

# Albania

## Post-Disaster Needs Assessment



Volume A Report / Tirana, February 2020

# ACKNOWLEDGEMENTS

**The PDNA for the earthquake that hit Albania in November 2019** was realised through collaborative efforts, excellent cooperation, and committed engagement of the Government of Albania and its international partners: the European Union, the United Nations agencies, and the World Bank.

The PDNA was led and conducted by the Special Envoy of the Government of Albania for Crisis Response and Relief Mr. Bledar Çuçi and coordinated by the appointed PDNA National Coordinator Mrs. Milva Ekonomi, with the support from the above international partners.

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A full list of contributors to the PDNA report is included in Annex 1.

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# EXECUTIVE SUMMARY

## Summary of Disaster Context

Albania, located on the Balkan Peninsula in South and Southeast Europe, has a population of 2.9 million people. With a total area of 28,748 square kilometres, the country is divided into 12 administrative regions which are further divided into 61 municipalities. The country's economy has grown remarkably in the past three decades, moving Albania into a middle-income country status and increasing its Human Development Index from 0.72 to 0.79 over the past ten years.

According to the Albanian Institute of Geophysics, Water and Energy on 26th November 2019 at 03:54, a devastating earthquake, with a magnitude of 6.3 on the Richter scale at a depth of 38 km, hit the country. The epicentre was 22 km from Durres and 30 km from Tirana, where most of the major historically recorded earthquakes have occurred, in the convergent boundary between the Eurasian Plate and the Adriatic Plate.

As a result of the disaster, a total of 202,291 people were affected in the country, 47,263 directly, and 155,029 indirectly. The earthquake caused 51 fatalities and injured at least 913 people. Moreover, up to 17,000 people were displaced due to the loss of their homes. Overall, first responders rescued 48 people from collapsed houses.

The earthquake has been described by the national authorities as the strongest to hit Albania in 30 years. It caused extensive damage in 11 municipalities, including the two most populous, urbanized and developed municipalities (Tirana and Durres). The worst affected municipalities were: Shijak, Durres, Kruja, Tirana, Kamza, Kavaja, Kurbin, and Lezha.

On 6<sup>th</sup> December, the Government of Albania requested support from the European Union, the United Nations, and the World Bank to undertake a full and comprehensive Post-Disaster Needs Assessment (PDNA) to identify the damage, losses, and recovery needs arising from the earthquake. The tripartite partners provided financial and technical support to conduct the assessment in addition to the resources the government made available. The assessment process started on 16<sup>th</sup> December 2019 and was completed by 30<sup>th</sup> January 2020, lasting almost seven weeks. The Albanian Prime Minister nominated Mrs. Milva Ekonomi as the national coordinator for the PDNA. The Ministry of Agriculture and Rural Development was designated as the focal agency for the PDNA process.

## Summary of PDNA Methodology

The assessment methodology involved the collection of available secondary data and primary information from various government and private sources, which were vetted, and where possible, verified on the ground through field visits. In addition, different structured surveys were conducted: a building ascertainment, a business survey, a livelihood survey - addressed to displaced people in hotels and tents - and a household survey to the affected population, referred to as the Survey on Household Damages due to the Earthquake (SHDE). The PDNA collected the estimation of effects - damages and losses<sup>1</sup> - of the disaster. The damages and losses sometimes differ substantially between the sectors,

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<sup>1</sup> Damages = partial or total destruction of infrastructure or physical assets, Losses = value of reduced production or income, as well as additional costs or unexpected costs in order to deliver the same services or functions.



due to the specificity of their corresponding calculations. Their impact on macro-economic and human development level was also analyzed. Lastly, estimations of the financial requirements needed to undertake the reconstruction and recovery were done. The terms of the implementation of the recovery plan are as follows: short term (2020), medium term (2021, 2022) and long term (2023 and 2024). For more information on the methodological approach, please refer to Annex 5.1.

The most affected municipalities, which were agreed on by the Government for the PDNA process, are: Shijak, Durres, Kruja, Tirana, Kamza, Kavaja, Vora, Kavaja, Rogozhina, Kurbin, and Mirdita . The following sectors were assessed during this process: health, education, housing, productive<sup>2</sup> (comprising: tourism, business, cultural heritages and agriculture sub-sectors) and infrastructure (including the sub-sectors of community infrastructures, energy, transport, communication, water and sanitation and public buildings owned by the government of Albania).

## Key Findings

Below is a summary of the key findings of the PDNA, presented by sector.

**Education:** Damages were reported to 321 educational institutions in the 11 affected municipalities, representing 24% of all educational establishments. The municipalities of Tirana and Durres have the highest share of damage, with 55% and 21%, respectively. The total value of damage and losses in the education sector is estimated at 72.35 million EUR (8.9 billion ALL) . Of this, the value of damage is 63.59 million EUR (7.8 billion ALL), while the losses are 8.76 million EUR (1.1 billion ALL). The total needs for reconstruction and recovery are estimated to be 94.83 million EUR (11.67 billion ALL).

**Health:** 36 health facilities (8% of total in 11 Municipalities) were partially or fully damaged, where 22 are primary health care facilities. There were damages to three regional hospitals, nine university hospitals (units), two municipal hospitals, ten health centres, and 12 health posts. The total effects are estimated at 9.93 million EUR (1.22 billion ALL). The reported losses amount to 1.91 million EUR (235.03 million ALL) and are mainly linked to the free medical services during the emergency period. The recovery that considers the rehabilitation of partially or severely damaged facilities, as well as risk reduction and resilience measures is estimated at 14.54 million EUR.

**Housing:** A total of 11,490 housing units were categorised as fully destroyed or demolished and need to be rebuilt. An additional 83,745 of housing units were either partially or lightly damaged, needing repair and refitting. Overall 18% of total housing units have been affected. The total effects are valued at 696.3 million EUR (85.68 billion ALL), whereas recovery and reconstruction are estimated at 803 million EUR (99.301 million ALL) over the short, medium and long term.

**Infrastructure:** Of the total damage and loss in this sector, which amounts to 33.42 million EUR (4.11 billion ALL), one-third was in the municipality of Durres. Government buildings and community infrastructure

<sup>2</sup> It is called **Productive sector** based on the PDNA methodology, where the culture was also included as it is a major source of revenue for the Government.

were particularly affected. There was damage to two river embankments, 50 gabion baskets, one dam, 42 municipal buildings, one prison, and 33 office buildings. The total losses of all sub-sectors amount to 3.01 million EUR (370.4 million ALL). The overall needs for reconstruction and recovery were estimated at 60.99 million EUR (7.5 billion ALL).

**Productive:** The total effects estimated for the sector are 150.48 million EUR. The Tourism sub-sector sustained the most damage and losses with 90.24 million EUR (11.1 billion ALL), the majority of which is due to losses from an expected decline in foreign visitors between 2020 and 2022. The Business & Employment sub-sector is the second most affected with 53 million EUR (6.5 billion ALL) in damage and losses, most of it on account of the damage sustained by 714 businesses in manufacturing and trade. In the Cultural Heritage sub-sector, two national museums and three local museums were classified as insecure and are still closed to the public, while an additional 23 monuments and sites were classified as high risk and another 30 monuments as medium risk. Damages in the Agriculture sub-sector were minor and relate to agricultural inputs and equipment. There was also damage to embankments and water drainage stations in Durres and Lezha, as well as to the Institute for Food Safety and Veterinary building. The recovery needs in this sector amount to 51.83 million EUR (6.4 billion ALL), over half is in the Business and Employment sub-sector with 27.84 million EUR (3.4 billion ALL), followed by tourism with 10.88 million EUR (1.3 billion ALL).

**Social Protection** damages are not reported under this sector, as it is included either under community infrastructure or public buildings in the Infrastructure sector. Losses mainly refer to governance, coordination, and disaster management as well as referrals, psycho-social counselling and social care services that are estimated at 623.5 thousand EUR (76.7 million ALL), whereby 1/3 are public and 2/3 are private. The total needs of the sector are estimated at 2.83 million EUR (348.2 million ALL).

**Civil Protection and Disaster Risk Reduction:** 57 buildings from the Ministry of Defence were damaged, one firefighting station had to be demolished, two buildings of the Albanian Geological Survey were partially damaged, eight monitoring stations from the Institute of Geosciences, Energy, Water and Environment (IGEWE) were slightly damaged, six buildings from the General Directorate of State Reserves were slightly damaged as well, and seven additional buildings were damaged beyond repair. The damages were estimated at 8.75 million EUR (1,076 million ALL) and 13.21 million EUR (1,625 million ALL) for losses. The total needs for the sector reconstruction and recovery were estimated at 48.25 million EUR (5.9 billion ALL).

## Total Damages and Losses

The assessment reveals that the total effect of the disaster in the 11 municipalities amounts to 985.1 million EUR (121.21 billion ALL), of which 843.9 million EUR (103.84 billion ALL) represents the value of destroyed physical assets and 141.2 million EUR (17.37 billion ALL) refer to losses. See sector-specific damages and losses in Table 1.

Most of the damages are recorded in the Housing sector (78.5%), followed by the Productive sector (8.4%) and the Education (7.5%) sector. Regarding the losses, the Productive sector accounts for the highest share (56.4%), followed by Housing (24.1%) and Civil Protection (CP) & Disaster Risk Reduction (DRR) with 9.4%, see Table 2 specified by municipality and sector.

Relevant to the ownership of the effects, overall 76.5% are private and 23.5% public. The Housing and Productive sectors constitute mainly private infrastructures, whereas the other remaining sectors are mostly publicly owned. The same pattern also applies for the losses.

In relation to the geographic distribution of damage and loss, the municipality of Durres was overwhelmingly the most affected with 303.8 million EUR (3.74 billion ALL) or 32.4% of the total damage and loss, followed closely by Tirana with 284.3 million EUR (3.5 billion ALL) or 30%, and thirdly Kruja with 84.2 million EUR (1.04 billion ALL) or 9%, see Table 2.



**Table 1** Damages and losses, sector and sub-sector specific

Sectors	Sub-sectors	Damages	Losses	Total
		In million EUR		
<b>Health</b>		<b>8.02</b>	<b>1.91</b>	<b>9.93</b>
<b>Education</b>		<b>63.59</b>	<b>8.76</b>	<b>72.35</b>
<b>Housing</b>		<b>662.30</b>	<b>34.00</b>	<b>696.30</b>
<b>Productive</b>		<b>70.82</b>	<b>79.66</b>	<b>150.48</b>
	Business and Employment	47.48	5.47	52.95
	Tourism	16.71	73.53	90.24
	Cultural Heritage	5.31	0.44	5.75
	Agriculture	1.32	0.22	1.54
<b>Infrastructure</b>		<b>30.41</b>	<b>3.01</b>	<b>33.42</b>
	Community Infrastructure	6.06	0.16	6.22
	Roads	4.83	0.43	5.26
	Water and Sanitation	0.35	0.00	0.35
	Communication	0.92	0.16	1.08
	Public Buildings	10.07	2.26	12.33
	Energy	8.18	0.00	8.18
<b>Social Protection</b>		-	<b>0.62</b>	<b>0.62</b>
<b>Civil Protection and DRR</b>		<b>8.75</b>	<b>13.22</b>	<b>21.97</b>
<b>Total</b>		<b>843.89</b>	<b>141.17</b>	<b>985.06</b>

**Table 2** Damage and losses by municipality

Losses	Education	Health	Housing	Infrastructure	Productive	Social protection	Civil Protection and DRR
Durres	9.75	1.50	220.78	8.95	65.15	0.06	4.00
Shijak	2.40	0.11	52.91	1.84	5.36	0.06	2.30
Kruja	5.04	0.34	73.01	0.53	5.67	0.06	1.50
Lezha	2.91	0.27	22.18	1.38	6.83	0.06	2.00
Mirdita	-	-	4.42	0.80	0.75	0.06	0.70
Kurbin	4.00	5.56	25.39	2.32	0.05	0.06	2.40
Tirana	46.06	2.13	214.33	15.56	21.91	0.06	3.40
Kamza	0.06	-	14.49	0.49	1.25	0.06	1.82
Vora	1.18	0.02	40.16	1.00	5.59	0.06	1.80
Kavaja	0.93	-	28.62	0.50	37.79	0.06	1.30
Rrogozhina	-	-	-	0.05	0.14	0.02	0.75
<b>Total in million EUR</b>	<b>72.35</b>	<b>9.93</b>	<b>696.30</b>	<b>33.42</b>	<b>150.48</b>	<b>0.62</b>	<b>21.97</b>

Most of the effects are reported in Durres (31.5%) and Tirana (30.8%) and to a much lesser extent in Kruja (8.75%), Kavaja (7.0%), Shijak (6.6%), and Vora (5.1%). The other five municipalities comprise the remaining 10% of effects.

## Impact on Macro-economy and Human Development

### Macro-economic

The earthquake is estimated to have caused effects that are equivalent to 6.4% of the 2018 Gross Domestic Product (GDP) in damages and to 1.1% of GDP in losses. Damages amount to 26.4% of gross fixed capital formation indicating a limited capacity of Albania to achieve full reconstruction in a short to medium timeframe. In terms of losses, the hardest-hit economic sectors were tourism and real estate, but significant damages were also inflicted on education, health, public infrastructure, manufacturing and trade, and agriculture.

As a result of the earthquake, real GDP growth over 2019 and 2020 is estimated to be lower with the effects of capacity loss constraining growth over the medium term. As a result, the Albanian economy is projected to grow by an estimated 2.4% in 2019, and 3.2% in 2020 from a pre-earthquake baseline estimated growth of 2.9% and 3.5%, respectively.

The earthquake is also expected to put further strains on public finances: the fiscal deficit is estimated to be higher by 0.7 per cent points of GDP. The trade deficit and the current account deficit (CAD) are expected to worsen as well. CAD is expected to widen by about 0.2% of GDP, increasing from a pre-earthquake baseline projection of 7.1% to 7.3% of GDP in 2020.

Although the economic activity may likely slow down and the deficit could further increase as a result of the earthquake, the availability of grant resources for reconstruction would help to accelerate economic recovery and mitigate the negative earthquake effects on public finance.

### Human Development

The causal effects of an earthquake on human development and poverty are difficult to quantify in the immediate aftermath of the event. Aside from the clear and immediate impact on those directly affected by loss or damage of property, injury, and loss of life, many more people suffer directly and indirectly through losses in economic activity, health deterioration (including mental health), and reduced investment in education.

Following the earthquake, about 9.2% of households in the affected districts moved out of their dwellings, and close to one-third of the 9.2% had not returned by the end of December 2019. The self-reported ability of households to pay for usual necessary expenses shows a decreasing trend after the earthquake compared to before the earthquake.

Extreme material deprivation rates increased on average by 8.4 percentage points, or 25.4%, compared to before and after the earthquake.

Between these two periods, subjective poverty rates in the affected districts increased by 2.3 percentage points or an equivalent of 26,000 people (18.9%). In contrast to at-risk-of-poverty (AROP) and extreme material deprivation rates, all districts show a deterioration of the situation when measuring subjective poverty.

The self-reported health status of household members showed a deterioration following the earthquake. Despite overall good self-reported health conditions, about 5.6% of the population in the affected

districts reported memory loss and difficulties in seeing, hearing, walking or climbing, and concentrating after the earthquake. Importantly, because of the earthquake, 42.9% of people in the affected districts reported emotional exhaustion, trouble with sleeping, depression, and anxiety two weeks after the event.

The delivery of education services was briefly interrupted for at least a week. In total, 96.5% of the children went back to school after losing some school days, and 3.5% were not yet back to school by the time of the survey interviews.

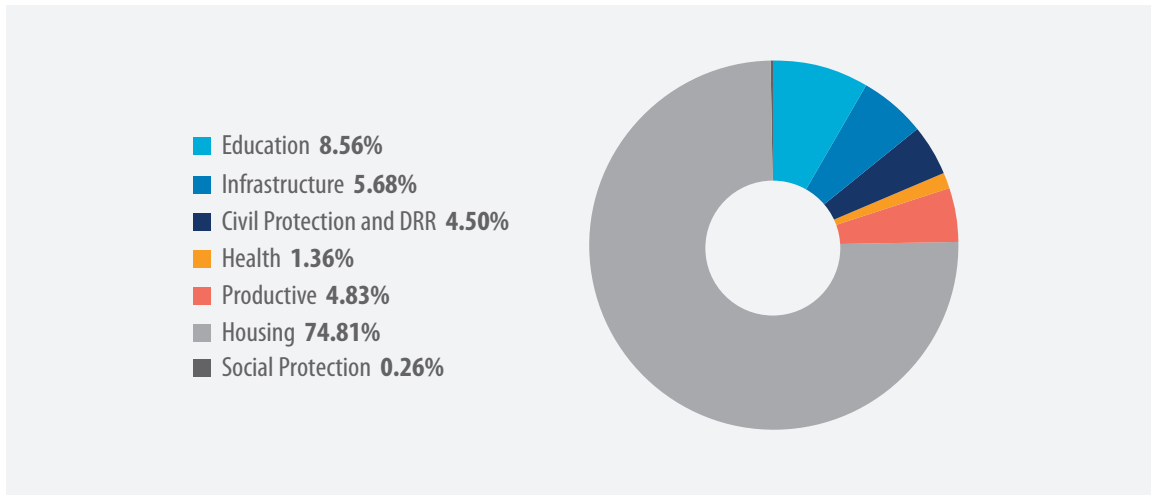
## Needs

The total recovery needs are 1,076.15 billion EUR (132.4 billion ALL) across all sectors and for the 11 affected municipalities, as shown in Table 3. Needs in the Housing sector alone are 802.86 million EUR (98.8 billion ALL), which represents 75% of all needs. The recovery of the Education sector will cost about 95 million EUR (11.7 billion ALL) or nearly 9% of the total, and recovery for the Infrastructure sector will be 61 million EUR (7.4 billion ALL) or 6%. Within the Infrastructure sector, over half of the recovery needs are in the Energy and Government Buildings sub-sectors, with 12.9 million EUR (1.5 billion ALL) and 26.5 million EUR (3.3 billion ALL), respectively. In the Productive sector with 4.2% of all the recovery needs, they are concentrated in the Business and Employment sub-sector (Manufacturing and Trade) with 27.84 million EUR (3.4 billion ALL). Civil protection & DRR have a similar share of needs with 4.4%, see Figure 1.

**Table 3** Recovery needs by sector and sub-sector

Sectors	Sub-sectors	Short	Medium	Long	Total
In million EUR					
<b>Health</b>		<b>9.77</b>	<b>4.77</b>	<b>0.01</b>	<b>14.55</b>
<b>Education</b>		<b>53.99</b>	<b>39.38</b>	<b>1.46</b>	<b>94.83</b>
<b>Housing</b>		<b>430.51</b>	<b>371.85</b>	<b>0.50</b>	<b>802.86</b>
<b>Productive</b>		<b>18.61</b>	<b>21.29</b>	<b>11.93</b>	<b>51.83</b>
	Business and Employment	10.00	13.80	4.05	27.84
	Tourism	5.95	2.99	1.93	10.88
	Cultural Heritage	0.79	2.77	3.84	7.41
	Agriculture	1.86	1.73	2.11	5.70
<b>Infrastructure</b>		<b>7.51</b>	<b>38.42</b>	<b>15.07</b>	<b>61.00</b>
	Community Infrastructure	1.03	6.32	3.16	10.51
	Energy	2.71	9.56	0.63	12.90
	Government Buildings	2.66	15.93	7.97	26.56
	Communication	0.26	1.55	0.78	2.59
	Transport	0.75	4.48	2.24	7.47
	Water, Sanitation and Hygiene	0.10	0.58	0.29	0.97
<b>Social Protection</b>		<b>1.19</b>	<b>0.96</b>	<b>0.69</b>	<b>2.83</b>
<b>Civil Protection and DRR</b>		<b>23.91</b>	<b>22.94</b>	<b>1.40</b>	<b>48.25</b>
<b>Total in million EUR</b>		<b>545.48</b>	<b>499.61</b>	<b>31.06</b>	<b>1,076.15</b>

**Figure 1** Recovery needs, percentage by sector



The time range for the short term is for one year until the end of 2020, while medium-term is the next two years 2022 and 2023, and long term refers to 2024 and 2025.

## Conclusions / Recommendation

The Government of Albania has expressed its commitment to lead the recovery and reconstruction efforts. Options to fund the recovery are budgetary reallocations, donor pledges, loans or grants from multilateral and bilateral agencies, and / or contributions from the private sector.

A variety of principles guide the recovery strategy, aiming at improving the quality of recovery, emphasizing equity and inclusion, and promoting risk reduction. The recovery strategy is based on the resilience and sustainability-oriented 'Build Back Better' (BBB) approach. BBB interventions are intended to strengthen disaster-risk management of the government and communities; reduce risks and vulnerabilities to future disasters; and to catalyse the economy and rebuild livelihoods, which differ from interventions that merely restore and resume to pre-disaster levels.

Additional focus should be placed on:

- Use of energy efficient technologies in the reconstruction process;
- Safe, sound and environmentally friendly management of solid and hazardous waste;
- Recycling — as far as possible — of the large amount of debris and rubble;
- Use of environmentally friendly construction materials;
- Avoiding potential negative impacts on the environment;
- Prioritising gender equality and non-discriminatory treatment as they generate holistic prosperity and are not just a factor of equity.

As a reminder, the recovery process of the disaster can create opportunities for prosperity through job creation programmes that could jumpstart and expand growth, as well as economic, social, and political resilience to future disasters.

# 1



## INTRODUCTION

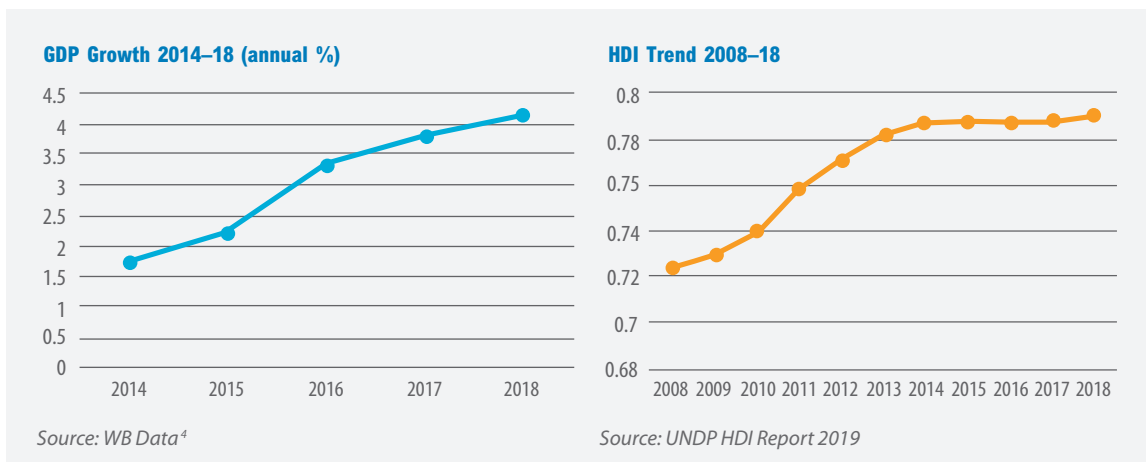
### 1.1 The Socio-economic Context

Albania, located on the Balkan Peninsula in South and Southeast Europe, has a population of 2.9 million people. With a total area of 28,748 square kilometres, the country is divided into 12 administrative regions which are further divided into 61 municipalities.

The country's economy has grown remarkably in the past three decades, moving Albania into the status of a middle-income country, reducing poverty, and increasing its Human Development Index (HDI). Between 2014 and 2018, its GDP has shown a strong upward trend, from 1.8% to 4.1%. As of 2018, Albania's HDI value reached 0.791, placing the country in the high human development category and positioning it at 69 out of 189 countries and territories (UNDP, 2019).

The travel and tourism sector is an important engine of growth in Albania, making a total contribution to GDP of 26% in 2017, and accounting for 24% of total employment (direct and indirect) in the same year (World Travel & Tourism Council, 2018). The agriculture sector is also significant in Albania, contributing 19% of GDP in 2017, while the manufacturing industry contributed 6.2% (INSTAT, 2017).

**Figure 2** GDP and human development index development over the last years



Although human development has improved, some challenges remain, and poverty is high in the country, especially since the global financial crisis in 2008. The absolute poverty rate in Albania is 14.3%, while the at-risk-of-poverty rate is 23.4 % (INSTAT, 2015, 2019). Child malnutrition (stunting) among children under five is 11%, and roughly 17% of the population do not have access to improved drinking water sources (INSTAT, 2018).

## 1.2 The Context in the Affected Areas

The earthquake affected 11 municipalities: Shijak, Durres, Kruja in the Durres region, Tirana, Kamza, Kavaja, Vora and Rrogozhina in the Tirana region and Kurbin, Mirdita and Lezha in the Lezha region. They include the cities of Tirana and Durres, which are the economic and financial heart of Albania due to their strategic geographical location. The country's most important infrastructure is in these cities, connecting the north to the south as well as the west to the east. The affected area can be divided into three different regions: 1) the capital city of Tirana, 2) the coastal region including the port city of Durres, which is the main tourist and economic hub in the area, and 3) the rural areas in the countryside.

The capital city and the wider metropolitan area is the most important economic, financial, political and trade centre in Albania due to its strategic location in the middle of the country and its modern air, rail and road transportation networks. It is the seat of power of the Government of Albania. In Tirana, the service / administrative sector is the most important and employs more than 68% of the local workforce; followed by 26% for the manufacturing sector and 5% in the primary sector (Agroweb, 2017). Inhabitants in Tirana account for around 25% of the overall population of the country.

The country's tourism industry is concentrated along the coast, with its main hub in Durres (Springer, 2015). The coast is known for its wide variety of ecosystems, such as sandy beaches, capes, coves, covered bays, lagoons, small gravel beaches, and sea caves. Some parts of this coast are very clean ecologically, which is a rarity in the Mediterranean area (Albanian Tourist, 2014). As of 2014, the Port of Durres ranks as one of the largest passenger ports on the Adriatic and Ionian Seas, with an annual passenger volume of approximately 1.5 million. The port serves an extensive network of ferries connecting numerous islands and coastal cities in addition to ferry lines to several cities in Croatia, Greece, and Italy. In Durres, there is an important shipyard and manufacturing industry, notably producing leather, plastic, and tobacco products. The city's beaches are also a popular destination for many foreign and local tourists, with an estimated 800,000 tourists visiting annually. The southern coastal stretch of Golem, in Kavaja municipality, is renowned for its mass beach tourism and has experienced uncontrolled urban development. The northern coastal city of Lezha has experienced tourism development in the last years, mainly in Shëngjin.

In the countryside, agriculture is the main economic activity, and it employs 41% (UC Cincinatti, 2012) of the overall population, while about 24.3% of the land is used for agricultural purposes. The agriculture sector is limited primarily to small family operations and subsistence farming because of lack of modern equipment, unclear property rights, and the prevalence of small, inefficient plots of land. Migration takes place from rural areas to urban areas, and to neighbouring countries or the EU. The annual remittances from abroad, at 15% of GDP, support both households and the economy.



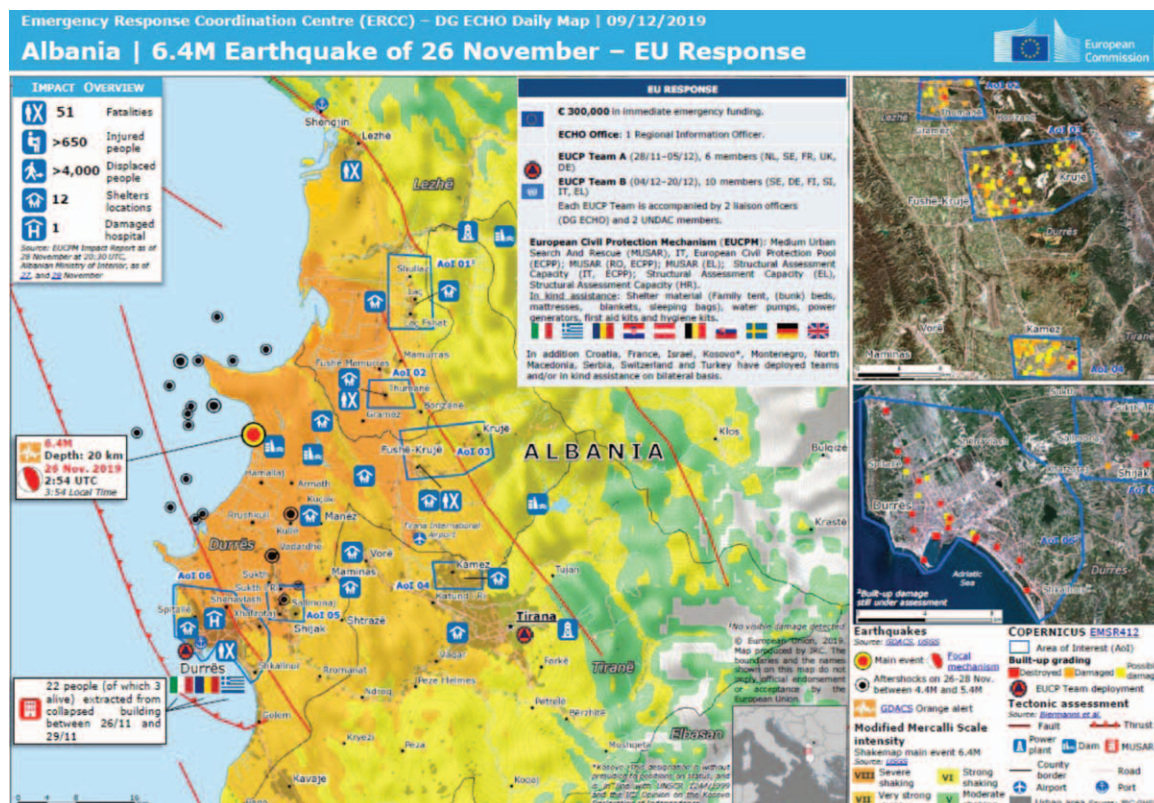
### 1.3 Brief Description of the Disaster

According to the Albanian Institute of Geophysics, Water and Energy (IGEWE) at 21:59 on 25<sup>th</sup> November 2019, Albania was hit by an earthquake with a magnitude 3.5 on the Richter scale at a depth of 35 km. Its epicentre was located 19 km north of Durres. Nearly five hours later, at 03:54 on 26<sup>th</sup> November 2019, a second and stronger earthquake (to which this assessment responds) took place in the same area, with a magnitude 6.3 on the Richter scale at a depth of 38 km. The epicentre was 22km from Durres and 30km from Tirana. These two events were preceded by an earlier earthquake, which hit 5 km north of Durres city on 21<sup>st</sup> September 2019 with a magnitude of 5.6 on the Richter scale and with a depth of 10 km. The September earthquake aggravated the effects recorded in the November event. A total of 17 aftershocks were recorded between the 26<sup>th</sup> and 29<sup>th</sup> of November, all with a magnitude above 4 on the Richter scale.

The 26<sup>th</sup> November earthquake has been described by national authorities as the strongest to hit Albania in 30 years. As noted earlier, it caused extensive damage in 11 municipalities, including Tirana and Durres. The worst affected municipalities were: Shijak, Durres, Kruja, Tirana, Kamza, Kavaja, Kurbin and Lezha, see Map 1.

The location of the earthquake was not a surprise as historically, the major recorded seismic events occurred in the convergent boundary between the Eurasian Plate and the Adriatic Plate, part of the complex collision zone with the African Plate, where tectonic compression of the Earth's crust extending from Croatia in the north to Greece in the south has given rise to high seismicity. In this tectonic context, western Albania is host to several active thrust faults. Such a fold exists in the region between Durres and Tirana, running in an NNW-SSE direction and rising up to 200m in altitude; this is where the 26<sup>th</sup> November earthquake most likely originated.

## Map 1 Intensity of the main earthquake shock and area affected



## 1.4 Affected Population

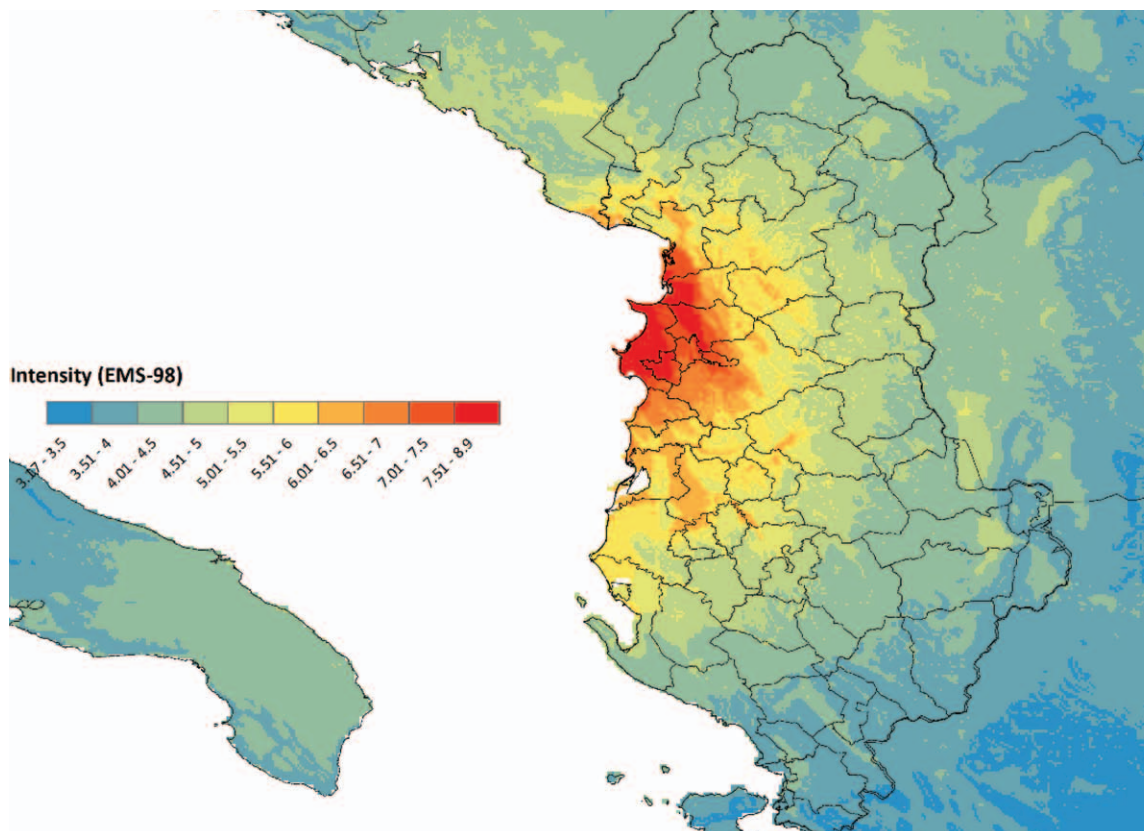
The earthquake caused 51 fatalities, of which seven were children age 0-14 years, 34 were between the ages of 15-59, and ten were over the age of 60. Overall, 24 deaths were female and 27 male. At least 913 people were injured, including 255 people who were injured during the aftershocks. First responders rescued ten people, and 38 people were rescued by Albanian and international USAR teams.

Map 2 shows the population exposed to the main earthquake (WB&GFDRR, 2019), linked to the registered intensity: intensity VIII – 140,000 persons, ii) VII – 680,000 persons, iii) VI – 870,000 persons and V – 1.9 persons. See the geographical distribution of the affected people.

As a result of the earthquake, a total of 202,291 people were affected in the country, of whom 47,265 were directly affected, and 155,028 were indirectly affected. According to the Head of Emergency, as of 30<sup>th</sup> December, there were 10,225 displaced people accommodated in 12 shelter locations, 3,613 in hotels and an unknown number privately hosted. A total of 7,286 families so far have been registered as qualifying for the rent bonus program. More than 900 wounded persons have been treated in hospitals, and as of 15<sup>th</sup> January, only one patient remains at the trauma hospital. More than 21,000 children, which constitute 7% of all students in the 11 affected municipalities, have been relocated to host-schools.



**Map 2** Modelled seismic intensity distribution of the main shock



The red darkest colour corresponds to intensity VIII (severe) on the European macro-seismic intensity (EMS-98) scale, and the yellow and orange shades correspond to intensities VI and VII (strong and very strong, respectively.)

## 1.5 Immediate Response

### National Response

The Government of Albania (GoA) decreed a State of Emergency on 27<sup>th</sup> November for Durres and Tirana prefectures and the day after for Lezha, resulting in the establishment of the Inter-Ministerial Committee of Civil Emergency. They prepared a detailed work program to cope with the situation created by the earthquake. Authorities moved swiftly to respond with search and rescue operations and humanitarian aid. Firefighters, civil protection, medical emergency personnel, the Armed Forces and State Reserve were immediately deployed for the initial life-saving phase. Albania deployed a total of 7,600 responders, including 534 volunteers and 278 specially trained Army Urban Search and Rescue (USAR) personnel.

### International Response

The GoA has an existing, efficient, and well-practiced procedure for requesting international assistance and therefore activated the EUCPM (European Civil Protection Mechanism) on 26<sup>th</sup> November. The Albanian first responders were supported by 541 emergency personnel from twelve EU countries and 304 personnel from eight non-EU countries.

The international community has additionally been supporting the GoA with humanitarian supplies and institutional support. An EU Civil Protection (EUCP) Team was deployed to Albania on 27<sup>th</sup> November. The UN mobilized a UNDAC team for the humanitarian phase and worked in coordination with the EUCP Team and the Albanian government on conducting a building damage assessment. The World Bank undertook a Global Rapid post-disaster Damage Estimation (GRADE) that gave a preliminary estimate of the scope and magnitude of the disaster.

Once the most immediate humanitarian phase was over, the GoA requested support from the European Union, the United Nations, and the World Bank to undertake a full and comprehensive Post-Disaster Needs Assessment (PDNA) to identify the damage, losses and recovery needs arising from the event.

## National and International Donations

The government has approved by the Law 88/2019 on Budget 2020 a fund of 20 billion ALL composed as 106.6 million EUR (13 billion ALL) for reconstruction, 57.4 million EUR (7 billion ALL) as donations/grants. The amount of donations contributed through government accounts as per today is 15.2 million EUR (1.98 billion ALL).

All this is in addition to receiving in-kind donations from various national and international actors (private persons, enterprises, football teams, faith-based organizations, local and international NGOs, governments and other types of institutions like Red Cross societies). A respectable number of volunteers and specialists have also been providing their time in active participation in relief efforts.

The Albanian government established a monetary compensation fund to provide families with deceased members with scholarships for children and pensions for the surviving adults in an amount of 8,200 EUR (1 million ALL) per family.



**Table 4** Population data pre and post disaster

Municipality	Region	Total Population (census 2011)	Pre-disaster			Post-disaster
			Children and students in all education establishments[1]	People with social care services	Total people with disability	Affected population from Housing sector
Total (Albania)		2,862,427	639,707		71,710	
Durres	Durres	175,110	54,529	15	4,186	59,089
SHIJAK		34,513	3,565	1	706	8,712
Kruja		59,814	10,235	3	1,386	16,707
Lezha	Lezha	65,633	11,808	13	1,967	5,876
Mirdita		22,103	2,551	4	811	2,080
KURBIN		46,291	8,115	1	1,564	6,596
Tirana	Tirana	557,422	200,981	69	8,535	82,110
Kamza		104,190	22,081	6	1,792	7,768
Vora		25,511	4,543	4	463	8,498
Kavaja		40,094	6,148	3	919	4,854
Rrogozhina		22,148	2,985	3	456	0
<b>Total (11 Municipalities)</b>		<b>1,152,829</b>	<b>327,541</b>	<b>122</b>	<b>22,785</b>	<b>202,291</b>

Source: SSS, MoHSP, MoESY, December 2019





# SUMMARY OF SECTOR FINDINGS

# 2

## 2.1 General Overview

The effects of a disaster in a PDNA are divided into damages and losses. Damages are defined as costs to repair or reconstruct the partially or fully destroyed infrastructures or physical assets. Losses are the changes in economic flows, expressed as the value of production of goods and services (income or in-kind losses) as well as changes in the costs of production (such as a decline in production and the higher than normal cost of production) as well as unexpected additional costs.

The total value of the destroyed or damaged assets and infrastructures, in the 11 affected municipalities, has been estimated to be 843.9 million EUR (103.8 billion ALL), and the value of the total losses amounts to 141.2 million EUR (17.4 billion ALL). Together this adds up to a total of 985.1 million EUR (121.2 billion ALL) in combined damages and losses with the sectorial distribution of damages and losses. This total value represents around 7.5% of the gross domestic product of Albania in 2019, which shows the magnitude of the effects of the earthquake and the importance of it to the country's economy, livelihoods and human development indicators.

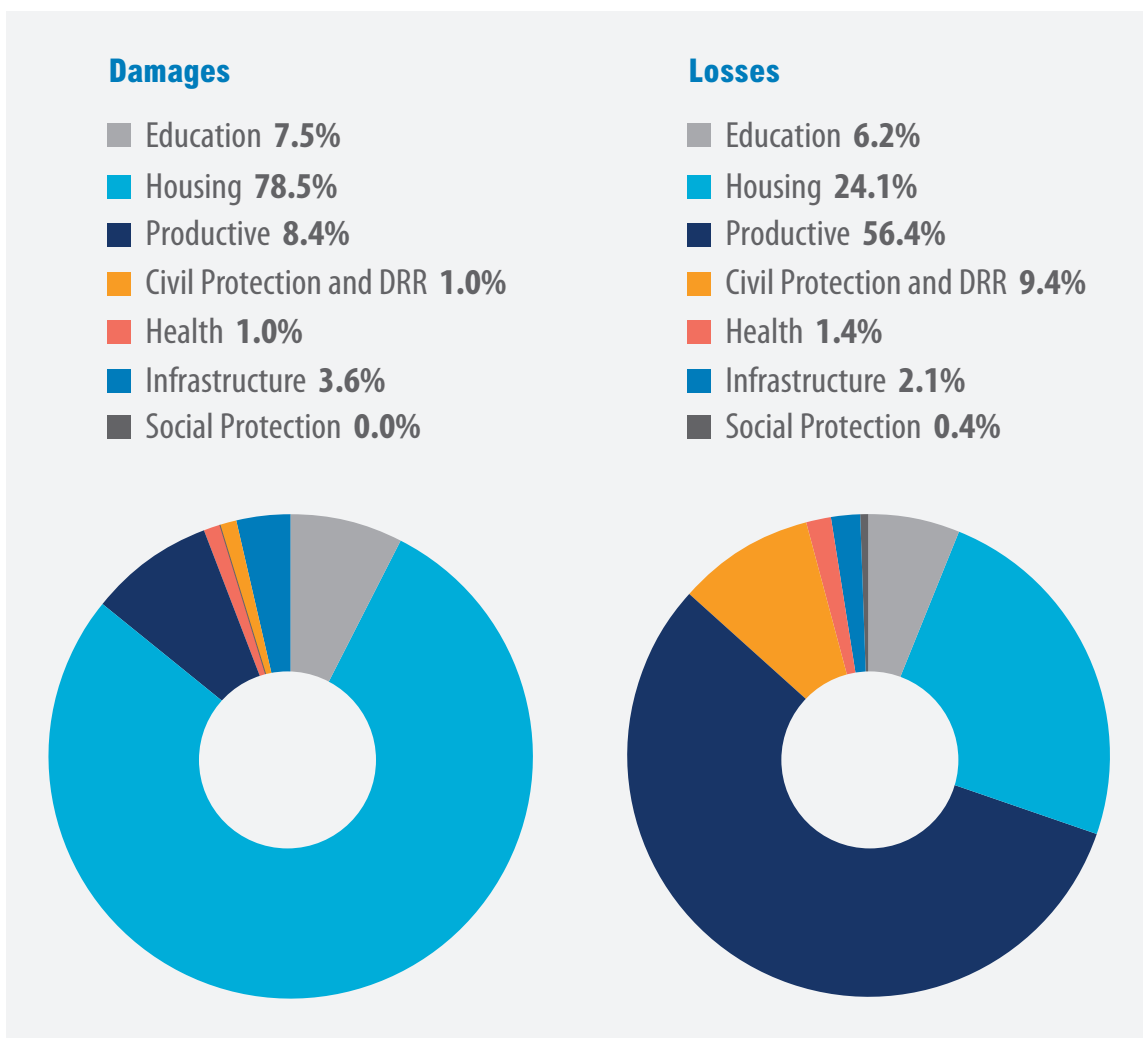
The disaster's effects have varied for the different economic and social activity sectors.

In damages, the most affected sector was Housing, followed by Tourism and Education; the remaining sectors follow to a lesser degree. Tourism suffered the most loss, followed by Housing and Civil Protection / DRR; for the remaining sectors, the losses were less significant, see Figure 3.

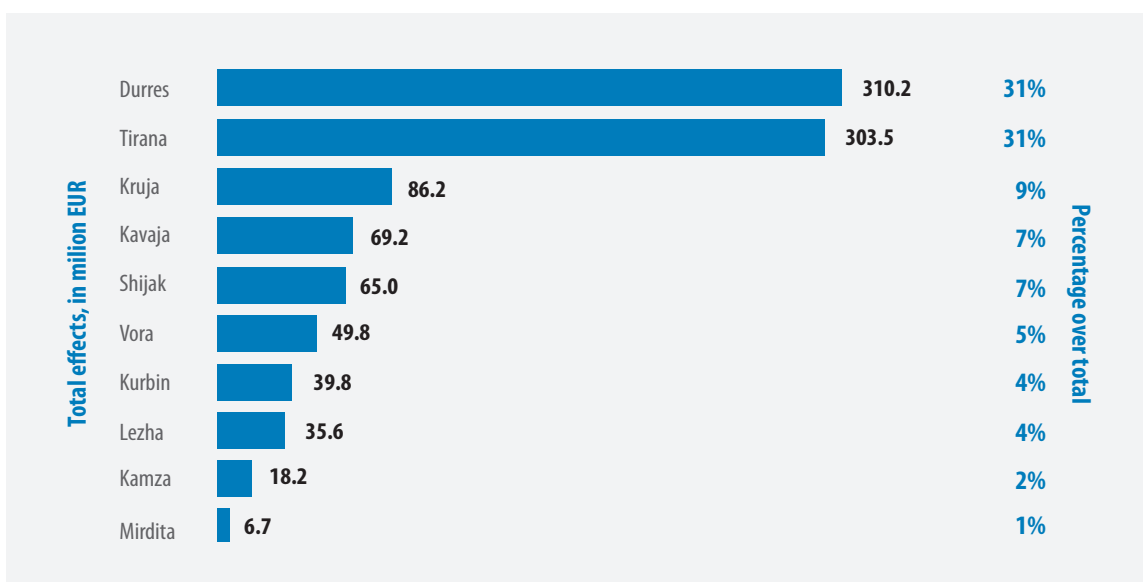
Overall the effects on the private sector have been higher in relation to the damages and losses due to effects on the Housing sector, although quite significant losses were also reported for the public sector. Tirana and Durres municipalities have the highest share of damages and losses, by 31% respectively over the total, see Figure 4.

The above analysis has to be taken into account in the recovery and rehabilitation strategy and must guide the prioritization of the economic and social activity sectors as well as the implementation process related to the private and public sectors. Also, the inter-sectorial linkages should be taken into consideration in order to build synergies and a smooth execution process.

**Figure 3** Sectorial damages and losses in percentage from total



**Figure 4** Damages and losses disaggregated by municipality



## 2.1.3 Cross-cutting Issues

### Environment

The overall objective is to achieve reconstruction and recovery in a manner that increases the resilience of infrastructures, ecosystems, the environment, and vulnerable communities to future disasters, including anthropogenic and climate shocks, and to promote adaptation to climate change by introducing specific measures into sectoral recovery and reconstruction programs.

The following principles will be applied to the recovery and reconstruction strategy:

- The introduction of energy efficient technologies into the reconstruction of residential and non-residential buildings in accordance with the Albanian Government regulations and recommendations. In the calculation of reconstruction needs, the costing for such measures has been considered under the “Build Back Better” (BBB) aspect.
- Recovery activities will also provide for the safe, sound, and environmentally friendly management of solid and hazardous waste. Special attention will be paid during the removal, recycling (as far as possible) and management of the large amount of debris and rubble in accordance with the national environmental protection regulations and also with internationally known best practices.
- Ensure that environmentally friendly construction materials are used in the construction of buildings and houses.
- Undertake environmental impact assessments prior to reconstruction, especially in the case of relocation, to avoid potential impacts to the environment.

### Gender

Sectoral assessments, and more specifically, the Chapter on Social Protection, have highlighted the disproportionate impact of the earthquake on men and women. However, simply viewing women as victims only exacerbates their vulnerability. They have knowledge, and social and practical skills that are critical for recovery,

The recovery process should be seen as an opportunity to strengthen resilience by reducing inequality and the vulnerability of women and other groups.

The following are some recommendations that should be taken into consideration to support the empowerment of women to reduce their vulnerabilities.

- Undertake a gender analysis and impact assessment prior to housing and infrastructure reconstruction to ensure that the different needs and priorities of men and women are equitably met and that both benefit equally from the design stage through to construction.
- Ensure transparency in the distribution of recovery funds, especially when distributed as cash, and ensure resources are equitably provided to women and men equally.
- Compensate women for their additional burden of unpaid labour after the earthquake.
- Establish dedicated funds for the rapid reestablishment of women’s small and home-based enterprises.
- Prioritise the recovery of schools, social and children’s services, and safe houses so that women can retain their employment.
- Ensure an equitable and transparent distribution of land, housing, and other property for men and women, irrespective of marital status.

- Ensure meaningful participation of women in the recovery process, including marginalised and excluded women, in decision-making processes relevant to housing, land, property, and agriculture.
- Support to replace household goods and furnishings should be provided to women as these are linked to women’s domestic and home-based enterprises and income-generating activities.



## 2.2 Health

### Context

The Albanian health system is mainly public. The state provides health promotion, prevention, diagnosis, treatment, and rehabilitation services. The private sector covers mostly pharmaceutical and dental services, and some specialized diagnostic clinics and hospitals mainly concentrated in Tirana. Public health services and promotion are provided at the primary care level, by the Institute of Public Health and the Operator of Health services. Public health activities have traditionally been oriented toward the control of infectious diseases and mother and child health. In recent years, more attention was paid to the control of chronic diseases, especially prevention, screening, and detection of early cancers.

In recent decades, there has been a steady increase in life expectancy for both sexes. The child mortality rate decreased from 20.7 deaths per 1,000 live births in 2002 to 8.4 in 2013. The maternal mortality rate (deaths per 100,000 live births) decreased from 22.7 in 1990 to 11.8 in 2013.

As Albania is vulnerable to different types of disasters, the Ministry of Health's Operational Plan synchronizes the response activity of its subordinate structures at the central, regional and local levels with the National Civil Protection Structures. The Ministry of Health is the leading sector for coordinating health emergency preparedness and response. It is part of the "Inter-Ministerial Committee for Civil Emergencies" and directs it on the condition of emergency declaration through national emergency response institutions and mechanisms. At regional and local levels, coordination of response to health emergencies or disasters with public health impact is provided by Regional Health Operators and locally by Local Health Units through the activation of the "ad hoc" Incident Management System.

### Effects of the Disaster

#### Effects on Infrastructure and Physical Assets:

In total, 36 health facilities out of 480 were affected, wherefrom one municipal and one health centre were totally destroyed and the rest partially. Effects on equipment, furniture and supplies were relatively minor, as none of the damaged health facilities had collapsed.





### **Effects on Access and Availability of Services:**

Due to the damage to the health facilities, patients were evacuated to facilities in non-affected areas and services of affected hospitals were relocated to temporary structures or to private buildings that had been adapted to perform this function. Additional hospital services were provided by Durres and Lezha Regional Hospital in addition to Tirana Trauma Centre. Using the fleet of 45 ambulances, 2,610 ambulance referrals were conducted. To address the health needs of the injured and displaced population, the Ministry of Health and Social Protection (MoHSP) established 25 temporary health posts at all camps, community centres and hotels for treatment of minor injuries and other health conditions. To address increased mental health conditions, the MOHSP mobilised psychosocial support and community engagement to the displaced population.

### **Effects on Governance:**

MOHSP coordinated the public health response, and activated the “General Platform of Risk and Disaster Management.” The Institute of Public Health enhanced the surveillance system by extending it to all 25 accommodation centres for the displaced population. The Alert surveillance system has been turned into a daily system to monitor the situation against infectious diseases, and this will continue for the entire period of the recovery. All information received is analysed at the Institute of Public Health, and daily epidemiologic reports are produced. By 5 January 2020, there were no reports of an increase in infectious diseases (respiratory, food-/waterborne). The public health labs in Durres, Kruja and Tirana were able to cope with the increased caseload. In spite of the limited capacities of the Public Health laboratory at Kruja, gaps were addressed during the emergency period.

### **Effects on Risk and Vulnerabilities:**

The Institute of Public Health completed health risk assessments in the district of Tirana, Durres, Kavaja, Kruja, Lezha targeting the affected residential and displaced population.

At the same time, the institute monitored the drinking water quality in all affected areas and increased the number of water monitoring checkpoints from 101 to 133, including monitoring at the collective centres of the displaced population. From the analyses carried out, all parameters are considered in the normal range.

By 28 December, eight health promotion campaigns have been conducted by the MOHSP and Institute of Public Health (IPH) in the affected districts. To address interrupted influenza vaccination services and to ensure adequate coverage among affected populations with increased vulnerabilities, 1,540 persons received the seasonal influenza vaccine based on national protocols.

## **Estimation of the Value of Damage and Loss**

The total effects of the Health sector have been estimated at 9.93 million EUR (1.22 billion ALL), from which 8.02 million EUR (0.99 billion ALL) were related to damages and 1.91 million EUR (235.03 million ALL) to losses. All the damages are reported in the public sector, while losses account for 98.4% public and 1.6% private.

### **Damages:**

Overall, 36 health facilities were either fully or partially damaged,<sup>3</sup> with a main share at the secondary level due to the total destruction of a regional hospital in Kurbin, see Table 5.

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<sup>3</sup> Unfortunately, it has not been possible to obtain damage data from the private sector providers, such as dentistry and pharmacies. As such, the estimate of the damage is underestimated.

Because none of the affected health facilities collapsed, damages to equipment and furniture were not significant.

**Table 5** Damages at health facilities and equipment<sup>4</sup>

Facility Classification	Total damaged	Infrastructure				Equipment		Furniture		Total costs of damage
		Fully Destroyed		Partially Damaged		FD	PD	FD	PD	
		No	In million EUR	No	In million EUR	In million EUR		In million EUR		
Tertiary level	9	0	0.00	9	0.72	0.00	0.00	0.00	0.00	0.72
Secondary level	5	1	5.00	4	1.22	0.00	0.04	0.00	0.23	6.49
Primary level	22	3	0.32	19	0.49	0.00	0.00	0.00	0.00	0.81
<b>Total in million EUR</b>	<b>36</b>	<b>4</b>	<b>5.32</b>	<b>32</b>	<b>2.43</b>	<b>0.00</b>	<b>0.04</b>	<b>0.00</b>	<b>0.23</b>	<b>8.02</b>

### Losses:

A number of factors such as, the damage incurred to the health facilities, the need to cover the health needs and address the risks that resulted from the earthquake, plus the coordination systems that were set up to manage the response and recovery supported by health surveillance systems, were responsible for the increased expenditures and reduced revenues when patients user fees were waived.

The losses are split into four categories as follows: i) additional costs for debris removal and rent for temporary facilities; ii) Provision of services due to additional costs for ambulance transports, free treatment of injuries and rehabilitation, waiving of fees for displaced persons or persons who lost their income source due to the earthquake, the loss of revenues of private clinics which provided free services in the immediate response phase; iii) governance-related issues such as are the costs of coordination and early warning and alert systems used during and just after the event; iv) reduction of risks including the aspects of awareness / health promotion campaigns and vaccination / immunization campaigns.

**Table 6** Losses in Health sector

Type of losses	Public	Private	Total
	In million EUR		
Total additional costs	0.50	0.00	0.50
Total services	1.16	0.05	1.20
Total governance	0.11	0.00	0.11
Total risks	0.10	0.00	0.10
<b>Total in million EUR</b>	<b>1.87</b>	<b>0.05</b>	<b>1.91</b>

<sup>4</sup> Data source: MoHSP

## The Sector Recovery Strategy

### The Sector Recovery Needs and Interventions

The rehabilitation of partially or severely damaged facilities will be guided by the strategy of the Ministry of Health, which aims to reshape the structure of health care service and align it with the country's population concentration and demographic / economic development. It will aim to increase access and quality of service to make service more efficient and effective by concentrating resources. The rehabilitation or construction of health facilities should be finished by 2020, where the Kurbin Hospital reconstruction will begin in 2021. It will be accompanied by standardization and modernization of equipment, communication systems, and furniture.

Particular attention will be given to the training of human resources in terms of security and service delivery. The training will be part of a work program on emergency preparedness and response. Above all, to reduce the risk and increase the resilience of hospitals, special attention will be given to not only retrofitting the physical structures but also to enhancing the preparedness component.

To strengthen the nation's capacity to prepare for and respond to a public health event, it is crucial to establish a functional public health emergency operations centre (PHEOC) that enhances early warning systems, supports effective coordination of responses, and enhances communication at all levels of the national health system. Key actions include: reviewing and amending the necessary legislation, setting up a policy group / steering committee responsible for PHEOC planning, information and communication technology infrastructure, and training as well as exercises.

**Table 7** Health needs in short, medium and long term

Recovery and reconstruction needs	Short	Medium	Long	Total
	In million Euro			
Reconstruction	7.69	4.71	0	12.4
Recovery including resilience	2.07	0.07	0.01	2.14
<b>Total in million EUR</b>	<b>9.76</b>	<b>4.78</b>	<b>0.01</b>	<b>14.54</b>

Based on an after-action review, a work program / action plan will be developed for immediate and longer-term corrective actions needed for the Health sector to be better prepared for future responses and to strengthen its emergency preparedness and response capacities.

The total reconstruction and recovery costs of the Health sector including risk reduction and resilience measures are estimated at 14.54 million EUR (1.79 billion ALL), wherefrom 9.76 million EUR (1.20 billion ALL) are related to short term and 4.78 million EUR (0.59 billion ALL) for medium and 0.01 million EUR (0.73 million ALL) for long term interventions, see Table 7.

## Sector-specific Guiding Principles

- Where possible, use the recovery to support the ongoing Health sector reforms, including the implementation of new models of care that will lead to increased efficiencies and better address changes in health needs.
- Focus special attention to ensure that all health professionals are trained on prevention of sexual violence and respond to the needs of survivors, with the establishment of clear SOPs and referral pathways for GBV survivors in case of emergency.

## Implementing Arrangements

Coordination and implementation of the Recovery Plan will be the responsibility of the “Commission of Civil Emergency Preparedness and Response,” led by the Vice-Minister of MOHSP.



## 2.3 Education

### Context

Albania has made steady progress in enhancing access, equity, and efficiency in education. The country has sustained near-universal enrollment rates in primary and secondary education. Children's learning outcomes are gradually improving, as demonstrated in the latest Programme for International Student Assessment (PISA) results, although students still scored lower than the OECD average in 2018 (OECD, 2019). The government is the main provider of education services in the country, especially in the school sub-sector. Only 10% of schools in basic education are owned by the private sector.

The physical infrastructure of education facilities, especially in rural areas, do not meet current regulations on safety and accessibility. Most of the aged school buildings are in urgent need of reconstruction, particularly those built before the 1990s (Lika, 2014). The quality of education in remote rural schools remains a challenge, where schools use multi-grade teaching without adequate teacher training and mentoring support. Schools lack interactive classrooms, laboratory equipment, support resources, and teaching aids.

Public spending on education remains low at 3.2% of GDP and 10.8% of total public expenditures, which is aiming to reach the internationally agreed benchmarks.<sup>5</sup> The investment in school construction and infrastructure maintenance constituted only 6% of the overall pre-university budget for 2019. Initiatives and programmes on risk reduction education, school safety, and school-based disaster-risk management have been limited in scope, fragmented, and lacking a systematic approach. However, the MoESY developed emergency preparedness and exit plans, as well as monitored their implementation in all schools in the earthquake affected area. With the help of development partners, MoESY trained teachers, psychologists and social workers to deal with the emotional and psychological post disaster effects in students.

### Effects of the Disaster

#### Effects on Infrastructure and Physical Assets:

According to data collected by the Institute of Construction of the Ministry of Infrastructure and Energy (MoIE), Ministry of Education Sport and Youth (MoESY) and local municipalities, 321 educational institutions (all types including dormitories) were affected by the earthquake or 24% of all education facilities in the 11 affected municipalities. About 90% of damaged schools are in the public sector. The municipalities of Tirana and Durres have the highest share of damaged education establishments, where 55% and 21% of all affected institutions are located, respectively. Schools were also damaged in smaller municipalities such as Vora, where half of all education facilities were either fully or partially destroyed. It is important to emphasize that three-quarters of the fully and partially destroyed educational institutions were built before the 1990s. In addition to infrastructure, the earthquake also damaged physical assets such as furniture, labs, ICT equipment, libraries, textbooks, and other learning materials. The central level agencies, such as the MoESY, ASCAP, and Ministry of Finance and economy (MoFE), did not sustain any damage to their infrastructure or physical assets.

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<sup>5</sup> As per adoption of the Incheon Declaration for Education 2030 (UNESCO, 2015).



**Table 8** Number of damaged education institutions/buildings

Sub-sectors	Fully Destroyed <sup>6</sup>		Partially Destroyed <sup>7</sup>		Lightly Damaged <sup>8</sup>	
	Public	Private	Public	Private	Public	Private
Crèche	1	0	2	0	4	0
Pre-school	5	1	7	2	7	17
Basic School	36	0	33	0	71	3
Sec. School	10	0	11	1	26	9
VET	2	0	2	0	3	0
HE	4	0	11	1	18	0
Dormitories	17	0	5	0	12	0
<b>Total</b>	<b>75</b>	<b>1</b>	<b>71</b>	<b>4</b>	<b>141</b>	<b>29</b>

### Effects on Access and Availability of Services:

The earthquake disrupted education and learning. More than 55 schools failed to re-open until 9 December 2019, while some private basic and secondary schools remained closed until 16 December 2019.<sup>9</sup> The Faculty of Civil Engineering of the Polytechnic University and the University of Medicine in Tirana only resumed classes on 6 January 2020.

The MoESY and local education authorities, with support from development partners, took measures to resume education by relocating students to neighbouring schools and setting up temporary learning centres. More than 21,000 children, which constitutes 7% of all students in the 11 affected municipalities, have been relocated to host schools. Temporary learning centres for children have been set up in hotels where families found shelter. The MoESY and local education offices have been providing free daily transportation for children and teachers to commute to and from host schools.

Children and families affected by the disaster require professional psychosocial support from specialists to address post-traumatic stress disorder. While there are no reported casualties among teachers, many homes of teachers were either fully or partially destroyed. More than 1,300 teachers have been requested

<sup>6</sup> Fully Destroyed Schools: the building of the school is no longer suitable for use, should be demolished and reconstructed (100% of surface area).

<sup>7</sup> Partially Damaged Schools: the building has no structural damage and can be restored to its original condition without dismantling (30 – 50% of surface area).

<sup>8</sup> Lightly Damaged Schools: small repair (=<10% of surface area).

<sup>9</sup> The standard school calendar days per year is about 190, with 180 days for teaching-learning and the rest for examinations, extracurricular activities, and other non-teaching functions.

to travel over 5km on average to teach in neighbouring schools. Teachers have expressed concerns regarding the difficulty in the management of different shifts and teaching workload. The burden of domestic work, especially for female teachers, has also increased.

### **Effects on Governance and Service Delivery:**

The impact of the earthquake on administrative buildings, such as the MoESY, MoFE, and local education offices, was minimal. Education authorities have effectively managed to resume education by relocating children to neighbouring schools, providing transportation, and setting up temporary learning centres. Also, prior to re-opening schools, authorities conducted school safety inspections and provided instructions for reducing risks.

The MoESY, in consultation with the local education offices, has been making provisions for compensating the lost days (noted above) by adjusting the school calendar during the summer holidays. The Pre-University Education Quality Assurance Agency (ASCAP) worked on a plan for the resumption of education services, including compensation for lost days and organising examination and formative assessments.

### **Effects on Risk and Vulnerabilities:**

Disruption in education and relocating children to a new school environment can negatively affect internal efficiency and equity in education, leading to an increase in the number of out-of-school children and a decline in the quality of education, especially for internally displaced children. For socio-economically disadvantaged children, ethnic minorities, children with special needs, and children struggling academically in school, such changes could have greater negative effects. Consultations in the field with relevant stakeholders revealed that after the earthquake, the rate of absenteeism had gone up. Students and staff with limited mobility require additional assistance to travel to the relocation site. There are also reports of parents not allowing girls to travel long distances to neighbouring schools for safety reasons.

## **Estimation of the Value of Damage and Loss**

The total value of damage and losses in the education sector is estimated at 72.35 million EUR (8.9 billion ALL) at pre-disaster prices. Of this, the value of damage (to infrastructure and physical assets) is 63.59 million EUR (7.8 billion ALL), while the losses are 8.76 million EUR (1.1 billion ALL).

The losses reflect the additional cost of transportation for more than 21,000 children and 1,300 teachers to host schools, which will continue until the full reconstruction of schools is achieved. Losses also reflect the repair of 51 host schools, the demolition of buildings and rubble removal, the setting up of temporary learning centres for more than 1,000 pre-school- and school-age children, and the training of 200 teachers to provide psycho-social support. No losses in revenues were reported in private schools.

The public sector sustained 99% of the total damage and losses. The share of the private sector's damage and losses is negligible, possibly because of underreporting and weak data collection mechanisms for the private education facilities. Thus, the value of damage in the private sector should be considered an underestimate.

When the data are disaggregated by geographic location, the results show that Tirana and Durres sustained significant shares of all damage and losses, with 64% and 13%, respectively (Table 10).

**Table 9** Damage and losses by type of education facility

Education facility	Damage			Losses		
	Public	Private	Total	Public	Private	Total
	In million EUR			In million EUR		
Crèche	0.41	-	0.41	0	-	0
Preschool	1.72	0.13	1.85	0.15	0.002	0.16
Basic School	20.65	0.05	20.7	4.7	-	4.7
Sec. School	9.12	0.41	9.53	2.16	-	2.16
VET	2.4	-	2.4	0.22	-	0.22
HE	9.11	0.11	9.22	0.26	-	0.26
Dormitories	19.47	-	19.47	1.25	-	1.25
<b>Total</b>	<b>62.88</b>	<b>0.70</b>	<b>63.59</b>	<b>8.76</b>	<b>0.002</b>	<b>8.76</b>

**Table 10** Damage and losses in education by municipality

Municipality	Damage			Losses		
	Public	Private	Total	Public	Private	Total
	In million EUR			In million EUR		
Durres	7.42	0.05	7.47	2.28	-	2.28
Shijak	1.99	-	1.99	0.42	-	0.42
Kruja	4.15	-	4.15	0.89	-	0.89
Lezha	2.45	-	2.45	0.46	-	0.46
Mirdita	-	-	-	-	-	-
Kurbin	3.43	-	3.43	0.57	-	0.57
Tirana	41.80	0.65	42.45	3.61	0	3.61
Kamza	0.06	-	0.06	-	-	-
Vora	1.01	-	1.01	0.17	-	0.17
Kavaja	0.57	-	0.57	0.36	-	0.36
Rrogozhina	-	-	-	-	-	-
<b>Total</b>	<b>62.88</b>	<b>0.70</b>	<b>63.59</b>	<b>8.76</b>	<b>0.002</b>	<b>8.76</b>



## The Sector Recovery Strategy

### Recovery Needs and Proposed Interventions

The recovery needs for the education sector were estimated for four components: 1) the reconstruction of infrastructure and physical assets; 2) the resumption of service delivery; 3) capacity development and governance; and 4) risk reduction and resilience in education. The total needs for reconstruction and recovery are estimated to be 94.83 million EUR (11.67 billion ALL).

Recovery needs are prioritised and sequenced over the short, medium, and long term. The short-term needs refer to interventions that focus on the continuation of educational services through the provision of transportation for relocating children and teachers to host schools, the provision of teaching and learning materials, the training of teachers on psycho-social support and close monitoring of enrollment and attendance of children, especially the vulnerable groups. Institutional arrangements for reconstruction will be established as well as policies and guidelines for improving school safety. Half of the fully and partially destroyed schools will be reconstructed and retrofitted, and all lightly damaged schools will be repaired during the first year.

**Table 11** Education reconstruction and recovery needs by component

Components	Reconstruction	Recovery	Total
	In million EUR		
Infrastructure and Physical Assets	83.32	2.95	86.28
Resumption of Service Delivery	-	5.27	5.27
Capacity Development and Governance	-	1.25	1.25
Risks Reduction and Resilience	-	2.03	2.03
<b>Total in million EUR</b>	<b>83.32</b>	<b>11.50</b>	<b>94.83</b>



The medium-term needs will also be dominated by the reconstruction of infrastructure and physical assets. The remaining schools will be reconstructed and retrofitted, and the host schools will undergo minor repairs. Human resource needs at various levels will be strengthened to ensure compliance and quality assurance in all phases of reconstruction.

In the long term, efforts will concentrate on risk reduction, such as translating disaster-risk education into regular pre- and in-service teacher training, and on the implementation of effective disaster-risk management in all schools of the country, see Table 12.

### Implementing Arrangements

Implementation arrangements for recovery will vary by the specific sub-sectors within the Education sector, but the responsibilities will mostly be divided among the MoESY, MoFE, and local municipalities. Dedicated structures and mechanisms must be instituted within the relevant government structures to ensure quality control in the reconstruction of educational facilities, including third-party verification. The capacity

**Table 12** Education reconstruction and recovery needs, short, medium and long term

Components	Short	Medium	Long	Total
	In million EUR			
Reconstruction of Infrastructure & Physical Assets	51.37	34.91		86.28
Resumption of Service Delivery	2.20	3.07		5.27
Capacity Development and Governance Needs	0.33	0.49	0.44	1.25
Risks Reduction and Resilience Education	0.10	0.91	1.03	2.03
<b>Total in million EUR</b>	<b>53.99</b>	<b>39.38</b>	<b>1.46</b>	<b>94.83</b>

of the education authorities at all levels (policy, training, budgeting, and support to operationalizing ministry / municipality / district / school level responses) needs to be strengthened in order to effectively and efficiently respond to future emergencies.

### Guiding Principles for Recovery

The following guiding principles are recommended for the sector's recovery strategy:

- Use the recovery strategy as an opportunity for improving access to enhanced quality education through improved design of learning spaces, teacher development, and strengthening the capacity of education authorities at all levels in the planning and implementation of the education system's recovery;
- Conduct a facility-by-facility survey to update the estimates of rehabilitation needs (buildings, furniture and equipment, learning materials, etc.);
- Give priority to the repair of partially damaged institutions because they can be made operational at a lower cost and in less time.

## 2.4 Housing

### Context

The building stock in the 11 affected municipalities can broadly be divided into those built in the period before 1993 and after 1993 when the previous Albanian state-controlled economy shifted into a free market-based economy resulting in a construction boom and uncontrolled urban extensions.

Up until 1993 the predominant structural types for residential buildings were: unreinforced load-bearing masonry structures (adobe, stone, solid brick and concrete block masonry), up to 5 storeys; confined masonry structures between 3- and 6-storeys; and large-panel buildings, which were built between the 1970s and mid-1990s with 4- and 6-storeys.

Housing construction after 1993 was characterized by the development of reinforced-concrete frame systems and infill masonry walls, some of which were higher than 10 floors. Meanwhile, the construction of unreinforced masonry houses declined across urban areas but remains the same presence in rural areas. The quality and compliance to the design/construction codes of these new buildings vary significantly.

The number of individual buildings prevails, accounting for 91% of the total buildings. Apartment buildings represent only 9% of the total, although these multi-storey buildings include a large number of housing units, representing about two-thirds of all housing units in the affected area.

### Effects of the Disaster

#### Effects on Infrastructure and Physical Assets:

A total of 11,490 housing units were severely damaged or destroyed and need to be replaced. Another 18,980 housing units are recorded as having sustained medium to partial damage, and over 64,000 have been only slightly damaged. Together with the damages to their houses or apartments, many people also lost their belongings and household goods.

The damage was most extensive among the housing units built before 1993 and least extensive among those built after 1993. This is partly because these buildings consist of many old unreinforced masonry houses made with adobe or clay brick or concrete block walls, demonstrating once again the high vulnerability of unreinforced unconfined masonry buildings. The buildings built after 1993 are almost exclusively of reinforced concrete construction and did show better resilience.



### **Effects on Access and Availability of Services:**

Due to the damage to housing and concerns about structural safety, families have been displaced from their area of residence, with around 17,090 persons accommodated in hotels (25% or 4,324) and tents (75% or 12,766). Others were either hosted at family and friends or rented accommodation, while about 1,000 have been displaced to Kosovo\*. In addition, the GoA has started to provide rental subsidies for those who found a “temporary” living place until their houses are rehabilitated or reconstructed.

Some residential buildings are used for economic activities such as hairdressing, nail services, massages, tailoring, and others activities mostly conducted by women and these income sources were disrupted. They are accounted for in the Business and Employment sub-sector.

### **Effects on Governance:**

The event created governance effects as it relates to two areas: construction regulations and finance. Due to the earthquake, it has become evident the existing seismic design code does not adequately address an event of such magnitude. Thus, from a regulatory perspective, there is an urgent need to review existing legislation and adopt the EUROCODE.

As far as finance is concerned, the event had an impact on the government budgets, specifically for the compensation to the affected population whose property suffered damages.

### **Effects on Risk and Vulnerabilities:**

Collective accommodations (tents or hotels) have increased the vulnerability of people with disabilities, the elderly, children, and pregnant women, as these accommodations have not been equipped to meet their special needs.

Affected populations, especially those accommodated in tents, have an urgent need for heating (75%), and groups such as pensioners (15%) and people with disabilities (4%) may need continuous medical or social care due to chronic illnesses and types of disabilities. Around 22% of the population in these two facilities are children (3,801 children 0-18 years old), where 17% (2,873) are located in tents with higher risks for diseases due to the cold and overall conditions.

## **Estimation of the Value of Damage and Loss**

The total effects (damages and losses) are valued at 696.3 million EUR (85.68 billion ALL), with the total damages amounting to 662.3 million EUR (81.50 billion ALL) and the total losses estimated at 34 million EUR (4.18 billion ALL).

### **Damages:**

The damage costs include both damaged buildings and lost furniture and belongings, as shown in Table 13.

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\* For the United Nations, references to Kosovo shall be understood to be in the context of Security Council resolution 1244 (1999);

\* For the European Union, this designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

**Table 13** Type of housing damages by municipality

Municipality	Lightly Damaged	Partially Damaged	Totally Destroyed	Household Goods	Total Damages
	In million EUR				
Durres	69.6	61.1	61.6	6.8	208.6
Shijak	4.1	7.4	35.7	2.9	50.2
Kruja	7.4	13.7	42.4	3.6	69.7
Lezha	3.6	5.6	10.4	0.9	20.6
Mirdita	1.3	1.83	1	0.06	4.3
Kurbin	3.6	6.3	12.4	1	24.1
Tirana	54	52.8	84.9	9.2	204.8
Kamza	5.6	2.2	5.6	0.4	14
Vora	5.1	3.2	27.3	2.1	37.9
Kavaja	5.5	8.3	12.6	1.2	27.7
<b>Total in million EUR</b>	<b>160.3</b>	<b>163.9</b>	<b>309.4</b>	<b>28.7</b>	<b>662.3</b>

**Losses:**

The recorded losses are costs related to debris removal, costs covering temporary shelter (costs of setting up tents, accommodation in hotels, and governmental rental bonuses) and also rental losses from affected house / apartment owners, see Table 14.

**Table 14** Type of losses in the housing sector by municipality and total effects

Municipality	Removal of Debris	Rental Losses (1 year)	Provision of Temporary Shelters	Total Losses
	in million EUR			
Durres	4.3	0.25	7.65	12.2
Shijak	2.2	0.1	0.3	2.6
Kruja	2.8	0.2	0.3	3.3
Lezha	0.6	0.04	0.9	1.54
Mirdita	0.06	-	-	0.06
Kurbin	0.8	0.04	0.4	1.24
Tirana	5.46	0.68	3.3	9.44
Kamza	0.35	0.02	0.06	0.43
Vora	1.68	0.09	0.43	2.2
Kavaja	0.78	0.04	0.11	0.93
<b>Total in million EUR</b>	<b>19.03</b>	<b>1.46</b>	<b>13.45</b>	<b>33.94</b>

## The Sector Recovery Strategy

The Government of Albania has already developed core legislation to support the Housing sector recovery and reconstruction process.

The guiding principles should include the following aspects:

- **Owner-driven reconstruction** supported by a public program that provides social, financial, planning, legal and construction management support, and includes equitable eligibility criteria, robust participatory mechanisms, and regular monitoring and evaluation;
- **Policy reform** to manage temporary accommodation, home-owners associations, illegal housing, and challenges for vulnerable populations;
- **Robust regulatory frameworks and institutions** where environmental and social issues are managed, the construction code and quality control is enforced, national-local coordination is stronger and grievances are well managed:
- **Resilient urban development** alignment to ensure a modern, greener, lower-carbon, and more accessible urban development that mitigates natural hazard risks.

Based on the damages and losses, the recovery and reconstruction needs are estimated to be 802.86 million EUR (98.8 billion ALL) over the short, medium, and longer term in Table 15.

Overall, 11,490 housing units will need to be constructed, and another 83,745<sup>10</sup> houses will require repair and retrofitting in the course of the reconstruction programme. Also, temporary accommodation needs should be supported and financed. Additionally, there is a need for skill upgrading, and quality assurance, required land-use planning, clear communications for affected and non-affected populations, and demolition and debris clearance.

**Table 15** Needs and proposed interventions for housing in the short, medium and long term

Type of needs	Short	Medium	Long	Total
	In million EUR			
Reconstruction	389.89	371.15	0.00	761.04
Recovery	40.62	0.70	0.50	41.82
<b>Total in million EUR</b>	<b>430.51</b>	<b>371.85</b>	<b>0.50</b>	<b>802.86</b>

## Implementation Arrangements

The following are the efforts of GoA to ensure a housing recovery and reconstruction:

- Through the Normative Act “On the Resolution of the Natural Disaster Consequences,” an extraordinary mechanism has been established aiming to facilitate and oversee the entire reconstruction effort;
- A high-level body is constituted with representation from 11 key ministries/agencies provides guidance on key policy matters;
- A reconstruction fund has been set up to be used through approval of the Council of Ministers and comprised of funds from the state budget, donor contributions to the government, and donor contributions used directly by them;

<sup>10</sup> The total number of housing units needing repair may change when housing inspections are complete

- An experienced technical committee has been set up to provide advice on a variety of technical issues that are expected to arise during the course of planning and implementation of the project;
- A housing reconstruction policy is already developed and it covers the following programmes:
  1. Development of new residential areas;
  2. Construction of public infrastructure;
  3. Acquisition of housing stock;
  4. Grant for reconstruction;
  5. Social and economic recovery.

A house-by-house damage assessment and eligibility assessment has already started. Eligible beneficiaries will be required to sign an agreement with local authorities before receiving any recovery support package.



## 2.5 Productive Sectors<sup>11</sup>

This sector covers the following four sub-sectors: Business & Employment, Tourism, Cultural Heritage, and Agriculture. In the Business and Employment sub-sector (Manufacturing and Trade), 714 businesses were damaged. A total of 438 employees from 56 manufacturing businesses temporarily lost their job and 79 employees from 124 businesses in trade. In the Tourism sub-sector, there was damage to 18 public and commercial accommodations in Durres, and to 42 food and beverage facilities, primarily in Durres as well.

In the Cultural Heritage sub-sector, two national museums and three local museums were classified as uninhabitable and are still closed to the public, while an additional 23 monuments were classified as high risk and another 30 monuments as medium risk. Damages in the Agriculture sub-sector were minor and related to agricultural inputs and equipment, such as stored animal feed, fertilizers, and tractors; also, there was damage to embankments and water drainage stations in Durres and Lezha, and to the building of the Institute for Food Safety and Veterinary.

The total damage estimated for the sector is 70.8 million EUR (8.7 billion ALL), and for losses, it is 79.65 million EUR (9.8 billion ALL). The Tourism sub-sector sustained the most damage and losses with 90.24 million EUR (11.1 billion ALL), the majority of which is due to losses from an expected decline in foreign visitors between 2020 and 2022. The Business & Employment sub-sector is the second most affected with 53 million EUR (6.5 billion ALL) in damage and losses, most of it on account of the damage sustained by 714 businesses in manufacturing and trade.

**Table 16** Damage and losses by sub-sector of productive sector

Sub-sector	Damage	Losses	Total
	In million EUR		
Business and Employment	47.48	5.46	52.95
Tourism	16.71	73.53	90.24
Cultural Heritage	5.31	0.44	5.75
Agriculture	1.3	0.22	1.54
<b>Total in million EUR</b>	<b>70.8</b>	<b>79.65</b>	<b>150.48</b>

In relation to the geographic distribution of damage and losses, the municipality of Durres is by far the most affected, with a total of 65 million EUR (7.99 billion ALL) or 43% of the total. The second most affected municipality is Tirana with almost 22 million EUR (2.71 billion ALL) or 15% of the total, followed by Lezha with 7 million EUR (0.86 billion ALL) or 4%.

The recovery needs in this sector amount to 51.83 million EUR (6.4 billion ALL), over half is in the Business and Employment sub-sector with 27.84 million EUR (3.4 billion ALL), followed by tourism with 10.88 million EUR (1.3 billion ALL).

<sup>11</sup> It is called **Productive sector** based on the PDNA methodology, where the culture was also included as it is a major source of revenue for the Government.



**Table 17** Total damage and losses of the productive sub-sectors, by municipality

Municipality	Business and Employment		Tourism		Culture		Agriculture		Total Damage	Total Losses
	Damage	Losses	Damage	Losses	Damage	Losses	Damage	Losses		
	In million EUR		In million EUR		In million EUR		In million EUR		In million EUR	
Durres	24.60	2.60	14.67	21.79	0.54	0.06	0.71		40.52	24.45
Shijak	3.50	0.80	0.60	0.28					4.10	1.08
Kruja	1.50	0.50	0.02	1.10	2.42	0.12			3.94	1.72
Lezha	1.70	0.10	0.03	4.55	0.06	0.07	0.58		2.37	4.72
Mirdita			0.00	0.00	0.06	0.00			0.06	0.00
Kurbin	0.40	0.10	0.04	0.07	0.01	0.00			0.45	0.17
Tirana	10.50	0.50	0.13	8.68	1.98	0.09	0.01		12.62	9.27
Kamza	0.90	0.10	0.19	0.03					1.09	0.13
Vora	3.50	0.70	1.03	0.20	0.13	0.01			4.66	0.91
Kavaja	0.80	0.10	0.00	36.82	0.04	0.01			0.84	36.93
Rrogozhina			0.00	0.00	0.07	0.07			0.07	0.07
<b>Total in million EUR</b>	<b>47.48</b>	<b>5.46</b>	<b>16.71</b>	<b>73.53</b>	<b>5.31</b>	<b>0.44</b>	<b>1.30</b>	<b>0.22</b>	<b>70.80</b>	<b>79.65</b>

**Table 18** Short, medium and long-term recovery needs for productive sector

Sub-sector	Short	Medium	Long	Total
	In million EUR			
Business and Employment	10.00	13.80	4.05	27.84
Tourism	5.96	2.99	1.93	10.88
Cultural Heritage	0.79	2.77	3.84	7.40
Agriculture	1.86	1.73	2.11	5.70
<b>Total in million EUR</b>	<b>18.61</b>	<b>21.29</b>	<b>11.93</b>	<b>51.83</b>

## 2.5.1 Sub-Sector Reports

### 2.5.1.1 Business and Employment Sub-sector

#### Context

Albania was granted the EU country candidate status in 2014, which has since increased the number of businesses and jobs in the country. Businesses are predominantly in the Manufacturing and Trade sectors; hence the sector assessment focused on manufacturing facilities divided into production and warehouses and on trade facilities such as shops/trade centres, expos, parking, services and offices.

Prior to the earthquake, Albania had a total of 8,668 active enterprises in manufacturing and 44,442 in trade, accounting for 8.1% and 41.4% of the total, respectively (INSTAT, 2018). All businesses are in the private sector (in manufacturing 99.9% and in trade 100%).<sup>12</sup> The Central region (predominantly Tirana and Durrës), which was the most affected by the earthquake, has the highest concentration of businesses overall.

According to INSTAT (2018), there are 9,416 official businesses registered in the eleven affected municipalities, of which 1,039 are in manufacturing and 8,377 in trade.<sup>13</sup> Micro and small enterprises comprise the largest share of businesses, representing almost two-thirds in the Manufacturing sector. The largest number of active businesses has two to four employees.<sup>14</sup>

In terms of employment, manufacturing has a total of 106,316 employees, which represents 20.6% of the total, while trade employs 125,350 people accounting for 24.3%. Therefore, manufacturing and trade account for almost half of the employment in the country. It should be noted that 97% of employees work full-time.

The labour market in Albania is characterized by disparities in terms of gender and age. In 2018, men's labour force participation rate for the age group 15-64 years was 76.9% compared to 59.7% for women. The youth (15-29 years) labour force participation rate is the lowest among all age-groups and it stood at 50.1% in 2018, 41.5% for young women compared to 58.2% for young men.

The employment rate for men in the age-group 15-64 years is 66.7%, compared to 52.4% for women. Young women have the lowest levels of employment with 32% in 2018, compared to 44.7% for young men. Other important gender differences include employment opportunities. For example, the chances for men to find employment are more than double those of women (INSTAT, 2018). In 2018, 27% of women were in unpaid employment compared to 15% of men. Data on people with disabilities was not available for the assessment.

#### Effects of the Disaster

The assessment of the Business and Employment sector in manufacturing covered facilities such as production and warehouses, which have relatively lower construction values but a larger area and more expensive equipment and machinery. Businesses in trade consist of shops, trade centres, expos, parking, services, and offices, and are relatively smaller in size with less expensive furniture and equipment but are higher in terms of the number of affected facilities.

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<sup>12</sup> Based on the INSTAT Business Survey conducted after the earthquake.

<sup>13</sup> Accommodations and food services (bars/restaurants) are covered by the Tourism section report.

<sup>14</sup> Based on the INSTAT Business Survey conducted after the earthquake.

The assessment results found that 300 businesses in manufacturing and 414 in trade were damaged, while the remaining 2,820 had no damage.

## Estimation of the Value of Damage and Loss

The total cost of damage and losses in the 11 affected municipalities is 52.95 million EUR (6.52 billion ALL), as shown in Table 19, of which 47.48 million EUR (5.8 billion ALL) corresponds to damage and 5.46 million EUR (0.67 billion ALL) to losses. Durres has been the most severely affected (in terms of overall costs and the overall number of affected businesses) whereas Tirana recorded the second-highest damage and loss due to having the highest business market value.<sup>15</sup>

**Table 19** Damage and loss to businesses by municipality

Municipalities	Damage	Losses	Total	Public	Private
	In million EUR				
Durres	24.6	2.6	27.2	-	27.2
Shijak	3.5	0.8	4.2	-	4.2
Kruja	1.5	0.5	2	-	2
Lezha	1.7	0.1	1.8	-	1.8
Mirdita	-	-	-	-	-
Kurbin	0.4	0.1	0.6	-	0.6
Tirana	10.5	0.5	10.9	-	10.9
Kamza	0.9	0.1	1	-	1
Vora	3.5	0.7	4.2	-	4.2
Kavaja	0.8	0.1	0.9	-	0.9
Rrogozhina	-	-	-	-	-
<b>Total</b>	<b>47.48</b>	<b>5.46</b>	<b>52.95</b>	<b>-</b>	<b>52.95</b>

Losses were calculated for three main categories: 1) employment loss, 2) income loss, and 3) demolition and debris removal. A total of 438 employees from 56 manufacturing businesses temporarily lost their job as a result of the disaster. The duration of unemployment varies based on the severity of the damage where the employees worked. It is estimated that it will take an average of 3.4 months to access a job in manufacturing depending on the level of damage and disruption of business service. Losses due to unemployment in manufacturing are estimated to be 1.47 million EUR (180.88 million ALL).

In trade, a total of 79 employees from 124 businesses have temporarily lost their job as a result of the earthquake. It is estimated that it will take an average of 4.4 months to access a job in trade. Losses due to unemployment in trade are estimated to be 0.47 million EUR (57.8 million ALL).

Although there was a higher number of damaged businesses in trade compared to businesses in manufacturing, the overall employment loss was three times higher in manufacturing, given that the number of employees within affected businesses was four times higher in manufacturing than in trade.

<sup>15</sup> Data on Rrogozhina municipality was not available and Mirdita was the only municipality without any registered damage or losses.

The estimated income loss is 1.93 million EUR (237.5 million ALL), of which 1.27 million EUR (156.3 million ALL) correspond to manufacturing businesses and 0.66 million EUR (91.2 million ALL) to businesses in trade. Finally, the cost of demolition and debris removal is estimated to be 1.59 million EUR (195.7 million ALL).

## The Sector Recovery Strategy

### Recovery Needs and Proposed Interventions

The overall recovery strategy should be comprehensive to ensure a sustainable recovery process, addressing the needs of all businesses in manufacturing and trade, and reconstructing resilient physical infrastructure to reduce future disaster risks and vulnerabilities.

Recovery needs have been divided into three phases: short, medium, and long term. The immediate short-term recovery measures aim at supporting the re-opening and re-starting of businesses, particularly the reconstruction of damaged infrastructure. In order to ensure sustainability and resilience, reconstruction will need to follow the 'Build Back Better' approach, in line with best practices in construction standards and the Euro building codes. The short-term interventions support business reactivation giving priority to the employment of those who lost their jobs, for example, work in reconstruction. They also support business recovery with grants, micro-loans, vocational training, and management training for business start-ups for job seekers and entrepreneurs.

The short- to medium-term recovery interventions aim to provide emergency employment, coupled with enterprise recovery support, to help people regain their livelihoods while contributing to the revival of the local economy, and creating a positive multiplier effect. A priority for the local community is to initiate the reconstruction in the short term to minimize the disruption of economic activity. In order to shift to the medium-term recovery phase, it will be necessary to establish an enabling business environment aiming to reduce regulatory and administrative business burdens and support overall business reactivation and development.

The medium- and long-term recovery interventions are to promote the stabilization of livelihoods and improve the social and economic conditions in the affected areas. Actions should be taken to enhance the value-chain in the productive sectors, with inclusive policies, and to mainstream Disaster Risk Reduction.

The total combined cost for recovery and reconstruction is 27.84 million EUR (3.4 billion ALL), out of which 19.33 million EUR (2.38 billion ALL) is for Reconstruction and 8.51 million EUR (1.05 billion ALL) is for Recovery. Table 20 indicates the cost of short-, medium-, and long-term recovery interventions.

**Table 20** Short-, medium- and long-term needs for business and employment sub-sector

Type of intervention	Short	Medium	Long	Total
	In million EUR			
Reconstruction including equipment	8.68	10.65	0.00	19.33
Recovery	1.30	3.15	4.05	8.51
<b>Total in million EUR</b>	<b>9.98</b>	<b>13.80</b>	<b>4.05</b>	<b>27.84</b>

## Guiding Principles for Recovery

As a guiding principle, recovery should be in line with Albania's Economic Reform Programme 2019-2021 while also learning from and adapting to the post-earthquake context of the Business sub-sector. The following guiding principles are to be embedded in the proposed recovery strategy:

- Increase employment in the Business sector;
- Rebuild/stimulate new investments;
- Adopt a coherent Enterprise Recovery and Decent Employment Promotion Strategy at the local level;
- Promote partnerships and joint efforts between authorities at the municipal and central levels, the private sector, financial service providers, workers and employer organisations, civil society organisations, and international agencies.

### 2.5.1.2 Tourism Sub-sector

#### Context

In the past years, tourism in Albania has been increasingly growing as one of the main engines of the country's economic development. In 2018, the sector recorded a total contribution (including indirect multiplier effects) of USD\$ 4.3 billion, accounting for about 27.3% of GDP (WTTC, 2019). This positions the sector as one of the main contributors to economic growth and is projected to grow significantly over the next 10 years. The contribution of the sector to employment in 2018 was 286,000 jobs, representing 25.2% of total employment in Albania (WTTC, 2019). Prior to the earthquake, it was expected that the number would peak at 315,000 jobs in 2029.

The affected areas are mostly linked to coastal and cultural tourism, such as the municipalities of Tirana, Durres, Kavaja, Kruja, and Lezha. For several years the Durres area has been the main destination of tourists with travel packages. Tourists in the affected area are generally accommodated in private apartments, villas and rooms, referred to in this chapter as private accommodations. About 35% of all accommodations are commercial (hotels), and 65% are private (rooms, villas, apartments). Private accommodations are mainly informal.



The Ministry of Tourism and Environment (MoTE) is responsible for designing and implementing policies supporting the development of tourism at the national level and in the affected municipalities. It is in charge of fostering investment in tourism, creating and monitoring the system of standards, and the programs of continuing education in tourism. It executes its mandate in coordination with ministry apparatus and territorial branches.

## Effects of the Disaster

### Effects on Infrastructure and Physical Assets:

As shown in Table 21, prior to the earthquake, there were 671 private accommodations in the 11 earthquake-affected municipalities; of these 18 were damaged, all located in Durres. One public accommodation belonging to the Ministry of Interior in Durres was fully destroyed. Private accommodations are mainly informal, and hence it was not possible to obtain the baseline number of these before the disaster or to assess their damage.<sup>16</sup> Informality in the Albanian Tourism sector is pervasive including in formal accommodations and food and beverage businesses.<sup>17</sup> In addition, a total of 42 food-and-beverage facilities were affected by the earthquake out of 2,540 facilities that were present in the 11 affected municipalities prior to the disaster.

### Effects on Access and Availability of Services:

The disruption in access to tourism services was minor, considering it was a relatively low proportion of hotels and food-and-beverage facilities that were affected. In addition, the earthquake took place during the low season, when there were few demands for rooms and services. As a result, the overall capacity of the sector to deliver services was not significantly affected by the disaster.

**Table 21** Number of damaged commercial facilities of tourism sub-sector by municipality

Municipality	Pre-disaster accommodations	Damaged accommodations	Pre-disaster food & beverage facilities	Damaged food & beverage facilities
Durres (total)	121	18	371	34
Private (Durres)	120	17	370	33
Public (Durres)	1	1	1	1
Shijak	8	0	35	2
Kruja	17	0	48	1
Lezha	84	0	159	0
Mirdita	4	0	24	0
Kurbin	11	0	45	1
Tirana	256	0	1,257	0
Kamza	5	0	76	1
Vora	8	0	21	3
Kavaja	140	0	106	0
Rrogozhina	17	0	27	0
<b>Total</b>	<b>671</b>	<b>18</b>	<b>2,540</b>	<b>42</b>

<sup>16</sup> It is considered that damage to private accommodations is accounted for by the housing sector. The housing sector report includes damage to private accommodations, reporting them as houses, since there is no data available on which houses also serve as private accommodations for tourists.

<sup>17</sup> Discussions with the PDNA Secretariat led to the estimate that an additional 8.9% is linked to informality with respect to the official turnover figures. That coefficient was therefore accounted for when calculating the losses in turnover.

## Effects on Governance and Service Delivery:

There was no disruption of service delivery by the government institutions related to this sector.

## Effects on Risk and Vulnerabilities:

The process of assessing the damage to buildings by the competent authorities is still on-going. The lack of standardization of buildings and the absence of a classification system in Albania means that buildings in the Tourism sector are not classified according to the expected standards for the services they provide. This, coupled with high levels of informality, affects the quality of construction, their resilience to earthquake risks, and the safety of tourists and workers in the tourism industry.

## Estimation of the Value of Damage and Loss

The total value of damage across the 11 affected municipalities is estimated at 16.71 million EUR (2.06 billion ALL), while losses amounted to 73.53 million EUR (9.05 billion ALL).

Table 22 shows that the municipality of Durres and Kavaja were overwhelmingly affected compared to the other municipalities.

As noted earlier, because private accommodations are mainly informal, and no baseline data were available on their numbers, the damage to these could not be assessed and is not included in these results. However, damage to private accommodations is accounted for in the Housing sector, which includes damage to private accommodations, reporting them as houses.

**Table 22** Total value of damage, by municipality for the Tourism sub-sector

Municipality	Damage	Losses	Total
	In million EUR		
Durres	14.67	21.79	36.46
Shijak	0.60	0.28	0.88
Kruja	0.02	1.10	1.12
Lezha	0.03	4.55	4.58
Mirdita	0.00	0.00	0.00
Kurbin	0.04	0.07	0.11
Tirana	0.13	8.68	8.81
Kamza	0.19	0.03	0.22
Vora	1.03	0.20	1.23
Kavaja	0.00	36.82	36.82
Rrogozhina	0.00	0.00	0.00
<b>Total in million EUR</b>	<b>16.71</b>	<b>73.53</b>	<b>90.24</b>

The earthquake-generated losses were broken down into the following four categories:

- Turnover losses due to the partial closure of business as a result of the damage to their buildings, which will continue until they are repaired and operational;
- Employment losses;
- Projected losses due to a decline in foreign visitors;
- Losses linked to debris removal.

Table 23 indicates the total losses by category. The most prominent losses are due to the anticipated decline in foreign visitors from 2020 to 2022 and will be mostly felt in 2020.

**Table 23** Total value of losses by category of the Tourism sector

Type of losses	Total losses in million EUR
Turnover losses	1.77
Losses due to decline in foreign visitor (2020)	41.35
Losses due to decline in foreign visitor (2021)	19.85
Losses due to decline in foreign visitor (2022)	9.93
Employment losses	0.36
Debris removal losses	0.27
<b>Total losses in million EUR</b>	<b>73.53</b>

Projected losses due to a decline in foreign visitors in Albania are linked to the fact that the earthquake has generated fear and exacerbated a pre-existing lack of trust in the safety of the tourism facilities. As a result, instead of the pre-disaster expected growth of 7.8% in foreign visitors in 2020, it is estimated by the Ministry of Tourism that the country will know no growth—yet, no reduction—in the number of foreign arrivals in 2020 compared to 2019. This means that the projected growth for 2020 will be lost as a result of the disaster. Considering that the Albanian Tourism Association estimates that the consequences of the earthquake will last four to five years, the Ministry of Tourism further estimates that the annual growth in foreign visitors will be 4% in 2021, and 6% in 2022. Therefore, the estimated losses in the Tourism sector resulting from a decrease in foreign visitors cover the period 2020 to 2022.

The overall losses due to a decline in foreign visitors apply to losses by businesses in accommodations and food-and-beverage facilities. They include losses in private accommodations along with the other types of accommodations because they were calculated based on the average daily spending of a tourist, the average number of days stay, and overall lost number of visitors for the years 2020 to 2022.

## The Sector Recovery Strategy

### Recovery Needs and Proposed Interventions

It is estimated that a total of 10.88 million EUR (1.33 billion ALL) is needed for the reconstruction and recovery of the Tourism sub-sector. Of this total, reconstruction needs will be 5.58 million EUR (686 million ALL), and recovery needs (including DRR) will be 5.3 million EUR (652 million ALL). The recovery needs over the short, medium, and long term are described below and in Table 24.





### Short-term Needs

- The reconstruction, repairing and retrofitting of damaged buildings and facilities, for both accommodations and food-and-beverage businesses;
- Enforcement of construction safety standards that follow the EU building codes and introduction of a seismic-safe certification process, a measure requested by the tourism actors in the affected areas to reassure foreign visitors about the safety of the buildings;

### Mid-term Needs

- Increase the capabilities of employees in the tourist industry on safety in disaster situations. The lack of appropriate educational and training programs for employees was identified as an important issue in the national tourism strategy;
- Increase promotional campaigns to present Albania as a country that is safe for tourism, targeting European visitors and Albanians living abroad;

### Long-term Needs

- Support for risk-informed tourism development policies accompanied by an adequate legislative framework.

The reconstruction in Durres will focus on the public hotel that was completely destroyed and on one destroyed food-and-beverage facility. It is assumed that the six other hotels (and their attached restaurants) that were completely destroyed in Durres will not be reconstructed because their owners are under investigation and, for some, facing trial, for illegal construction. This explains why the overall reconstruction costs are lower than the total level of damage presented in the section on damage above.

**Table 24** Short, medium and long term needs for the Tourism sub-sector

Type of intervention	Short	Medium	Long	Total
	In million EUR			
Reconstruction	4.51	1.06	0.00	5.58
Recovery	1.44	1.93	1.93	5.30
<b>Total in million EUR</b>	<b>5.95</b>	<b>2.99</b>	<b>1.93</b>	<b>10.88</b>

## 2.5.1.3 Cultural Heritage Sub-sector

### Context

Albania bears a rich history and a large wealth of tangible cultural heritage, cultural expressions, and cultural and religious diversity, evidenced especially in archaeology, built heritage, ethnography, traditional crafts, music, theatre, and visual art. The Ministry of Culture (MoC) is the national body responsible for policies and strategies for cultural development in Albania. The Ministry's annual budget is one of the smallest, comprising 0.12% of the GDP in 2019.<sup>18</sup>

In the earthquake-affected areas (counties of Durres, Tirana, and Lezha) there are five national museums and two cultural heritage sites (Castle of Lezha / archaeological park and Amphitheatre of Durres) that have an entrance fee. The Local Museums in the affected areas of Kavaja, Durres, Kruja and Lezha are administered by the respective local government.

In the earthquake-affected areas, there are 352 monuments/sites that represent about 16% of the total in Albania,<sup>19</sup> and 41 protected zones that represent about 20% of the national total. Two monuments within this region are included on the UNESCO Tentative list (Amphitheatre of Durres and Bashtova Castle).

In the affected areas, there is a total of 54,298 movable and cultural heritage objects and collections registered in the national database of movable cultural properties. Of this total, 32,368 objects are located in museums and repositories administered by the MoC. Collections are still in the process of being registered in the national database, and therefore, the number of registered collections may not reflect the real number of collections.<sup>20</sup>

### Effects of the Disaster

#### Effects on Infrastructure and Physical Assets:

A total of 111 monuments and sites were inspected in the earthquake-affected area by the National Institute of Cultural Heritage and Regional Directorates of Cultural Heritage under the coordination of the Ministry of Culture. The level of damage to these monuments is presented in Table 25.

**Table 25** Damage grading of cultural heritage monuments

Level of Damage	Number of Cultural Heritage Monuments
Grade III - High risk	23
Grade II - Temporary usable	30
Grade I - Without risk	49
Buildings in damaged state (before the earthquake)	9
No. of inspected monuments / sites / institutions in affected areas	111
Percentage of inspected monuments	32%

<sup>18</sup> National Strategy for Culture 2019-2025.

<sup>19</sup> The total number of 352 monuments includes 137 monuments of 1st category and 215 of 2nd category.

<sup>20</sup> Data on the number of cultural heritage assets in the affected areas and on the number of registered collections is provided in the Annexes.



Of those inspected, 23 monuments were classified as high risk, and 30 monuments were classified as medium risk. i.e., temporarily usable. The Castle of Durres, Castle of Kruja and Castle of Preza are among the most damaged cultural monuments.<sup>21</sup>

Several monuments were classified as nonfunctional by the Institute of Construction and are still closed to the public.<sup>22</sup> This includes two national museums administered by the MoC, namely the National Historic Museum and the Museum of Secret Surveillance “Gjethi,” and three local museums -the Ethnographic museum in Durres, Kavaja, and Lezha.

In addition, some collections were damaged, such as cracking and breaking of the stone, ceramic artifacts, and vitrines. Data on the effects of the earthquake on the collections of the three local museums in the affected area was not available and could not be included.

### **Effects on Access and Availability of Services:**

Following the earthquake, all museums and cultural heritage sites with entrance fees located in the earthquake-affected areas were closed to visitors until they were inspected by the Institute of Construction. Following the assessment, the museums that did not present any damage re-opened after one to two weeks, while the others remain closed (the two national museums and the three local museums). There have been revenue losses for those that remain closed to the public.

### **Effects on Governance:**

The administrative buildings of the Ministry of Culture (subordinate institutions) include museums, agencies, cultural heritage institutions, and institutions for art and culture such as art galleries and theatres. There was no interruption in their services and administrative functions.

### **Effects on Risk and Vulnerabilities:**

The cultural heritage monuments face risks such as vulnerable masonry structures (as is the case of the Castle of Lezha and Bashtova) and risks from water penetration due to damaged roof and cover (as is the case in the Teke of Dollma). The collections also face risks and potential damage due to the general condition of the buildings. Other risks include weakened security measures and degradation of alarm systems. Another risk is that the digitization rate of the collections is still very low, and there are potential losses of these collections including scientific information, as well as the inability to properly identify the movable heritage in case of theft. In the National Library Fund, damage to the roof covering of the building has left the book collections exposed to rainwater penetration. In general, there is a lack of monitoring of the storage facilities of the collections due to lack of funding, and a lack of risk management of the movable laboratories and equipment in the collections.

<sup>21</sup> When the inspection is completed for the remaining monuments, it is possible that the damage may be higher than reported here. All the monuments within this area shall be subject to monitoring and inspections as part of the annual plan of the regional directorates of cultural heritage as institutions responsible for their administration.

<sup>22</sup> The authorized institution for the assessment of all buildings after the earthquake *and the only one that has the legal status to assess buildings as ‘uninhabitable.’*

## Estimation of the Value of Damage and Loss

The total damage in this sub-sector is 5.3 million EUR (653.4 million ALL). The vast majority of the damage was to cultural monuments, and in relation to the geographic distribution of damage and losses, the municipalities of Kruja and Tirana were the most affected. (Table 27).

The total losses amount to 0.44 million EUR (54.44 million ALL). The calculation of losses considered the following: 1) revenue loss due to the reduced number of visitors, the closure of museums and cancellation of events; 2) the cost of the first aid measures taken in some structures at risk; 3) the cost of debris removal, 4) the cost of necessary signage and notifications for security in areas at risk, etc.

**Table 26** Damage and losses by category of cultural heritage sector

Category	Damage			Losses		
	Public	Private	Total	Public	Private	Total
	In million EUR			In million EUR		
Museums and cultural heritage sites with entrance fee (MS)	0.25		0.25	0.17		0.17
Cultural Monuments (CM)	4.08	0.97	5.05	0.27	0.002	0.27
Collections and repositories (CR)	0.01		0.01			0.00
<b>Total in million EUR</b>	<b>4.34</b>	<b>0.97</b>	<b>5.31</b>	<b>0.44</b>	<b>0.002</b>	<b>0.442</b>

**Table 27** Damage and losses of cultural heritages, by municipality

Municipalities	Damage	Losses	Total
	In million EUR		
Durres	0.54	0.06	0.60
Shijak	-	-	-
Kruja	2.42	0.12	2.54
Lezha	0.06	0.07	0.14
Mirdita	0.06	0.002	0.06
Kurbin	0.01	0.003	0.01
Tirana	1.98	0.09	2.07
Kamza	-	-	-
Vora	0.13	0.01	0.14
Kavaja	0.04	0.01	0.05
Rrogozhina	0.07	0.07	0.14
<b>Total in million EUR</b>	<b>5.31</b>	<b>0.44</b>	<b>5.75</b>

Calculations on revenue losses considered that tourism is mainly concentrated in the summer months and that the month of December has a natural decrease in visitors. Therefore, a comparison was made between the revenue from November and December 2018 with revenue in the same months in 2019. The results indicate a revenue decrease of 22%.<sup>23</sup>

## The Sector Recovery Strategy

### Recovery Needs and Proposed Interventions

The reconstruction and recovery needs for Cultural Heritage are presented in Table 28, indicating the needs by recovery intervention and divided into short, medium, and long-term recovery (based on urgency). Total needs are 7.37 million EUR (907 million ALL).<sup>24</sup>

### Guiding Principles for Recovery

Cultural heritage resources are unique; they are often non-renewable in nature and have high significance for national identity, history, culture, and income. Therefore recovery must be carried out in a culturally sensitive manner. They also foster social cohesion and sustainable development at the community level. At the national level, many initiatives are also on-going and planned-on cultural heritage activities as part of the integration process to the European Union. The main guiding principles should be to respect traditional building techniques and materials, due consideration of the national context in reconstruction, and respect to cultural heritage values.

**Table 28** Short-, medium-, and long-term needs for cultural heritage

Type of intervention	Short	Medium	Long	Total
	In million EUR			
Reconstruction	0.52	2.60	3.27	6.39
Recovery	0.23	0.18	0.57	0.98
<b>Total in million EUR</b>	<b>0.75</b>	<b>2.78</b>	<b>3.84</b>	<b>7.37</b>

## 2.5.1.4 Agriculture Sub-sector

### Context

For 46.5% of the rural population in Albania, agriculture constitutes the main source of income (INSTAT 2016). The sector employed 37% of the total employed population in 2018 (INSTAT). The country's Agriculture sector is characterized by small farm holdings (INSTAT census, 2011). The main crops cultivated in the earthquake-affected areas are vegetables, fruit trees, vineyards, and forages. The main livestock species in the affected areas are bovine, sheep/goat, pigs and poultry. On average, livestock is the main source of income for 79% of the affected farmers.

<sup>23</sup> Calculated as the difference in the natural decrease in revenues in November to December 2018 (54%) from the decrease of revenues in December 2019 compared to November 2019 (74%). See Annex X for a table indicating the visitors and revenue between 2018 and 2019.

<sup>24</sup> As noted earlier when the inspection is completed by the GoA for the remaining monuments in the affected area, the damage and recovery needs may be higher.

## Effects of the Disaster

### Effects on Infrastructure and Physical Assets:

There was damage to agricultural inputs and equipment, such as stored animal feed, fertilizers, manure, and plant protection. Damage to agricultural machinery and equipment is often partial and not permanent, as most of this equipment does not contain electronics. In certain cases, very valuable equipment containing electronics (harvesters, tractors and trucks) was destroyed. Damaged or destroyed assets among agricultural input suppliers and service providers were few in number, but high in terms of value. The Institute for Food Safety and Veterinary was affected; its building is cracked and unusable, and some of its laboratory equipment was damaged.

Losses of animals were relatively limited, affecting mainly small and enclosed animals. Losses of cattle in the affected municipalities were below 2%. Losses of pigs, small ruminants, and, in particular, poultry in all affected municipalities are also limited, although the effect is concentrated in certain villages, where high losses were recorded. The effect of the disaster on the poultry industry is somewhat proportionally higher compared to other animals. Stress in animals, followed by health issues such as mastitis, diarrhoea, etc., has temporarily disrupted productivity. Recovery of the production levels depends on the normalization of the situation and can last between two weeks and two months.

### Effects on Access and Availability of Services:

The structure for the provision of services was disrupted but only slightly. The supply chain in the immediate aftermath of the earthquake operated with difficulties and interruptions but quickly recovered. The building of the Institute for Food Safety and Veterinary was affected and, considering that this is the only accredited laboratory for food safety analyses, the damage caused a slight disruption of services. Access to markets for agricultural products, apart from the temporary slowdown, is unaffected.

### Effects on Governance and Service Delivery:

No significant disruption of governance was noted in relation to the Agricultural sub-sector, although there was damage to some agricultural service providers, including the National Food Authority and the Ministry of Agriculture, as both buildings were damaged. Disruption of services occurred for three weeks, but the government reacted rapidly to the crisis.

### Effects on Risk and Vulnerabilities:

On average, 75.5% of the affected farming households rely solely on agricultural activities for their incomes and livelihoods. The remaining farmers obtain incomes from other sources. Subsistence farmers will experience some increase in costs and spending in order to meet their consumption needs. The poorest farmers engaged in livestock production will be the most affected, as they will experience reduced incomes and will face increased recovery costs.

There will be no increase in food prices locally, on account of the disaster. The likelihood of food insecurity is very low. However, debt may increase as many of the affected farmers are users of commercial credit and will have a reduced capacity to pay back their creditors. With reduced production and income, many will face challenges to further invest for the next season as they need to produce food for livestock. Smaller and subsistence farmers may become more impoverished, as they will have few assets to sell, and they are often not credit-viable.

## Estimation of the Value of Damage and Loss

The total damage in the Agriculture sub-sector is estimated to be 1.3 million EUR (160 million ALL). Most of the damage is being absorbed by a relatively small number of rural residents, who have suffered significant setbacks. The damage to embankments and water drainage stations from Durres and Lezha regions are estimated to be 0.89 million EUR. Damage to irrigation and agro-businesses are not included in this chapter since they are estimated under other sectors. Damage to the building of the National Food Authority is estimated to be 10,800 EUR, while damage to the building of the Ministry of Agriculture is still pending confirmation but is roughly estimated to be 90,000 EUR.

**Table 29** Damage by municipality and to embankments / drainage in agriculture

Municipality	Damage	% of Total
Tirana	9,965	2
Durres	381,534	89
Lezha	14,731	9
<b>Total in thousands EUR</b>	<b>404,230</b>	<b>100</b>
Damages to embankments and drainage stations	Damage	% of Total
Durres (embankments and drainage station)	325,000	65
Lezha (only drainage station)	569,000	35
<b>Total in thousands EUR</b>	<b>894,000</b>	<b>100</b>

The estimated losses in the Agriculture sub-sector amount to 222,000 EUR. Livestock production losses account for 80.5% of this loss, followed by crop production losses of 19.5%. The most significant losses relate to the reduced productivity of animals, such as reduced milk and egg production.

## The Sector Recovery Strategy

### Recovery Needs and Proposed Interventions

The proposed Agriculture sector recovery strategy will have two main components: 1) the rehabilitation of irrigation and drainage infrastructure coupled with institutional strengthening and capacity building to sustainably improve irrigation, drainage, and water management; and 2) development-oriented recovery interventions, which would include addressing urgent needs to maintain and restore the productivity of the sector and the income of the affected population, under a value-chain approach and with a strong focus on DRR and adaptation to climate change, as well as EU approximation. The immediate response will protect affected areas before the next cropping season while restoring production capacity, meeting the seasonal needs (spring/summer crops), and bridging the gaps in stocks of animal feed. As shown in Table 30, the recovery needs for agriculture amount to 5.66 million EUR (696.5 million ALL).

**Table 30** Short-, medium-, and long-term needs in agriculture

Recovery component	Short	Medium	Long	Total
	In million EUR			
Reconstruction	0.90	0.00	0.00	0.90
Re-start agricultural production	0.09	0.63	0.00	0.72
Recovery; governance and capacity building	0.87	1.08	2.09	4.04
<b>Total in million EUR</b>	<b>1.86</b>	<b>1.71</b>	<b>2.09</b>	<b>5.66</b>



## 2.6 Infrastructure

### 2.6.1 Summary of Sector Findings

This sector covers the following six infrastructure sub-sectors: Energy, Transport, Communication, Water, Sanitation and Hygiene, Community Infrastructure, and Government Buildings owned by the Government of Albania (GoA).<sup>25</sup> The earthquake caused some damage to government buildings, water depots, some electricity cabins, protective structures such as river embankments, and one irrigation dam. Although road, seaports and airport facilities escaped damage, railways suffered some damage, namely its wagon repair workshop and railway station, and a bridge in Durres was affected.

Table 31 indicates the total damage and loss estimated for the Infrastructure sector, which amounts to 33.42 million EUR (4.1 billion ALL). Most of the damage relates to government buildings and the Energy sub-sector. Nearly one-third of the combined damage and loss is in the municipality of Durres, as shown in Table 32.

**Table 31** Damage and losses to infrastructure by sub-sector

Sub-sector	Damage			Losses		
	In million EUR			In million EUR		
Ownership	Private	Public	Total	Private	Public	Total
Community Infrastructure	0.00	6.06	6.06	0.00	0.16	0.16
Energy	0.00	8.18	8.18	0.00	0.00	0.00
Government Buildings	0.00	10.07	10.07	0.00	2.26	2.26
Communication	0.50	0.42	0.92	0.10	0.06	0.16
Transport	0.00	4.83	4.83	0.00	0.43	0.43
Water, Sanitation and Hygiene	0.20	0.15	0.35	0.00	0.00	0.00
<b>Total in million EUR</b>	<b>0.69</b>	<b>29.71</b>	<b>30.40</b>	<b>0.10</b>	<b>2.91</b>	<b>3.01</b>

<sup>25</sup> The infrastructure sector does not include irrigation, health or education facilities, they are covered in their corresponding sector reports.



**Table 32** Damage and losses by municipality for infrastructure sector<sup>26,27</sup>

Municipalities	Damage	Losses	Total
	In million EUR		
Durres	8.48	0.47	8.95
Shijak	1.81	0.03	1.84
Kruja	0.53	0.00	0.53
Lezha	1.38	0.00	1.38
Mirdita	0.80	0.00	0.80
Kurbin	2.29	0.03	2.32
Tirana	2.11	0.04	2.15
Kamza	0.49	0.00	0.49
Vora	0.98	0.02	1.00
Kavaja	0.50	0.00	0.50
Rrogozhina	0.05	0.00	0.05
Government buildings	10.07	2.26	12.33
Communication	0.92	0.16	1.08
<b>Total in million EUR</b>	<b>30.41</b>	<b>3.01</b>	<b>33.42</b>

## 2.6.2 The Sector Recovery Strategy

The recovery needs are divided into three categories: 1) Reconstruction which includes repair and reconstruction following the BBB approach, 2) Recovery which includes the cost of provisional services and governance, and 3) DRR / Resilience which includes the cost of capacity building, auditing, etc.. The short-, medium- and long-term recovery needs for each sub-sector are presented in Table 33.

**Table 33** Short, medium-, and long-term recovery needs by sub-sector infrastructure

Infrastructure sub-sector	Short	Medium	Long	Total
	In million EUR			
Community Infrastructure	1.05	6.32	3.16	10.53
Energy	2.71	9.56	0.63	12.90
Government Buildings	2.66	15.93	7.97	26.56
Communication	0.26	1.55	0.78	2.59
Transport	0.75	4.48	2.24	7.46
Water, Sanitation and Hygiene	0.10	0.58	0.29	0.96
<b>Total in million EUR</b>	<b>7.52</b>	<b>38.42</b>	<b>15.06</b>	<b>60.99</b>

<sup>26</sup> Based on data received from eight municipalities (Durres, Kamza, Kruja, Kurbin, Lezha, Shijak, Tirana, Vora).

<sup>27</sup> The electricity distribution company, OSHEE, has divided Albania in 11 regions for their operational purpose, out of these only four regions suffered earthquake effects. Accordingly, the company collected damage data region wise. For this PDNA, once earthquake effect to any region is reported, all the districts located in that region have been assumed to have suffered the same level of damage.

## 2.6.3 Sub-sector Reports

### 2.6.3.1 Community Infrastructure Sub-sector

Community infrastructure is a relatively small-scale facility planned, built, owned, and operated and/or maintained with the active involvement of the community.<sup>28</sup> On a day-to-day basis, local service structures are crucial to community life. The following is covered under this sub-sector:<sup>29</sup>

- Urban and rural transport (roads, streets, trails, footpaths, bridges footbridges);
- Community buildings (municipal and community buildings, local museums);
- Places of worship, graves;
- Protective structures (embankments, retaining walls, drainage);
- Socio-economic structures (parks, playgrounds, marketplaces).

### Damage and Losses

The Community Infrastructure sub-sector suffered some damage to building structures, embankments, and other protective structures, street lighting, etc., in the affected municipalities. Two river embankments and 50 gabion baskets, and a dam were damaged. Altogether, 42 buildings owned by municipalities suffered minor to severe damage; however, none of the community buildings were reported to suffer destruction.

The combined damage and loss in the Community Infrastructure sub-sector is 6.22 million EUR (765.4 million ALL).

### Recovery Needs

In relation to protective structures, two river embankments, 50 gabion baskets, and a dam will require repair. Of the 42 damaged buildings, 11 need replacement, and another 31 need to be repaired and strengthened. In addition, streetlights, pathways and one pedestrian bridge in Kurbin need to be repaired or rebuilt. It is estimated that it will require 10.53 million EUR (1.3 billion ALL) to recover community infrastructure following the BBB approach.

### Guiding Principles and Implementation Arrangement

Community infrastructures fall under the responsibility of municipalities. Hence, the municipalities should lead recovery and reconstruction under the guidance of the Ministry of Reconstruction with the active participation of local communities. Participation and leadership of the local communities will be more important in rural areas. The existing system of governance and implementation will need to be strengthened. Planning and prioritization should be done with sufficient information made available at the local level.

A guiding principle for community infrastructure is that recovery should benefit local economic development. Local small- and medium-sized enterprises (SME) should be given priority in the reconstruction phase.

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<sup>28</sup> The community infrastructure sub-sector does not include water and sanitation, sewerage or solid waste management.

<sup>29</sup> The list is not exhaustive and may be adapted during the recovery process.

### 2.6.3.2 Energy Sub-sector

Albania is entirely dependent on hydropower for its electricity supply. Albania generates 5,895 GWh electricity each year.<sup>30</sup> The Albanian Power Corporation (Korporata Energjitike Shqiptare, KESH) is a government company that is responsible for the generation of electricity and managing electricity generated by private companies. Transmission System Operator (Operatori i Sistemit të Transmetimit, OST) and Albanian Power Distribution Operator (Operatori i Shpërndarjes së Energjisë Elektrike, OSHEE), both are fully owned by the Government of Albania (GoA) and are responsible for transmission and distribution of electricity, respectively. In Albania, 100% of the households, both in rural and urban areas, are connected by electricity.<sup>31</sup>

#### Damage and Losses

The assessment for the Energy sector covers the 11 most earthquake-affected municipalities and includes the generation, transmission, and distribution of electricity. The electrical power supply system escaped major damage to production, transmission, or distribution. All the hydroelectric plants in Albania are located in the far north-east and north-west areas, which were not affected by the earthquake. However some moderate damage to the transmission and distribution system was reported, in the form of destruction of unreinforced masonry cabins, the fall of unanchored distribution transformers, damage to electrical distribution poles, bus bars, insulators and switches.

Altogether 91,642 households in the hard-hit area lost access to electricity after the earthquake, out of which approximately 60% was in Durres. However, 80% of the connections were restored within a day. After the earthquake, back-up equipment/parts were used for restoring the system, resulting in no redundancy left in the system in case of a breakdown of the same parts or equipment (OSHEE, 2019). There were no substantial revenue losses due to downtime as the energy was diverted to other regions. The damage in the Energy sub-sector is estimated at 8.18 million EUR (1.0 billion ALL), most of it in Durres, while there were no losses in the sub-sector.

#### Recovery Needs

The recovery of the electricity sector will include the construction of 259 cabins and one 500 square meter building, the procurement and installation of transformers and other tools, parts, and equipment. The transformers and cabins suffered damages because these were not anchored to their supports. In the short term, as a low-cost measure, the OSHEE could run a nationwide campaign to tie/anchor all its transformers to their supports to protect these against future earthquakes. At the same time, considering the importance of electricity, KESH, OST, and OSHEE could also develop long-term strategic plans to strengthen their buildings and other facilities.

The recovery needs also include the following:

- **Transmission:** To avoid potential risks of interruption due to earthquake effects, a walk-through inspection along the transmission line in earthquake-affected areas is required to check foundation stability, structural defects, and landslide risks, and to prepare and implement the investment program as needed.
- **Distribution:** To avoid potential risks of interruption due to earthquake effects, a walk-through inspection along the distribution line in earthquake-affected areas is required to check foundation stability, structural defects, and landslide risks, and to prepare and implement the investment program as needed.

<sup>30</sup> The Energy Sector in Albania (<https://bankwatch.org/beyond-coal/energy-sector-in-albania>)

<sup>31</sup> Albania- Access to electricity (<https://www.indexmundi.com/facts/albania/indicator/EG.ELC.ACCS.ZS>)

- Develop a plan and keep sufficient tools, parts, and equipment as back up replacements in the event of an earthquake or similar disaster.
- The electricity system needs to be improved to the latest international standards in the long run.

The cost of recovery for the Energy sub-sector, including the BBB approach, is estimated at 12.90 million EUR (1.6 billion ALL).

## Guiding Principles and Implementation arrangements

As the transmission and distribution systems are owned by OST and OSHEE, respectively, it will be appropriate that they take responsibility for the assessment, planning, and implementation of recovery.

### 2.6.3.3 Government Buildings Sub-sector

This sub-sector covers all the damaged buildings owned by the GoA but excludes buildings owned by other sub-sectors. This includes central government buildings such as ministry buildings, government departments, court buildings, and prisons, etc. Most of the government buildings are constructed of unreinforced brick masonry. Many of the ministries are located in masonry buildings. Another common building type, which has rapidly become popular post-1990, is reinforced concrete (RC) frame buildings with masonry infill wall panels. Both masonry and RC frame buildings generally lack seismic-resilient features.

## Damage and Losses

Overall, the earthquake caused limited damage to the structure of government buildings and facilities; however, a few buildings suffered severe damage and require replacement, such as the prison in Lezha and the Office of Registration of Assets. Other buildings, such as the Ministry of Agriculture and the Ministry of Justice buildings, suffered some damage that could be easily repaired and strengthened. Damage to both masonry and RC frame buildings was reflected in the form of cracking to the masonry walls or even limited to the plastering layer. These buildings survived the earthquake shaking because of the low intensity of the ground shaking. The damage and losses sustained by the government buildings are estimated at 12.33 million EUR (1.5 billion ALL).

## Recovery Needs

The recovery of the government buildings will include reconstruction of one prison facility, reconstruction of four office buildings, and one retaining wall, and repair and retrofitting of another 29 office buildings. Most of the buildings to be repaired are located in Tirana. The total recovery cost is estimated at 26.56 million EUR (3.3 billion ALL). It should be noted that this amount does not include municipal buildings and other community infrastructure or religious facility buildings,<sup>32</sup> as those were accounted for under the respective sub-sectors. The overall needs are defined as the combined cost of:

- A multi-hazard resilient building, meeting the improved safety standard and other facilities;
- Repair and seismic retrofitting of partially damaged buildings;
- Temporary office space during the transitional phase;
- Demolition and clearance.

<sup>32</sup> It is worth noting that, irrespective of faith (Catholic, Muslim, Baktashi or any other), the majority of religious buildings were built or rebuilt after 1990.



It is critical to ensure that recovery efforts do not recreate the vulnerability that led to the disaster in the first place. Therefore, recovery and reconstruction needs to be in line with modern disaster-resistant standards. Also, energy-saving and disability-facilitated access measures may be considered. The following needs are to be considered before proceeding to the rehabilitation of the damaged buildings:

- A detailed damage assessment must be completed as early as possible, before proceeding to demolition or repair, with a special focus on DS3-, DS4- and DS5-tagged buildings;
- A detailed seismic assessment of the buildings categorized for repair;
- Guidelines for repair and retrofitting of damaged buildings;
- Clarification of legally operating building codes;<sup>33</sup>
- Buildings scheduled for repair should be retrofitted during the rehabilitation process.

## Guiding Principles and Implementation Arrangements

The relevant government institutions should take responsibility for the assessment, planning, and implementation of their respective recovery plans. The following steps are necessary to ensure a strong recovery and reconstruction effort:

- A mechanism should be instituted to facilitate and oversee the entire repair and retrofitting, and reconstruction effort over a period of up to five years;
- A high-level body with representation from key ministries should be established to provide guidance on key policy matters;
- Appropriate policy frameworks and mechanisms should be put in place to ensure the buildings built during recovery and reconstruction.

As a guiding principle, the recovery of government buildings should be given priority considering their leadership role in recovery. Also, long-term recovery should be based on a uniform, transparent, and comprehensive building-by-building survey, identifying the level of intervention or deconstruction and reconstruction required if the building has not been demolished yet.

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<sup>33</sup> To date, only the National Building code dated 1979 applies by law, however both the National Building code dated 1985 and the most advanced so-called Euro-code apply.

### 2.6.3.4 Communication Sub-sector

The Communication sub-sector covers public and private telecommunications networks (both fixed and mobile), internet service providers; postal services, print and broadcast media (newsprint, radio, television), and cable television operators. The postal services are fully owned by the GoA, whereas two of the telecom operators and internet service providers are privately owned, and one service provider operates under public-private partnership (PPP) arrangement. The Electronic and Postal Communications Authority (Autoriteti i Komunikimeve Elektronike dhe Postare, AKEP) is the telecommunication regulator for Albania. It is worth noting that post-disaster relief efforts relied heavily on telecommunications, internet and broadcast media. It played a crucial role in keeping the people informed.

#### Damage and Losses

The communication system suffered some damage, service disruption, and downtime due to the earthquake. Although service recipients lost connection temporarily, and the network experienced congestion, service providers were able to restore most of their networks with minimal disturbance to their users. Some minor to moderate damage to the telecommunication system was reported in the form of damage to buildings, equipment, cables, cabins, antennas,<sup>35</sup> etc. Two buildings that have three telecommunication antennas installed on them suffered destruction. These buildings were scheduled for demolition. Similarly, the building of the postal service also suffered damage. Five post offices suffered severe damage and another eight suffered small to moderate damage. However, it was reported that television broadcaster and cable television buildings did not suffer damage. Most of the damage to the Communication sub-sector was concentrated in Durres. As a result of the earthquake, the combined damage and losses are estimated at 1.08 million EUR (132.89 million ALL).

#### Recovery needs

The recovery interventions include repairing and rebuilding the office buildings and the damaged poles, cables including fibre optics, and the replacement of equipment. As discussed above, three communication towers of a telecommunication service provider in Durres became defunct because the building on which the towers were installed was badly damaged. That shows the importance of the building supporting the tower or safety of telecom equipment. Hence, the communication facility providers should develop an integrated long-term plan that requires a seismic assessment and retrofitting of the buildings used for telecom purposes. Further to this, a policy could also be developed so that towers and other facilities can be shared among various service providers. The cost of recovery for the Communication sub-sector is estimated to be 2.59 million EUR (318.70 million ALL).

#### Guiding Principles and Implementation Arrangement

The Communication sector in Albania is owned by both the private and public sectors, or under public-private partnership (PPP). Hence, the relevant facility owner should take responsibility for the assessment, planning, and implementation of recovery for their respective infrastructure. Coordination has to be developed as well among the various parties, for example, to: 1) Developing a coordination arrangement among various service providers such as between telecom operators so they have better sharing arrangements to minimize interruptions; and 2) Constructing a disaster recovery integrated data centre.

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<sup>34</sup> A case study was reported where a Vodafone antenna hosted on the top of a private building did not suffer any damage, however the building itself is strongly affected. Its demolition would trigger the antennas dismantling, with consequent costs. Claims may be expected from the service provider towards the hosting building administration. Re-assessment of such particular case may be deemed necessary.

### 2.6.3.5 Transport Sub-sector

The Transport sub-sector covers highways, railways, civil aviation facilities, as well as the rural road networks. However, it does not include urban roads or rural trails. The motorways and expressways are both parts of the national road network and are owned by Albanian Road Authority (ARA). The roads, railways, airports, and seaports are owned by the GoA. Different parts of Albania are linked by a reasonably good land transport system.

#### Damages and Losses

No damages were reported to the national road transport network, including national highways, other than minor damage to secondary elements of the two overpass bridges near Durres. Similarly, in Durres, a wagon repair workshop, one railway station, and Ishëm bridge suffered moderate to severe damage. The railway station and the bridge were assessed to require reconstruction.

It was reported that civil aviation, including air transport operations, did not suffer any damage. All the airports were operational immediately after the earthquake. In the aftermath of the earthquake, the number of flights significantly increased at Tirana Airport due to rescue and relief operations. The civil aviation apparently did not suffer any loss due to the reduced flow of passengers on regular flights. Similarly, no damage and losses to the seaports were reported. Only the railways were affected. Total damage and loss for this sub-sector is estimated at 5.26 million EUR (647.24 million ALL).

#### Recovery Needs

Recovery needs for the railways are to repair and retrofit the Durres railway station, to rebuild a bridge and the wagons repair factory. Total recovery needs for the Transport sub-sector are estimated at 7.46 million EUR (917.95 million ALL).

#### Guiding Principles and Implementation Arrangement

The railways in Albania are administered by the national railway company Hekurudha Shqiptare (HSH), i.e., Albanian Railways. Hence, the HSH should lead the recovery of the railway facilities.

Considering the role of the Transport sector in the economic wellbeing of the country and its crucial role in early recovery, the guiding principle for recovery should be to include fast-track repairs and speedy and efficient construction or rehabilitation of various components of the railway system such as Durres railway station, wagon repair workshop, construction of a railway culvert, etc. using the BBB approach, where required.

### 2.6.3.6 Water, Sanitation and Hygiene Sub-sector

This sub-sector includes both rural and urban water supply, sanitation, and solid waste management systems. The water supply, sewerage, and waste management systems are owned, managed and operated by the municipalities. About 57% of all rural Albanians have access to piped water, either through a piped self-supply or a local water system. Only 19% of rural Albanians have access to water from non-piped self-supplies (wells, springs). The rest or 24% of the rural population is supplied by a community-based non-piped supply system (wells, rivers, etc.). Access to flush toilets in rural areas is near-universal, and 65% of the urban and rural population outside of Tirana has access to a sewer (World Bank, 2018).



## Damage and Losses

The damage and losses to the Water, Sanitation, and Hygiene (WASH) sub-sector was calculated on the basis of assessments undertaken by the municipalities and data provided by them. The findings show that the water, sanitation, and solid waste management structures or systems suffered minimal damage or losses, although a sewage treatment plant and water supply pipes in Durres, and one pumping station in Lezha, suffered significant damage. Four water depots also suffered damage in Tirana. The combined value of damage and losses to the sub-sector is estimated at 0.35 million EUR (43.07 million ALL).

## Recovery Needs

The recovery needs include the repair or reconstruction of water supply pipes and the sewage treatment plant in Durres and one pumping station in Lezha. It also includes the repair and rehabilitation of four small water depots in Tirana including buildings and equipment. The total needs for recovery using the BBB approach are estimated at 0.96 million EUR (118.13 million ALL).

## Guiding Principles and Implementation Arrangements

Water and sanitation are under the governance of municipalities. Hence such entities should lead the recovery of the WASH facilities under the guidance of the Ministry of Reconstruction. Focusing on the specific aspects of the process, the existing system of governance and implementation will need to be strengthened. Planning and prioritization for restoring or rebuilding should be done in a participative manner, formalizing community platforms alongside assessment by municipalities.

## 2.7 Social Protection

### Context

In addition to the care programmes (social care services), the social protection system in Albania combines cash for economic assistance - *ndihma ekonomike* (**NE**) and disability benefits - Disability Allowance (**DA**). It integrates measures to empower and support people living in poverty, people with disabilities, children, women, elderly, youth, ethnic minorities, and other vulnerable categories. In financial terms, the social protection spending amounts to 9% of GDP, significantly lower than the EU average of 28%.<sup>35</sup> As cash benefit schemes dominate the social protection system, capacities for social protection programmes administration are limited at all levels. Services provided through the non-public sector, mainly financed by international CSOs and charities, have attempted to fill the gaps in public service provision.

Women in Albania continue to face inequalities in access to basic services, such as education, employment, and health care, and participation in decision-making processes.<sup>36</sup> Data from the National Employment and Skills Agency (NAES) report that 53% of the registered unemployed are women and they also represent 51% of the long-term unemployed. In rural households, a vast majority of women are engaged in unpaid family farm work. Labour Force Survey 2018 (LFS, INSTAT 2019)<sup>37</sup> data indicate that women are 1.8 times more likely than men to be contributing family workers.

The Ministry of Health and Social Protection (MoHSP) is the primary institution in charge of policy design and oversight for social protection policies. The State Social Service (SSS) is the executive agency in charge of the management of the cash programmes in social protection policy, the monitoring and appeal institutions for social care services, as well as delivery of national scale social care services. In case of a disaster, the MoHSP is coordinating the response at the affected municipalities through the SSS and their regional directories, the social services departments at the local government level, and the National Civil Protection Structures. The MoHSP is the lead institution for coordinating social protection and health emergency preparedness and response and is also part of the “Inter-Ministerial Committee for Civil Emergencies” at the regional and local level, leading coordination of response to emergencies or disasters with the Regional Directories for Social Services and municipalities, through an ad hoc management system. The ministry has also been leading and coordinating the support provided by national and international non-government organisations in response to the communities affected by the earthquake hit.

### Effects of the Disaster

#### Effects on Infrastructure and Physical Assets:

There were some damages identified on the infrastructure of social protection that are included in the infrastructure report. The assessment included public facilities only, while no information was obtained from the private sector service providers, which is also missing in the Infrastructure sector report. In total, only a few community centres and social care service facilities were damaged, and these were only partially damaged.

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<sup>35</sup> European System of Integrated Social Protection Statistics (ESSPROS).

<sup>36</sup> CEDAW “Concluding observations on the fourth periodic report of Albania”, 2016.

<sup>37</sup> INSTAT (2019) –Labour Market 2018, accessible at <http://instat.gov.al/media/5575/tregu-i-punes-2018-ang-alb.pdf>

### **Effects on Access and Availability of Services:**

Overall, there have been no disruptions of the cash programmes (economic assistance - NE and disability allowances) which have been running normally. In the earthquake hit municipalities there are approximately 6,275 families getting NE. These families may fall deeper into poverty if they are not prioritised during the recovery, as they face additional burdens after the event. In the earthquake-hit areas, there are 22,875 people with disabilities (PwD) and 28,685 work invalids. The overall social care services provision was not significantly affected.

There are no changes reported in the number of beneficiaries for any of the above-mentioned categories of people as per 15 January 2020. This may be due to the fact that the application dates are from the 1st to 10th each month. As the affected families were relying on humanitarian assistance during the month of December, it was too early to assess any increase in the number of beneficiaries of the social service programmes. Most likely, this will become evident in the February 2020 statistics and onwards once beneficiaries are registered, checked and approved.

Civil Society Organisations (CSO) adapted their activities to the post-earthquake situation and needs while providing specific services to targeted groups: children, women, people with disabilities, and youth. Those activities now include psychosocial services, after-school activities for children, and in-kind donations.

### **Effects on Governance:**

The Ministry of Health and Social Protection mobilised the regional Directories for Social Services and the Agency for Protection of Child's Rights, which are cooperating closely with the municipalities to assess the immediate needs. CSOs were immediately mobilised to provide support. About 260 psychologists were able to be mobilised through the "Order of the Psychologist" and distributed to different CSOs working in the affected areas. An additional 274 social workers and psychologists (534 in total) and over 300 volunteers were engaged through the CSOs. The engaged teams have been reporting weekly and coordinating with the MoHSP, discussing needs, and planning the interventions and work areas in an attempt to ensure better coverage with services and to avoid service overlaps. Special attention was given to displaced persons, persons with chronic diseases, children, and people with disabilities. Mobilized personnel (both at public and private institutions) received their regular salaries but no compensation for overtime. The Ministry of Health and Social Protection has issued instructions to facilitate the smooth operation of the cash assistance programme.

The central and local administration proved to be unprepared to face the consequences of the earthquake. Municipalities had no emergency plans in place nor adequate structures and resources. The situation before the earthquake indicates that, in reality, the relevant structures responsible for social care services at the municipal level are understaffed and lack resources while Needs Assessment and Referral Units (NARUs) and financial mechanisms to address the needs for social care services have not been set up yet. The event of 26 November highlighted the need for better social services and for a functional assessment and referral system, which is linked and interacts with the cash assistance programme. Furthermore, the issue of insufficient psychologists and social workers in schools has been recognised even before the earthquake.

### **Effects on Risk and Vulnerabilities:**

A total of 17,090 persons received support for accommodation, wherefrom 25% or 4,324 were accommodated in hotels and 75% or 12,766 in tents. Others were either hosted by family and friends or rented accommodation, while about 1,000 have relocated to Kosovo. Women represent 49% of the population accommodated in both types of temporary facilities and 24% of them are heads of households,



mainly placed in tents. 22% of the population in these two facilities are children (3,801 children 0-18 years old), where 17% (2,873) are located in tents with higher risks for diseases due to the cold and overall conditions. A rapid assessment survey (World Vision, December 2019) tried to capture the main vulnerable groups based on some of the key issues they were facing. All groups are facing a wide range of physical, financial, emotional, and environmental concerns. Children are reported (by 51% of responses) as the most vulnerable group. Other groups recognised as vulnerable are the elderly, women and people with disabilities.

About 356 families (approximately 1,541 persons) from the Roma and Egyptian communities were affected by the earthquake. Roma and Egyptian communities are exposed to many vulnerabilities linked to basic rights and services, such as access to the labour market, healthcare, education, housing, etc. Negative consequences of the earthquake most likely will increase the burden on women as they will be pushed further towards traditional roles and activities, caretaking for children and elderly, disabled or ill family members as well as what is left behind from their houses. Often, they are the ones engaging in agriculture to support their household. They also have less mobility to search for casual jobs, which further aggravates the inequality gap and constrains their ability to recover quickly and to build back better. Collective accommodation (tents or hotels) worsened the vulnerability of people with disabilities, elderly, children and pregnant women as these accommodations were not equipped to meet their needs. If the needs of affected communities are not addressed, especially the most vulnerable ones, there is a significant risk for new families falling in poverty.

## Estimation of the Value of Damage and Loss

### Damages:

The value of the damages is reported under the Infrastructure sector report.

### Losses:

The total value of losses in the Social Protection sector is estimated at 623.5 thousand EUR (76.7 million ALL), at pre-disaster prices, wherefrom 1/3 are public, and 2/3 are private.

As few damages were reported in the social services facilities, and services have resumed in other locations provided by the local government, there are no losses to report from rental costs.

Following the displaced and accommodated in hotels, tents and community buildings, the public and non-public teams provide mobile services to the affected communities. About 260 psychologists were hired through the Order of Psychologists by the CSOs engaged in the affected areas. Several in-house

staff from CSOs (274) and public officials (124) were engaged in providing full-time services where the communities were located. Though their salaries were covered by the respective institutions, they were not compensated for the overtime and working during weekends and public holidays. Therefore, additional human resources mobilisation both in terms of a number of new staff and extra time have been taken into consideration as losses for the sector. Estimates of additional transportation and coordination costs are also included.

Besides the counselling services, nearly 100 referrals have been taken place for persons in need, where these costs were health-related, the transport costs and services are covered in the Health sector report. The MoHSP has also been engaged in ensuring continuity of treatment for people with chronic illnesses, providing their medication for free.

About 1,773 persons with loss of income were supported through the MoHSP to receive medical services and treatment for free (1,652 in public sector and about 120 persons in the public sector). These losses on health revenues are covered in the sector report.

**Table 34** Losses of the Social Protection and Inclusion sector

Losses	Losses		
	Public	Private	Total
	In thousand EUR		
Infrastructure	N/A	N/A	N/A
Referrals: Increased transport costs reaching out to IDPs	6.70	8.13	14.83
Psycho-social counselling and support for the affected population	0.00	405.45	405.45
Cost for coordination and disaster management	203.23	0.00	203.23
<b>Total</b>	<b>209.94</b>	<b>413.57</b>	<b>623.51</b>

## The Sector Recovery Strategy

The social protection system at all regional and local levels needs adequate capacities to respond to natural disasters. The MoHSP has tried to coordinate the support for this emergency effectively, yet this was done on an ad hoc basis as a sector response programme was not in place. The emergency response programme and its operational plan for the sector should also consider vulnerable communities and include protocols and a rights-based approach to children, women, people with disabilities and minorities, taking into consideration these groups' different needs.

Given that social protection is cross-cutting with Education and Health sectors, the need for inter- and intra-sectoral coordination is substantial to provide a coherent response for the affected population. Better linkages are also needed between schools and support services for children such as psychosocial support; this has to be part of long-term planning.

Additionally, there is a need to address the risks and vulnerabilities more systemically by training the social protection professionals and equipping them with instruments to ensure preparedness and better management and response in their institutions.

The Management Information System (MIS) also would have contributed to the efficiency of planning and response. The earthquake of November 26 highlighted the need for better social services and for a functional assessment and referral system, which is linked and interacts with the cash assistance programme.

### The Sector Recovery Needs and interventions

The overall recovery cost is 2.83 million EUR (348 million ALL), wherefrom on short term 1.19 million EUR (146.4 million ALL) are needed, for medium term 0.96 million EUR (118 million ALL) and 0.69 million EUR (85 million ALL) for long term, in order to be able to implement the following proposed interventions, see Table 35.

**Table 35** Social protection needs at short, medium and long term

Type of needs	In million EUR			Total million EUR
	Short	Medium	Long	
Reconstruction in Infrastructure sector	0.00	0.00	0.00	0.00
Recovery including resilience building	1.19	0.96	0.69	2.83
<b>Total in million EUR</b>	<b>1.19</b>	<b>0.96</b>	<b>0.69</b>	<b>2.83</b>

### Sector-specific Guiding Principles

The guiding principles are aligned with the needs and vulnerabilities exposed by the earthquake and the vision of the Albanian National Social Protection Strategy (2022) towards a social protection system that addresses socio-economic inequalities with policies and mechanisms to protect all vulnerable or excluded individuals through prevention, social reintegration programmes, and employment schemes.

- Increase efficiency in the system, operationalising of MIS system and social protection emergency planning.

## 2.8 Civil Protection and Disaster Risk Reduction

### Context

#### Country Risk Profile

The four main hazards affecting Albania are earthquakes, floods, forest fires, and landslides. Other hazards include snowstorms, drought, temperature extremes, epidemics, avalanche, technological hazards (e.g., dam bursts), and windstorms. The International Disaster Database (EM-DAT) shows that, during 1979-2019, floods accounted for the major share of disaster events (38%), followed by earthquakes (15%<sup>38</sup>). According to the annual World Risk Report<sup>39</sup> (2019), which calculates the Disaster Risk Index for 180 countries based on exposure, susceptibility, vulnerability and coping and adaptive capacities (lack thereof), Albania ranks first in Europe and 61st the world.

Earthquakes are one of the main hazards in the Balkan region and are causing the most economic loss. Hydro-meteorological hazards are also frequent in Albania; floods also caused a significant loss to the economy. Albania is at high risk of forest fires, particularly in the dry summer season. More than 95% of events are small (less than 100ha burned) and account for more than 40% of the total burned area, while big events are relatively rare (5% of the total burned area). Albania is characterized by land instability caused by natural and anthropogenic factors, where 33.6% of its territory is relatively stable, and 9.8% is unstable.

#### Country DRR System

The detailed and comprehensive Albanian strategy on Civil Protection (CP) and Disaster Risk Reduction (DRR) is a draft document that has not yet been adopted. The core legal act on DRR in Albania is the Law 45/2019 'On Civil Protection,' adopted in July 2019, which replaced the Law 'On Civil Emergencies' (2001). However, sub-laws, strategies, plans and activities at national, regional and municipal levels still need to be harmonised with the 2019 Law. The National Civil Emergencies Plan (2004) and the Disaster Risk Assessment in Albania (2003) were still in use at the time of the emergency. The Council of Ministers governs the National System of Civil Emergency Management. The Law 45/2019 establishes that line ministries and other central institutions should have a separate budget line allocating 2-4% of their annual budget, while municipalities should budget no less than 4%.

Albanian Armed Forces (AAF), State Police, Fire Protection & Rescue Service (FP&R), and Emergency Medical Services (EMS) are the main operational structures in disaster response. The General Directorate of State Reserves (DPRMSH) provides goods and equipment in case of disasters. The GoA has established mechanisms to seek assistance from the Emergency Response and Coordination Centre (ERCC), Euro-Atlantic Disaster Response Coordination Centre (EADRCC), and bi-lateral and other countries in the event of a major disaster. The Institute of Geosciences, Energy, Water and Environment (IGEWE) is the national monitoring and warning structure for natural hazards, earthquakes, floods and wildfires. Pursuant to the law 45/2019, developing disaster loss data has become obligatory at all levels. There are some public awareness activities and education on hazards is included in school curricula.

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<sup>38</sup> EM-DAT: The Emergency Events Database –Université catholique de Louvain (UCL) - CRED, D. Guha-Sapir - [www.emdat.be](http://www.emdat.be), Brussels, Belgium

<sup>39</sup> World Risk Report 2019, available at: [https://reliefweb.int/sites/reliefweb.int/files/resources/WorldRiskReport-2019\\_Online\\_english.pdf](https://reliefweb.int/sites/reliefweb.int/files/resources/WorldRiskReport-2019_Online_english.pdf)

## Effects of the Disaster

### Effects on Infrastructure and Physical Assets:

Institutions involved in the DRR system have been adversely impacted, with seven buildings beyond repair and 57 damaged from the Ministry of Defence, one firefighting station that had to be demolished, two buildings of the Albanian Geological Survey that were partially damaged together with eight monitoring stations of the Institute of Geosciences, Energy, Water and Environment (IGEWE) that were slightly damaged. The general directorate of State Reserves had six slightly damaged buildings. The equipment of the institutions involved in the DRR system overall has not been significantly affected due to the fact that relatively few buildings suffered severe damage and none collapsed totally.

### Effects on Access and Availability of Services:

DRR services in the aftermath of the earthquake were available by national institutions with support of the international response. DRR human resources have not been affected. But it became apparent that all frontline responders have insufficient training and equipment, and there are no multi-stakeholder response policies and procedures. In addition, the majority of the deployed firefighters were neither adequately equipped nor fully trained to respond to earthquakes. The responders found empty warehouse stock of the State Reserve, impacting on the provision of goods which relied most heavily on donations. Considerable effort has been put into post-earthquake building safety assessment. IGEWE had limited capacity to provide services and immediate information in emergencies due to a lack of power backup systems and limited monitoring station maintenance. Despite damages to part of its infrastructure, the Institute of Geology has been able to provide a technical assessment on soil conditions. The availability of risk-related information and information systems, risk assessment studies, hazard maps and national-local information exchange mechanisms were difficult to clearly identify and locate. This, potentially, impacts on the country's ability to forecast hazards and early warning for public dissemination, as well as on the capability to plan and implement structural and non-structural seismic risk management policies.

### Effects on Governance:

The earthquake occurred prior to the full implementation of the law on civil protection (45/2019). The regulatory acts necessary to fully implement the law were in progress and had yet to be fully implemented. The fact that the emergency occurred in the transition period was one reason why the operational response adopted, at times, an ad hoc approach.

The response was influenced by a series of existing vulnerabilities including the very limited human resources of the National Civil Protection Agency (NCPA), the absence of a National Civil Protection Agency emergency room, the lack of any training on emergency coordination, the insufficient training and equipment of firefighter and Urban Search and Rescue teams and the lack of relief items / equipment due to previous emergencies.

Only in January 2020, did the GoA approve the full establishment of the NCPA, and a staff increase from nine to 106. Additionally, in order to support recovery at a strategic level, the State Minister for Reconstruction was appointed on 13 December 2019 to deal with all reconstruction issues.



### Effects on Risk and Vulnerabilities:

The effects of the earthquakes have been exacerbated by existing vulnerabilities and have posed significant new emerging risks. Identified vulnerabilities are:

- Appropriate and skilled human resources essential to DRR mainstreaming across all sectors are very limited in Albania;
- The lack of modern and homogenous equipment of operational forces;
- The capacity of technical agencies to model, forecast, assess, monitor and warn / inform of the risks associated with hazards and climate change needs development in order to provide adequate information that is accessible and understandable to the end-user and that can form the basis for effective structural and non-structural prevention policies;
- All sectors need to integrate DRR into their environmental, land-use, and climate change-related policies and plans;
- Though the widely accepted Eurocodes have been used in Albania for years, building design follows the Albanian Technical Codes and the outdated seismic zonation and would require a significant update to meet sectorial standards, especially due to the fact the cities experienced a construction boom, also with an increase of illegal settlements.

Identified emerging risks include:

- Failure to fully implement the planned Civil Protection and DRR system according to the new civil protection law;
- Lack of addressing the issue of seismic retrofitting of existing critical infrastructures.

### Estimation of the Value of Damage and Loss

The total value of effects to this sector is estimated at 21.96 million EUR (2.7 billion ALL), wherefrom 8.75 million EUR (1.1 billion ALL) are damage and 13.21 million EUR (1.6 billion ALL) are losses.

### Damages:

The reported damages are on eight totally destroyed buildings and 59 in need of significant repair.

### Losses:

The losses which almost all institutions have are due to emergency operations. The losses associated with municipality are related to emergency coordination and costs for rescue, immediate control of buildings and infrastructure, an awareness campaign to the population, and assistance to the population in addition to the costs of deployment of the USAR team and their operation costs (wages, transport, and subsistence allowance) and losses for monitoring of the affected area and / or technical inspection activities.

**Table 36** Costs of damage and losses for CP and DRR sector

Civil Protection and DRR	Damages	Losses	Total
	In million EUR		
Total costs of effects	8.75	13.21	21.96

## The Sector Recovery Strategy

The recommended priorities for DRR reconstruction and recovery are in three categories: reconstruction, recovery, and increased resilience. Five pillars have been identified: institutional capacity building; enhancing emergency preparedness; risk identification, assessment and planning; structural risk mitigation investments; awareness and educational measures.

Reconstruction needs are related to the repair or reconstruction of destroyed DRR facilities, including the principle of BBB in adopting up-to-date standards. Given the scale of the disaster, the DRR sector had relatively few destroyed and damaged buildings.

Recovery needs include expenditures to restore or provide DRR services to cope with the earthquake in the recovery phase. For the DRR system, expenditures have been identified in guarding unsafe, evacuated, buildings or areas and tent camps.

### Disaster Risk Response and Resilience

- Improving Legal and Institutional Arrangements
- Improving Preparedness for Response.
- Enhancing multi-hazard Risk Monitoring, Vulnerability and Risk Assessment, Risk Information, Risk Mitigation, Dissemination and Awareness

## Guiding Principles

The following guiding principles are envisaged for the recovery strategy:

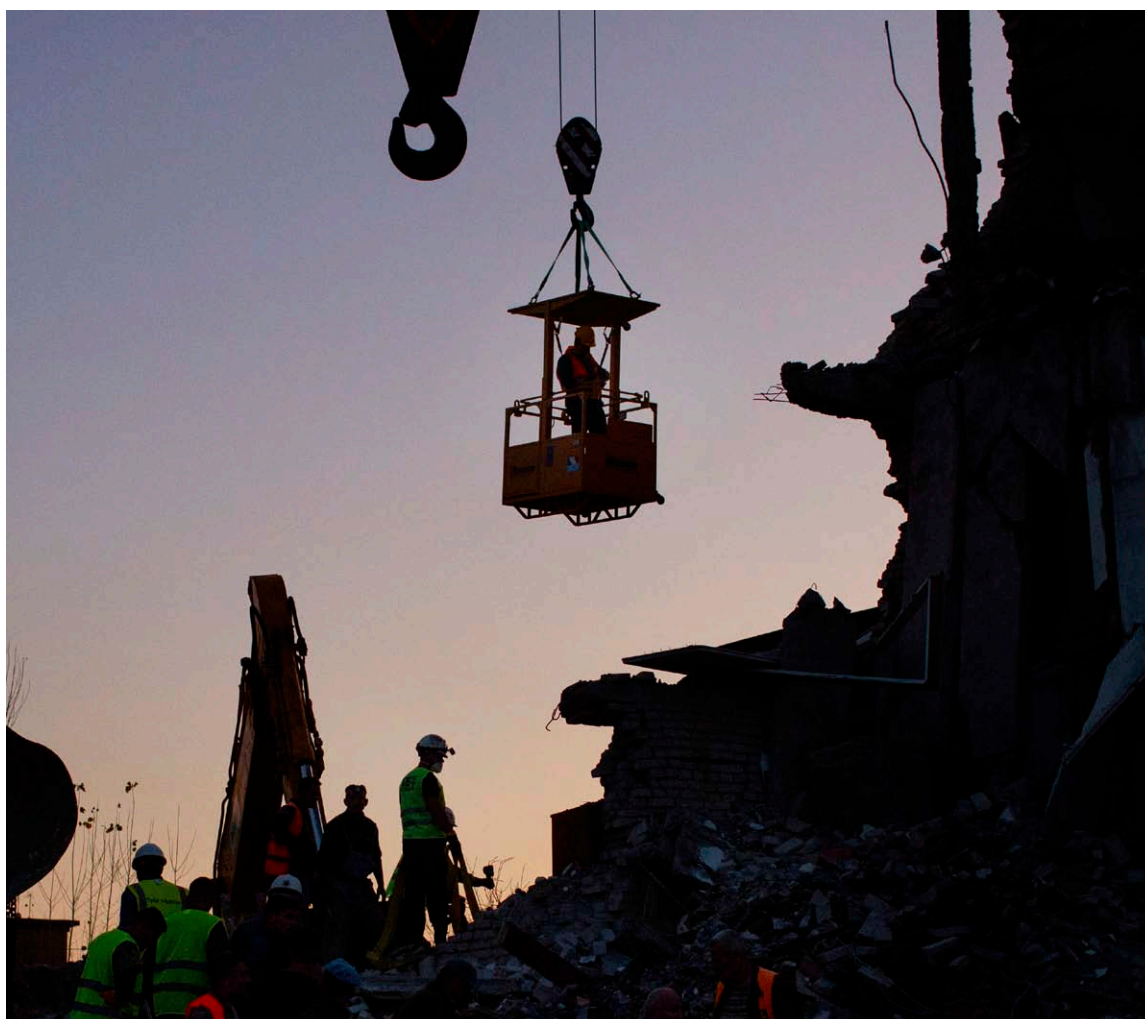
- Resilient governance. The recovery should be associated with enhancement of risk governance through the improvement of policy and institutional capacities in risk management at all levels and the promotion of vertical and horizontal integration.
- Risk and risk management awareness. The recovery should promote a cultural shift, so “DRR thinking is a mindset.”
- Resilient planning. The resilient recovery in Albanian cities should be based on resilient planning and management of risk-free human settlements through an integrated, comprehensive, and transparent approach. Land-use plans based on identified hazards and risk should be developed to assist the recovery. It is also crucial to reduce the risk of new and existing buildings through the adoption of a modern seismic building code.
- Gender perspective. The recovery should include a gender perspective that focuses on the most vulnerable groups and minorities and promotes equality to prevent discrimination of any type.
- Subsidiarity. It is central that local actors – including local government staff, the private sector, NGOs, community-based organizations, and representatives of vulnerable groups – take part in DRR processes.
- Coordination. Setting up a monitoring system will allow the national GoA, assisted by the NCPA and other DRR related institutions, to assess the progress and effectiveness of the recovery interventions.

## The Sector Recovery Plan

The overall recovery cost is 48.25 million EUR (5.9 billion ALL), wherefrom in the short term 23.91 million EUR (2.9 billion ALL) are needed, in the medium term 22.94 million EUR (2.8 billion ALL) and 1.4 million EUR (172.4 million ALL) for the long term, in order to be able to implement the following proposed interventions, see Table 37.

**Table 37** CP and DRR needs at short, medium and long term

Type of need	Short	Medium	Long	Total
	In million EUR			
Reconstruction	7.72	5.15	0.00	12.87
Recovery including DRR and resilience	16.19	17.79	1.40	35.38
<b>Total in million EUR</b>	<b>23.91</b>	<b>22.94</b>	<b>1.40</b>	<b>48.25</b>





# DISASTER IMPACT

# 3

## 3.1 Macroeconomic Impact

### Summary

The earthquake is estimated to have caused effects that are equivalent to 6.4% of 2018 GDP in damages and to 1.1% of GDP in losses. Damages amount to 26.4% of gross fixed capital formation indicating a limited capacity of Albania to achieve full reconstruction in a short to medium time. In terms of losses, the hardest hit economic sectors were tourism and housing (real estate activities)<sup>40</sup>, but significant damages were also inflicted on education, health, public infrastructure, manufacturing and trade.

As a result of the earthquake, real GDP growth over 2019 and 2020 is estimated to be lower with effects of capacity loss constraining growth over the medium. As a result, the Albanian economy is projected to grow by an estimated 2.4% in 2019 and a 3.2% in 2020 from a pre-earthquake baseline estimated growth of 2.9% and 3.5% respectively.

The earthquake is also expected to put further strains on public finances: the fiscal deficit is estimated to be higher by 0.7 percentage points of GDP. Trade deficit and the current account deficit (CAD) are expected to worsen as well. CAD is expected to widen by about 0.2% of GDP, increasing from a pre-earthquake baseline projection of 7.1% to 7.3% of GDP in 2020.

Although the economic activity will slow down and deficit would further increase as a result of the earthquake, availability of grant resources for reconstruction could help to accelerate economic recovery and mitigate the negative earthquake effects on public finance.

### Pre-disaster economic context

After an expansion of 4.1% in 2018, annual growth was projected to slow to 2.9% in 2019. A drastic decline in rainfall in the first half of the year cut hydroelectric power production in half and is estimated to lower GDP growth by a half-percentage-point. Despite growing political tensions, domestic demand expansion led growth in 2019. Net exports reduced growth by 0.4 percent points (pp), as stagnant growth among trade partners limited traditional exports, while energy exports declined. Job creation, higher wages, and consumer credit continue to drive private consumption, which contributed 2.1 pp to GDP growth.

<sup>40</sup> Housing activities are reflected in the Real estate activities in the GDP categories. They affect GDP primarily through a reduction of inputted rent on owner occupied dwellings and rent revenues lost from property owners. Likewise, tourism losses are classified into "Accommodation and food". In this chapter, sectoral losses are mapped into the GDP categories which may have a different labelling than the sectoral assessments.

Meanwhile, investment increased thanks to better credit conditions and government infrastructure spending, contributing 0.5 pp to GDP growth. Employment continued to grow, while unemployment reached a record low of 11.4% in Quarter 3, 2019. Inflation declined compared to end-2018, on the back of low imported inflation from Albania's trade partners and an appreciation of the ALL. Albania's fiscal position improved in 2019. In 2019 fiscal revenue growth was limited by lower GDP growth and, especially, by increased repayment of VAT-refund-arrears. The revenues-to-GDP ratio declined from 27.6% of GDP in 2018 to an estimated 27.4% in 2019. Personal income tax revenue and social security contributions rose slightly, supported by higher wages and efforts to reduce informality. Before the earthquake the budget deficit was estimated to reach 1.9% of GDP while the public debt, was estimated to decline to 66% of GDP in 2019. The energy shock and lower foreign demand exposed country's external vulnerabilities. The current-account deficit is highly sensitive to commodity prices and rainfall conditions, as the latter largely determine energy production. As a result of the energy shock, the current account deficit was expected to widen from 6.8% of GDP in 2018 to 8% in 2019.

## Disaster Impact on GDP

The losses linked with the earthquake will lower the economic growth by 0.5% in 2019, and 0.3% in 2020. The growth impact estimates of the earthquake is principally based on a production-side national accounts growth model whereby the detailed sectorial Damage and Loss Assessment are considered in terms of their overall impact on the economy. The Damage and Loss Assessment estimates show that tourism and real estate activities have been the hardest hit by the earthquake; and significant damages have been inflicted on education, health, manufacturing and trade. On the other hand, the reconstruction and recovery efforts are expected to partially offset the negative effect on economic activity through a faster growth of the construction sector and to a lesser extent, trade and professional activities. The GDP growth impact estimation is based on the estimated production losses at sector level, accounting for smaller economic gains of other sectors. In nominal terms, GDP in 2020 is estimated to be lower by about EUR 98 million (12.06 billion ALL).

On the expenditure side, while there are clear data limitations, the earthquake is expected to hit hardest net exports, principally through a decline in tourism incomes and, on the import side, through an increase in imports of construction materials (see the Balance of Payment (BoP) in section below for further details). The decline in the wealth of Albanian families, coupled with a decrease in employment is likely to affect private consumption.

On the other hand, damage repair and reconstruction will probably lead to a higher investment growth than previously projected. However, if reconstruction and investment were to proceed at a faster pace with higher support from donors, the decline in GDP could be smaller. The earthquake is expected to have no significant impact on inflation given the current low inflation in Albania and in its trading partners.

## Sectoral impacts

The earthquake has caused significant economic losses in some key sectors, especially in housing and other buildings, accommodation and food (tourism), education, health, manufacturing. The share of real estate activities in Albania's economy is 5% of GDP. The earthquake losses in real estate activities are due to disrupted rental activities and owner-occupied dwelling in damaged and severely damaged residential property. The total effects (damages and losses) are valued at EUR 696.3 million (85.68 billion ALL), with the total damages amounting to 662.3 million EUR (81.5 billion ALL) and the total losses estimated at EUR 34 million (4.18 billion ALL). As a result of the earthquake the sector is estimated to decline by 0.4% in 2020, from a baseline of an expansion of 2.7%.

Accommodation and food service activities account for 2.3% of Albania's economy. Fuelled by expanding tourism, the sector has seen an increase of 10% on average over the last 4 years and has aided lowering the current account deficit. The earthquake damaged several structures including small informal facilities. Beside debris removal estimated losses also include those related to loss in employment and cancelled reservations from tourists. As a result, the sector is contracting by 9.1% in 2020 from a pre-earthquake baseline of an 8% growth. Together with the real estate activities losses in accommodation and food services, account for almost the entire decline in real GDP growth in 2020 with respect to the pre earthquake baseline.

Manufacturing, which accounts for 6.6% of GDP, is projected to grow by 0.1 percent points less compared to the baseline, with losses accounting for loss in jobs up to 4.45 months, debris removal and interruption of production activities.

Damages in health, education transport and utilities and infrastructure such as government buildings, roads hospitals and schools have also been damaged significantly. The total damage and losses have caused problems for the service delivery of the affected communities, thus contributing to the decline in GDP. Education, which accounts for 4% in GDP, is projected to increase by 5.2%, 1.2 percent points lower than the pre earthquake estimate. Human health and social work activities sector is projected to increase by 5% compared to pre-earthquake projections of 5.6%. The loss in these sectors arises from larger operational expenses related to debris removal, emergency repairs, costs of reallocating essential services in other areas, etc.

On the other hand, earthquake emergency responses and reconstruction efforts are expected to modestly offset the decline in the economy by contributing to higher growth in the construction sector and related services including transport trade and professional activities in 2020. Under a reconstruction and recovery scenario, the construction sector, which accounts for 9.4% of GDP, is expected to grow over several consecutive years.

## Disaster impact on fiscal position

Albania's debt is high and the country has faced significant fiscal challenges even before the earthquake. Fiscal adjustment on both increasing revenues and improving the efficiency of spending was necessary. The general government fiscal deficit and debt, as a share of GDP, are among the highest in the Western Balkan region.



**Table 38** Macroeconomic indicators

Macroeconomic Indicators	2018	2019		2020		2021
Time period	Actual	Pre-earthquake estimate	Post-earthquake estimate	Pre-earthquake forecast	Post-earthquake forecast	Forecast
<b>Output and prices</b>						
GDP (current market prices, EUR million)	12,783	13,741	13,733	14,420	14,322	15,080
GDP growth rate (per cent) (basic prices)	4.1	2.9	2.4	3.4	3.2	3.6
CPI inflation (per cent)	2.0	1.4	1.4	2.1	2.1	2.4
Deflator (per cent)	0.9	0.8	0.8	1.1	1.1	1.7
<b>Fiscal indicators</b>						
Total revenue (EUR million)	3,656	3,847	3,758	4,042	4,101	4,177
Total revenue (per cent of GDP)	27.6	28	27.4	28	28.6	27.7
Tax revenue (EUR million)	3,286	3,567	3,498	3,739	3,740	3,938
Non-tax revenue (EUR million)	370	280	260	302	360	239
Expenditures (EUR million)	3,732	4,115	4,026	4,277	4,425	4,463.82
Expenditures (per cent of GDP)	29.2	29.9	29.3	29.7	30.9	29.6
Fiscal balance (per cent of GDP)	(1.6)	(2.0)	(2.0)	(1.6)	(2.3)	(1.9)
<b>External sector</b>						
Current account balance (EUR million)	-861	-1,102	-1,102	-1,018	-1,042	-1,086
Current account deficit (per cent of GDP)	-6.8	-8	-8	-7.1	-7.3	7.2
Exports (million EUR)	4,059	4,253	4,253	4,724	4,682	4,886
Growth rate (per cent)	11.1	4.8	4.8	11.1	10.1	4.4
Imports (EUR million)	5,819	6,363	6,363	6,694	6,733	6,801.30
Growth rate (per cent)	7.8	9.4	9.4	5.2	5.8	1.0

The Government has recognized the need to reverse these trends through further fiscal adjustments, and has implemented a fiscal rule since 2016. As a result public debt as percent of GDP has been on a decline while the government preserved a positive primary balance.

However, the earthquake poses a new challenge to the macro-fiscal position. The Government stays fully committed to continue reducing the public debt while improving transparency and management of fiscal risks emanating from poorly performing state-owned enterprises such as those operating in energy and water sectors and the increased use of Public private partnerships to finance key infrastructure. As the earthquake coincided with the end of the budget preparation cycle, in December 2019, the Parliament approved the new budget for 2020 which included some expenditures to partially finance reconstruction, matched on the revenue side by an additional grant of 56.9 million EUR (7 billion ALL) and a reallocation of spending items. However, because of the earthquake, the general government deficit is projected to increase by an additional 0.7% of GDP. The increase in the fiscal deficit is a result of expected higher expenditures to finance reconstruction.

On the revenue side, lower economic activity is expected to bring about a reduction of 11.4 million EUR (1.4 billion ALL) in tax revenues and social contributions, which is more than compensated by an increase of grants and donations with respect to the pre earthquake estimate.<sup>41</sup>

A more detailed revenue breakdown suggests that this reduction is higher in Value Added Tax (VAT), followed by the profit tax and excises. VAT and excises are together accounting for 55% of the income loss<sup>42</sup>. Employment loss, houses and other immovable properties sustained significant damages, such damages are expected to translate into lower income on social security contributions, personal income tax and property tax all amounting at a reduction of about 3.2 million EUR (0.4 billion ALL). Finally, a sizable impact on the productive sectors of the economy is expected to further reduce the profit tax for an additional 1.6 million EUR (0.2 billion ALL).

Total budget expenditures are estimated to increase by around 18 billion ALL due to the earthquake, out of which capital expenditures of around 20 billion ALL will be devoted to reconstruction activities. A number of fiscal measures to help reconstruction were included in the Normative Act No.9 "On the Resolution of the Natural Disaster Consequences" as approved on 16 December 2019 and a home-owner reconstruction grant scheme was approved on January 6 by the Council of Ministers. Under the later decision, depending on the below priority criteria, affected individuals/families will receive support in reconstructing, repairing and retrofitting their houses, in the form of a housing grant reconstruction scheme for homeowners.

Besides the capital spending, social spending of about 1.6 million EUR (0.2 billion ALL) is expected to aid to the loss in income of the affected families, while local budget transfers are also expected to increase by 4.06 million EUR (0.5 billion ALL).

Reconstruction efforts which will boost growth further are expected to alleviate the revenue loss only to a moderate extent given the large share of reconstruction in the housing sector is exempted from VAT. However, second round effects with a positive impact on growth, as firms replenish their production capacities could strengthen revenues over the medium term.

While the 2020 budget includes some reconstruction activities, the assessment of damages and losses indicates that additional resources are need to ensure a recovery which will alleviate growth pressures over the short term.

## Disaster impact on Balance of Payments

Assuming large financing in the form of government grants for reconstruction at the amount of 56.9 million EUR (7 billion ALL) consistent with the approved budget of 2020, the earthquake is projected to have a moderate impact on the current account deficit in 2020. The current account deficit is projected to amount at 7.3% of GDP from a pre-earthquake baseline of 7.1 %, as the amount of grants partially offsets the widening of the trade deficit. The trade balance-to-GDP ratio is expected to widen by 3.8% (compared to the baseline), which will be partially offset by an increase in current transfers of 0.1 % point this year (mainly official grants, while remittances are assumed to remain at the same level). Exports are projected to decline as a result of loss in foreign tourist visits- estimated at about 41.3 EUR million (5.1 billion ALL) and manufacturing . Imports on the other hand are expected to increase by 308.8 million EUR (38 billion ALL) as a result of emergency response and recovery activities in 2020.

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<sup>41</sup> The revenue loss is based on estimated elasticities of different categories of revenues with respect to changes in economic activity (or real GDP) using Papavangjeli (2018).

<sup>42</sup> A government decision to exempt house reconstruction activities from VAT is an additional factor considered.



## Risks to the near-term outlook

Given the data limitations, there are clearly significant uncertainties around impact estimates in this report. In addition, there are significant downside risks. First, the economy might slow down further if the reconstruction efforts are not accelerated. Second, given the budget resources are limited, reconstruction is also depending on the private sector's reaction, as well as foreign investors in critically affected sectors such as tourism. Slower than expected growth might also result in additional fiscal revenue loss which will further delay reconstruction. Finally, the inflation might be slightly higher than what was assumed because of the impact on construction materials.

## 3.2 Human Development Impact Analysis

### Context

Albania has recorded steady positive performance in human capital development, yet its dimensions have been affected by the earthquake of November 2019. The disaster might have deteriorated some indicators of Human Development such as share of people in poverty, material deprivation, education, morbidity, health, and ability to pay needs and debts, particularly in the affected areas.

Albania ranked 69th of 189 countries on the Human Development Index (HDI) in 2018 (UNDP, 2019), with an HDI of 0.791. The Gross National Income (GNI) per capita in 2018 was USD 12,300 (2011 PPP).

INSTAT started to conduct the Survey on Income and Living Conditions (SILC), on an annual basis, beginning in 2017. In 2018, the national at-risk-of-poverty threshold for a one-member household was set at 160,742 ALL (1,306 EUR) and provided data on the at-risk-of-poverty rate at the national level at 23.4% (2018). The percentage of the population at the national level in severe material deprivation was 38.3% in 2018.

The employment rate of the working-age population in Albania was 61.5% in the third quarter of 2019 (INSTAT, 2019). Labour is the main source of income, independent of the households' income level. In 2017, it accounted for more than 62% of the total household income. Pensions constituted the second most important source of income with 23% of total income for the population, and remittances accounted for 6% of total income.

**Table 39** Persons in at-risk-of-poverty by SHDE

Municipalities	Before earthquake	After earthquake 2019	After – Before	
	Percentage	Percentage	p.p <sup>&lt;2&gt;</sup>	Percentage
Durres	7.5%	8.7%	1.2	16.6%
Kamza	38.5%	39.2%	0.6	1.7%
Kruja	29.1%	29.7%	0.5	1.7%
KURBIN	49.0%	52.9%	3.9	8.0%
SHIJAK	12.9%	15.4%	2.6	20.0%
Tirana	24.4%	22.8%	-1.7	-6.9%
Vora	19.3%	27.3%	8.0	41.5%
<b>Total</b>	<b>23.9%</b>	<b>23.6%</b>	<b>-0.2</b>	<b>-1.0%</b>

## Effects of the Disaster

This chapter tried to make a brief analysis of the situation before and after the earthquake. To evaluate the impact on poverty and human development the results of the “Survey of Household Damages due to Earthquake” (SHDE) undertaken by UNDP and INSTAT during December 2019 in three regions, has been used in the seven most affected municipalities out of 11. The affected municipalities from the earthquake were: Tirana, Durres, Kamza, Kruja, Kurbin, Shijak , and Vora.

The main indicators measured through this survey were the movement of persons due to the earthquake, persons at-risk-of-poverty, severe material deprivation, subjective poverty and housing conditions.

SHDE estimated that 9.2% of the population in the affected areas moved out of their usual place of living, whereas 26.9% of them have not returned during the period of the interviews.

The indicator of at-risk-of-poverty is not directly related to the impact of the earthquake. The estimated indicator of at-risk-of-poverty after the earthquake for the seven most affected municipalities is 23.6% compared with 23.9% as estimated in 2018, before the earthquake for the same municipalities.

**Table 40** Severe material deprivation in the affected areas

Municipalities	Before earthquake	After earthquake	After – Before	
	Percentage	Percentage	p.p. <sup>52</sup>	Percentage
Durres	13.0	30.8	17.8	137.0
Kamza	47.4	49.9	2.6	5.4
Kruja	35.7	25.2	-10.5	-29.5
Kurbin	8.6	57.5	48.9	568.2
Shijak	25.0	30.5	5.5	21.8
Tirana	39.3	43.3	4.0	10.2
Vora	8.5	64.5	56.0	659.5
<b>Total</b>	<b>33.2</b>	<b>41.6</b>	<b>8.4</b>	<b>25.4</b>

**Table 41** Subjective poverty across municipalities

Municipalities	Before earthquake	After earthquake	After – Before	
	Percentage	Percentage	p.p.	Percentage
Durres	5.0%	8.0%	2.9	59%
Kamza	20.3%	21.6%	1.3	6%
Kruja	2.2%	5.2%	3.0	135%
KURBIN	4.4%	6.8%	2.4	53%
SHIJAK	6.0%	11.9%	5.9	99%
Tirana	14.0%	15.4%	1.4	10%
Vora	13.4%	29.3%	15.9	118%
<b>Total</b>	<b>11.9%</b>	<b>14.2%</b>	<b>2.3</b>	<b>19%</b>

The percentage of the population with an enforced lack of at least four out of nine material deprivation items in the affected areas, the severe material deprivation indicator in 2018, was estimated to be 33.2% on average while the percentage impacted by the earthquake in 2019 is raised to 41.6%.

Subjective poverty based on self-assessment of the household in seven municipalities was estimated at 11.9% before the earthquake, and it is raised to 14.2% after it.

SHDE estimation related to housing conditions in the seven most affected municipalities showed that 27.3% already had precarious housing with damp walls, floors, or foundations. 14.7% of the households had a leaking roof. 12.9% lived in areas with environmental issues such as pollution, smoke, dust, unpleasant smells, or polluted waters. 9.5% lived in dwellings with too much noise from the outside. 7.6% had problems with rots in window frames or floors. (INSTAT, 2019)

The comparison of those at-risk-of-poverty rates after the earthquake among municipalities indicates that the highest value of relative poverty is recorded in Kurbin (52.9%) followed by Kamza (39.2%). The lowest at-risk-of-poverty rate is recorded in Durres (8.7%), followed by Shijak<sup>51</sup>(15.4%). In general, the number of persons estimated at-risk-of-poverty has increased across municipalities, except in Tirana, where the concentration of multi-floor buildings constructed after 1993, characteristic for the urban area, is higher.

The percentage of the population with an enforced lack of at least four out of nine material deprivation items, severe material deprivation rate before the earthquake, in seven municipalities in 2018 was estimated at 33.2%.

While SHDE showed that the severe material deprivation went up to 41.6% (Table 2), the highest rate of severe material deprivation before the disaster was recorded in Kamza (47.4%) and the lowest in Vora (8.5%) and Kurbin (8.6%).

The survey results showed that after the disaster, severe material deprivation rate increased on average by 8.4 per cent points, or 25.4%, compared to before. The highest differences are recorded in Vora 56 p.p., and Kurbin about 49 p.p. A considerable difference of 17.8 p.p. is recorded in Durres, reflecting an increase of 137% compared to 2018. Kruja is the only district that recorded a decrease in this period (see Table 2).

The SHDE analysis points out that after the earthquake, individuals' perception of their material situation is affected. Nevertheless, this still remains difficult to measure because individual perception is also related to the circumstances of other affected persons near them.

Subjective poverty based on self-assessment of the household was estimated at 11.9% before the earthquake, and immediately it raised up to 14.2% (see Table 3).

In the affected districts, 70.9% of the households had no difficulties in paying for utility bills in time (heating, electricity, gas, water etc.), and 17.4% were in arrears at least twice.

In total, in the affected areas, 14% of the households have planned to pay costs to repair damages caused by the earthquake, where 38.8% of them can afford to pay through their own sources. On average, a household plans to pay 1,590 EUR (196 thousand ALL).

The earthquake had a significant impact on self-perception of people's mental health following the traumatic event. About 42.9% of the population after the earthquake have problems related to emotional exhaustion or trouble with sleeping, depression, or anxiety. About 5.6% of the affected population considered themselves to have difficulties in seeing, hearing, walking or climbing, or remembering and concentrating after the earthquake.

The delivery of education services was briefly interrupted. According to the education chapter of this report, more than 30 schools were closed in December 2019 due to severe damage, and more than 21,000 children (7% of all students in the 11 affected municipalities), were relocated to host schools, while temporary learning centres were set up. From SHDE analysis, 96.5% of those currently attending school went back to school, and 3.5% were not back to school yet by the time of the survey.

In general, disasters make the situation worse for people living with disabilities in regard to access to essential services. The presence of debris as a result of the earthquake created challenges for people with disabilities to move around, but also in accessing relief items. Access to temporary shelters and toilets could be another challenge that needs to be addressed. The three emergency units (Shtabi) set up in affected regions provided supportive services to around 26,000 persons that have at least one disability, by providing to them on-site medical visits, wheelchairs, physiotherapy, etc.

Senior citizens were identified as the most vulnerable social group that will struggle the most in coping with this disaster. In the aftermath of a disaster, senior citizens face additional challenges in accessing livelihood opportunities. 15% of the population living in tents and hotels aged over 65 were provided with medications, vaccinations, and other health services.

While most of the changes noted above cannot be solely attributed to the earthquake and may be due in part to other factors, the survey results are a good indication of human welfare in affected areas. Overall, the results indicate a slight decrease in human development, such as the share of people in poverty, material deprivation, education, and health in the affected areas.

# 4

## THE RECOVERY STRATEGY

### 4.1 Recovery Needs

Table 41 provides the costs of the interventions needed for reconstruction and recovery, specified by the term of implementation. The timeframe range for the short term is one year (until the end of 2020), while for the medium term it is the following two years (2021 and 2022) and for the long term it is the subsequent two years (2023 and 2024) of the implementation period.

The results of the PDNA show that the total recovery needs are 1,076.1 million EUR (132.4 billion ALL). Out of this amount 545.48 million EUR (67.1 billion ALL), representing 51%, was assessed as necessary to address short-term needs. In addition, the 499.61 million EUR (61.5 billion ALL) to address medium-term needs represents 46.5% and the 31.05 million EUR (3.8 billion ALL) needed to cover the long-term needs represents 2.5%. Due to the limitations experienced in disaggregating damages and losses by district, not all of the recovery needs could be broken down by district.

### 4.2 Vision

“Never let a crisis go to waste.”

Knowing that recovery is a process rather than an outcome, and it is best accomplished at the local level, where assistance in the form of money, manpower, and information from outside sources and from higher levels of government is vital. This assistance should empower recovery actors.

In this process, the Government is an important actor jointly with the communities. It is uniquely positioned to provide leadership, mobilize financial resources, provide technical assistance to public and private actors and invest in infrastructure and public facilities. The Government has become a credible data repository and has served as a focal point of communications.

The main aim of the process is to develop a comprehensive disaster resilience strategy in consultation with development partners and other stakeholders. This strategic approach will be based on three main pillars: 1) structural adaptation, 2) post-disaster, and social resilience 3) financial resilience. Such a strategy would support ex-ante planning, provide a framework for coordinating the work of development partners before and after disasters, and help catalyze donor support.

The Government’s role in recovery is to support and build capacity, to remove barriers, to enable, and to use local knowledge and strengths. It also will help the community recover from the sense of loss and uncertainty they experience, so they can live a life they value.

**Table 42** Summary of reconstruction and recovery needs, at short, medium and long term all sectors

Sector	Short	Medium	Long	Total
<b>Education Sector</b>				
Reconstruction of infrastructure and physical assets	51.37	34.91	0.00	86.28
Recovery provision of services	2.20	3.07	0.00	5.27
Recovery governance and capacity building, including risk reduction and resilience	0.43	1.40	1.47	3.30
<b>Subtotal Education</b>	<b>53.99</b>	<b>39.38</b>	<b>1.46</b>	<b>94.83</b>
<b>Health Sector</b>				
Reconstruction	7.70	4.71	0.00	12.40
Recovery provision of services	1.68	0.04	0.00	1.72
Recovery governance and capacity building, including risk reduction and resilience	0.41	0.03	0.01	0.45
<b>Subtotal Health</b>	<b>9.79</b>	<b>4.78</b>	<b>0.01</b>	<b>14.57</b>
<b>Housing Sector</b>				
Reconstruction: Repairs, retrofitting and new construction	389.89	371.15	0.00	761.05
Recovery: Temporary accommodation and rental support	21.69	0.00	0.00	22.30
Recovery: Demolition and debris removal	18.10	0.00	0.00	18.11
Recovery: Governance and risk reduction and resilience measures	0.83	0.70	0.50	1.40
<b>Subtotal Housing</b>	<b>430.51</b>	<b>371.85</b>	<b>0.50</b>	<b>802.86</b>
<b>Productive Sector</b>				
<b>Business and Employment Sub-sector</b>				
Reconstruction: Repairs, retrofitting and new construction including furniture and equipment	8.68	10.65	0.00	19.33
Recovery: Governance and capacity building including risk reduction and resilience	1.30	3.15	4.05	8.51
<b>Subtotal Business</b>	<b>9.98</b>	<b>13.80</b>	<b>4.05</b>	<b>27.84</b>
<b>Tourism Sub-sector</b>				
Reconstruction: Repairs, retrofitting and new construction including furniture and equipment	4.52	1.06	0.00	5.58
Recovery, governance and capacity building including risk reduction and resilience	1.44	1.93	1.93	5.30
<b>Subtotal Tourism</b>	<b>5.96</b>	<b>2.99</b>	<b>1.93</b>	<b>10.88</b>
<b>Cultural Heritage Sub-sector</b>				
Reconstruction: Repairs-retrofitting and reconstruction, including equipment and needed studies	0.71	1.95	3.08	5.73
Recovery: Governance and capacity building	0.04	0.83	0.76	1.62
<b>Subtotal Cultural Heritage</b>	<b>0.75</b>	<b>2.78</b>	<b>3.84</b>	<b>7.37</b>
<b>Agriculture Sub-sector</b>				
Reconstruction	0.90	0.00	0.00	0.90
Recovery: Re-start agricultural production	0.09	0.63	0.00	0.72
Recovery: Governance and capacity building	0.87	1.08	2.09	4.04
<b>Subtotal Agriculture</b>	<b>1.86</b>	<b>1.71</b>	<b>2.09</b>	<b>5.66</b>

Sector	Short	Medium	Long	Total
<b>Infrastructure Sector</b>				
Community infrastructure sub-sector	1.05	6.32	3.16	10.53
Energy sub-sector	2.71	9.56	0.63	12.90
Government buildings sub-sector	2.66	15.93	7.97	26.56
Communication sub-sector	0.26	1.55	0.78	2.59
Transport sub-sector	0.75	4.48	2.24	7.46
Water, sanitation and hygiene sub-sector	0.10	0.58	0.29	0.96
<b>Subtotal Infrastructure</b>	<b>7.53</b>	<b>38.42</b>	<b>15.07</b>	<b>61.00</b>
<b>Social Protection Sector</b>				
Reconstruction included in infrastructure sector	0.00	0.00	0.00	0.00
Recovery: Service delivery to additional caseload and risk-reduction capacity building and measures	1.19	0.96	0.69	2.83
<b>Subtotal Social Protection</b>	<b>1.19</b>	<b>0.96</b>	<b>0.69</b>	<b>2.83</b>
<b>Civil Protection &amp; DRR Sector</b>				
Reconstruction: Rebuilding destroyed infrastructure	7.72	5.15	0.00	12.87
Recovery	1.63	1.09	0.00	2.72
Recovery: Command- control and coordination, Communications- warning and informing	3.85	5.00	1.05	9.90
Recovery: Training and equipment, resilience and response	4.76	7.40	0.10	12.26
Recovery: Technical soft measures	5.95	4.30	0.25	10.50
<b>Subtotal Civil Protection &amp; DRR</b>	<b>23.91</b>	<b>22.94</b>	<b>1.40</b>	<b>48.25</b>
<b>TOTAL ALL RECOVERY NEEDS</b>	<b>545.48</b>	<b>499.61</b>	<b>31.05</b>	<b>1,076.1</b>

## 4.3 Guiding Principles

The following principles guidelines were identified to be followed in the implementation of the recovery process:

- Adhere to the core principles of humanitarianism and the general promotion of human welfare;
- Ensure the national ownership of the recovery process, that it is demand-driven and country-led, from the highest political levels to local levels, and that local authorities and community-based organizations are fully engaged throughout the recovery process;
- Support and strengthen national and local capacities to lead and manage sustainable and equitable recovery and reconstruction;
- Ensure collaboration with the UN, the World Bank, and the EU, as well as with the National Government, donors, civil society, and other stakeholders engaged in the recovery process, and that activities are in line with national development policies, strategies and urban and local plans;
- Ensure and uphold transparency and accountability amongst all stakeholders in the recovery process;

- Integrate DRR and BBB measures in the recovery process to enhance the resilience of affected areas and populations with regard to future disasters;
- Focus on cross-cutting issues such as gender perspective, environment protection, good governance, and social protection, among others, in planning, implementing and monitoring recovery activities;
- Promote equality to prevent discrimination of any kind based on race, colour, nationality, ideology, sex, ethnicity, age, language, religion, disability, property, and birth, among others;
- Provide continuous monitoring and evaluation of the various stages of the recovery process for efficient and effective quality and financial management;
- Ensure sustainable development and environmentally sensitive processes that take into consideration the coping strategies for addressing the effects of a natural disaster and the needs for sustainable livelihoods of generations to come during reconstruction;
- Guarantee community engagement and building of long-term community resilience in the reconstruction process to all, without discrimination.

## 4.4 Implementing Arrangements

The responsible national authorities in charge of addressing the consequences of natural disaster are the Council of Ministers, State Commission for Reconstruction, Minister in charge of the area of responsibility dealing with the consequences of natural and other disasters, the National Civil Protection Agency, and implementing units and units of local self-government. The normative act no. 9, dated 16 December 2019, "On addressing of the consequences of the natural disaster," defines the roles and main tasks of each authority assigned to address the consequences of the natural disaster, included procurement procedures to be followed for the implementation."

The **Council of the Ministers** approves policies with regards to addressing and regulating the consequences of natural and other disasters and proposals of the State Commission for Reconstruction. The **State Commission for Reconstruction** is to be established by the Council of the Ministers as the body responsible for proposing an overall reconstruction program and coordinating the actions of state institutions and private entities. The commission is also responsible for material and financial resources for the rehabilitation and reconstruction of communities and territories affected by natural disasters or other disasters, as well as the development of new territories. The **National Agency for Civil Protection** (NACP) collects, manages, processes and analyses all preliminary assessment acts, in-depth expertise and any other data on the consequences of natural or other disasters transmitted by the local self-government units or other state authorities. The NACP will act as the technical secretariat of the State Commission for Reconstruction and will support the Commission in the performance of the duties provided for in the normative act.

**Local self-government units**, in the exercise of their powers as defined in the applicable legislation on civil protection and territory planning and development, administer the funds transferred from the Reconstruction Fund by the Council of the Ministers, including in-kind contributions, when designated as implementing units by decision of the Council of Ministers, in accordance with the rules and procedures provided. In order to better manage the reconstruction process locally, special reconstruction offices may be established.

The Special Office will function as an auxiliary and operational management unit for the local self-government unit and will be tasked with facilitating the preparation and follow-up of procedures for compulsory local planning, acts of use of buildings, private homes and critical infrastructure built in the framework of the reconstruction process. The Special Office will also be responsible for coordination



at the local and central levels, to carry out the reconstruction process. The LSGU will interact with the implementing units, the National Housing Authority, the Albanian Road Authority, the Electricity Distribution Operator, the Transmission System Operator, line ministries, and any other responsible public institution.

## 4.5 Financial Mechanisms

### Mechanism to Finance Post-Disaster Recovery and Reconstruction Operations

Albania established a single mechanism (STA) to finance post-disaster recovery and reconstruction operations and to help ensure the timely and appropriate use of the resources mobilized. Developing such a mechanism, which addresses the full chain of ex-ante resource mobilization, and ex-post resource allocation and execution can help to better manage the fiscal risk of natural disasters. Earmarking of contributions can either be by sector or by geographic coverage. Contributions can be made to any of the sectors identified in the PDNA and can be at the national or local level.

A critical component of this effort has been the *“Act on Damage Relief from Natural Disasters”* and establishment of the *“Reconstruction Fund”*<sup>53</sup> to address the GoA’s challenges of financing disasters and allocating and executing post-disaster resources efficiently and transparently across all levels of government. The Government of Albania (GoA) welcomes any other national and international mechanism established by other organisations.

### Sources of Finance

The sources of funding are financial and/or in-kind contributions provided from:

- Special programme in the state budget;
- Local Government units;
- Foreign governments;
- International organisations;
- Non-profit organisations;
- Individuals and entities;
- Banks and other financial institutions.

In order to implement the reconstruction program, a Reconstruction Fund is established, which is foreseen to be 20 billion ALL, consisting of grants and a special programme in the state budget.

At the end of the budget year, unspent funds are inherited in the following year and used for the same purpose.

The procedures of use of the Reconstruction Fund, the budget programs where the fund will be allocated, as well as the institutions and implementing agencies, shall be determined by the Council of Ministers.

There are five programmes implementing the Reconstruction Fund: development of new residential areas, construction of public infrastructure, acquisition of housing stock, grant for reconstruction, and social and economic recovery.

## Budget Allocation and Execution

### Governing Bodies are:

- a) Council of Ministers;
- b) State Commission on Reconstruction;
- c) Responsible Minister for coping with the consequences of natural disasters and other disaster;
- d) National Agency for Civil Protection (“NACP”);
- e) Local Self-Government units;
- f) Implementing Units (ie. line Ministries or Government Agencies);

**The State Commission on Reconstruction (SCR)** is chaired by the Minister of State for Reconstruction and is composed by 9 Ministers and the Mayor of Tirana.

Representatives from civil society, business, or international organizations involved in the reconstruction process can also be invited to the SCR meetings. This will help to ensure the efficient management of the Reconstruction Fund through the organization of regular dialogue.

**NACP** functions as a technical secretariat of the State Commission on Reconstruction. It mainly collects, manages, processes and analyses all preliminary evaluation acts, in-depth verification acts, and any other data.

The State Commission on Reconstruction proposes to the Council of Ministers:

- a) The use of the reconstruction fund;
- b) Definition of implementing units;
- c) Conditions, criteria, financial fund and rules for their use;
- d) Operational and coordination expenses for the functioning of the reconstruction fund.

The Council of Ministers approves the proposals of the State Commission on Reconstruction.

Implementing Units are public bodies charged by the Council of Ministers for the management of funds transferred from the Reconstruction Fund. The Implementation Unit manages the funds transferred from the Reconstruction Fund by the Council of Ministers, and is responsible for developing procurement procedures. Line Ministries, Government Agencies and Local Government Units may be Implementing Units.

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- <sup>53</sup> 1. Normative act no. 9 of 16.12.2019, “On the resolution of the natural disaster consequences”
  - 2. DCM no. 878 of 24.12.2019, “For the composition and functioning of the State Commission on Reconstruction”
  - 3. DCM no. 887 of 24.12.2019, “For the definition of rules and accelerated procedure on the drafting and approval of the binding local plan and of the procedure for the approval of the developing/construction permits, in cases of natural disaster.”
  - 4. DCM no. 904 of 24.12.2019, “For definition of rules, priority categories, amount of benefit, responsible authorities and evaluation and selection procedure of the beneficiaries from some programs of the reconstruction process.”
  - 5. DCM no. 905 of 24.12.2019, “On the definition of rules and procedures for the compensation of expenses for the accommodation and food services of the affected people by the natural disaster.”
  - 6. DCM no. 5 of 06.01.2020, “Definition of rules and procedures for benefiteres from the reconstruction grants program and design models.”
  - 7. DCM no. 6 of 06.01.2020, “On the criteria and procedures for the implementation of the economic recovery measures.”
  - 8. DCM no. 7 of 06.01.2020, “On the conditions and procedures for the expropriation and/or exchange of property, for public interest, in line with the reconstruction process.”
  - 9. DCM no. 8 of 06.01.2020, “ On the definition of conditions and criteria for benefiting of construction surfaces in the new residential buildings from subjects who possessed property illegally constructed.”
  - 10. Order no. 3 of 08.12.2019, “On coordination of the activities on unified evaluation of damages for the buildings.”

**Line Ministries and Other Government Agencies** may be implementing units. According to their area of responsibility, they take safeguards, preventive and managing measures, and carry out their budgeting. The Council of Ministers may, at the request of the responsible ministry, decide to finance one or more measures from the reconstruction fund.

**The Local Government Units (LGUs)** may be implementing units. They perform these functions:

- Administer funds transferred by the Council of Ministers from the Reconstruction Fund;
- Approve mandatory local plans, detailed local plans, and development and construction permits;
- Create, manage, and update the database of individuals and families who have lost family and / or were left homeless as a result of natural disasters, as well as meeting the needs of reconstruction programs.

The management, use and transfer of the funds from the special program in the state budget, in view of the realization of the programs of the reconstruction process and the functioning of the reconstruction fund is carried out in accordance with the provisions of the legislation in force on the management of the budget system and the relevant budget law.

### **Procedures for using funds for reconstruction:**

Line Ministries, other Government Agencies, and LGUs, in accordance with budget law, prepare requests to fund any of the programmes eligible by Normative Act no. 9 dated 16 December 2019 approved by law 97/2019. The requests are subject to evaluation by the SCR, which seeks approval via final decision by the Council of Ministers (CoM).

The CoM decision will stipulate the funds and related budget programme reallocated from the fund for reconstruction (a similar procedure to that used for the Contingency Fund in the annual budget).

MoFE reallocates the funds for the Implementing Units and makes it eligible for use in the Treasury system.

**Procurement:** The qualification criteria and evaluation criteria shall be drawn up in accordance with public procurement legislation, to the extent possible and without prejudice to the provisions of this Act.

The Council of Ministers approves the authority responsible for conducting the procedure, standard procurement procedure documents, the criteria for evaluating and determining the winning bid, the terms of the framework agreement, and the contract.

The procurement procedure takes place in two stages: 1) Framework Agreement and 2) Accelerated Procurement Process.

## **Audit and Monitoring**

Any activity or expenditure incurred in carrying out the programs of the reconstruction process shall be subject to the internal and external audit on compliance, financial and performance, as stipulated in the applicable legislation on public financial management.

Based on the respective laws, bylaws and standards, the responsible structures for auditing (internal audit units established in the public sector both at central and local level, and ALSAI) will conduct auditing engagements in the implementing authorities that uses funds from the Reconstruction Fund. The above laws and standards regulate also the reporting and the oversight regarding the audit findings and recommendations.

Moreover, the managerial levels within the authorities that use funds from the Reconstruction Fund are responsible for continuous monitoring of the execution of the expenditures incurred in carrying out the programs of the reconstruction process.

Except as provided in the applicable legislation for public sector audit requirements, the Reconstruction Fund, as well as any other implementing authority, public or private, that uses funds from the Reconstruction Fund, shall also be subject to independent audit in accordance with legislation for statutory auditors. Procedures for appointments of independent auditors will be based on best practices and will include technical and financial criteria. Exemptions from this article shall be the donors' funds directly implemented by them.

## Transparency

In view of the transparency of the use of funds for the reconstruction process, a unique government portal is created. The unique government portal publishes information that includes, but is not limited to:

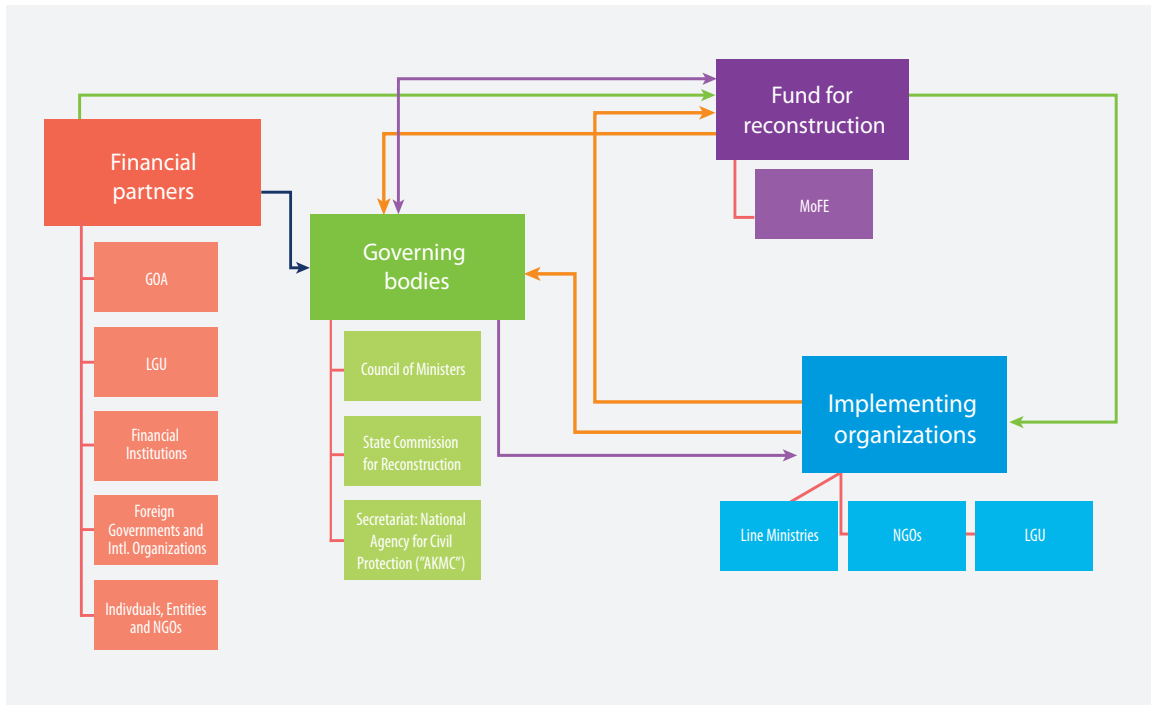
- a) Data on the reconstruction fund, the source of its creation, cash and in-kind contributions and the manner in which this fund is spent;
- b) Implemented projects;
- c) Developed and developing areas;
- d) Decisions of Council of Minister related to reconstruction process;
- e) The responsible authorities and implementation units;
- f) Data on procurement procedures for the purpose of the reconstruction process;
- g) Use of funds;
- h) The coordination and oversight mechanism.

The State Commission for Reconstruction is ultimately responsible for collecting data, consolidating, reporting on progress, updating and verifying public information and the transparency of the reconstruction process.

The Council of Minister may decide to further specify:

- Additional responsibilities for reporting and publication;
- Timelines for publication;
- A complete list of information; etc.

**Figure 5** Design to be adapted to local characteristics and needs



## 5.1 PDNA Process and Methodology

Within three days of the earthquake on 26 November, the Government of Albania convened a meeting of local development partners and called for a Post Disaster Needs Assessment (PDNA) to be carried out under the leadership of the Inter-ministerial Committee for Civil Emergencies. The purpose was to assess the impact of the disaster and define a recovery strategy, including its funding implications for the restoration of livelihoods, economy, and services, rehabilitation and reconstruction of housing and infrastructure to ensure a resilient recovery. The PDNA follows a methodology, jointly developed by the European Union, the World Bank and the UN system, that incorporates a collection of analytical methods, tools and techniques developed for post-disaster assessments and recovery planning, ensuring sector to sector comparability and homogeneity in the definition of basic concepts of damages, losses and post-disaster recovery needs. The assessment builds on the initial and detailed sector damage assessments undertaken by central and local governments with support from development partners.

The PDNA Secretariat was set up at the Inter-Ministerial Committee for Civil Emergencies under the leadership of the Special Envoy, to oversee the preparation of the PDNA. Four staff composed the PDNA Secretariat.

A High-level Coordination Team was constituted under the leadership of the Special Envoy of the Inter-Ministerial Committee for Civil Emergencies, and it included the Heads of Agencies from the following donor partners: the European Union (EU), the United Nations (UN/UNDP), and the World Bank (WB). Representatives from these agencies as well as Deputy Ministers formed the PDNA Coordination Group providing daily guidance to the assessment teams.

Following a two-day training on the methodology and scope of the PDNA, over 90 officials and experts from the government and development partner agencies formed the sector teams. Each team had a dedicated Focal Point assigned from the relevant line ministry, one person from PDNA Secretariat, and experts from the lead development agency. These joint teams undertook an intensive exercise of data collection, field visits, and verification in just over three weeks, a tight timeline given the scale and magnitude of the disaster. An intermediate milestone for the PDNA report is the presentation of key findings at the Donors Conference on 17 February 2020.

## Methodology

### • **Description of the context:**

Initially the pre-disaster context of the sector is described; as it will be used as a baseline for the gap analysis: Post-disaster less Pre-disaster situation = effects of the event. This is done taking into account the four dimensions of effects.

### • **Effects on infrastructure and physical assets:**

Description of the effects on the infrastructures and physical assets due to the disaster.

This effect is accounted for under **damages**, which is the quantification of the monetary value of public and private sector infrastructure and physical assets, which were either fully, partially or lightly destroyed by the disaster. This comprises:

- Social infrastructure such as the number of housing units, education, and health facilities;
- Basic infrastructure such as transport and communications (roads, bridges, ports, airports, and train lines, among others), water and sanitation systems, irrigation systems, energy generation, distribution and supply lines, and government buildings;
- Productive sectors such as industrial and commercial installations, and businesses including tourism and service-based industries, cultural heritage and agricultural infrastructure;
- In addition, it quantifies the physical assets damaged or destroyed in those buildings and infrastructures, such as furnishings and equipment, farm machinery and tools, among others;
- Assessment of equipment, supplies, information systems, and technology destroyed.

### • **Effects on production of goods and provision of services and access to goods and services:**

Here the PDNA assesses the changes in the production of goods and the provision of services comparing the pre and post-disaster situation. It also includes the availability and quality of services and the population's access to goods and services that are required to support lives and livelihoods. This includes:

- The production of goods and availability to basic supplies and commodities;
- Assessment of the temporary infrastructure required;
- Provision of service delivery programs, such as education or health care programs;
- The availability of human resources to ensure adequate service delivery, including wage compensation to service delivery staff such as teachers and nurses, and additional technical expertise;
- Focus on population groups that are particularly affected by the lack of the availability of specific services (dialysis) or that are no longer able to access them.

This effect is accounted for under **losses**, in the form of lost income (due to reduced output or no production), additional cost for production of the provision of services as well as unexpected costs (example: debris removal, temporary rental costs, etc.). Losses are expressed in current monetary values.

### • **Effects on governance and social processes:**

Here the PDNA assesses the changes in the provision of governance (decision-making processes) and on social processes (community safety nets, etc.). These include:

- The disruption of basic community functions, social services provided by community-based organizations, and disruption of cultural and community life;

- The effect of disasters on the management and organization of sectoral services that support life and livelihoods;
- The effect of the disaster on government functions and on civil servants ( coordination of the response, communication to actors, etc.) which disrupt sector-based administrative processes;
- The assessment of sectoral, national, and local capacities to lead and manage the recovery process itself.

This effect is accounted for under **losses**, in the form of additional cost provision of governance and unexpected costs (coordination of the response, communication to actors, etc.). Losses are expressed in current monetary values.

- **Effects on risks and vulnerabilities:**

Here the PDNA assesses if risks increased as a result of the disaster or if some specific additional threats or deteriorating conditions increased the vulnerabilities of people who thereafter become more vulnerable. Below are some elements of risk and vulnerability indicators to assess:

- Identifying additional hazards and risks that may threaten the recovery process;
- Environmental risks;
- Socio-political risks, including conflict risk;
- New vulnerabilities created by the disaster that may present additional threats;
- Population groups served by the sector (economic, social, cultural and geographic) that are especially vulnerable or at risk;
- Priority mitigation measures needed to avoid another disaster or the further deterioration of current conditions.

This effect is also accounted for under **losses**, in the form of additional costs to reduce risks (vaccination campaign) or avoid increased vulnerability measurements (human trafficking, child school drop-out, etc.). Losses are expressed in current monetary values.

#### 1. The assessment of disaster impacts.

Based on the results of the costing of the effects, described above, the impact of the disaster is determined through the assessment of two main components:

- **Economic impact at macro and micro levels:** the estimation of the disaster’s likely effects on economic performance and the temporary macro-economic imbalances that may arise from it, as well as its varied impacts on personal/household income and employment in all sectors.
- **Human development impact:** the impacts of the disaster on the quality of human life in the medium and long term.

#### 4. The Recovery Strategy, determining sector recovery needs.

The assessment of disaster effects and disaster impacts collectively defines recovery needs. The needs so identified form the basis for determining short-, medium-, and long-term recovery and reconstruction interventions through a Recovery Strategy. A recovery strategy comprises the following areas:

- Recovery needs
- Recovery vision and guiding principles
- Recovery Strategy
- Implementation arrangements



The PDNA for the Albania earthquakes covers 16 thematic areas as follows:

- Social Sectors: Housing, Health, Education
- Productive Sectors: Tourism, Business (Manufacturing and Trade) and Employment, Cultural Heritage, Agriculture
- Infrastructure Sectors: Electricity, Communication, Community Infrastructure, Transport, and Water, Sanitation & Hygiene
- Cross-cutting Sectors: Civil Protection and Disaster Risk Reduction, Social Protection.

In addition, PDNA included the Impact of Human Development and Macroeconomic indicators. Furthermore, the gender dimension has been addressed throughout all sectors.

The assessment covers 11 municipalities affected by the earthquakes, of which nine are the worst affected. All the sector teams assessed damages, losses, and needs in these 11 municipalities.

The sector teams conducted the assessment through:

- the collection of pre-disaster baseline data to compare with post-disaster conditions;
- the evaluation of disaster effects and impacts in each sector to determine the overall recovery needs;
- the prioritization of these recovery needs by way of a recovery strategy; and
- a recovery strategy that suggests appropriate interventions to meet priority recovery needs.

Most of the sector teams conducted field visits to assess the destruction of housing, infrastructure, and social amenities, and to estimate the impact on the production of goods and delivery of services. The Ascertainment Acts registration system was set up to collect information on buildings' damages; two surveys were undertaken by INSTAT in collaboration with UNDP (Survey on Household Damages due to Earthquake (SHDE), Business Survey) and one survey was conducted by UNDP in collaboration with MoFE on Household in Hotels and Tents.

They assessed how the disasters affected governance arrangements and brought out the context of risks and vulnerabilities in each sector. In the course of the assessment, a number of cross-cutting issues such as gender and social inclusion, disaster risk reduction, and governance have been addressed.

Each sector has also discussed the impact of the disaster in qualitative terms and outlined the emerging issues arising from the disaster. All sectors have valued the effects, which include the value of damages to infrastructure and assets, as well as losses due to changes in financial flows, in ALL, and EUR. The values assessed by all the sectors have been aggregated, and the total value of damages and losses caused by the earthquakes has been arrived at.

The cross-sectoral linkages have made it possible to avoid double or multiple counting in estimating the value of effects. The aggregate value of damages and losses, as well as qualitative information available through the household survey (SHDE), has facilitated the estimation of economic impact at macro and micro levels, and on human development.

Furthermore, the baseline data provided by the Institute of Statistics (INSTAT) were used as a benchmark to guide the assessment of change in flows across major economic sectors.

Based on the estimation of damages and losses, as well as qualitative impacts, each sector has specified recovery needs and suggested implementation arrangements. This includes the cost of reconstruction of destroyed assets, provision of services, improved specifications, and risk reduction measures. The total cost of recovery, which includes the cost of reconstruction of destroyed assets, was estimated through the aggregation of the cost of recovery needs of all sectors. A strategy has also been suggested for the recovery programme covering all the sectors.

## 5.2 Recovery Interventions (Full List)

Sector	Short	Medium	Long	Total
In million EUR				
<b>Education Sector</b>				
Reconstruction of infrastructure and physical assets	51.37	34.91	0	86.28
Resumption of service delivery	2.2	3.07	0	5.27
Capacity development and governance needs	0.33	0.49	0.44	1.26
Risks reduction and resilience education	0.1	0.91	1.03	2.04
<b>Subtotal Education</b>	<b>53.99</b>	<b>39.38</b>	<b>1.46</b>	<b>94.83</b>
<b>Health Sector</b>				
Reconstruction				
Tertiary care level	0.72	0	0	0.72
Secondary care level	6.16	4.71	0	10.86
Primary care level	0.82	0	0	0.82
Recovery				
Demolition and rubble removal	0.13	0	0	0.13
Managing temporary health infrastructures (additional service capacity for IDPs)	0.36	0	0	0.36
Rental costs for temporary health facility	0.01	0	0	0.01
Treatment of injured patients	0.43	0	0	0.43
Rehabilitation of patients disabled due to trauma	0.14	0.04	0	0.18
Referrals: increased transport costs ambulances	0.32	0	0	0.32
Treatment and care for increased # patients with mental health and/or psychological problems	0.13	0	0	0.13
Ensure continuity of treatment of chronic illnesses for IDPs	0.02	0	0	0.02
Waiving user fees/charges for health services (including diagnostic and medication). for patients with loss of income and/or those displaced	0.09	0	0	0.09
Loss of revenue in private health facilities that provided free services for patients affected by the EQ	0.05	0	0	0.05
Cost for public health early warning and alert	0.05	0	0	0.05
Cost for early warning and alert systems used during and just after an event	0.06	0	0	0.06
Health promotion and public awareness campaigns to address health risks	0.1	0	0	0.1
Vaccination/immunisation campaigns (e.g. influenza)	0	0	0	0
Increased resilience				
Safe hospital program: assessment and training	0.01	0.01	0	0.02
On-the-job training of staff in the hospital reconstructed to modern standards. to adapt to new models of care	0.01	0.01	0	0.02
Public health Emergency Operation Centre	0.17	0	0.01	0.17
After Action Review to improve coordination model of EOC preparedness and contingency plan for EQ	0	0	0	0.01
Initial investment for National Emergency Medical Teams	0.01	0.01	0	0.02
<b>Subtotal Health</b>	<b>9.79</b>	<b>4.78</b>	<b>0.01</b>	<b>14.57</b>

Sector	Short	Medium	Long	Total
In million EUR				
<b>Housing Sector</b>				
Repairs, retrofitting and new construction	389.89	371.15	0	761.04
Provision of temporary hotels	3.22	0	0	3.22
Provision of temporary tents	0.07	0	0	0.07
Temporary rental support	18.4	0	0	18.4
Demolition and debris removal	18.1	0	0	18.1
Finalization of housing reconstruction policy	0.03	0	0	0.03
Communications and consultations	0.1	0.1	0.1	0.3
Development of a housing recovery plan	0.2	0.2	0.2	0.6
Housing data management system	0.1	0.1	0.1	0.3
Capacity building	0.3	0.2	0	0.5
Quality assurance	0.1	0.1	0.1	0.3
<b>Subtotal Housing</b>	<b>430.51</b>	<b>371.85</b>	<b>0.5</b>	<b>802.86</b>
<b>Productive Sector</b>				
<b>Business and Employment Sub-sector</b>				
Demolition costs, debris removal and BBB reconstruction in manufacturing (warehouse and production)	6.05	7.23	0	13.28
Demolition costs, debris removal and BBB reconstruction in trade (Shops/trade centre, parking, expo, services and offices)	2.63	3.40	0	6.03
Furniture, equipment, machinery for manufacture	0	0.01	0	0.01
Furniture, equipment, machinery for trade	0	0.01	0	0.01
Immediate short-term, post-disaster-generated employment supporting economy reactivation	0.30	0.40	0.30	1.00
Post-disaster business model innovations with supporting administrative/regulatory burden reduction	0.50	1.00	1.00	2.50
Support enterprise recovery and employment promotion strategy at the local level	0.25	0.75	1.50	2.50
Revision of business resilience and safety standards	0.25	1.00	1.25	2.50
<b>Subtotal Business and Employment</b>	<b>9.98</b>	<b>13.80</b>	<b>4.05</b>	<b>27.84</b>
<b>Tourism</b>				
Repair and retrofitting of private hotels	0.33	0	0	0.33
Reconstruction of the public hotel	0.78	0.78	0	1.56
Reconstruction, repair and retrofitting of private food and beverage facilities	2.62	0	0	2.62
Reconstruction of the restaurant attached to public hotel	0.3	0	0	0.3
Replacement of furniture and equipment for food and beverage private facilities	0.22	0	0	0.22
Replacement of furniture and equipment for public hotel	0	0.27	0	0.27
Replacement of furniture and equipment for food and beverages for public facilities	0	0.01	0	0.01
Demolition cost and debris removal for tourism facilities	0.27	0	0	0.27
Promotional campaign to re-stimulate demand, promote Albania as a safe tourist location and reduce projected tourism loss	0.76	0.57	0.57	1.9
Introduction of innovative safety measures in tourism facilities with inclusive capacity building for employees	0.46	0.92	0.92	2.3

Sector	Short	Medium	Long	Total
In million EUR				
Support to risk-informed tourism development policies accompanied by adequate legislative framework	0.22	0.44	0.44	1.1
<b>Subtotal Tourism</b>	<b>5.96</b>	<b>2.99</b>	<b>1.93</b>	<b>10.88</b>
<b>Cultural Heritage</b>				
Detailed assessment and studies	0.22	0	0	0.22
Restoration /reconstruction of damaged monuments	0.3	2.6	3.27	6.17
First aid measures	0.17	0	0	0.17
Repair of damaged equipment and equipment for monitoring and rapid assessment	0.06	0	0	0.06
Training and capacity building programs and raising awareness	0	0.18	0.46	0.64
Development of risk management plans for cultural heritage assets and Improvement of building codes for restoration	0	0	0.11	0.11
<b>Subtotal Cultural heritage</b>	<b>0.75</b>	<b>2.78</b>	<b>3.84</b>	<b>7.37</b>
<b>Agriculture sub-sector</b>				
Agricultural inputs to to re-start agricultural production	0.09	0.63	0	0.72
Financial services / micro-enterprise recovery	0.27	0.18	0.18	0.63
Reconstruction of two water drainage stations in Durres and Lezha	0.9	0	0	0.9
Strengthen capacity of the Ministry of Agriculture and relevant agencies	0.45	0.09	0.11	0.65
Assessment for Municipal Agriculture Disaster Risk Assessments and Risk Reduction Plans.	0.05	0.27	0.63	0.95
Assessment for agricultural insurance for farmers in higher risk areas.	0.05	0.27	0.27	0.59
Assessment for strengthening municipalities on Agriculture Disaster Resilience and Damage Assessment.	0.05	0.27	0.9	1.22
<b>Subtotal Agriculture</b>	<b>1.86</b>	<b>1.71</b>	<b>2.09</b>	<b>5.66</b>
<b>Infrastructure Sector</b>				
Community Infrastructure sub-sector	1.05	6.32	3.16	10.53
Energy sub-sector	2.71	9.56	0.63	12.9
Government buildings sub-sector	2.66	15.93	7.97	26.56
Communication sub-sector	0.26	1.55	0.78	2.59
Transport sub-sector	0.75	4.48	2.24	7.46
Water, sanitation and hygiene sub-sector	0.1	0.58	0.29	0.96
<b>Subtotal Infrastructure</b>	<b>7.53</b>	<b>38.42</b>	<b>15.07</b>	<b>61</b>
<b>Social Protection Sector</b>				
Reconstruction				
*Infrastructure costs are included in Infrastructure recovery costs	0	0	0	0
Recovery				
Special pensions for affected families and education allowance	0.1	0.2	0.2	0.5
Providing psychosocial services through mobile teams to the affected areas	0.3	0.15	0.15	0.6
Rehabilitation services for persons with disability	0.02	0.02	0.02	0.06
Provision of assessments of the effects and needs of the affected communities	0.05	0.03	0	0.08

Sector	Short	Medium	Long	Total
In million EUR				
Develop an emergency framework for social protection defining roles and responsibilities for key actors	0.03	0.05	0	0.08
Develop a conceptual framework defining national social protection standard	0.12	0.03	0	0.15
Review and strengthen the MIS for Social Protection System and capacities of personnel	0.03	0.02	0	0.05
Increased coordination costs at local level	0.11	0.11	0.11	0.32
Awareness-raising on awareness on existing support services and right to services	0.04	0.02	0.02	0.07
<b>DRR / Resilience</b>				
Assess the DRR needs in social protection, including the existing legal framework for strengthening and ensuring safety in social care services facilities (including consultations and training)	0.07	0	0	0.07
Emergency response protocols working with different groups in disaster situations and developing protocols for four categories (children, women, PwD and minorities)	0.15	0.13	0	0.28
Building community resilience (programs)	0.12	0.18	0.2	0.5
Strengthening the capacity of service providers on DRR	0.06	0.03	0	0.09
<b>Subtotal Social Protection</b>	<b>1.19</b>	<b>0.96</b>	<b>0.69</b>	<b>2.83</b>
<b>Civil Protection &amp; DRR Sector</b>				
<b>Reconstruction</b>				
Rebuilding destroyed infrastructure	7.72	5.15	0	12.87
<b>Recovery</b>				
Demolition and rubble removal	0.44	0	0	0.44
Provision of services for security in affected area	1.19	1.09	0	2.28
<b>Recovery DRR/Resilience</b>				
Command, control and coordination of communications, warning and informing				
Construction of the new National Civil Protection Agency facility including operational room and crisis room	0.7	1	0	1.7
Improving response to disasters through implementation of an operational room at each of the three affected Prefectures	0.5	0.5	0	1
Improving response to disasters through implementation of an operational room at each of the 11 affected municipalities	1.1	1.1	0	2.2
Further development of 112 emergency number	0.75	1.5	0.75	3
Develop a whole-of-government communications and notification standard operating procedures (SOP) and exercise them at all levels	0.4	0.6	0	1
Improve citizen partnership to DRR through public awareness-raising and educational campaigns	0.4	0.3	0.3	1
<b>Resilience and response training and equipment</b>				
Construction of facilities for the new training centre to serve all actors in DRR (coordination and operational forces)	1	1.5	0	2.5
Implementation of training programs for emergency managers and responders other than firefighter and USAR	0.4	0.6	0	1
Improvement of the response to earthquake of the USAR teams with equipment and training in line with international standards	0.36	0.7	0	1.06
Improvement of the response to earthquake of firefighter teams with equipment and training in line with international standards	1	1	0	2

Sector	Short	Medium	Long	Total
In million EUR				
Strengthen/rebuilt 3 Fire Brigade Stations most at risk in the affected area	1	2	0	3
Improve state reserve capacity strengthening three warehouses and supplying goods	0.7	1.5	0	2.2
Increase preparedness in post-earthquake inspection drafting field manuals and conducting training courses for inspectors	0.3	0.1	0.1	0.5
<b>Technical</b>				
Technical assistance on progressing the DRR Strategy and National Civil Emergency Plans	0.2	0.3	0	0.5
National seismic risk assessment	0.5	0.5	0	1
Technical assistance to assess and/or develop Civil Emergency Plans at the municipal level in line with Prefectural and National Emergency Plans	0.6	0.5	0	1.1
Improving the seismic network and increasing capacity of data analysis in order to provide an automatic alert to relevant authorities	0.5	0.8	0	1.3
Identification of critical infrastructures and implementation of a seismic assessment plan in the 11 affected municipalities	0.6	0.5	0	1.1
Technical assistance and implementation of territorial studies such as seismic micro-zonation and technical assistance to urban resilience planning	0.75	0.75	0	1.5
Micro-zoning of seismic hazards	0.4	0.1	0	0.5
Liquefaction mapping	0.7	0.3	0	1
Zoning plan of high-risk areas	0.1	0.1	0	0.2
Roadmap for adoption of a new building code according to Eurocodes, including preparation of a new seismic hazard map	0.9	0	0	0.9
Technical assistance for drafting technical guidelines for retrofitting existing damaged reinforced concrete and masonry buildings	0.3	0	0	0.3
Quality assurance of building design and construction through involvement of corresponding institutes	0.4	0.45	0.25	1.1
<b>Subtotal Civil Protection &amp; DRR</b>	<b>23.91</b>	<b>22.94</b>	<b>1.4</b>	<b>48.25</b>
<b>TOTAL ALL RECOVERY NEEDS</b>	<b>545.49</b>	<b>499.62</b>	<b>31.06</b>	<b>1076.1</b>

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## 5.4 References

### Executive Summary

INSTAT (2019) Survey on Household damages due to the earthquake (SHDE)

### Introduction

Agroweb: Bujqësia - Sektori që Punëson Mbi Gjysmën e Shqiptarëve (Agriculture – the sector that employes over half of the Albanians). May 26, 2017 (accessible at: <http://agroweb.org/archive/?id=10&l=2640>)

Albanian Tourism, Coastline | Visit Albania | Albania.al., archived from the original on 9 August 2014. “<http://albania.al/explore/natural-heritage/coast-line>”

Al-Jazeera, Albania’s search for quake victims ends as death toll rises to 51, November 30, 2019, (accessible at <https://www.aljazeera.com/news/2019/11/albania-search-quake-victims-ends-death-toll-rises-51-191130140408252.html>)

IL Globo, Di Maio calls for international cooperation on Albania earthquake, December 12, 2019 (available at: <https://ilglobo.com.au/news/46320/di-maio-calls-for-international-cooperation-on-albania-earthquake/#>)

Sustainable Development of Sea-Corridors and Coastal Waters: The TEN ECOPORT project in South East Europe (Chrysostomos Stylios, Tania Floqi, Jordan Marinski, Leonardo Damiani ed.). Springer. 7 April 2015. p. 85. ISBN 9783319113852.

UNDP (2019) Human Development Report, Albania.

University of Cincinnati, UC Research Reveals One of the Earliest Farming Sites in Europe, April 16, 2012 (accessible <http://www.uc.edu/news/NR.aspx?id=15552>).

World Bank & GFDRR, *M 6.4 Albania Earthquake Global Rapid Post Disaster Damage Estimation (GRADE) Report*, 16 December 2019, funded by the EU

### Socio-economic Section in the Introduction

INSTAT 2017, Database accessed January 17, 2020 (<http://www.instat.gov.al/en/>)

INSTAT, *Albania: Trends In Poverty 2002-2005-2008-2012* (Revised April 2015), 2015.

INSTAT, *Albania Demographic and Health Survey 2017-18*, 2018.

UNDP, *Human Development Report 2019: Albania, 2019*.

World Travel & Tourism Council, *Travel & Tourism Economic Impact 2018 Albania*, 2018.

World Bank Database, accessed January 14, 2020

(<https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=AL>)

### Education Sector

Lika, A., *Sustainable Design for School Buildings in Albania - Key Principles*. European Scientific Journal February /SPECIAL/ edition vol.3, 2014.

OECD, *Results From PISA 2018: Country Note – Albania*, 2019.

### Infrastructure Sector

OSHEE, *Plans of Measures to Eliminate Earthquake Problems* of November 26, 2019, a report issued on December 19, 2019.

World Bank, *A Review of Rural Water and Sanitation Services in Seven Countries of the Danube Region*, 2018.

### **Business and Employment Sub-sector**

INSTAT, Structural Survey of Enterprises, 2018.

UNDP, *Skill Needs in Albania 2017*, 2018.

### **Tourism Sub-sector**

World Travel and Tourism Council, Economic Impact 2018 Albania, 2019.

### **Cultural Heritage Sub-sector**

Ministry of Culture, National Strategy for Culture 2019-2025, 2019.

### **Civil Protection and DRR**

EM-DAT. *The Emergency Events Database*, Université Catholique de Louvain (UCL) - CRED, D. Guha-Sapir, www.emdat.be, Brussels, Belgium

BEH-IFHV, (2019), World Risk Report 2019, ISBN 978-3-946785-08-8, www.WorldRiskReport.org

Republic of Albania, (2014), National Strategy for Disaster Risk Reduction and Civil Protection.

Law N. 8756/2001, (2001), "On Civil Emergency", *Official Gazette N. 15*, April 2001

Republic of Albania, (2014), National Strategy for Disaster Risk Reduction and Civil Protection.

### **Macro-economic Impact**

Papavangjeli M. (2018), Constructing exogenous output elasticity of tax revenue for the Albanian fiscal sector, Bank of Albania Economic Review 2018 H2, Bank of Albania

### **Human Impact**

INSTAT, Survey of Household Damages due to Earthquake" (SHDE), 2019.

INSTAT, IPH, and ICF, *Albania Demographic and Health Survey 2017-18*. Institute of Statistics, Institute of Public Health, and ICF: Tirana, 2018.

INSTAT, 2019a. Income and Living Conditions in Albania, 2017 – 2018. INSTAT: Tirana. Available at <http://instat.gov.al/media/6544/income-and-living-conditions-in-albania-2017-2018.pdf>

INSTAT, 2019b. *Statistical tables*. Available at <http://www.instat.gov.al>

INSTAT, 2019c. *Survey of Household Damages due to Earthquake 2019*.

INSTAT, 2019d. Quarterly Labour Force Survey. Third quarter 2019. INSTAT: Tirana. Available at <http://instat.gov.al/media/6551/lfs-q3-2019.pdf>

UNDP (2019) Human Development Report, Albania.

## 5.5 Acronyms

AAF	Albanian Armed Forces
ALL	Albania LEK (Official Currency)
AROP	At-risk-of-poverty
ASCAP	Pre-University Education Quality Assurance Agency
ASIG	State Authority for Geospatial Information
BBB	Building Back Better
CAD	Current Account Deficit
CEN	European Committee for Standardization
CM	Designated Cultural Monuments and sites
CP	Civil Protection
CR	Collections and Repositories
CSO	Civil Society Organization
DA	Disability Allowance
DRR	Disaster Risk Reduction
EM-DAT	The International Disaster Database
EMS	Emergency Medical Services
ERCC	Emergency Response and Coordination Centre
EU	European Union
EUCP	EU Civil Protection
EUR	Euro
ESSPROS	European System of Integrated Social Protection Statistics
FP&R	State Police, Fire Protection & Rescue Service
GDP	Gross Domestic Product
GER	Gross Enrolment Rate
GoA	Government of Albania
GRADE	Global Rapid post-disaster Damage Estimation
HDI	Human Development Index
ICT	Information and Communications Technology
IGewe	Institute of Geosciences, Energy, Water and Environment
IKMT	National Inspectorate for Territorial Protection
INSTAT	Albania Institute of Statistics
IPH	Institute of Public Health
KESH	Albanian Power Corporation
MIS	Management Information System
MoC	Ministry of Culture
MoESY	Ministry of Education, Sports and Youth
MoHSP	Ministry of Health and Social Protection
MoIE	Ministry of Infrastructure and Energy

MoFE	Ministry of Finance and Economy
MoTE	Ministry of Tourism and Environment
MS	Museums and Cultural Heritage sites
NAES	National Employment and Skills Agency
NARU	Needs Assessment and Referral Unit
NCPA	National Civil Protection Agency
NE	Economic Assistance
ODR	Owner-driven Reconstruction
OSHEE	Albanian Power Distribution Operator
OST	Transmission System Operator
PDNA	Post Disaster Needs Assessment
PHEOC	Public Health Emergency Operations Centre
PP	Percentage Points
PPP	Public-private Partnership
SHDE	Survey of Household Damages due to Earthquake
SILC	Survey of Income and Livelihood Conditions
SSS	State Social Service
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children’s Fund
USAR	Urban Search and Rescue
VET	Vocational Education and Training
WASH	Water, Sanitation, and Hygiene
WHO	World Health Organization
WB	World Bank





