Montenegro Country Economic Memorandum: Towards a resilient growth strategy

Enabling a green and resilient tourism sector in Montenegro

- Background Note -

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Introduction

Tourism has grown rapidly in economic importance since Montenegro’s independence in 2006. The number of international tourists visiting Montenegro exceeded 2.5 million in 2019, four times the country’s domestic population. Montenegro attracts visitors from a relatively broad cross-section of countries across the Western Balkans, EU, and the former Soviet Union, but flows are concentrated in the summer months and along coastal areas. The seasonality of Montenegro’s tourism industry belies, however, the country’s diverse geographical and cultural offerings, which collectively provide the basis for year-round attractions. Prior to the pandemic, tourism comprised as much as a third of the country’s economy and workforce, but the competitiveness of Montenegro’s tourism offering lags that of its regional peers.

The benefits of tourism to Montenegro’s economy are constrained by congestion in coastal destinations, underdevelopment of inland destinations, environmental degradation, weak linkages with domestic suppliers and markets, and the lack of enforcement of sometimes complex regulations. The economic benefits of tourism to a country can be constrained by factors limiting the demand by tourists for local goods and services, factors that increase the cost of producing tourism-related goods and services, and productivity spillovers from the tourism sector to domestic suppliers and service providers that accelerate the growth and diversification of the rest of the economy. In Montenegro, current and future demand for tourism is primarily affected by factors that undermine the attractiveness of the country for tourists and discourage tourists from consuming local products, including congestion at coastal destinations during the peak summer months, the relative inaccessibility of the country’s inland attractions, the lack of distinctly local products and services, and environmental degradation (Section 2.1.). The cost of producing goods and services for tourists—and therefore the competitiveness of Montenegro’s tourism offering—is affected by shortages in domestic labor and non-labor inputs and by the lack of enforcement of sometimes complex regulations (Section 2.2.). Finally, the transmission of productivity spillovers from tourism to the rest of the economy – and therefore the potential for tourism to serve as an engine for economic development – is limited by the domination of imported inputs and migrant labor in Montenegro’s tourism value chain (Section 2.3.).

Tourism taxes the environment and, in so doing, imposes negative externalities on the local population. In areas in which tourists are concentrated, emissions generated by carbon-intensive transport and energy use contribute to local air pollution (section 3.1.). Inadequate waste management infrastructure results in both littering and the saturation of landfills (section 3.2.). Facilities catering to tourists—particularly hotels, swimming pools, and golf courses—produce wastewater that, when not properly collected and treated, can pollute local water bodies, and can overuse water resources, imposing water shortages on other residents (section 3.3.).
1. Overview of Tourism in Montenegro

Tourism is a major contributor to Montenegro’s economy. While Montenegro was a tourism destination during the time of former Yugoslavia, growth in tourism accelerated after Montenegro declared independence. From 2007 to 2019, the number of international tourist arrivals and overnight stays increased by 155 and 116 percent respectively (Figure 1). The increase was particularly rapid from 2015 to 2019, when annual growth in international tourist arrivals averaged 12 percent and rose from 1.6 million to 25 million (World Bank, 2022). The strong growth was supported by the country’s strategic decision and policies to promote and support tourism as its key industry. With growth in tourist numbers, tourism receipts as a share of GDP increased from 18 percent in 2010 to 22 percent in 2019 (Ibid.).

Tourism accounts for almost a third of Montenegro’s economy. The direct and indirect contributions of tourism comprised an estimated 31 percent of Montenegro’s GDP in 2019, larger than other southern European countries and other tourism-dependent economies (Error! Reference source not found.). The proportion of Montenegro’s workforce employed in the travel and tourism sector also exceeds those of countries in both groups. Tourism contributed 10 percent of gross value-added in 2019, up from 4 percent in 2007, and tourism receipts comprised 44 percent of exports in 2019 (World Bank, 2022).

The rise of tourism in Montenegro has been supported by an expansion of facilities and connectivity. Spurred by incentives for foreign investment in hotel construction, the number of four- and five-star hotels grew rapidly from 25 in 2010 to 406 in 2020. Montenegro’s air connectivity also increased substantially, and annual passenger arrivals increased from 63,430 in
August 2012 to 131,036 in August 2019 (OAG, 2022). Despite the growth of low-cost carriers, most tourists that arrive in Montenegro by air do so on full-service flag carriers.¹

Tourism in Montenegro is highly seasonal, but less so than in some other Mediterranean destinations. While tourism in Montenegro is highly seasonal, seasonality has declined over the past decade and is line with other Mediterranean countries (Figure 3). In 2011, 94 percent of overnight stays by tourists occurred between May and September, falling to 80 percent in 2019. While the seasonality of tourism in Montenegro is less than that of Croatia (89 percent in 2019) or Greece (82 percent in 2019), it is higher than Malta (52 percent), Cyprus (67 percent), Portugal (61 percent), and Spain (57 percent).

![Figure 3: Despite significant improvements, Montenegro’s tourism remains highly seasonal](source)

The length of stay of tourists in Montenegro is short but similar to neighboring countries. As in Bulgaria and Croatia, tourist stays in Montenegro are relatively short in the off-season, averaging just 2.4 days between October and April, but peak in the summer months to 5 days on average. While the stay during the peak season is longer than in Slovenia or Portugal, it is shorter than in Malta (6 days) or Cyprus (7 days). In these two countries, tourists also stay much longer even during the off-season, on average, twice as much as in Montenegro (Figure 4).

![Figure 4: Tourists in Montenegro spend twice as much time during the high-season than during the rest of the year](source)

Montenegro's tourists historically originate from the Western Balkans, EU, and Russia. In 2019, tourists from the Western Balkans accounted for 36 percent of arrivals and 39 percent of overnight stays, with flows dominated by visitors from Serbia and Bosnia and Herzegovina. The second largest group of tourists come from Russia, which accounted for 14 percent of arrivals and 24 percent of overnight stays in 2019. Tourists from the EU comprised 22 percent of overnight stays in 2019, with flows primarily dominated by visitors from Germany, France, and the UK. The remaining 14 percent of tourists arrived from outside Europe.

¹ Major flag carriers serving Montenegro in 2018 and 2019 included Montenegro Airlines, Air Serbia, Turkish Airlines, Aeroflot, and Austrian Airlines. Major low-cost airlines serving Montenegro over the same period included Ryanair, Wizz Air, Pobeda, and Skyup Airlines.
stays, led by Germany (4 percent), France (3 percent), and Poland (3 percent). Prior to the pandemic, visitors from Montenegro’s neighboring countries – such as Bosnia and Serbia – dominated off-season flows, with Russian arrivals forming a plurality of flows in the summer.²

Figure 5: A majority of Montenegro’s tourists come from the Western Balkans


Source: World Bank staff calculations using (Statistical Office of Montenegro, 2022)

There is large variation between countries of origin in how long tourists stay in Montenegro. Prior to the pandemic, tourists from Russia and Ukraine stayed the longest in Montenegro, with an average stay of 9 day and 8 days respectively during 2019, followed by tourists from Serbia (8 days) and Bosnia & Herzegovina (6 days). Tourists from the major EU markets of Germany, France, Hungary, and Poland spent between four and five days. In contrast, tourists from China spent only a day in Montenegro on average in 2019. While the average length of stay of international tourists remained the same for most countries as tourism recovered in 2021, Russian, UK, German, and Chinese tourists stayed on average two days longer than in 2019.

² Flows from the region have historically been less seasonal than from other major destinations. From January to May 2018, Serbian passengers comprised 40% of arrivals from the five largest source countries, while Russians accounted for 27%. From June to September, Russia’s share grew to 52% compared to Serbia’s 23%. Serbia was the leading source country from then until the following summer, a pattern that continued until the start of the pandemic in 2020.
Most tourists visiting Montenegro do not venture beyond the coastal areas. In 2019, the coastal municipalities collectively hosted 95 percent of the 14.5 million overnight stays by tourists. Budva municipality remains the most visited town for tourists, although the share of stays declined from 44 percent in 2015 and 2016 to 32 percent in 2019 and 28 percent in 2021. The Bay of Kotor region and Bar and Ulcinj attracted higher share of tourists—from 52 percent in 2015 and 2016 to 63 percent in 2019 and 66 in 2021 as accommodation establishments expanded in these regions, particularly in the Boka Bay. Despite an increase in recent years, Montenegro’s northern regions still host only 2 percent of total tourist stays in the country.

Tourism in Montenegro was hit hard by the pandemic but rebounded strongly in 2021. International travel and tourism was suddenly and severely hit by the pandemic, with global tourist arrivals falling 70 percent in 2020 (UNWTO, 2021). The closure of Montenegro’s borders in April and May 2020 and other restrictions on travel reduced the number of international overnight stays by 84 percent (Statistical Office of Montenegro, 2022), while the number of employed in the food service and accommodation sector declined by 23 percent (European Commission, 2022). Progress with vaccinations, health protocols, and open borders helped revive tourism in 2021—tourist overnight stays and revenues reached 67 percent of their 2019 level (Ibid.). The resurgence of visitors was driven primarily by increased flows from Ukraine (38 percent of arrivals from June to September) and Serbia (43 percent of arrivals over the same period). In 2021, the number of tourists from Russia and the EU were half 2019 levels.
The competitiveness of Montenegro’s tourism sector lags those of regional peers. Montenegro’s score on the World Economic Forum’s Travel and Tourism Competitiveness Index improved from 2017 to 2019. However, Montenegro’s score lags those of regional peers. In 2019, Montenegro scored highest in enabling environment, which captures the general conditions required to operate in the country but performed weakest in the cultural resources and business travel category, which captures how well a country promotes cultural resources such as archaeological sites, entertainment facilities and conferences. Montenegro’s low ranking in this category highlights ineffective marketing of inland attractions and high dependence on its reputation as a beach destination. In comparison to Montenegro, Greece, Croatia, and Cyprus performed well in the policy and enabling conditions category, which assesses the impact of specific policies or strategies on the travel and tourism industry. Montenegro out-performs its regional peers in the price competitiveness category.

The number, size, and productivity of tourism firms grew rapidly between 2014 and 2019. The number of registered tourism firms increased from 1,669 in 2014 to 3,187 in 2019, faster than in the rest of the economy. As a result of this rapid growth, tourism firms are younger than others.

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3 Scores on a scale of 1 to 7; the index benchmarks the Travel and Tourism competitiveness of 140 economies and measures “the set of factors and policies that enable the sustainable development of the Travel and Tourism sector, which in turn, contributes to the development and competitiveness of a country” (WEF).

4 The share of tourism firms out of all firms in Montenegro increased from 8 percent in 2014 to 10 percent in 2019.
in the economy – 56 percent of tourism firms have been operating for less than 5 years, which is 10 percentage points higher than the average for non-tourism firms. The average tourism firm grew quickly relative to other firms, with the average tourism firm doubling its employees within the first 10 years and substantially increasing its value added and labor productivity.\(^5\) Sectoral productivity in the tourism sector also increased substantially between 2014 and 2019,\(^6\) driven by increases in efficiency and the relocation of resources towards more efficient firms (Figure 10).\(^7\)

**Figure 9: The productivity of the tourism sector improved but remained below the economy-wide average**

<table>
<thead>
<tr>
<th>Year</th>
<th>Log of Sector TFP</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>6.5</td>
</tr>
<tr>
<td>2015</td>
<td>7.0</td>
</tr>
<tr>
<td>2016</td>
<td>7.5</td>
</tr>
<tr>
<td>2017</td>
<td>8.0</td>
</tr>
<tr>
<td>2018</td>
<td>8.5</td>
</tr>
<tr>
<td>2019</td>
<td>9.0</td>
</tr>
</tbody>
</table>

**Figure 10: Increases in firm efficiency and resource reallocation between firms drove productivity growth in tourism**

<table>
<thead>
<tr>
<th>Year</th>
<th>Cumulative Contribution to Aggregate TFP Growth in Tourism</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>0.05</td>
</tr>
<tr>
<td>2016</td>
<td>0.1</td>
</tr>
<tr>
<td>2017</td>
<td>0.15</td>
</tr>
<tr>
<td>2018</td>
<td>0.25</td>
</tr>
<tr>
<td>2019</td>
<td>0.35</td>
</tr>
</tbody>
</table>

**Source:** World Bank staff calculations based on firm census data.

**Note:** Sector TFP is the average of log firm-level TFP weighted by firm-value added.

Despite recent improvements, **Tourism firms are, on average, less productive and pay lower wages than other firms in Montenegro.** Compared to non-tourism firms, firms in the tourism sector are also on average less productive (Figure 9). Tourism firms also pay substantially lower wages, with average wages in tourism are 22 percent lower than average wages in other private sector jobs. Firm dynamics in the sector also point to significant constraints to the productivity growth of tourism firms. For example, more mature firms – which account for a large share of the market – are growing primarily by scaling up their inputs while improvements in their efficiency are slow, especially when compared to that of young firms.

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\(^5\) Young tourism firms increased labor productivity primarily due by increasing capital intensity, rather than by improving efficiency. Total factor productivity (TFP) grew slower for young tourism firms than for young non-tourism firms.

\(^6\) Aggregated log TFP increased from 6.8 to 7.2, which is equivalent to a 33 percent increase in productivity levels. Aggregated log TFP is a weighted – by value added – average of log firm-level TFP. As this is a non-linear transformation, the 33 percent approximate increase does not necessarily represent changes in the weighted average of TFP across firms. This number is provided here just to give a sense of the magnitude of the change in productivity observed over the period.

\(^7\) The reallocation of capital and labor between firms surged after 2017, which is a sign of a well-functioning market. Productivity growth within incumbent tourism firms also increased but contributed less to sectoral TFP growth.
2. Constraints on Economic Benefits of Tourism

2.1. Demand Side Constraints

Congestion in the coastal regions, underdevelopment of inland attractions, lack of local tourism products and services, and environmental degradation constrain tourism demand.

The economic contribution of tourism in Montenegro is limited by the demand for tourism, which is in turn a function of both the number of international visitors and the amount of money they spend. Demand for tourism services is affected by some factors that are beyond the immediate control of Montenegro’s policymakers and private sector actors, such as the scope and quality of Montenegro’s natural, historical, and cultural attractions and the quality of other competing destinations. However, policymakers and private actors can influence various factors that can influence tourists’ decisions to visit Montenegro, how long to stay, how much money to spend, and whether to recommend the destination to friends and family. Currently, demand for Montenegro’s tourism offering is constrained by congestion at heavily-touristed destinations in the coastal areas; by the inaccessibility and limited scope of facilities, and minimal marketing of inland destinations; by the limited availability of high-quality local inputs to tourism products and services; and by environmental degradation. To enhance the sustainability and economic impact of the tourism sector, Montenegro should seek to address each of these constraints.

**Congested Coastal Infrastructure**

Congestion limits tourism demand through its effects on tourists’ perceptions and spending. Congestion is a natural result of the expansion of tourist volumes beyond the carrying capacity of domestic infrastructure. The experience of congestion—overcrowded attractions, being stuck in traffic jams, waiting in line to have one’s passport stamped at immigration, or standing around for a departing flight due to a lack of seats at an overcrowded airport—adversely affects the visitor experience. As a result, tourists are less likely to recommend the destination to friends and family or to visit again. Moreover, congestion limits tourist spending as time spent in traffic jams or immigration lines detracts from time spent consuming tourism services. For both reasons, congestion constrains the demand for tourism and, by extension, the contribution of tourism to economic growth and development.

Coastal destinations in Montenegro suffer from severe congestion during summer months, limiting current and future tourism demand. Five types of congestion affect the coastal destinations during the summer months:

- **Road Congestion**: Roads along the Adriatic coast and, in particular, between Budva and the Bay of Kotor and around the Bay of Kotor, become extremely congested during the peak summer months, resulting in frequent traffic jams. For instance, respondents to a recent survey by the World Bank of tourism enterprises in the respective municipalities reported that it takes tourists an average travel time of 66 minutes to reach the nearest airport during the peak hours of the summer season, as compared to 30 minutes outside of the summer season (World Bank, 2022). The long times that tourists spend in traffic jams when visiting the Bay of Kotor and other sites along the coast negatively affect the visitor experience and reduce demand for tourism goods and services.

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8 Respondents represent firms located in the municipalities of Bar, Budva, Herceg Novi, Kotor, and Tivat.
- **Airport Congestion:** During the summer, most visitors who fly into Montenegro arrive at Tivat airport (Figure 11). Arrivals at Tivat during the peak month on August increased from 37,185 in 2012 to 70,646 in 2019 (OAG, 2022), driven by growth in low-cost operators (Figure 12). Reports from both before and after the pandemic indicate that the airport infrastructure is inadequate for passenger volumes during the summer months, resulting in cramped conditions and passenger dissatisfaction (Google, 2022).

- **Border Congestion:** International tourists also arrive via road crossings with Serbia, Croatia, and Albania. The main checkpoint along the Croatia-Montenegro border—the Debeli Brijeg / Karasovići crossing along the Adriatic Highway—connects the Bay of Kotor with Dubrovnik and other points northwest. During the summer, the volume of vehicular traffic between Croatia and Montenegro can overwhelm the capacity of the border crossings, resulting in wait times at the border that can vary from 20 minutes to several hours.

- **Ferry Congestion:** Vehicle ferries cross the 300m Verige Strait between Lepetane and Kamenari villages in 5-10 minutes. Although six ferries operate every 15 minutes from May to October queue times can take up to 45 minutes (Montebase). The insufficient carrying capacity of the ferries during the summer months thereby aggravates road congestions around the Bay of Kotor.

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9 During 2018 and 2019, 60 percent of summer visitors and 66 percent of off-season visitors flew to Montenegro on a flag carrier, while 24 percent and 30 percent respectively flew on a low-cost carrier.

10 On Google Maps, Tivat Airport has a 2.7 star (out of 5) ranking from airport users (Google, 2022). Comments from users include: “Very small airport, which is not made for the current mass of tourists”; “it is size like matchbox [sic]”; “There is no enough place to sit [sic]. Everybody are standing [sic]. Dirty toilets [sic]”; and “the waiting area is always crowded” (Ibid.).

11 An international ferry connecting Bari, Italy with Bar, Montenegro will operate once a week from June to November of 2022. Rail networks connect Montenegro with Serbia, but relatively few international tourists travel by rail. The Belgrade – Bar Railway, completed in 1976, encompasses 254 tunnels and 435 bridges, including the Mala Rijeka viaduct, the highest in Europe. Due to speed restrictions, trains currently take 10 hours to travel the 476 km route between Belgrade and Bar via Bijelo Polje, Mojkovac, Kolašin, and Podgorica (Lerwill, 2016). Deterioration of the line due to underfunding culminated in the Bioče derailment in 2006, which killed 47 people. The Serbian section of the railway was reconstructed in 2016 to support speeds up to 120 km/h. The Podgorica – Shkodër railway extends to Tirana but is exclusively used for freight traffic.

12 Debeli Brijeg is on the Montenegrin side and Karasovići is on the Croatian side. The border posts are separated by about 5 km. A second border crossing at Njivice / Konfin processes a much smaller volume of traffic.

13 A bridge spanning the Bay of Kotor crossing the Verige Strait and a tunnel connecting Zelenika and Luštica have both been proposed (Stjepšević, 2018; Dušević, 2019).
- **Attraction Congestion**: The increase in the volume of tourists visiting attractions along the Adriatic coast and, in particular, the Bay of Kotor has, in recent years, resulted in noticeable overcrowding at many key destinations, such as Herceg Novi, the Old Towns of Kotor, Budva, and Perast. Overcrowding can become critical during visits by international cruise liners, which have significantly grown in size over recent years (Box 1). Port visits by cruise liners to the Bay of Kotor generally only last a few hours but disgorge thousands of passengers into concentrated locations and in so doing adversely affect the tourist experience for longer-staying, higher-value tourists. General overcrowding at key attractions reduces the consumption of goods and services by tourists and makes tourists less likely to recommend the destination to others.

**Box 1: The Costs and Benefits of Cruise Ship Tourism**

**Cruise ship tourism experienced strong growth rates until 2020** (Box Figure 1). The Bay of Kotor is the most visited area by cruise ships in Montenegro and, as of 2019, was the third most visited in Europe behind Venice and Dubrovnik, receiving 464 calls and 615,000 passengers (MedCruise, 2020). The share of cruise traffic as a share of international arrivals grew rapidly from 2010 to 2019, increasing from 11 percent to 26 percent (Statistical Office of Montenegro, 2022). Cruise traffic fell precipitously in 2020, with just 9 ship arriving in Kotor (MedCruise, 2021). Since then, cruise ship arrivals have started to recover, but are still far from 2019 levels (MedCruise, 2022). The environmental costs and the relatively minimal economic benefits of cruise ship visits raise questions, however, as to whether a resumption of cruise ship tourism is in Montenegro’s best interests.

**Cruise ships are intensive in fossil energy and generate waste harmful to sensitive ecosystems and humans.** Night operations on a cruise ship can consume to 12 times more energy than a hotel (Howitt, Revol, Smith, & Rodger, 2010). Cruise ships ordinarily burn heavy fuel oil that contains more pollutants and toxins than diesel or liquid natural gas, produce harmful pollutants such as nitrogen dioxide, sulfur dioxide and particulate matter (Lloret, Carreño, Carić, San, & Fleming, 2021), and discharge ballast water that can contain invasive species harmful to Adriatic biodiversity. A high frequency of cruise ships results in noise pollution that can disrupt underwater marine life and small-scale fishing and increases the risk of accidents that would cause long-term damage to marine flora and fauna.

**Cruise ship tourism can adversely affect local businesses not associated with tourism.** Some businesses – such as souvenir shops and coffee bars – benefit from the temporally- and geographically-concentrated influx of visitors created by cruise ship visits. However, such influxes congest local infrastructure and can increase prices of basic goods for locals and other tourists, while generating relatively minimal revenue for the broader economy. In Venice, for instance, day-trippers – many from cruise ships – comprise 73 percent of visitors, but account for 18 percent of the tourism economy (Momigliano, 2021). Tourists that spend at least one night at a hotel in Venice comprise 14 percent of the visitors but provide 48 percent of business revenue (Ibid.).

**To ensure a balance between the costs and benefits of cruise tourism, Venice is regulating visits by short-term tourists to the historical center and has banned cruise ships from the lagoon.** As of June 2022, day visitors to Venice will need to obtain a reservation in advance and pay a fee of around $10 per person per day.
Daily tourist numbers will be capped at 40-50,000, the number of permanent residents of Venice (Povoledo, 2021). To preserve the ecosystem of Venice lagoon, the Italian government banned large ships from entering the lagoon and is diverting cruise ship arrivals to the region’s industrial port (Ibid.).

Addressing the adverse impact of congestion on tourism demand requires a multi-pronged strategy:

- **Expanding public boat services with solar- and electricity-powered boats in the Bay of Kotor and along the Adriatic Coast:** Currently, a vehicle ferry traverses the Verige Strait and in 2019 two solar- and electricity-powered boats started operating as public boats. Further development of frequent public ferry services between key attractions along the Bay of Kotor (e.g., Herceg Novi, Porto Montenegro, the Old Town of Kotor, and Perast), between the main towns along the Adriatic Coast (e.g., Budva, Bar, and Ulcinj), and between Tivat Airport Marina and the accommodation centers along the Bay of Kotor would serve as an alternative to road transportation and ease congestion along the roads around the Bay of Kotor and along the Adriatic Coast. At the same time, expanding the network of solar-powered boats would reduce the environmental impact and market Montenegro as green tourism destination.

- **Increasing frequency of Verige strait ferry services:** The capacity of ferry services across the Verige Strait is currently insufficient to meet demand during the summer months, which exacerbates congestion on roads around the Bay of Kotor. To increase capacity, the government may consider measures to increase competition of ferry services and offer additional incentives for off-peak services. Other solutions (e.g., an underwater tunnel) that would not threaten the area’s unique cultural and natural heritage could also be explored.

- **Expanding low carbon public transportation around the Bay of Kotor and along the Adriatic Coast:** Existing bus services around the Bay of Kotor and along the Adriatic Coast are limited and require further investments. In addition to exploring the potential for developing public boat services, coastal municipalities should develop electric public bus services specifically targeted at tourists visiting the Bay of Kotor or the Adriatic Coast in order to reduce road congestions and reduce the emissions.

- **Better regulating large cruise traffic:** Visits by large cruise ships to the Bay of Kotor have adverse environmental impacts and create congestion at key attractions, while generating limited revenue for Montenegro’s tourism sector due to the short length of visits (see Box 1). To ensure that the value generated by cruise ships sufficiently offsets these adverse impacts, Montenegro may consider increasing the taxes and levies imposed on cruise traffic or adopt a policy similar to Dubrovnik by limiting the number of cruise ships allowed to dock at Kotor. To mitigate other adverse effects of cruise tourism, Montenegro could mandate the use of shoreside electricity by cruise ships when docked and/or introduce protected marine areas, of which the country currently has none.

- **Increasing taxes on using congested infrastructure to encourage use of alternative modes:** To ensure that the growth in tourism numbers – particularly of the low-end segment – does not adversely affect tourism revenue, Montenegro may consider further taxing tourist arrivals. In addition to generating revenue for the further development of public infrastructure, such taxes can mitigate the potentially adverse impacts that tourists have for the attractiveness of the destination. Such taxes should be targeted specifically at attractions and infrastructure experiencing high levels of congestion. As such, Montenegro may consider increasing landing fees and arrival or departure taxes at Tivat Airport; administering tolls on private and shared...
vehicle traffic traversing the road around the Bay of Kotor, the Vrmac Tunnel, or along the Adriatic Coast; and increasing accommodation taxes for heavily-touristed municipalities. Such taxes may be particularly beneficial in encouraging use of alternative or low carbon transportation options, such as public buses and boats.

Underdevelopment of Inland Attractions

The development of tourism in the central and northern areas requires public-private coordination to develop adequate transportation, accommodation, and marketing. The inland areas of Montenegro offer various cultural and natural attractions and activities, including pilgrimages to religious sites, rafting in the Tara canyon, hiking and cross-country skiing in the national parks of Durmitor, Biogradska Gora, Skadar lake, and Prokletije, and downhill skiing on the mountains of Bjelasica and Durmitor. However, only 10 percent of international visitors visit these sites (Ministry of Economic Development, 2022). Low visitation of these sites is caused by poor transportation options; by an insufficient supply of quality accommodations, food, and beverage options; and by minimal marketing. As transportation, accommodation, and marketing are jointly necessary to establish the viability of a destination, the inland attractions suffer from a coordination failure that suppress tourism in these areas. This unwillingness of private investor to bear the ‘first-mover’ risk of investing in developing tourism products in these areas warrants government coordinate public and private investments that collectively reduce investment risk.

Infrastructure links between international transport hubs and inland destinations are very poor. The access of international tourists to Montenegro’s interior destinations is generally restricted to one-lane local roads. Road travel between Podgorica and the national parks, ski-fields, and other attractions in northern Montenegro is presently hampered by the poor state of the road that traverses the Morača canyon, although a 165 km motorway under construction between Bar and the Serbian border at Boljare promises to reduce travel times. Although Montenegro has two railway lines that connect the coast and attractions in central and northern Montenegro, train services are of poor quality due to underinvestment in the sector and little used by international tourists.

Tourism demand at inland destinations is also constrained by a lack of high-quality accommodation and food and beverage options. The supply of international-standard accommodations in areas proximate to the inland attractions is very limited. As of 2019, there were only 452 four- or five-star hotel rooms in municipalities in the central and northern municipalities outside Podgorica, just 5 percent of the national total (Figure 13). For example, while there are 456 rooms available around Durmitor National Park, only 31 such rooms are in four- or five-star hotels (Booking.com). At other inland attractions, such as the Biogradska Gora National Park,

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14 The underdevelopment of inland Montenegro encourages internal migration towards the coastal regions, exacerbating regional disparities. In 2019, the unemployment rate was 36 percent in the northern Montenegro, 6 percent in southern Montenegro, and 9 percent in central Montenegro (Monstat, 2019). Remittances from abroad contribute a major source of income for the population of northern Montenegro, with total inflows reaching €564 million in 2020, a 0.7 percent and 4.3 percent increase compared to 2019 and 2018 respectively (Central Bank 2019 and 2020; ETF).

15 Montenegro has 5,277 km of roads (Error! Reference source not found.), but only 1,729 km of these are paved (Wikipedia, 2022). Trips between Podgorica and Bar take around an hour via the Sozina tunnel, which was completed in 2005.

16 A majority of funds for infrastructure development have been allocated towards completing the Smokovac-Matesevo section of this highway in the north (ETF). This portion of the motorway is nearly 41km long and requires the construction of 19 tunnels and 36 bridges and viaducts (GEOData).

17 The total number of rail passengers peaked at 2 million in 1987, fell to 700,000 in 2011, grew to 1.3 million in 2016, but fell to 500,000 in 2020 (Statistical Office of Montenegro, 2022; Simic, 2018).
lodging options are even more limited, with only five accommodation options in Kolašin municipality in 2019 (Statistical Office of Montenegro, 2022).

![Figure 13: Accommodation establishments are heavily concentrated in the coastal region](image)

Source: World Bank staff calculations based on (Statistical Office of Montenegro, 2022)

While the attractions on the Adriatic coast are well marketed, potential international tourists are often not aware of the exceptional inland attractions. The very low level of visits to the inland attractions is at least partly explained by a lack of marketing of these destinations to international tourists. Since Montenegro has been branded as a beach destination, marketing efforts are largely associated with coastal attractions and inland destinations suffer from a lack of a recognizable brand. The rich cultural, environmental, and natural beauty offered by inland destinations is not effectively communicated to target groups.18

Measures to reduce tourism seasonality and broaden tourism demand require coordinated investments:

- **Develop tourist-oriented train and bus link services to inland attractions:** The spectacular train journey from Bar to Bijelo Polje has the potential to be both a tourist attraction on its own and, in conjunction with linking bus services, to serve as an eco-friendly mode of transportation for tourists from the coastal region to the inland attractions in central and northern Montenegro.19 Currently, the quality of the passenger rail cars and service fall below acceptable to international tourists, particularly at the high-end. Montenegro should explore the feasibility of upgrading the rolling stock, investing in the railway infrastructure and upgrading service standards to make train and linking bus services attractive to tourists.20

- **Carefully designed Public Private Partnerships (PPPs) and investment incentives can support the development of facilities at inland destinations:** In conjunction with measures to enhance accessibility and increase marketing of inland destinations, Montenegro should evaluate the effectiveness and design of existing incentive programs for investors in northern

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18 In 2019, Montenegro partnered with Italy and Albania in the “Due Mari” project as part of the European Territorial Cooperation Program. With a budget of €5 million, the project aimed to “create a joint Virtual Reality Platform to favor sustainable tourism growth, diminish seasonality, and promote new technologies and innovative approaches and tools in tourism marketing” and promised a “joint model for cultural routes management will be developed to promote lesser-known destinations, and several actions will be carried out to improve skills in the field of cultural heritage preservation” (European Union, 2022). Montenegro benefited from this initiative through launching a new website for the National Tourism Organization (Ministry of Economic Development, 2022).

19 The train navigates the picturesque Morača River Canyon and crosses the highest railway bridge in Europe, the Mala Rijeka Viaduct.

20 A €45 million project, started in 2018 and co-financed by the European Investment Bank, has financed a new signaling system in the Podgorica railway station and reconstructed key slopes, bridges, and tunnels (Simic, 2018).
regions and, if necessary, modify incentives to ensure take-up and explore the feasibility of deploying PPPs to spur development of facilities to serve inland destinations.

- **Expand marketing of inland attractions**: Increasing the number of international tourists visiting inland destinations will require a multifaceted marketing campaign for these destinations, both inside and outside Montenegro. While it will be important to communicate to potential investors about the proposed marketing campaign, the marketing campaign will be effective only once the accessibility of such destinations has been improved and accommodation and other facilities have been upgraded.

**Lack of Distinctive Local Products**

A lack of high quality and distinctive local products and services undermines demand for Montenegro’s tourism offering. The distinctiveness of quality of tourism products and services – including accommodation, meals, beverages, and interactions with those employed in the tourism sector – affects current and future tourism demand through both perceptions and consumption patterns. The opportunity to consume products that are not readily available in the source country or potentially in other locations is a key motivation for tourism. Where high-quality and distinctively local products are not available, the tourism experience is diminished and tourists cut back on expenditure. Both effects limit current and future demand. Due to a reliance on both imported goods and foreign labor, Montenegro’s tourism products are often not distinctively local, which adversely affects the demand for Montenegro’s tourism offering both by reducing the spending of international tourists visiting Montenegro and the likelihood that tourists will recommend the destination to friends and family or return. The lack of a sufficient supply of labor and non-labor local inputs to Montenegro’s tourism industry is discussed further in Section 2.2. below.

**Environmental Degradation**

The quality of the natural environment affects tourist perceptions and tourism demand. International tourists generally place a high value on the quality of the natural environment at tourist destinations. Polluted air, contaminated water, or the apparent absence of adequate solid waste management adversely impact tourist perceptions of the favorability of a destination. Accordingly, tourists that experience environmental degradation or witness the mismanagement of waste are less likely to return to a destination or to recommend that destination to others. The quality of waste collection, management, and disposal is thus key to sustaining and growing the demand for tourism. As is detailed further in Section 3, below, the pollution of air and waterways and the mismanagement of solid waste represents a serious threat to the sustainability of tourism in Montenegro.

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21 Photos and videos have proven to be some of the most effective tools in connecting tourist destinations to target groups. Tourists respond well to videos as they are virtually immersed in the location, providing them with a sample of what’s available and motivating them to seek the full experience in person, with 93 percent of tourists claim that videos help them make travel decisions, incentivizing 81 percent of destinations to use videos to market their product (Ministry of Economic Development, 2022).

22 A survey of 4,557 consumers of British, German, and Swedish international tourism consumers commissioned by the World Bank Group found that, out of 22 potential drivers, cultural assets (food, culture, history, richness and variety) was the most important determinant of whether a consumer intends to return to a destination (World Bank Group, 2021).

23 Consumer market research in the Germany, Sweden, and the U.K. commissioned by the World Bank Group found that 61 percent of travelers want to travel more sustainably in the future as a result of the pandemic (World Bank Group, 2021).
2.2. Supply Side Constraints

The cost structure of Montenegro’s tourism sector is adversely affected by an insufficient supply of skills and by regulatory burdens. The competitiveness of Montenegro’s tourism product is affected by the cost of producing goods and services consumed by tourists, which in turn is affected by the availability of inputs and the efficiency of production processes. In Montenegro, a shortage of skilled labor and regulatory complexity both increase the cost of producing tourism goods and services, reducing the attractiveness of the sector to domestic and foreign investors, and undermining the overall competitiveness of the country’s tourism industry. Four out of five Montenegrin tourism firms surveyed by the World Bank in early 2022, for instance, cited the availability of skilled labor as a severe constraint impeding the growth of the sector, while three out of every five firms cited competition from informal firms which often evade regulations (Figure 14). Improving the supply of skilled labor and reducing regulatory complexity will be critical to ensuring the competitiveness of Montenegro’s tourism offering and attracting additional investment to the sector.

Figure 14: Skilled labor shortages, transport, and environmental degradation, and informality are among the top growth challenges reported by tourism firms in Montenegro

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of Skills</td>
<td>81%</td>
</tr>
<tr>
<td>Transportation Infrastructure</td>
<td>68%</td>
</tr>
<tr>
<td>Environmental Degradation / Climate Change</td>
<td>63%</td>
</tr>
<tr>
<td>Competition from Informal Firms</td>
<td>63%</td>
</tr>
<tr>
<td>Utility Infrastructure / Services</td>
<td>54%</td>
</tr>
<tr>
<td>Access to Finance</td>
<td>51%</td>
</tr>
<tr>
<td>Tax Regulations / Inspections</td>
<td>48%</td>
</tr>
<tr>
<td>Municipal Services</td>
<td>43%</td>
</tr>
<tr>
<td>Labor Regulations / Inspections</td>
<td>29%</td>
</tr>
</tbody>
</table>

Source: (World Bank, 2022). See Appendix 0 for detailed survey results.

Insufficient Supply of Skilled Labor

Shortages of skilled labor in Montenegro increase the cost of tourism products and limit the efficiency of the sector. While tourism is among the least skill intensive services sectors in the economy, firms report difficulties in finding skilled labor for management and other specialized job positions. According to the results of a 2019 World Bank survey, managers of Montenegrin hotels are more likely than those in peer countries to cite insufficient skilled labor as a growth constraint (Figure 15). Employers in the tourism sector report that difficulties in recruiting skilled employees stem from a low number of qualified graduates and the migration of graduates to other countries (World Bank, 2019). The high turnover in tourism employment inhibits the accumulation of task-specific human capital, which in turn reduces the labor productivity in tourism and discourages employers to train workers. In Montenegro, training

24 The shortage of skilled labor experienced by firms in the tourism sector is ultimately a function of broader deficiencies in human capital in Montenegro and, in particular, of the poor performance of the country’s educational institutions. The World Bank’s Human Capital Index reports that a child born in Montenegro today will be 63 percent as productive when she grows up as she could be if she enjoyed complete education and full health (World Bank, 2020). Only 56 percent of Montenegrin students attained a minimum proficiency in reading, 54 percent attained a minimum proficiency in mathematics, and 52 percent attained a minimum proficiency in science (PISA, 2018). Despite major educational reforms and a focus on Technical and Vocational Education and Training (TVET) in recent years, these programs still need to be aligned with labor market needs of the private sector.
workers in the tourism sector is even more uncommon than in peer countries, with only 20 percent of hotels reporting the existence of a paid training program for full-time employees (Figure 16).

Figure 15: Inadequately educated workforce is a bigger challenge for hotels in Montenegro than hotels in its peer countries.

Figure 16: But Montenegro’s hotels also lag formal training of their staff.

Source: World Bank staff calculations based on (World Bank, 2019)

To make up for labor shortages during the peak season, tourism industry contracts foreign workers. In 2019, 27,634 permits for temporary residence and work of foreigners were issued in Montenegro, reflecting a 5 percent increase from 2018 (European Training Foundation, 2021). Montenegro implements an annual quota system for foreign workers to ensure the domestic labor force has the first chance at available jobs (Ibid.). Still, in tourism, employers reportedly prefer to hire foreign workers who will accept lower wages or have the necessary qualifications to perform skilled jobs. As a result, 81 percent of permits granted within the quota system were allocated for workers in the tourism or related sectors (Ibid.). Three-quarters of migrant workers in Montenegro’s tourism sector come from neighboring countries such as Serbia, Bosnia and Herzegovina, and North Macedonia (Ibid.).

Addressing skill shortages requires expanding and improving university and vocational education programs in tourism through increased coordination with the private employers. To address the skills shortage affecting Montenegro’s tourism sector and to reduce the sector’s reliance on migrant labor and enhance economic impact, it is essential that both secondary education and technical and vocational education and training (TVET) programs focus on developing skills demanded by service providers, such as foreign language skills, information technology, and communication skills, as well as tourism-sector specific skills. While specialized tourism TVET programs exist, they seem to attract fewer students and not necessarily provide the skills demanded by the sector. To this end, the government should ascertain the interest of major hoteliers and tourism trade associations in collaborating to develop better vocational training programs in tourism and an apprenticeship system whereby graduates of the program can receive conditional job offers from major operators. At the same time, efforts are needed to raise awareness about career opportunities for skilled jobs in the tourism sector as the university programs in tourism and hospitality do not seem to generate strong interest among students.

Regulatory Uncertainty

Regulatory policy applicable to the tourism sector and the consistency of enforcement varies across firms and municipalities, discouraging investment and limiting productivity. Many firms in the tourism sector are afflicted by a complex array of taxes and regulations. For instance, VAT and real estate tax rates charged to tourism and hospitality establishments vary with the region, hotel standard, and seasonality, as do different charges and levies imposed by local
governments (see Note on leveling the playing field). Parafiscal charges including tourism membership fees also vary substantially across municipalities, segmenting markets and increasing the cost and uncertainty for successful hotels or restaurants to expand or franchise their businesses. Entry barriers for foreign and domestic entrepreneurs in transport and professional services can further limit the quality of backbone services used by the tourism industry.

The high level of informality in tourism services is indicative of the weak enforcement of sectoral regulation and undermines the growth of registered firms. Approximately 30 percent of tourism-related business is conducted in the “gray-zone” and hotels in Montenegro appear to be more exposed to competition from unregistered accommodation services than hotels in peer countries (Figure 17). Moreover, informality appears to have become an increasingly challenging obstacle for registered firms as Montenegro’s tourism sector has grown (Figure 18). The high prevalence of informality erodes the competitiveness of and accordingly undermines investment in formal sector firms.

The lack of spatial plans and inefficient destination management have led to uncontrolled land development, undermining the value of legitimate investments. Planning exercises have generally eschewed local inputs in planning projects, instead favoring centralized management systems. Planning processes have accordingly prioritized the “elimination of business barriers” for large companies over other considerations of environmental impact (Dragović, 2021). New models for territorial development and spatial management need to be implemented to decentralize the process and synchronize planning across all levels of government (Popović, Dobričić, & Savić, 2021; Dragović, 2021).

The punishment of violators of environmental and planning regulations by the Department of Environmental Inspection appears to be ineffective. According to data obtained from the

If an investment exceeds €500,000, the Law on VAT stipulates a zero VAT rate on the delivery of products and services for the construction and furnishing of any five-star hotel, energy generation facilities with more than 10 MW installed capacity, or food production plants classified as sector C group 10 under the Law on Business Activity Classification (Ministry of Foreign Affairs of Montenegro, 2019). The Law Amending the Law on Real Estate Tax further allows local governments to lower the tax rate for hospitality establishments that operate throughout the year by up to 30 percent for 4-star establishments and up to 70 percent for those with more than 4 stars (Ibid.). For services such as accommodation, food and beverage services in hotels with at least 4 stars in the northern region and at least 5 stars in the central or coastal regions (effective as of 1 January 2018), a standard VAT rate of 19 percent and a reduced rate of 7 percent is applied (Ibid.).

These constraints are presented in detail in the companion note on competition and regulation for this report.

For further discussion, (please see the companion note on productivity for this report).
Judicial Council, 534 cases have been opened in Montenegrin courts since 2016 “on the basis of alleged criminal acts against the environment and spatial planning”, but only six pertained to environmental pollution and none ended in convictions (Jovanovic, 2021). Violating firms also typically face relatively small fines (Ibid.). In 2021, the Agency for Environmental Protection ordered firms to pay around €1.3 million in taxes and fees, but only half had been collected by the end of the year (Ibid.). Moreover, environmental inspectors often only monitor firms and lack legitimacy as a punitive body, which allows many companies to continue illegal practices with minimal repercussions.

Box 2: Beach Erosion and Spatial Planning on Ada Bojana Island

The erosion of Ada Bojana Island exemplifies the consequences of a lack of enforcement of planning and environmental regulations. The 2.9 km sandy beach along the southwestern coast of Ada Bojana Island has long been regarded as among the most beautiful in Montenegro. Over recent decades, excavations by various projects – including the construction of 600 holiday homes along the Bojana River – and the dumping of solid waste have reduced the capacity of the nearby riverbed, eroding the Ada Bojana’s by as much as 85 meters (Figure 19) (Canka, 2019). In 2017, the flow of the right branch of Bojana River became so constrained that it could no longer reach the sea and Ada Bojana temporarily became a peninsula, a situation that was only remedied by efforts to pump out surplus material (Ibid.). A German biologist has predicted that the island will disappear in the next 40-50 years unless action is taken. Despite proposals to protect the island – and the broader Bojana delta – with zoning regulations and enforcement that would prevent a recurrence of the developments that have eroded the beaches of Ada Bojana, no significant action has yet been taken.

Figure 19: Ada Bojana Island in 1984 and 2020

Source: (Google, 2022)

To improve the productivity of Montenegro’s tourism sector and to protect the invaluable natural assets on which it depends, it is essential to undertake regulatory reforms to reduce regulatory complexity while strengthening enforcement. Reforms to reduce the cost and complexity of starting and running a formal business – such as through the institution of digital modalities – can reduce informality, promote competition between tourism firms, and improve overall economic productivity (Ministry of Economic Development, 2022). To promote the both the registration of firms and adherence to regulations, it is essential that enforcement capabilities of the relevant institutions are strengthened. To reduce the incidence of informality in the accommodation sector, the government should explore creating an online register of all private accommodations and introduce incentives for registration, while also modernizing monitoring and enforcement capabilities. To reduce the cost of compliance, improve the productivity of tourism
firms, and increase incentives for investment in the sector, the government may also consider reducing the number and harmonizing the amounts of parafiscal charges (see Chapter on Competition) and should develop an inclusive dialogue with both local stakeholders and the private sector when preparing strategies, laws, and bylaws related to tourism.

2.3. Productivity Spillovers to Other Sectors

Tourism can economically benefit the broader economy by generating productivity spillovers for firms and workers outside the sector. Work in tourism exposes local workers to new languages, technology, and efficient management practices, enhancing their productivity when they move out of the tourism sector to other jobs. In addition, tourism can improve the productivity of firms in other sectors with which tourism is linked through increasing access to business services such as finance, accounting, and consulting, by loosening credit constraints, and/or facilitating networks. As with other sectors, foreign direct investment in tourism is an important channel for facilitating such productivity spillovers, as it spurs knowledge transfer to local workers and domestic firms, enhancing their productivity (Xu & Sheng, 2012). A recent study for Mexico, for instance, found that tourism activities generated positive productivity spillovers for the manufacturing sector by improving the local availability of quality business services such as finance, accounting, or consulting. In Mexico’s regions with the highest tourism activity, a 10 percent increase in tourism revenues led to a 3.2 percent increase in local manufacturing GDP (Faber and Gaubert, 2019).

Montenegro has successfully attracted foreign investment in tourism. Foreign investment has driven the expansion of luxury hotel capacity in Montenegro, with capacity at four-star establishments increasing from 5,000 to 8,500 beds from 2014 to 2019 and capacity at five-star establishments more than doubling from 800 beds to 2,100 beds. In 2017, Montenegrin

![Figure 20: Montenegro’s luxury hotels import almost all goods](image)

Source: Customs transaction and firm census data. Note: Domestic supplies are total cost of material excluding fuel and energy cost net of imports.

28 (Reyes, 2017) analyzes data on 71,000 firms across 50 sectors in 122 developing countries and finds that productivity spillovers from multinational corporations to domestic firms occur primarily through contractual linkages, such as through global value chains. In an analysis of a panel dataset of firms from across the developing world between 2011 and 2017, (Mercer-Blackman, Xiang, & Khan, 2021) find that FDI has a positive effect on labor productivity in sectors and firms within those sectors and that productivity spillovers also occur through backward linkages.

29 Between 2014 and 2019, the total number of hotel beds in Montenegro increased by three thousand beds (Statistical Office of Montenegro, 2022). Over the same time period, capacity at one- and two-star establishments halved from 4,900 to 2,700 beds, while (Ibid.). Four-star establishments now account for 53 percent of total room capacity (Ibid.).
government granted incentives to all foreign and national investors that are interested in constructing new hotels with a minimum of four stars in the exclusive zone and in a first zone. Major recent foreign investments secured by Montenegro include the construction of a “One & Only” five star hotel (the first investment by the brand in Europe), a 240-unit five-star hotel managed by Kerzner International in the Porto Montenegro development, a new five-star hotel within the Luštica Bay project, the construction of a museum-hotel on the Lastavica – Mamula Fortress, and the Ritz Carlton Montenegro luxury resort complex.

Tourism suppliers import a high proportion of inputs, which curtails the multiplier impact of tourism revenues on the domestic economy. Tourism revenues in Montenegro disproportionately finance imports. Over 2018 and 2019, 5-star hotels in Montenegro spent about US$2 million on inputs excluding fuel and energy each year, of which the vast majority was imported (Error! Reference source not found.).³⁰ The very high import share of luxury hotels reflects their quality standards, which are generally not fulfilled by local producers. Major hotels report, for instance, that despite strong demand for local goods, domestic producers are currently unable to consistently supply high-quality basic products such as beverages, meat, fruit, and vegetables.³¹ Luxury hotels also report importing half of the business services and 60 percent of ICT services. A manager of an international hotel in Montenegro, for example, reported that elevator maintenance is provided by Croatian technicians due to a lack of domestic service providers.

Figure 21: Luxury hotels report to import about half of the business services they consume

Source: (World Bank, 2022). Note: See Appendix for detailed survey results.

Raising the quality of domestic goods and services to enable increased use as inputs to the tourism sector would boost economic growth and job creation. Given the unfilled demand from luxury hotels for local products, there is substantial scope for growth in the agriculture, manufacturing, and business services sectors if the respective firms can develop production processes that consistently deliver sufficient supplies of high-quality products. Strengthening linkages between domestic suppliers and international hotel groups would also provide for transfers of technology and knowledge across the domestic economy, boosting total factor and

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³⁰ Other hotels spent US$5.5 million annually on inputs over 2018 and 2019, of which about half were sourced domestically.

³¹ In the food and beverages sector, the domestic market consists largely of small firms that lack the processes to consistently supply high-quality products. In an interview with the World Bank, a manager of an international hotel group reported that they regularly check with domestic food producers but that, with a few exceptions, such producers cannot generally provide high quality products in sufficient quantities.
economic growth.\textsuperscript{32} Once international quality standards are met, domestic suppliers will also be better positioned to tap export markets. In comparison, the status quo – whereby tourists consume goods that are primarily imported and specialized skills in the tourism sector are provided disproportionately by foreign migrants – reduces productivity spillovers across the domestic economy.

**Increasing the productivity of domestic firms to the quantity and quality of products demanded by the tourism industry is critical to deepen tourism’s economic impact.** Improving the consistency of the supply of high-quality domestically sourced inputs to the tourism sector in Montenegro will require a detailed mapping of the supply chain for tourism operators, the identification of constraints facing the associated producers along the value chain, and the provision of targeted assistance to relax these constraints. Removing regulatory barriers to entry and competition, especially in services, would elevate the productivity of domestic firms enabling them to offer higher quality products and services (see Note on leveling the playing field). If designed well, targeted programs subsidizing training, innovation, and technology adoption – such as export readiness and export coaching programs – can also help enable domestic firms meet the international quality standards demanded by Montenegro’s tourism industry and better absorb productivity spillovers from foreign-owned firms (Brussevich & Tan, 2019).

\textsuperscript{32} A study of the effect of FDI on the productivity of firms in Serbia, for instance, found that ‘backward linkages’ – where domestic firms supply foreign-owned firms – generate increases in total factor productivity for the supplying firms (Brussevich & Tan, 2019).
3. Environmental Degradation

The rapid expansion of tourism has benefited economic growth, but has harmed the environment. Emissions generated by carbon-intensive transport and energy use in the coastal municipalities contribute to local air pollution. Illegal landfills, littering, and disposing of solid waste and wastewater into the sea not only deter tourists from returning to the country, but adversely affect the wellbeing and health of Montenegro’s citizens and marine biodiversity. Facilities catering to tourists – particularly hotels, swimming pools, and water parks – produce wastewater that, when not properly collected and treated, can pollute local water bodies. Waste management services and infrastructure are not adequate to mitigate this problem. Tourism firms and operators find environmental degradation and the lack of awareness on climate change and sustainability among key challenges for Montenegro’s tourism. Despite that, many are unaware that Montenegro produced more municipal waste per person in 2019 than the EU average and that it recycles almost none of it (see Annex 0).

3.1. Air Pollution

Air quality in Montenegro rates as moderately unsafe, partly because of tourism-related emissions. Despite efforts to improve air quality, Montenegro ranks among the 25 worst countries globally according to the 2020 Air Quality Index (AQI) Country Ranking. The country’s annual mean concentration of PM\textsubscript{2.5} (21 µg/m\textsuperscript{3}) exceeds the WHO’s recommended maximum of 10 µg/m\textsuperscript{3} (World Health Organization, 2022).\textsuperscript{33} Montenegro also has a higher concentration of PM\textsubscript{10} than regional peers. Key tourist destinations such as Podgorica and Tivat have relatively high air pollution measured in terms of PM\textsubscript{10}, PM\textsubscript{2.5}, and nitrogen dioxide (NO\textsubscript{2}) concentrations, although PM\textsubscript{10} concentration in the other main tourist destinations falls below EU standards (Figure 22).

![Figure 22: Montenegro's PM\textsubscript{10} concentration levels are higher than in any EU country](image)

Source: (European Environment Agency, 2020). Note: The red horizontal line represents the EU standard for PM\textsubscript{10} concentration levels. Number in parentheses along horizontal axis is the number of stations in the respective country.

The control of air pollution is constrained by inefficient monitoring and weak enforcement. The State Audit Institution recently performed an audit on the efficiency of regulation, monitoring, and reporting on air quality in Montenegro and found that the existing system is not efficient and

\textsuperscript{33} PM\textsubscript{2.5} and PM\textsubscript{10} are measures of air pollution. PM\textsubscript{10} measures particulate matter 10 micrometers or less in diameter, PM\textsubscript{2.5} measures particulate matter 2.5 micrometers or less in diameter.
that, despite the alignment of regulation with the EU acquis, there are significant implementation gaps (Crna Gora Državna Revizorska Institucija, 2021). Gaps include an outdated strategy, a lack of plans on air quality by majority of municipalities, an incomplete register of air polluters, and a low rate of collection of fees and fines (Ibid.).

3.2. Solid Waste

Around 93 percent of Montenegro’s municipal solid waste went to landfill in 2019, of which an estimated 10 percent was landfilled illegally. Montenegro’s recycling rate was 5-7 percent in 2019, much lower than that of Albania (19 percent) and Croatia (30 percent), and even further below the EU average of 50 percent (Figure 23).\(^{34}\) After collection, most waste from tourist regions is transported to waste transfer stations, where it is redistributed to landfills or stored temporarily. Due to the lack of separately collected waste, 60 percent of the municipal solid waste (MSW) is disposed of in sanitary landfills, about 20 percent in temporary storage facilities (controlled landfills), and about 10 percent in illegal landfills or dumpsites. Montenegro has only two sanitary landfills operating according to EU standards and there are 17 controlled landfills that temporarily store waste.\(^{35}\)

![Figure 23: Montenegro's waste recycling rates are the lowest among the EU and regional peers](image)


In 2021, only four out of 23 municipalities (Podgorica, Herceg-Nov, Kotor and Žabljak) had material recovery facilities for municipal waste. If waste is transported to one of four separation stations that exist for municipal waste, mixed municipal waste is sorted for recyclables while the residue is mostly landfilled. A new recycling center, including a sorting plant is planned to begin operation by the end of 2022. According to (Ministry of Ecology, Spatial Planning and Urbanism, 2021), sorting facilities are also planned in Pljevlja and Kolašin (European Environment Agency, 2021).

In Montenegro’s heavily touristed destinations, per capita waste generation is up to three times the national average. Montenegro produced 308,104 tons of municipal solid waste (MSW) in 2019, falling to 273,743 tons in 2020.\(^{36}\) Data from 2013 shows that per capita waste generation is significantly higher in heavily touristed municipalities. In the four heavily-touristed coastal municipalities of Budva, Herceg Novi, Kotor and Tivat, tourism accounted for a quarter of MSW

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34 This is partly due to Montenegro focusing on separating recyclables from mixed MSW, rather than separate collection at source, resulting in low-quality recycling materials and loss of materials if there is no sorting facility.

35 The goal for these is to upgrade them to sanitary landfills or to close them, yet no actions have been taken.

36 MSW is mixed waste and separately collected waste from households and other sources, that are similar in composition (European Union, 2008), including waste from tourism. MSW is difficult to manage due to its heterogeneity of materials.
in 2013, as compared to 6 percent nationally (Ministry of Sustainable Development and Tourism, 2014).

Figure 24: Montenegro’s coastal tourism destinations generate higher per capita waste

Tourism in Montenegro generates a high amount of solid waste, especially plastics, polluting beaches, and the sea driving tourists away from the country. Over 75 percent of litter found on Montenegrin beaches is associated with shoreline, tourism, and recreational activities (Figure 25), which is much higher than Croatia (30 percent) or the average for countries with Adriatic or Ionian shorelines (37 percent). While most marine litter generated by Montenegro consists of plastics (Figure 26), the relatively higher share of other materials suggests that illegal dumping practices may be more common than elsewhere in regions. Per capita, Montenegro has by far the highest leakage of plastic waste into the Mediterranean, followed by North Macedonia and Albania, which have less than half the amount of plastic leakage per capita than Montenegro.37

Figure 25: Most maritime litter is produced by tourism activities…

Figure 26: … and most of it is plastics.

Litter on beaches in Montenegro mostly stems from land-based sources. The land-based origin of beach litter in Montenegro indicates a lack in capturing produced waste on Montegrin shore – as is suggested by insufficient waste collection and management capacities, as well as with the high probability that waste comes from shoreline activities such as tourism – and/or the drifting uncaptured waste from neighboring countries on to Montenegro’s beaches. Compared to its peers,

37 Among cities in proximity to the Mediterranean Sea, Podgorica ranks third after Muntazah in Egypt and Rome in Italy, leaking an estimated 1,662 tons of waste leaked into the Mediterranean Sea every year, due to illegal dumping and littering (Boucher & Billard, 2020)
Montenegro has one of the highest shares of littering from land-based sources (Vlachogianni, et al., 2018).

**Montenegrin coastal water bodies are polluted by microplastics generated in tourist areas.**

As of 2019, the Montenegrin coast was moderately to high polluted by microplastics, averaging 609 microplastic particles per kilogram of dry sediment (MPs / kg DS) and varying between 120 and 2,500 MPs/kg DS, which was higher than in Croatia (177-260 MPs/kg DS), Slovenia (170 MPs) and Italy (254-272 MPs/kg DS) (Bošković, Joksimović, Peković, Perošević-Bajceta, & Bajt, 2021). Along the Montenegrin coast, microplastic pollution is relatively high in heavily touristed regions, such as Kotor, Herceg Novi and Budva (Figure 27).

![Figure 27: Montenegrin coastal water is highly polluted by microplastics](image)

To reduce solid waste pollution, legislation on illegal landfilling and waste disposal must be enforced. Given the lack of incentives for tourism businesses and citizens to reduce waste amounts and collect waste separately for recycling, Montenegro requires a multi-pronged effort to improve management of solid waste, with measures including: (i) the setting of adequate fines for illegal disposal and the prosecution of non-payers of public waste collection fees; (ii) the implementation of a nationwide ‘extended-producer-responsibility’ scheme to provide for at-source separation, collection and recycling; (iii) the application of the ‘polluter pays’ principle; (iv) the institution of financial incentives for tourism businesses to reduce their waste amounts and increase recycling; the enhancement of controlled landfilling sites in accordance with EU standards; (v) the expansion of recycling infrastructure capacity; and (vi) the adaptation of gate-fees for recyclables. Tourism firms should also be encouraged to increase the awareness of tourists and staff of the importance of good waste management practices, while the government should consider adopting national waste prevention programs and undertaking zero plastics and reuse campaigns to improve collection and reduce littering.

### 3.3. Wastewater Collection and Treatment

Wastewater collection and treatment systems in tourist areas are inadequate, which can cause challenges for potable and bathing water quality in tourist destinations. The number of users served by wastewater collection is 292,000, which makes only 61 percent of the total

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38 Microplastics are plastic particles smaller than 5mm with the common consequence of accumulating in the food-chain, often containing substances with adverse effects.

39 Samples from the Montenegrin coast indicate that 74 percent of microplastics are derived from natural degradation and fragmentation of larger plastic pieces, mostly Polypropylene PP (55 percent) and Polyethylene PE (10 percent) (Bošković, Joksimović, Peković, Perošević-Bajceta, & Bajt, 2021).
population. As of 2018, the share of population receiving wastewater collection services in several coastal areas fell below the national average (Figure 28). In Budva, where wastewater management is run by a private company, 85 percent of the population receives collection services (Ministry of Sustainable Development and Tourism, 2019). Other heavily touristed municipalities such as Bar (48 percent), Kotor (42 percent), and Tivat (41 percent) report levels below the national average. The annual rates of blockages per kilometer of wastewater collection network are also higher in tourist areas such as Bar (9), Herceg Novi (19), Kotor (9), Tivat (9), and Ulcini (9) as compared to the national average (8) (Ibid.).

Figure 28: The share of population receiving wastewater collection services in several coastal areas fell below the national average

Due to limited collection infrastructure and the magnitude of wastewater generated by tourism, wastewater is sometimes discharged without treatment. Despite recent upgrades, the inadequacy of collection systems in coastal municipalities results in discharges of wastewater without treatment into the sea through outfalls. Although bathing water quality at beaches, lakes, and rivers generally meet relevant national and international standards, facilities in some key tourist destinations, such as in the town of Sutomore, Bar, are in poor condition. Communal water utility companies are often unable to produce reports that contain records of wastewater discharges, as most records are based on wastewater invoiced instead of actual measurements. Moreover, almost three in four tourism businesses report as not being satisfied with the wastewater and solid waste treatment services provided by the municipality (Figure 29).

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40 Although this service coverage is within the range of those of Montenegro’s regional peers such Albania, Serbia, and Slovenia, it is much lower than the EU countries and the requirements of the EU Council Directive concerning urban waste-water treatment (European Union, 1991).
41 Inadequate wastewater treatment can adversely affect bathing water quality and the overall health of waterbodies.
42 Outfalls are pipes that carry wastewater a few kilometers away from the coast. Since 2010, outfalls dating from the late 1970s have either been closed or upgraded. However, not all the old outfalls were replaced, and some of them are either damaged or in poor operating condition (Ministry of Sustainable Development and Tourism, 2019).
45 This is the case unless there is a wastewater treatment plant (WWTP) with relevant equipment.
There is a mismatch between collection infrastructure and treatment capacity. The proportion of wastewater treated has increased in recent years – from 32 percent in 2008 to 79 percent in 2020 (Figure 30). However, the seasonality of tourism results in seasonal variation of wastewater loadings, which creates challenges for efficiently operating wastewater treatment plants (WWTPs). Of Montenegro’s 14 wastewater treatment plants WWTPs, seven are on the Adriatic coast and wastewater treated by WWTPs in tourist destinations account for 74 percent of the national total (Ibid.). In some cases (e.g., in Tivat-Kotor or Nikšić), there is WWTP capacity with very low loadings because sewerage collection is not sufficiently developed. However, in Cetinje, the collection system is developed but there is no available WWTP capacity. The Podgorica WWTP is overloaded and too small for current wastewater loadings as of 2020, while the WWTPs in Cetinje and Bar are dysfunctional.

The efficiency of Montenegro’s water distribution system is hampered by an inadequate piping system. The recent expansion of Montenegro’s public water distribution system improved access, but has increased losses by 8 percent between 2008 and 2020 (Error! Reference source not found.). Non-revenue water accounted for 61 percent of total water piped in 2020 (Statistical Office of Montenegro, 2022), which exceeds the average loss-rate of Croatia (45 percent in 2011), Serbia (32 percent in 2011), and Bosnia (53 percent in 2013) (World Bank, 2015). Having such rate of non-revenue water adversely affects the availability of finance for renovating the public infrastructure and could lead to water shortages during peak months in summer, when natural water reserves decrease. Data on effluent parameters and the proper functioning of WWTPs is lacking. Data from municipal water distribution network in Herceg Novi, for instance, shows an increase of 129 percent increase in water consumption invoiced by households relative to the off-season and 161 percent increase in water invoiced by businesses (Vodovod Herceg Novi, 2019).

More than 80 percent of Montenegro’s freshwater supply comes from groundwater and springs of karstic origin, which supply a minimum total capacity of 7.7 m³/s. The sources’ minimum outflow naturally occurs during summer, when demand peaks due to the influx of tourists.

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48 More than 80 percent of Montenegro’s freshwater supply comes from groundwater and springs of karstic origin, which supply a minimum total capacity of 7.7 m³/s. The sources’ minimum outflow naturally occurs during summer, when demand peaks due to the influx of tourists.
Achieving consistent water supply and wastewater collection and treatment requires a coordinated effort. To better coordinate activities in the wastewater sector, it is important for Montenegro to implement the following measures: (i) align renovation activities in the wastewater sector to avoid mismatches of capacity and supply of wastewater; (ii) coordinate work and data exchange among Public Utility Companies and with international institutions on best practices and experiences; (iii) upgrade the water distribution and infrastructure to reduce water losses in the piping system; (iv) promote or introducing mandatory measurement of environmental data related to tourism; and (v) introduce a comprehensive monitoring and reporting framework to improve data availability for environmental challenges from tourism.
4. Climate Change

To limit the adverse effects of climate change, Montenegro must both mitigate emissions by the tourism sector and encourage adaptation. Accommodation and tourist transportation are significant contributors to Montenegro’s carbon emissions. While various technologies are available to decarbonize both sectors, the adoption of such technologies is limited by a lack of incentives and the availability of financing. Reducing the volume of emissions generated by tourism activities in Montenegro will require developing energy-efficient public transport systems, discouraging the importation of second-hand carbon-emitting vehicles, increase incentives for the adoption of renewable energy systems and energy efficient technologies, and improving the capacity of public institutions to enforce existing energy laws. Montenegro is vulnerable to bearing both direct and indirect costs of types of extreme weather events – such as floods, wildfires, extreme temperatures, and heavy rainfalls – that will increase in frequency and severity as the climate changes. Tourism in Montenegro is particularly exposed to risks from water scarcity, increasing temperatures, and rising sea levels. Incentives for the private sector to invest in disaster preparedness and climate-resilient infrastructure are weak, while governments can be slow to develop structural mitigation measures or to modify land use. Addressing this will require the integration of resilience into tourism development strategy and destination planning.

4.1. Mitigation

Tourism accounted for 30 percent of Montenegro’s carbon emissions in 2018, more than three times the global average.49 Tourism activities in Montenegro generated 708,090 tons CO₂ of emissions in 2018, compared to Montenegro’s total emissions of 2.4 million tons of CO₂e (GEF, Ministry of Sustainable Development and Tourism, and UNDP, 2019).50 The accommodation, transport, and waste sectors, which are the key tourism value chains in Montenegro, account for 57 percent, 29 percent, and 14 percent of in-country tourism-related emissions respectively (Figure 32). Relative to 2014, emissions from the accommodation sector decreased by 7 percent; emissions from the transport sector increased by 11 percent, and emissions from the waste sector increased by 15 percent. 78 percent of emissions generated by the international transport of tourists stemmed from air travel, with 15 percent coming from maritime transport. Road and ship transport account for 71 and 21 percent respectively of emissions from in-country transport.

![Figure 32: Most emissions in the tourism sector come from the accommodation sector](image)

Source: (GEF, Ministry of Sustainable Development and Tourism, and UNDP, 2019). Note: Emissions do not include international travel.

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49 As of 2018, tourism accounted for about 8% of global emissions (Lenzen, et al., 2018). The tourism industry is one of the primary industry sectors that the Government of Montenegro is prioritizing in terms of both low-carbon and adaptation.

50 86% of Montenegro’s carbon footprint is generated by international flights, with 4% of the country’s total emissions (14% of tourism emissions) from in-country emissions (GEF, Ministry of Sustainable Development and Tourism, and UNDP, 2019).
Transport in Montenegro is carbon intensive due to inadequate public transport services and high-emitting second-hand car fleets imported from the EU (Green Climate Fund, 2019). Transport in Montenegro accounted for 20 percent of the national emissions in 2015 and is forecast to account for 30 percent by 2030 (GEF, Ministry of Sustainable Development and Tourism, and UNDP, 2019). The number of passenger cars increased by 20 percent between 2015 and 2021 due to increasing affordability (Statistical Office of Montenegro, 2022). Due to insufficient incentives to offset the substantially higher market prices of electric vehicles, most diesel and gas-powered vehicles continue to dominate imports. The popularity of passenger cars is also driven by a lack of attractive alternatives. Public transport in Montenegro is characterized by old buses, unreliable schedules, and infrequent services. The introduction of innovations to promote transit use and smart mobility—such as e-ticketing, real-time transit information, low-carbon buses and maritime transport, electric vehicle leasing, and bike sharing—are constrained a lack of capital. Implementation of national and local strategies for reducing transportation emissions—for instance, the 2011 Sustainable Energy Action Plan of Podgorica—have been hampered by a lack of effective monitoring, reporting, and evaluation.

Montenegro’s accommodation sector is carbon intensive. Accommodation services account for 57 percent of in-country tourism-related emissions, compared to 10 percent of tourism emissions globally (Lenzen, et al., 2018; GEF, Ministry of Sustainable Development and Tourism, and UNDP, 2019). Emissions by the accommodation sector are aggravated both by a lack of energy efficiency measures (such as thermal insulation and energy management systems) and dependence on fossil-fuel electricity generation (Farrou, Kolokotroni, & Santamouris, 2012). Several initiatives have sought to improve energy efficiency in the sector, including the ERBD-supported modernization of the Hilton Podgorica Hotel Crna Gora; a green certification system for accommodation and tourist facilities (GEF, Ministry of Sustainable Development and Tourism, and UNDP); and various incentive programs to increase energy efficiency and renewable energy usage. However, the impact of these initiatives on investments has been hampered by a lack of

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51 25% percent of fuel combustion comes from transport, which is higher than regional peers except Albania (Error! Reference source not found.). Road transport accounts for more than 95% of transport emissions.
52 The total fleet size increased from 198,772 vehicles in 2015 to 254,409 in 2021.
53 Electrical vehicles in Europe are typically 40-50% more expensive than the conventional vehicles. EU countries typically offer subsides, preferential loan conditions, tax rebates, free parking, and other incentives for electric vehicle ownership.
54 In 2017, more than 70% of registered vehicles burned diesel (Green Climate Fund, 2019). Only 0.05% of registered vehicles in 2018 were low-carbon vehicles (Ibid.). Diesel engines produce 2.7 kg of CO₂ per liter of diesel fuel, as compared to 2.3 kg of CO₂ per liter of gasoline by gasoline engines.
55 A public bike sharing system, “nextbike,” was introduced in Budva recently (nextbike, 2022).
56 Emissions from the global accommodation sector are 264 metric tons of CO₂e. This includes scope 1 emissions created by on-site energy consumption (such as boilers for hot water); scope 2 emissions created by purchased energy or electricity used for operating equipment and facilities such as lighting; and scope 3 emissions created by value chain inputs such as from producing food and beverages consumed in restaurants and other hotel facilities (Booking.com, 2022).
57 Despite a 30% decrease since 2005, Montenegro’s carbon intensity (0.104 ton / thousand 2011 US$) is 20% higher than the EU-28 average (0.09 ton / thousand 2011 US$) (World Bank, 2018). 40% of electricity is generated by coal-fired power plants commissioned up to 30 years ago (World Bank, 2018), although hydropower and wind also generate electricity (International Energy Agency, 2020). Electricity and heating accounts for 39% of Montenegro’s emissions.
58 The project helped the hotel refurbish its building and add installation of heat pumps, increased use of solar thermal energy (European Bank for Reconstruction and Development, 2011).
59 21 hotels introduced green certification as of 2020 (Baumgartner, 2020). This is much less than EU countries. In Austria, as of 2015, more than 330 hotels, restaurants, and campsites were certified with the national Austrian Ecolabel and, in Catalonia, Spain, more than 87 facilities were certified (GEF, Ministry of Sustainable Development and Tourism, and UNDP).
60 MONTESO, implemented by the Ministry of Economy in cooperation with UNEP and the Italian Ministry for Environment, Land and Sea (Government of Montenegro), provides an interest-free credit line for installing solar water heating systems and has
financing models for energy efficiency investments; insufficient regulatory enforcement; perceptions of high risk and transaction costs of investments; a lack of private sector investors; and a lack of data on energy efficiency indicators to inform investment opportunities (World Bank, 2018). 62 60 percent of hotels surveyed by the World Bank in 2022 reported that they monitor energy used per tourist or night, while a majority of tourism businesses say they are implementing or are planning to implement environmentally friendly practices such as reducing use of one-off plastics, increasing use of recycled products, and improving energy efficiency (Figure 33).

Figure 33: Montenegro’s tourism businesses report implementing environmentally-friendly practices

Decarbonizing the tourism sector will require developing energy-efficient public transport and promoting the purchase of electric vehicles, renewable energy systems, and energy efficient technologies. To reduce the carbon footprint of transporting tourists, Montenegro should follow the example of other countries in the region by adopting demonstration projects and a green mobility strategy to discourage the use of imported second-hand cars. Notable examples of demonstration projects include Pula in Croatia, where the municipal transport company purchased 20 new compressed natural gas buses for urban transport (Reiserer, 2016); Pafos, Cyprus, where the municipal government runs an electric bus to transport tourists and locals (Hadjigeorgiou, 2020); and Athens, where a tour operator has adopted electric vehicles and recyclable water bottles (Krinis, 2020). The high levels of solar irradiation along the Adriatic coast (World Bank Group, ESMAP, and SolarGIS, 2022) provides opportunities for decarbonization. Hotels and other operators in the tourism value chain should be incentivized to adopt solar water heating systems, rooftop solar panels and other forms of renewable energy, high-efficiency lighting, and natural ventilation. The capacity of public institutions to enforce laws related to energy efficiency and renewable energy investments, including the adoption of energy management systems, must be strengthened. 63 Decarbonization will further require developing business models for energy and

been extended to the tourism sector. The World Bank is implementing Montenegro Second Energy Efficiency Project, which aims to scale up energy efficiency investments in public buildings (World Bank, 2018).

61 Regulations wanting for enforcement include the Law on Energy and Law on the Efficient Use of Energy, as well as several rulebooks, that are in line with the requirements of the Energy Efficiency Directive (2012/27/EU) (Energy Charter, 2018)

62 For instance, the Rulebook on the Energy Performance Certification of Buildings adopted in 2015, which defines the certification process of buildings and energy classes of buildings, was not implemented as of 2018 due to a lack of the national tools for evaluating the energy performance. Similarly, the Rulebook on Performing Energy Audits of Heating Systems and Air-Conditioning Systems (also adopted in 2015), which regulates the ways and timeline of regular energy audits of air conditioning system, is not fully implemented due to poor law enforcement (Energy Charter, 2018).

63 In addition, the government should enforce laws that require regular energy audits in buildings, with an improved MRV system for tourist facilities including hotels and resorts and improve data collection on energy efficiency indicators.
resource efficiency and renewable energy investments in tourism assets, as well as fostering a market for private sector investors including ESCOs.

4.2. Adaptation

Extreme weather events such as tropical storms, floods, and earthquakes affect the tourism industry both directly and indirectly (Figure 34) (World Bank, 2020). Direct impacts of extreme weather events include losses from damage to infrastructure, buildings, and natural resources; lost revenue due to declines in tourism; and the costs of repair and reconstruction. Indirect impacts can be equally costly. Tourism operators may lose income from business interruptions due to physical or reputational damage and may experience higher disaster preparedness, response, and recovery costs. Under disaster conditions, financing for such costs may be unavailable due to the associated weakening of financial institutions (Abe & Ye, 2013). Although losses from disasters can total millions of dollars, span years, and affect both public and private sectors, governments generally do not track the costs of disasters to the tourism sector or how the distribution thereof.

Montenegro is vulnerable to the impacts of various natural and health hazards and is especially vulnerable to floods, wildfires, extreme temperatures, and heavy rainfalls (Error! Reference source not found.). Located in a complex climate area, Montenegro is ranked at 55th in the ND Gain Index system after Croatia (50th) and Slovenia (20th) but before Albania, Bosnia and Herzegovina, and Serbia (ND-GAIN Country Index, 2022). On average, flooding in Montenegro affects 10,000 people annually and causes $90 million in damage (World Bank, 2021). Earthquakes on average affect 9,000 people and cause US$70 million in damage annually (Ibid.). Montenegro is also susceptible to heavy rainfall, flash floods, landslides, and wildfires, all of which impact settlements, tourism assets, industrial facilities, and agricultural lands. While wildfires pose a particular hazard for the forests that cover 60 percent of Montenegro’s area, the most vulnerable areas are generally the Skadar Lake region, the Bokana River, and Podgorica.

Figure 34: The direct and indirect impacts of natural disasters on tourism are significant

Source: (World Bank, 2020)

64 Governments also lose revenues from tourism taxes, entry fees, and other tourism-related inflows that may fund a country’s tourism budget, natural resource management budget, or others.
65 During the last 20 years, Montenegro has experienced six destructive floods; the three largest were in 2000, 2010, and 2011.
66 The most devastating earthquake took place in 1979 and is used as a baseline in discussions of emergency planning and response.
The tourism sector is also vulnerable to water scarcity and temperature rise. Budva is likely to experience an extensive period of dry days during future tourist seasons (Figure 36) and shows the highest projected number of consecutive dry days (73 days) between March and August.\textsuperscript{67} Ulcinj has the highest daily maximum temperatures over the data aggregation period (}

\textsuperscript{67}The national average during the same season is 27 days.
During 2020-2039, Ulcinj area is likely to be 2.6 °C hotter than the national average under shared socioeconomic pathway (SSP) 1-1.9 scenario; by 2099, it could reach 38.5 °C in Ulcinj under SSP 2-4.5 scenario, which is 2.5 °C higher than the national average.

Source: (World Bank Group, 2022). Note: DJF – December, January, and February; MAM – March, April, and May; JJA – June, July, and August; and SON – September, October, and November. A dry day is defined as any day in which the daily accumulated precipitation is less than 1 mm. This indicator represents the maximum length of a dry spell, computed sequentially for the entire time series, then taking the maximum value during each month in the data period, shown below by season.

68 SSP 1-1.9 is a scenario intended to limit warming to below 1.5C by 2100 above pre-industrial levels. It was added in the aftermath of the Paris Agreement when countries agreed to pursue efforts to limit the temperature increase to 1.5C.

69 SSP 2-4.5 scenario is a “middle of the road” scenario where CO2 emissions hover around current levels before starting to fall mid-century, but do not reach net-zero by 2100. It assumes that socioeconomic factors will follow historic trends.
Tourist destinations are also at risk of being affected by rising sea levels (Figure 38). Destinations subject to sea level rise include Bar, Budva, Kotor, Tivat and Ulcinj, which are all subject to a 1.96 meter rise in sea levels. Beaches at these destinations are especially threatened in the absence of appropriate infrastructures designed and operated with up-to-date climate risk information.

The government, including municipal governments of key tourist destinations, can promote climate and disaster-resilient tourism assets and infrastructure, including nature-based solutions. Incentives for the private sector to invest in disaster preparedness and climate-resilient infrastructure are weak. Hotel owners and operators typically operate on 20- to 30-year ownership or management contracts and expect to make a profit within five to ten years; this disincentivizes
them to invest in long-term resilience measures. Additionally, when tourists favor sensitive areas such as coastlines, operators are disinclined to relocate assets to less vulnerable areas or to otherwise change their products (Hystad, 2008). Governments may be reluctant to develop structural mitigation measures or to modify land use through urban planning due to costs, impact on tourism appeal, and space constraints (Nguyen, Imamura, & Iuchi, 2016).

**Box 2: Queensland’s Climate Change and Resilience Response Plan for Tourism**

In Australia, Queensland’s tourism sector has adopted an industry-led climate change and resilience response plan, which lays out priorities to build business resilience and reduce tourism’s climate impacts (World Bank, 2020). It was found that Australia’s top five natural tourist attractions (beaches, wildlife, the Great Barrier Reef, wilderness, and national parks) could be affected by climate change impacts – extreme heatwaves, increasing temperatures, rising sea-levels, coastal flooding, and coral bleaching. To increase the resilience of the tourism sector, the Department of Environment collaborated with the Queensland Tourism Industry Council on a climate response plan. The process raised awareness of climate risks and expected impacts on tourism, developed a vision for the sector and set forth an action plan. It also flagged ways for the public sector to support tourism firms to pursue these goals, such as improving insurance access for small firms, following lessons learned from Cyclone Yasi in 2011.

**The government should consider incorporating resilience into tourism development strategy and destination planning, including through risk-informed destination planning.** Tourism resilience-building is an iterative process (Figure 39), with the goal of building an understanding of growing climate risks and conditions that the tourism industry needs to consider (see Box 2). Key measures that the government may consider to incorporate resilience into planning include: (i) supporting quality climate change risk assessments that are tailored to tourism industry and destinations; (ii) assessing vulnerabilities of beaches and tourism assets such as hotels, restaurants, roads, national parks, and other infrastructures at the destinations to the impact of sea level rise, floods and other types of hazards; (iii) considering promoting climate-resilient tourism assets and infrastructure investments in key tourist destinations; (iv) designing and managing infrastructures critical to tourism destinations with risk assessments and up-to-date information on the expected effects of extreme weather events and slow on-set climate change.

![Figure 39: Tourism resilience building cycle](image-url)

*Source: (World Bank, 2020).*
### 5. Policy Options

**Table 1: Policy Options for Resilient Tourism Development**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Recommendation</th>
<th>Time Horizon</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enhance Economic Impact of Tourism</strong></td>
<td><strong>Expand Ferry Services within the Bay of Kotor and Adriatic Coast:</strong> To ease road congestion and to reduce vehicle emissions, the GoM should explore deploying PPPs or other financial incentives to encourage the private operation of ecologically friendly ferry services between key attractions along the Bay of Kotor, between the main towns along the Adriatic Coast, and between Tivat Airport Marina and major accommodation centers.</td>
<td>Medium</td>
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<td></td>
<td><strong>Increase Frequency of Ferry Services across the Verige Strait:</strong> To further reduce road congestion around the Bay of Kotor and to reduce vehicle emissions, the GoM should explore offering additional financial incentives to encourage increases in the operation of ferry services across the Verige Strait during the peak summer months.</td>
<td>Short</td>
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<td></td>
<td><strong>Expand Public Transportation around the Bay of Kotor:</strong> The GoM should contract private agencies to operate tourist-oriented bus services around the Bay of Kotor during the peak summer months.</td>
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<td></td>
<td><strong>Increase Taxes on Large Cruise Traffic:</strong> To ensure that the value generated by cruise ships sufficiently offsets adverse impacts on the environment and other tourists, the GoM should consider increasing per-passenger taxes and levies on cruise traffic and/or introduce stricter quantitative restrictions on cruise ships visits.</td>
<td>Short</td>
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<td><strong>Increase Taxes on Use of Congested Infrastructure:</strong> To limit the adverse impacts of excessive tourist volume on future tourism demand, the GoM should increase taxes on the use of attractions and infrastructure experiencing high levels of congestion, such as by introducing landing fees and arrival and/or departure taxes at Tivat Airport, administering tolls on private and shared vehicle traffic traversing roads around the Bay of Kotor and the Vrmac Tunnel and increase accommodation taxes for heavily-touristed municipalities.</td>
<td>Short</td>
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<td></td>
<td><strong>Address Data Gaps:</strong> The GoM should ensure the accurate collection and timely dissemination of data on traffic volume and modes of transportation at major tourist destinations.</td>
<td>Short</td>
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<tr>
<td><strong>Increase Demand for Tourism by Reducing Congestion</strong></td>
<td><strong>Develop Tourist-Oriented Train and Bus Link Services to Inland Attractions:</strong> The GoM should explore the feasibility of deploying a PPP or public funds to upgrade the quality of rolling stock and service of the train service from Bar to Bijelo Polje via Podgorica and to establish linking bus services to provide an eco-friendly mode of transportation for tourists from the coastal region to the inland attractions in central and northern Montenegro.</td>
<td>Medium</td>
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<td></td>
<td><strong>Deploy PPPs and Investments Incentives to Develop Facilities at Inland Destinations:</strong> In conjunction with measures to enhance accessibility and increase marketing of inland destinations, the GoM should explore the feasibility of using financial incentives to attract high-end hotel operators to destinations in northern and central Montenegro.</td>
<td>Medium</td>
</tr>
<tr>
<td>Improve Economic Impact and Efficiency of Tourism Industry by Increasing Supply of Local Labor and Non-Labor Inputs</td>
<td><strong>Expand Marketing of Inland Attractions:</strong> Once the accessibility of inland destinations has been improved and following the accommodation and other facilities upgraded, the GoM should finance a multifaceted marketing campaign focused on inland destinations.</td>
<td>Medium</td>
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<tr>
<td>Develop Partnership for Vocational Training in Tourism: To address the skills shortage affecting Montenegro’s tourism sector and to reduce the sector’s reliance on migrant labor, the GoM should explore the potential of collaborating with major hoteliers and tourism trade associations to develop both a technical and vocational education and training (TVET) program focused on preparing Montenegrin nationals for employment in the tourism industry and an accompanying apprenticeship system whereby graduates of the program would receive conditional offers of employment in the Montenegrin tourism industry.</td>
<td>Medium</td>
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<tr>
<td><strong>Address Constraints to Provision of Local Inputs to Tourism Sector:</strong> To improve the consistency of the supply of high-quality domestically sourced non-labor inputs to the tourism sector in Montenegro, the GoM should: (i) commission a detailed mapping of the supply chain for tourism operators; (ii) identify constraints facing the associated producers along the value chain, and (iii) provide targeted assistance to relax these constraints. Examples of potential interventions that may relax constraints to the consistent provision of high-quality inputs by Montenegrin producers include removing regulatory barriers, improving access to financing, and subsidizing investments in training and/or more efficient machinery.</td>
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| Halt Environmental Degradation | **Air Pollution** | **Improve Solid Waste Management** |
| **Address Data Gaps:** The GoM should ensure the timely and complete dissemination of data on air quality in key tourist destinations. | **Improve Controlled Landfills Standards:** The GoM should enhance the standards of “controlled landfilling” sites in accordance with EU standards and expand recycling infrastructure capacity, while adapting gate-fees for recyclables. | Medium |
| Improve Implementation of the National Strategy for Air Quality Management with Action Plans: The National Strategy for Air Quality Management with Action Plans took a holistic approach, with strengthening institutional capacity, activities for air quality monitoring, and preventive measures. The implementation rate was high during 2013-16 but a bit lower for the period of 2017-19. The GoM could further improve the implementation of the National Strategy through improved reporting system, as well as increased investment in expanding and maintaining air quality measurement networks including automatic stations. The government could also consider developing a registration program that helps the relevant agency track emissions, regularly update emissions inventory, and make sure businesses meet air quality requirements. | **Raise Awareness of Good Collection, Reuse, and Recycling Practices Among Tourists and Locals:** The GoM – in conjunction with municipalities in touristed locations – should implement a national waste prevention program that stresses the importance of eliminating littering through improving collection, reducing use of plastics, and general reuse and recycling. | Medium |
| Strengthen Local Governments’ Institutional Capacity to Manage Air Quality: The GoM could provide further support for municipal governments to develop detailed action plans for meeting the National Strategy for Air Quality Management. It could also support creating air quality monitoring network systems at the municipal level. | | Short |
| Enforce Waste Management Regulations | The GoM should strengthen enforcement of illegal landfilling and improper waste disposal by increasing resourcing of detection and monitoring technology (such as through use of satellite imagery) and administration of ‘spot fines’ and enable prosecution of non-payers of public waste collection fees. | Short |
| Adopt Extended Producer Responsibility System | The GoM should implement and incentivize a nationwide Extended Producer Responsibility system that stresses at-source separation, collection, and recycling and apply the “polluter pays” principle by financially incentivizing tourism businesses to reduce their waste amounts and increase recycling. | Medium |
| Address Data Gaps | The GoM should publicly disclose updated information on municipal solid waste by municipality (latest information dates to 2013), including on the volume, composition, and management of solid waste generated by tourists and by different establishments (e.g., hotels, restaurants, bars etc.) and on the location and magnitude of illegal dumping sites by municipality. | Short |
| Better Coordinate Activities in Wastewater Sector | The GoM should collaborate, prioritize, and align renovation activities in the wastewater sector in order to avoid mismatches of capacity and supply of wastewater. Work and data exchange needs to be particularly better coordinated among Public Utility Companies (PUCs) and with international institutions to ensure the application of international best practices and experiences. | Medium |
| PPPs for Wastewater Infrastructure | As an alternative to public provision and to improve the quality of wastewater infrastructure and efficiency of the operation of such infrastructure, the GoM should explore the feasibility of deploying PPPs to construct and operate wastewater infrastructure. | Medium |
| Address Data Gaps | The GoM should ensure the timely and complete public dissemination of data by communal water utility companies on effluent values of wastewater treatment plans and the volume of discharged wastewater. In addition, the GoM should verify the integrity of data on bathing water quality that reported that all 110 bathing sites had good or excellent water quality and, once verified, determine the source of the improvement (Slaven, et al., 2021). | Short |
| Renovate Water Distribution Infrastructure | The GoM needs to allocate funding for an extensive renovation of the country’s water distribution infrastructure to reduce water losses in the piping system. | Medium |
| Address Data Gaps | The GoM should ensure the timely and complete dissemination of data on water usage by establishments serving the tourist market. | Short |
| Apply Sustainable Financing Models for Decarbonization | In collaboration with private sector partners and international organizations, the GoM should promote business models for energy efficiency and renewable energy investments in tourism assets, including fostering a market for private sector investors including ESCOs. | Medium |
| With Tourism Activities | Strengthen Institutional Capacity for Decarbonization: The GoM should strengthen institutional capacity to enforce laws on the promotion of energy efficiency and renewable energy investments in buildings (including the adoption of energy management system for tourism assets) and to enforce laws requiring regular energy audits in buildings. The GoM should further implement an improved monitoring, reporting, and verifying (MRV) system for tourist facilities including hotels and resorts so that reliable data for hotel buildings and other tourist facilities can be generated, collected, and assessed. | Medium |
| | Increase Taxes on Emissions-Generating Activities: To discourage activities that generate emissions, the GoM should increase taxes on emissions-intensive activities, such as air travel and the use of gasoline-powered vehicles. | Medium |
| | Foster Low-Carbon Tourist-Oriented Public Transportation: The GoM should develop a demonstration project to serve as a model site for green mobility system such as public bike-sharing services and electric buses in destinations. In addition, the GoM should implement a green mobility strategy and accompanying regulations to disincentivize the use of imported second-hand cars. | Medium |
| | Address Data Gaps: The GoM should ensure the collection and timely and complete dissemination of reliable data on energy efficiency indicators related to the tourism industry, such as energy consumption of hotels (e.g., energy consumption per heated floor area or per guest night) and other tourism facilities through regular energy audits of tourism facilities in key destinations. In addition, the GoM should ensure the collection and timely and complete dissemination of data on modes of transportation used by tourists and associated GHG emissions. | Short |
| Improve Ability of Tourism Sector to Adapt to Climate Change | Integrate Resilience into Tourism Development Strategy and Destination Planning: The GoM should ensure that high quality climate change risk assessments tailored to the tourism industry are undertaken, with assessments of the vulnerabilities of beaches and tourism assets such as hotels, restaurants, roads, national parks, and other infrastructure to sea level rise, floods and other types of hazards. | Medium |
| | Promote Climate-Resilient Infrastructure Investments: The GoM should adjust regulations to ensure that the design, operation, and management of tourism-related infrastructure is informed with up-to-date information on the anticipated effects of extreme weather events and slow on-set climate change impacts. | Medium |
| | Address Data Gaps: The GoM should seek to address the lack of climate change risk assessments tailored to tourism industry by subsidizing the provision of information on hazards, vulnerability and exposure, such as hazard maps (e.g. flood maps) and emergency response and planning at the destination level. | Short |
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Annexes

A-1 Transportation

Most tourists arrive in Montenegro by air. Montenegro’s two international airports are served by eleven airlines and several seasonal charter operations. Montenegro Airlines, the flag carrier, operated the most flights to Montenegro (8,500) from 2018 to 2021, followed by Air Serbia (6,417). From 2018 to 2020, these two operators accounted for 34 percent and 17 percent of all flights to Montenegro, respectively. Montenegro Airlines ceased operations in December 2020 and Air Serbia has since become the country’s largest operator, comprising 31 percent of flights to Montenegro in 2021 (Figure 40). Danish airline FlexFlight also increased flights to Montenegro in 2021, becoming the second largest operator and accounting for 14 percent of flights.

Figure 40: Number of Flights to Montenegro by Top Nine Operators by Month, 2018 - 2022

The transport sector in Montenegro is witnessing a progressive increase in the number of registered vehicles, while the fleet is ageing - with almost 30 percent of cars being older than 30 years. The average age of a registered vehicle in the European Union is 11 years and in Montenegro 16 years. According to MONSTAT, a total of 249,000 vehicles were registered in Montenegro in 2019, of which 63,000 were 20 years or older, which is more than a quarter (25.3 percent) of the total number, while 58,000 of vehicles under the age of 10 years were registered, which is 23.3 percent. There are 11,000 vehicles older than 30 years on Montenegrin roads, 4 percent of the total.

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70 Over the past five years, the main carriers serving Montenegro have been: Air Montenegro, Air Serbia, Aeroflot, Turkish Airlines, Austrian Airlines, Alitalia (now ITA Airways), WizzAir, Smartwings, EasyJet, TUI Airways and First Choice.
A-2 Municipal Solid Waste (MSW) Generation and Collection

Montenegro generates 486 kg of solid waste per capita (Eurostat, 2022). As shown in Error! Reference source not found., this is higher than its regional peers in 2020, such as Croatia (418 kg per capita), Serbia (338 kg per capita), and Albania (369 kg per capita). Montenegro’s high waste generation is explained by the high estimated percentage of waste from tourism, which accounted for an estimated 6 percent of Montenegro MSW generation in 2013 and 2 percent in coastal tourist destinations such as Herceg Novi, Kotor, Tivat and Budva.

Collection coverage increased over time, but there is no separate collection of recyclables making higher collection frequencies necessary. Over the last 10 years, the number of citizens not connected to the public collection of municipal waste decreased from 12 percent in 2011 to 6 percent in 2020 (Statistical Office of Montenegro, 2022). Despite this enhancement, waste often needs to be picked-up every day or even multiple times per day due to the lack of separation at source in many regions, especially during high tourist season. 90 percent of waste is collected by public utility companies (PUCs), that are set up on a regional, municipal level and other 10 percent by private companies, specialized to collect certain waste streams. PUCs are responsible for collecting the service fees from households, which are currently based on the number of members of a household and mostly collected in big on-street containers. Although according to the EEA, infrastructure for separate collection is in place in some municipalities, there are no financial incentives for businesses to separate waste at source, as the fee charged to businesses for disposal of the waste are mostly based on fixed monthly fees, not taking into the amount or quality of waste. PUCs are charged the same price, even for separately collected waste. This fixed fee system, prevents businesses from reducing their waste amounts, as the “polluter pays” principle is not applied (European Environment Agency, 2021).

A-3 Emissions

Montenegro’s per capita emissions have increased since 2016 (a 92 percent year-on-year increase was registered in 2019), which contrasts with decreasing trends shown in Croatia and the EU countries ( ). However, Montenegro’s per capita emissions remain smaller than average per capita emissions in the EU and for neighboring countries (Figure 46, Panel A). Between 2016 and 2020, Montenegro shows significant increases measured in per capita emissions. In its Nationally Determined Contributions (NDCs), the Government of Montenegro aims to cut emissions by 35 percent below 1990 levels by 2030 (United Nations Climate Change, 2021).
Buildings are also the largest energy consumer in the country, and non-residential buildings, including commercial and public-sector buildings, account for approximately 40 percent of the final energy consumed in buildings. This implies that there are potential opportunities for emission reductions and energy saving across different types of accommodation facilities including hotels (large and small hotels, garni hotels, etc.), resorts, and other types of accommodation, as well as restaurants or other food and beverage service providers.

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71 Garni hotels are hotels that offer accommodation, breakfast, drinks and, at most, snacks, but not the classical hotel restaurant. They are similar to a bed and breakfast but are designed and run as a hotel, not a private residence.
The Government of Montenegro has adopted national action plans to address this challenge, including the National Strategy with Action Plan for Transposition, Implementation and Enforcement of the EU acquis on Environment and Climate Change 2016-2020 (Ministry of Sustainable Development and Tourism, 2016). The Strategy articulated climate-change issues and introduced the concept of resource efficiency and the need for a circular economy as an important means to achieve Montenegro’s climate-change policy goals. Important priority areas included: better management of water resources and demand; improved rational use of energy, increased use from renewable sources; sustainable mobility through appropriate transport measures; sustainable tourism as a leading economic sector; sustainable management of marine, coastal and marina resources.
A-4  Interlinkages and Economic Shocks

Tourism in Montenegro imposes significant externalities on those who are not employed or otherwise involved in the sector. The value proposition of tourism for consumers rests on the potential to interact with foreign environments and cultures. Such interactions can substantially impact host economies, environments, cultures, societies, and populations both adversely and beneficially. Only by understanding the direction and magnitude of these externalities can policymakers ensure that the local population optimally benefits from tourism flows. Tourism in Montenegro generates both positive and negative externalities for the local population. Positive externalities include the productivity spillovers that tourism generates for other sectors of the economy (section Error! Reference source not found.), while negative externalities include pollution from the unprocessed disposal of solid waste, pressure on local water supply, and carbon emissions (section Error! Reference source not found.). To optimizing the development potential of tourism on Montenegro, policies should seek to promote those types of tourism activities which generate positive externalities while discouraging those that generate negative externalities.

Examining the interlinkages between tourist and local markets could be important to understand when there are demand or supply shocks in the economy. When the tourism sector is shaped by a local and tourist economy that are isolated from each other or closely linked to each other. The latter matters to foresee how vulnerable can be the economy of the tourism sector to shocks from nature or economic events affecting the supply or demand chains of the local and tourist economy. Furthermore, the tourism sector is often highly connected to multiple supply chains and markets from other sectors including a need for material inputs as well as labor skills and managerial capabilities (Zha 2019; Carvahlo 2014). The connectivity and interdependence of markets and supply value chains in the tourism sector can be a strength to create product innovations and differentiate quality of service, but sometimes can also be a source of vulnerability when these interdependencies are not well understood or managed. The economic impact would depend on the type of markets affected and the resilience of those markets to external events.

Montenegro’s tourism sector could be exposed to shocks from interlinked sectors and their supply value chains. Affecting the input supply of tourism is highly dependent on the same sector – hotels and restaurants, and others like food and beverages, financial intermediation and business services, agriculture, and wholesale and trade. Additionally, production of services from the tourism sector can create positive or negative spillovers effects over food and beverages, agriculture, wood and paper, and electricity, gas and water. Hence, whenever a shock affects one of these latter sectors, it sets in motion a chain of knock-on effects that impact the growth and development of the tourism sector and, consequently, tourism itself can create further disruptions to others. Sector-to-sector network connectivity can show us how market linkages cascade into a sequence of aftermath impacts affecting tourism’s related sectors in Montenegro’s economy.

On the demand for inputs, Montenegro’s tourism sector is highly dependent on only two sectors and itself. The other two sectors are financial intermediation and business activities, and food and beverages. Together these three sectors represent over 50 percent of the input cost expenditures from tourism. Other sectors have a relatively lower influence over the tourism sectors. Agriculture, wholesale trade, electricity-gas-water, and transport, can account for 20 percent. Construction and retail trade, for instance, each has 2.5% of potential cost influence over the production of tourism services. The tourism sector in Montenegro shows quite low market relationships with transportation, textiles, recycling.
Potential cost shock participation from an overall shock across sectors
Summary of the WB Survey on Montenegro’s Tourism Sector (World Bank, 2022)

In December 2021, the World Bank commissioned a survey of firms in Montenegro’s tourism sector. The survey is not a representative sample of firms operating in Montenegro’s tourism sector but was undertaken to provide insights into prevailing practices and perceptions. Out of 99 total respondents, 42 represented hotels, 13 represented tour operators and/or travel agencies, while the remainder were made up of other businesses in hospitality and transportation.

A plurality of businesses surveyed (28 percent) are in the capital of Podgorica, followed by the coastal municipalities of Budva (14 percent), Bar (12 percent) and Herceg Novi (8 percent). Over 80 percent of responses from hotels represented hotels in the three- or four-star category, with six respondents representing five-star accommodations (Figure 3).

Most hotels, but particularly luxury hotels, import their inputs. The survey asked hotels exclusively how many different goods and services they import. The results suggest that five-star hotels tend to import much more than 3-star and 4-star hotels, and particularly services. For example, while five-star hotels report importing almost 50 percent of their IT, consulting, and marketing services, hotels in other star categories tend to import much less (on average 25 percent). On goods imports, five-star hotels report importing less food products than other hotels, although the average across all hotels is around 45 percent.
Relatively few of the respondents reported completing the adoption of environmental best practices. Of the 99 respondents, 70 percent indicated that they have not implemented a solid waste management plan that includes actions to reduce, separate and reuse, or recycle food waste (Figure 7). In addition, 60 percent of the hotels surveyed reported that they were not certified to internationally recognized ISO 14001 Environmental Management Standard, while 70 percent of the companies surveyed had set target values for reducing water or energy consumption.

Among the sample firms, tour operators, travel agencies, and hospitality and transportation firms were more likely to be locally owned. Hotels and retail operators had the highest proportion of foreign ownership (40 percent and 30 percent, respectively). Across all of the surveyed firms, over 90 percent of management positions were held by Montenegrin nationals (Figure 8). From 2020 to 2021, the total number of full-time employees working in the surveyed businesses increased from 973 to 1,030. In 2021, nearly 97 percent of all full-time positions were held by Montenegrin nationals (Figure 9). International migrants account for a larger share of seasonal work, with foreigners making up 16 percent of seasonal positions (Figure 10).
Respondents cited the lack of skilled labor, inadequate infrastructure, and informality as the top challenges for firms in Montenegro’s tourism sector. Respondents were asked to name the top five challenges facing Montenegro’s tourism sector (Figure 12). Availability of skilled labor was by far the most prevalent concern, with 81 percent of respondents mentioning it as a concern. Other listed challenges included transportation infrastructure (68 percent), environmental degradation and climate change (63 percent), competition by unregistered firms (63 percent), and utility service and infrastructure problems such as electricity or water supply (54 percent).

Most respondent firms identified climate change as a problem, but to varying degrees of importance. Nearly 45 percent of respondents reported that climate change is “somewhat” of a threat to Montenegro’s tourism industry, but just 17 percent identified it as a “major” threat (Figure 10). When asked whether they were planning on implementing more environmentally friendly practices, 95 percent of respondents said they were already reducing the use of one-off plastics or planning on doing so in the next three years (Figure 11). 59 percent of respondents indicated they have already increased their purchases of recyclable products, while 31 percent stated they would do so in the coming years. However, there were mixed results regarding the process of transitioning to more sustainable energy alternatives. 37 percent of respondents claimed they would not install solar panels, and 20 percent stated they would not be using any renewable energy...
sources. Of the firms which were open to using renewable energy, 52 percent of respondents said they still needed to implement these practices in the next several years.

**Figure 59: Respondents Views on Whether Climate Change Threatens Tourism in Montenegro**

Most respondent firms were satisfied with the environmental solutions provided by the municipality. 74 percent of respondents reported that they are satisfied with the wastewater and solid waste treatment services provided by the municipality. Surprisingly, the average amount of time spent traveling to the nearest airport during the peak hours of the summer season (68 minutes) is not that different from the time period outside of the summer season (45 minutes), according to the respondents.

**Figure 60: Adoption of Environmentally-Friendly Practices**

Furthermore, respondents' understanding of some data concerning how the Montenegrin tourist sector compares to the EU average was inadequate. While 60% of those polled were unaware that Montenegro had the largest per capita plastic leakage in the Mediterranean, 80% were unaware that municipal garbage produced per person in 2019 was 50 kg higher than the EU average.

**Figure 61: Knowledge of Key Facts about Montenegro’s Tourism Sector**

To conclude, the firms were asked to list ideas and suggestions on how to enhance Montenegro's tourist industry. A significant number of respondents identified a need for more trained employees, and many also urged for improved transportation infrastructure to alleviate traffic congestion and improve connection throughout the nation. Another proposal was to better
present Montenegro as a summer and winter tourism destination, as well as to improve air transportation links. As part of the effort to make Montenegro a more year-round tourist destination, several respondents asked for more investments in rural areas. “Promoting less visited sites in order to [reduce] overflow of tourists to the most visited locations” was emphasized as an important way to develop rural tourism and absorb some of the pressure felt by the coastal municipalities in the summer.

Many respondents also suggested increased coordination between national and local authorities to improve strategic development planning. While some simply asked for further support from the government and municipalities, one respondent suggested that the responsible ministries establish “clear levels of national, regional and local tourism organizations” and utilize a “regional uniformity approach” when planning projects in the central, southern and northern clusters. Another respondent requested that “state and local stakeholders create sets of policies that facilitate the business of the tourism industry.” In addition to incorporating more local perspectives, respondents also highlighted travel agencies and private companies as important stakeholders to consult in future decision-making processes.

A further concern many businesses shared was competition from the informal economy. Several of the recommended improvements pertained to increased inspections, better controls associated with the collection of taxes, and higher penalization of illegal accommodation establishments. Similarly, policies designed to fine visitors or entities which damaged the environment were popular suggestions.