings:

- 4. Likely (L): negligible risks to sustainability
- 3. Moderately Likely (ML): moderate risks
- 2. Moderately Unlikely (MU): significant risks
- 1. Unlikely (U): severe risks

Annex 6. Evaluation Consultant Agreement Form

UNEG Code of Conduct for Evaluators/ Midterm Review Consultants

Evaluators/Consultants:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

International Terminal Evaluation Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Consultant: Eugenia Katsigris

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at Dallas, Texas, USA (Place) on March 7, 2020 (Date)

Signature: Eugenia Katsigris (electronic signature)

National Terminal Evaluation Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Consultant: Nikoleta Dukanovic

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at Podgorica, Montenegro (Place) on March 19, 2020 (Date)

Signature: Nikoleta Đukanović (electronic signature)

Annex 7. Terminal Evaluation TOR

(excluding ToR Annexes)

Introduction

In accordance with UNDP and GEF M&E policies and procedures, all full and medium-sized UNDP support GEF financed projects are required to undergo a terminal evaluation upon completion of implementation. These terms of reference (TOR) sets out the expectations for a Terminal Evaluation (TE) of the Towards Carbon Neutral Tourism (PIMS 5149)

The essentials of the project to be evaluated are as follows:

Project Summary Table

Project Title	Towards Carbon Neutral Tourism in Montenegro			
GEF Project ID:	5098		<i>at endorsement</i> <i>(Million US\$)</i>	<i>at completion</i> <i>(Million US\$)</i>
UNDP Project ID:	5149	GEF financing:	3.090	
Country:	Montenegro	IA/EA own:	1.658	
Region:	Europe and CIS	Government:	117.929	
Focal Area:	Climate change mitigation	Other:	2.321	
FA Objectives, (OP/SP):	FA Objective #4 for GEF 5: Promoting energy efficient low carbon, transport and urban systems	Total co-financing:	121.908	
Executing Agency:	Ministry of Sustainable Development and Tourism (MoSDT)	Total Project Cost:		
Other Partners involved:		ProDoc Signature (date project began):		August 4, 2014
		(Operational) Closing Date:	Proposed: August 31, 2019	Actual: May 4, 2020

Objective and Scope

The project was designed to reduce GHG emissions from Montenegro's tourism sector by promoting country's transition towards a carbon neutral travel & tourism, minimizing energy use and transport in and around new green field development projects, helping tourism industry to identify and implement cost-effective mitigation options in travel and accommodation sectors, as well as introducing carbon offset scheme and other innovative financial mechanisms to compensate for the residual emissions and generate additional revenues for climate mitigation and adaptation actions in tourism. The project constitutes of four components, as follows: Component 1: Legal and regulatory framework supporting low carbon tourism and low carbon spatial development, including increased certification of both existing and new tourist accommodation facilities and related services by internationally recognized environmental certification scheme(s); Component 2: Improved low carbon and carbon neutral transport infrastructure to support tourism sector related public and non-motorized transport.; Component 3: Pilot investments to support low carbon tourism development implemented, followed up by the establishment of a sustainable financing mechanism to support climate change mitigation and adaptation actions in the tourism sector; Component 4: GHG emission monitoring system and increased public awareness about the carbon footprint of the tourism sector, its GHG reduction potential and measures

The TE will be conducted according to the guidance, rules and procedures established by UNDP and GEF as reflected in the UNDP Evaluation Guidance for GEF Financed Projects.

The assignment will consist of 25 working days spread out over a period of some 3 months from 6th January 2020 to 31st March 2020. A 10 working days (12 days in total if including one full weekend) mission will be undertaken to

Montenegro as part of the assignment which means that the assignment is broken down into 10 days in Montenegro, 2 travel days, and 13 home based working days.

The objectives of the final evaluation are to assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming.

Evaluation approach and method

An overall approach and method⁴⁷ for conducting project terminal evaluations of UNDP supported GEF financed projects has developed over time. The evaluator is expected to frame the evaluation effort using the criteria of **relevance, effectiveness, efficiency, sustainability, and impact**, as defined and explained in the UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects. A set of questions covering each of these criteria have been drafted and are included with this TOR (*fill in [Annex C](#)*) The evaluator is expected to amend, complete and submit this matrix as part of an evaluation inception report, and shall include it as an annex to the final report.

The evaluation must provide evidence-based information that is credible, reliable and useful. The evaluator is expected to follow a participatory and consultative approach ensuring close engagement with government counterparts, in particular the GEF operational focal point, UNDP Country Office, project team, UNDP GEF Technical Adviser based in the region and key stakeholders. The evaluator is expected to conduct a field mission to Montenegro including to visit all of the following project sites: Podgorica, Budva, Tivat, Cetinje, Kolašin and others subject to the topics discussed and dynamics of the visit. Interviews will be held with the following organizations and individuals at a minimum:

- Ministry of Sustainable Development and Tourism
- Ministry of Economy
- Ministry of Transport and Maritime Affairs
- Chamber of Economy of Montenegro
- Municipalities Podgorica, Tivat, Cetinje, Kolašin, Budva
- National Parks of Montenegro
- Nature Park Piva
- International Grants and Consulting – Bella Boka
- RTV CG
- NGOs: Ozon, BK Perun, Centar za podršku
- Eco Fund personnel
- All co-financing partners listed in the project document

The evaluator will review all relevant sources of information, such as the project document, project reports – including Annual APR/PIR, project budget revisions, midterm review, progress reports, GEF focal area tracking tools, project files, national strategic and legal documents, and any other materials that the evaluator considers useful for this evidence-based assessment. A list of documents that the project team will provide to the evaluator for review is included in [Annex B](#) of this Terms of Reference.

Evaluation Criteria & Ratings

An assessment of project performance will be carried out, based against expectations set out in the Project Logical Framework/Results Framework (see [Annex A](#)), which provides performance and impact indicators for project implementation along with their corresponding means of verification. The evaluation will at a minimum cover the criteria of: **relevance, effectiveness, efficiency, sustainability and impact**. Ratings must be provided on the following performance criteria. The completed table must be included in the evaluation executive summary. The obligatory rating scales are included in [Annex D](#).

Evaluation Ratings:

⁴⁷ For additional information on methods, see the [Handbook on Planning, Monitoring and Evaluating for Development Results](#), Chapter 7, pg. 163

1. Monitoring and Evaluation	rating	2. IA & EA Execution	rating
M&E design at entry		Quality of UNDP Implementation	
M&E Plan Implementation		Quality of Execution - Executing Agency	
Overall quality of M&E		Overall quality of Implementation / Execution	
3. Assessment of Outcomes	rating	4. Sustainability	rating
Relevance		Financial resources:	
Effectiveness		Socio-political:	
Efficiency		Institutional framework and governance:	
Overall Project Outcome Rating		Environmental :	
		Overall likelihood of sustainability:	

Project finance / co-finance

The Evaluation will assess the key financial aspects of the project, including the extent of co-financing planned and realized. Project cost and funding data will be required, including annual expenditures. Variances between planned and actual expenditures will need to be assessed and explained. Results from recent financial audits, as available, should be taken into consideration. The evaluator(s) will receive assistance from the Country Office (CO) and Project Team to obtain financial data in order to complete the co-financing table below, which will be included in the terminal evaluation report.

Co-financing (type/source)	UNDP own financing (mill. US\$)		Government (mill. US\$)		Partner Agency (mill. US\$)		Total (mill. US\$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Actual	Actual
Grants								
Loans/Concessions								
• In-kind support								
• Other								
Totals								

Mainstreaming

UNDP supported GEF financed projects are key components in UNDP country programming, as well as regional and global programmes. The evaluation will assess the extent to which the project was successfully mainstreamed with other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender.

Impact

The evaluators will assess the extent to which the project is achieving impacts or progressing towards the achievement of impacts. Key findings that should be brought out in the evaluations include whether the project has demonstrated: a) verifiable improvements in ecological status, b) verifiable reductions in stress on ecological systems, and/or c) demonstrated progress towards these impact achievements.⁴⁸

Conclusions, recommendations & lessons

The evaluation report must include a chapter providing a set of **conclusions, recommendations and lessons**.

Implementation arrangements

The principal responsibility for managing this evaluation resides with the UNDP CO in Montenegro. The UNDP CO will contract the evaluators and ensure the timely provision of per diems and travel arrangements within the country for the evaluation team. In accordance with UNDP guidance for evaluations, that UNDP CO will appoint an evaluation team manager and make sure that meetings are set up for the evaluators free from any possible conflicts of interest. The Project Team will be responsible for liaising with the Evaluators team to set up stakeholder interviews, arrange field visits, coordinate with the Government etc.

⁴⁸ A useful tool for gauging progress to impact is the Review of Outcomes to Impacts (ROtI) method developed by the GEF Evaluation Office: [ROtI Handbook 2009](#)

Evaluation timeframe

The total duration of the evaluation will be 25 days. The 25 days includes one mission of 10 working days (not including weekends) to Montenegro, in accordance with the following plan:

Activity	Timing	Completion Date
Preparation	3 days	<i>End of January 2020</i>
Evaluation Mission	10 days	<i>End of February 2020</i>
Travel Days	2	<i>End of February 2020</i>
Draft Evaluation Report	8 days	<i>March 9, 2020</i>
Final Report	2 days	<i>End of March 2020</i>
Total	25 working days	

Evaluation deliverables

The evaluation team is expected to deliver the following deliverables and be paid in three instalments as follows:

Deliverable #1: Inception Report	10%
Deliverable #2: Draft Final Evaluation Report	50%
Deliverable #3: Final Evaluation Report:	40%

Deliverable	Content	Timing	Responsibilities	Payment Amount
Inception Report	Evaluator provides clarifications on timing and method	No later than 2 weeks before the evaluation mission.	Evaluator submits to UNDP CO	10%
Presentation	Initial Findings	End of evaluation mission	To project management, UNDP CO	n/a
Draft Final Report	Full report, (per annexed template) with annexes	Within 3 weeks of the evaluation mission	Sent to CO, reviewed by RTA, PCU, GEF OFPs	50%
Final Report*	Revised report	Within 1 week of receiving UNDP and Government comments on draft	Sent to CO for uploading to UNDP ERC.	40%

*When submitting the final evaluation report, the evaluator is required also to provide an 'audit trail', detailing how all received comments have (and have not) been addressed in the final evaluation report.

Team Composition

The evaluation team will be composed of *1 international and 1 national evaluator*). The consultants shall have prior experience in evaluating similar projects. Experience with GEF financed projects is an advantage. International *will be designated as the team leader and will be responsible for finalizing the report*. The evaluators selected should not have participated in the project preparation and/or implementation and should not have conflict of interest with project related activities.

The International Evaluator - Team Leader must present the following qualifications:

- Previous experience with result-based monitoring and evaluation methodologies;
- Experience applying SMART indicators and reconstructing or validating baseline scenarios;
- Competence in adaptive management, as applied to climate change / environment / tourism;
- Experience working with the GEF or GEF-evaluations;
- Experience working in Montenegro, Western Balkans, CIS countries;
- Work experience related to climate change and/or energy for at least 7 years;
- Demonstrated understanding of issues related to gender and climate change/environment experience in gender sensitive evaluation and analysis.
- Excellent communication skills;
- Demonstrable analytical skills;
- Project evaluation/review experiences within United Nations system;

- A University degree in technical sciences (civil engineering, mechanical engineering, technical engineering) and/or natural sciences (biology, environment, sustainable development...) or other closely related field. Master's degree will be considered as an asset.

Evaluator Ethics

Evaluation consultants will be held to the highest ethical standards and are required to sign a Code of Conduct (Annex E) upon acceptance of the assignment. UNDP evaluations are conducted in accordance with the principles outlined in the [UNEG 'Ethical Guidelines for Evaluations'](#)

Payment modalities and specifications

(this payment schedule is indicative, to be filled in by the CO and UNDP GEF Technical Adviser based on their standard procurement procedures)

%	Milestone
10%	Following submission of methodology and proposed work plan, prior to mission to Montenegro
50%	Following submission and approval of the 1 st draft terminal evaluation report, following completion of mission to Montenegro
40%	Following submission and approval (UNDP-CO and UNDP RTA) of the final terminal evaluation report, and taking into account all comments received on the draft report from all stakeholders

Application process

Applicants are requested to confirm their availability for this assignment by submitting their financial proposal:

- Financial proposals must be expressed on the basis of “a daily fee” in USD, not exceeding the rate agreed to by the international consultant on the Roster.
- The financial proposal must include also the cost of travel (return airfare to Podgorica and 12 nights per diem) in USD. The reason for 12 nights per diem is that the mission will consist of 10 working days plus one full weekend. (Note: Official UN per diem for Podgorica is \$122 USD/day).
- The financial proposal must include confirmation of consultant's availability to travel to Podgorica, Montenegro in the course of February 2020 and specify the dates in February when the consultant can travel to Montenegro.

UNDP applies a fair and transparent selection process that will take into account the competencies/skills of the applicants, as well as their financial proposals. The selection process will be conducted through a desk review. The qualified consultants from the Roster will be invited to submit their financial proposals.