Albania

Post-Disaster Needs Assessment

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INTRODUCTION

The Albania Post-Earthquake Needs Assessment report has two volumes, whereby the Volume B includes only the full-fledged Sectorial and Sub-sectorial reports.

Whereas in Volume A you can find the following sections: an executive summary, the whole introduction with a description of the pre-disaster context of the country and of the affected area, including a brief description of the 26th November 2019 event and the population affected and the initial response undertaken. A summary of each of the sectorial and sub-sectorial reports. The impact of the disaster on the macro-economic and human development indicators. Finally, the recovery strategy comprising the proposed interventions by sector split into short-, medium- and long-term implementation, including the overall vision, the overall guiding principles and the implementing arrangements, and the proposed financial mechanisms.

Notes:

- Exchange rate used: 123.05 ALL = 1 EUR
- Some totals listed in the tables were rounded, thus they may not always match the sum of single amounts.

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THE HEALTH SECTOR

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1.1 Context

Albania's Health sector has evolved over the past three decades into a public and largely centralised system based on a primary healthcare model. Several key health institutions are in place at the national level and these are coordinated through the Ministry of Health and Social Protection (MoHSP) with its Institute of Public Health (IPH). These institutions are: the National Centre of Emergency Medicine, the National Centre for Quality, Safety, and Accreditation of Health Institutions (NCQSAHI); the Operator of Health Services, and the State Health Inspectorate (SHI). Regional and local Health sector structures were reformed in 2018, (DCM No. 419/2018) with the establishment of Regional Health Operators and locally by Local Health Units.

National health indicators have improved in Albania since its 1998 national constitution was adopted. A steady increase in life expectancy for both sexes has been seen, and it is now 76.0 years for men and 80.3 years for women (2013). The gender-related differences in life expectancy may be influenced by differences in risks associated with smoking, alcohol consumption and road accidents. The child mortality rate had decreased from 20.7 deaths per 1,000 live births in 2002 to 8.4 in 2013, but it remains one of the highest in the region. Maternal mortality (deaths per 1,000 live births) in Albania decreased from 22.7 in 1990 to 11.8 in 2013. While infectious diseases account for a high proportion of the total disease burden, the burden of non-communicable diseases (NCDs) increased by 34% from 1990 to 2010 (MoHSP, 2015).

With regards to health service delivery, the state provides health promotion, prevention, diagnosis, treatment and rehabilitation services, while the private sector covers pharmaceutical and dental services, and some specialized diagnostic clinics and hospitals concentrated in Tirana. Public healthcare services are organized across three levels: primary healthcare provided at 413 health centres and polyclinics and an extensive network of health posts; secondary healthcare provided at district hospitals (24 municipality and 11 regional ones, two Mental Health Hospitals); and tertiary healthcare is provided at the Tirana University Hospital Centre (five University hospitals). Municipal hospitals have difficulties providing services, mainly because of the shortage of appropriate equipment and health specialists.

Human resources in health are characterized by an unequal distribution, with medical specialists concentrated in Tirana and some large cities. Municipal and regional hospitals have restrictions in the provision of services, due to the shortage of appropriate equipment and specialists. Given this limitation, University hospitals situated in Tirana attract an increasing flow of direct presentations rather than a standard patient pathway through referral.

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 has been paid to the control of chronic diseases, especially prevention, screening and detection of early cancers.

Universal health coverage is a core objective with free accessibility to preventative services for the entire population, including uninsured people. Health services in primary and hospital care are purchased by the Albanian Health Insurance Fund. Compulsory Health Insurance covers all economically active persons residing permanently in Albania and inactive persons covered by the State Budget. Over the last three years, significant achievements in the reduction of out-of-pocket health expenditures (down to 37% of the total health expenditure in 2015) have been made, thus improving the financial protection against catastrophic health expenditures.

Continued reinforcement of the Health sector takes place in line with national strategic priorities outlined in Albania's National Health Strategy (NHS, 2016–2020). Albania's goals under the NHS are targeted in collaboration with international stakeholders including the WHO, the UN, the World Bank and the EU. The MoHSP coordinates the internal and external financing earmarked for the implementation of the NHS, through the ministerial project coordination unit.

Recent assessments of Albania's health system have included a Joint External Evaluation of IHR core capacities in 2016 (WHO, 2016a), which noted that Albania's Health sector programs are efficient, effective and capable of detecting and responding to health events and emergencies. Albania's development of an associated National Action Plan for Health Security is in progress.

Albania has identified vulnerabilities to earthquakes, floods, forest fires, landslides, dam bursts, snowstorms and epidemic risks (MoD, 2004). The MoHSP's General Platform of Risk and Disaster Management synchronises the response activity of its subordinate structures at the central, regional and local levels with the National Civil Protection Structures. Regional health authorities are in the process of setting up their own Incident Management System, and this is to be completed by 2020 with WHO's technical support. The MoHSP (WHO, 2016b) 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 an emergency declaration through national emergency response institutions and mechanisms.

1.2 Disaster Effects

Approximately 913 people were injured/treated in hospitals and 2,610 additional ambulance services were provided after 9,086 registered phone calls. Thirty-six health facilities have been damaged, and 330 hospitalized in-patients were transferred to receive the necessary health services in other hospitals.

Effects on Infrastructure and Physical Assets

In total, 36 health facilities were damaged by the earthquake and four health facilities were rendered completely out of order; including the municipal hospital of Kurbin, and three health centres in Tirana (two) and Durres (one).

The damaged health facilities included nine units in tertiary hospitals, five secondary level hospitals, ten health centres and twelve health posts. This included the Regional Hospitals of Durres and Lezha; Municipal Hospitals of Kurbin and Kruja; National Centre of Development and Rehabilitation of Children with Disabilities; Tertiary Hospitals/Tirana University Hospital (Maternity "Koço Glozheni", "Mbretëresha Geraldinë," Cardiology, Cardio Surgery Service, Paediatric Service, Burn and Plastic Surgery Service, and Blood Bank); University Hospital of Trauma and Dental University Clinic, see Table 1.

Damages to equipment, furniture and supplies were relatively minor, as none of the affected health facilities had collapsed.

Table 1 Damaged health facilities

Type of facility	Total affected	University Hospital/ units		Regional Hospital		Municipality Hospital		Health centre		Heath post	
PD = partially damaged; FD = fully damaged	36	9		3		2		10		12	
		PD	FD	PD	FD	PD	FD	PD	FD	PD	FD
Tirana	13	9	0	1	0	0	0	0	1	2	0
Durres	9	0	0	1	0	0	0	2	2	4	0
Lezha	1	0	0	1	0	0	0	0	0	0	0
Kruja	3	0	0	0	0	1	0	1	0	1	0
Kurbin	6	0	0	0	0	0	1	3	0	2	0
Vora	1	0	0	0	0	0	0	0	0	1	0
Shijak	3	0	0	0	0	0	0	1	0	2	0

Source: MoHSP, affected Health Institutions at the regional level

According to the assessment carried out by the Albanian authorities, Kurbin Hospital remains unsafe and requires full reconstruction. The damage to other hospitals was only partial, and by early December, initial damage repair work at Durres Hospital had been completed, and the hospital was fully functional. Mother Teresa University Hospital in Tirana has begun repairing the damage to three services where patients have initially been evacuated (Cardiology, Podiatry, Burns & Plastic Surgery). Repairs have also begun at Koço Gliozheni Maternity Hospital.

Effects on Access and Availability of Services

Due to the damage to the health facilities, there was significant disruption to their services, with some facilities declared temporarily out of service, and patients evacuated or displaced. In total, 330 hospitalized in-patients were transferred to other facilities, 100 patients from Kruja and Kurbin hospitals and 230 patients were evacuated from four services of Mother Teresa University Hospital in Tirana. The blood bank was also declared out of service in this hospital. Patients from Obstetrics and Gynaecology University Hospitals "Koço Glozheni" were also partially evacuated to Obstetrics and Gynaecology University Hospitals, "Mbretëresha Geraldinë."

In addition to disruption to existing services, other hospital services, to meet the surge of injured patients associated with the earthquake, were provided by Durres Regional Hospital, Lezha Regional Hospital and Tirana Trauma Centre. All severe cases were referred to the Trauma Centre in Tirana. Using Albania's fleet of 45 ambulances, 2,610 ambulance referrals were conducted. By 14th December 2019, search and rescue operations and initial management of injured patients had been concluded.

By mid-December, Durres Hospital had resumed functioning with the restoration of all elective procedures that had been partially suspended since the earthquake. Kruja Hospital (severely damaged, with a population coverage of 80,000) has been relocated, and temporary structures have been put in place until the reconstruction is complete. The fully damaged Kurbin hospital remains out of service with only the Emergency department functioning at a relocated site that has been adapted to perform this function.

To address the health needs of the injured and the 17,090 displaced people, the MoHSP established temporary health posts at all camps, community centres and hotels for treating minor injuries and other health conditions. Overall, 25 health posts were temporarily established to ensure the continuity of care on a 24-hour basis. They were equipped with first aid, primary care, basic emergency care and referral services at all camps, community centres and hotels. Initial health services were also provided by national Non-Government Organizations, such as the Albanian Red Cross & Caritas, who set up their tents within the camps.

The MoHSP deployed 340 medical professionals offering medical care to the displaced. Between 26th November – 17th December 2019, overall 7,178 medical visits were carried out in temporary health centres; 9,089 ambulance/emergency services were provided and 1,540 vulnerable persons (31 children aged 0-14 years, 662 with chronic diseases and 847 over the age of65) received influenza vaccinations based on national seasonal influenza protocols.[1] By 14th December, a total of 6,058 consultations had been reported in accommodation units and camps. Special attention was given to displaced persons with chronic diseases, of which 1,652 were identified to receive free medication.

Household surveys among the displaced indicated that after concerns over their damaged house, post-traumatic stress disorder among adults and children were among the highest priorities, describing symptoms of fear, anxiety, distress, sleep deprivation, depression, changing mood, and loss of appetite, with a different intensity depending on the extent of trauma. Furthermore, almost half of the surveyed households reported increasing illness (fever, cough, flu and headache) due to cold and unsanitary living conditions.

To address the risk of increased mental health needs, the MoHSP mobilised psychosocial support and increased community engagement with displaced populations. between the time of the event and up until 14th December, 257 psychologists provided psychosocial support to around 1,669 children by providing psychosocial and community services.

[1] The target population for vaccination from the displaced population were: children, the population with chronic diseases and the elderly >65 years of age.

Effects on Governance

The overall emergency response to the earthquake was led by the Prime Minister through the activation of the General Platform of Risk and Disaster Management. A National Incident Management System (NIMS) and a National Commission on Civil Emergency Response (MoHSP, order No. 320/2019) consisting of nine members (directors of directorates according to IMS functions) and its supporting Secretariat consisting of six technical members was established. These structures were supported by Emergency Response Commissions set up in hospitals and at Primary Health Care Units.

The public health response was coordinated by the MoHSP. The National Centre of Emergency Medicine national dispatch centre served as the Health Emergency Operations Centre (HEOC) and coordinated all operational response activities of the Health sector related to hospitals and camps. The HEOC coordinated all ambulance services nationally and in the absence of a PHEOC in MoHSP, has supported the Ministry in coordinating hospital-related activities and in the temporary camps of the displaced population.

For the Health sector, local disaster management structures (Emergency Response Committees) were established near the "Regional Health Operator" in Tirana and Shkodra, as well as the "Local Health Care Unit" in Durres and Lezha. These structures were supported by "Emergency Response Committees" set up in hospitals and "Primary Health Care Units." They were also coordinated with local emergency management structures of the Commission of Civil Emergency Preparedness and Response, led by the Prefect. The Health sector was represented in this Commission by the Director of the Regional Health Operator.

Durres Regional Hospital had activated its facility-level Emergency Response Plan to respond to the earthquake. At each health institution at the central or local level, an ad hoc Task Force was set up, responsible for situation management and inter-institutional coordination. All directors and heads of sectors of health institutions are involved in MoHSP-coordinated response activities, playing an operational and tactical role.

The Institute of Public Health (IPH) enhanced the surveillance system by extending it to all 25 accommodation centres for the displaced population. The Alert Surveillance System (based on a national set of reportable disease syndromes) was enhanced into a daily system to monitor the affected population for any outbreaks of infectious diseases, such as respiratory, or food/waterborne infections. All information received through this system (including from all health centres/posts, temporary health facilities and hospital emergency departments) was analysed centrally at the IPH. Daily epidemiologic reports were produced and will continue for the entire period of the post-earthquake recovery (MoHSP, order No. 491).

As of 6th January 2020, there have been no reports of an increase in infectious diseases. The strengthening of the oversight system is linked to Ministerial Order no. 491 (see note III) and will return to its routine operation with a second order. The object of this order is Risk Assessment in Public Health; distress of the earthquake-prone population; strengthening the alert system and making it operational as a daily system of monitoring infectious diseases in areas affected by the earthquake; and environmental health in terms of water, food safety, and environmental pollution.

The Public health labs in Durres, Kruja and Tirana were assessed as able to cope with increased caseload. The Public Health laboratory at Kruja had limited capacity and gaps in laboratory staff, kits, reagents and laboratory equipment for bacteriology were addressed.

Effects on Risk and Vulnerabilities

The earthquake posed significant risks to physical and mental health, including epidemics linked with overcrowding in camps or to contaminated water sources and poor hygiene. Starting on the 28th November, the IPH conducted risk assessments in the districts of Tirana, Durres, Kavaja, Kruja, and Lezha.[2]

IPH monitored the quality of the drinking water in all areas affected by the earthquake. Referring to IPH data, by 14th December, the number of water monitoring checkpoints in the districts of Tirana, Durres, Kruja, and Lezha had increased from 101 to 133, including the monitoring of the checkpoints at the collective centres of the displaced population. From the analyses carried out at these water monitoring points up until 14th December (14,896 tests), the microbial loads of water have been normal and with free chlorine values within the norm. The results from water analyses for Ammonia content and Nitrates were within parametric values according to the Regulation "Drinking Water Quality" (DCM 379, dated 25.5.2016).

[2] Risk Assessment Report in Tirana, Durres and Lezha.

The health and hygiene conditions in communal accommodation centres for displaced populations were assessed as good. Assessments indicated that the water supply was not interrupted, and no damage was found to the water supply network. Monitoring points resulted in no bacteriological contamination, with free chlorine values within the normal range. Preparation for winter conditions remains a key priority.

So far, as of the end of 2019, eight health promotion campaigns have been conducted by the MoHSP and IPH in the affected districts. These included promotional programs in the media, meetings in the temporary collective centre of the displaced population (camps, hotels, community centres), and dissemination of information materials.

1.3 Estimation of the Value of Damage and Loss

Damage

Based on the assessment carried out by the MoHSP, and their estimates of costs for full reconstruction and repair and replacement of assets, the total damage has been estimated at 8.02 million EUR (0.99 billion ALL), see Table 2. Reconstruction of the secondary level facilities, including Kurbin hospital, is estimated at 6.49 million EUR (0.798 billion ALL).

As the fully damaged health facilities had not collapsed, damage to equipment and furniture was only partial. It has not been possible to obtain damage data from private sector providers, such as dentistry and pharmacies. As such, the estimate of the damage is underestimated. Therefore, all damages reported are in the public sector.

Table 2 Damage by health facility classification

Facility Classification	Total damaged	Infrastructure				Equipment		Furniture		Total costs of damage in million EUR	Total costs of damage in billion ALL
		Fully Destroyed (FD)		Partially Damaged (PD)		FD	PD	FD	PD		
		No	In million EUR	No	In million EUR	In million EUR		In million EUR			
Tertiary level/ units	9	0	0.00	9	0.72	0.00	0.00	0.00	0.00	0.72	0.09
Secondary level	5	1	5.00	4	1.22	0.00	0.04	0.00	0.23	6.49	0.80
Primary level	22	3	0.32	19	0.49	0.00	0.00	0.00	0.00	0.81	0.10
Total in million EUR			**5.32**		**2.43**	**0.00**	**0.04**	**0.00**	**0.23**	**8.02**	
Total in billion ALL			**0.654**		**0.300**	**0.00**	**0.004**	**0.00**	**0.028**		**0.99**

Loss

Based on the assessment carried out in December 2019 by the MoHSP, the total estimated loss for the Health sector has been estimated at 1.91 million EUR (0.235 billion ALL), wherefrom 98.4% are public, and 1.6% are private.

Table 3 Losses to the health sector

Affected	Loss	Public	Private	Total	Total
		In million EUR			billion ALL
Infrastructure	Demolition and rubble removal	0.13	0.00	0.13	0.016
	Managing temporary health infrastructures (additional service capacity for IDP tent areas/ hotels)	0.36	0.00	0.36	0.044
	Rental costs for temporary health facility	0.01	0.00	0.01	0.001
	Total loss infrastructure	0.50	0.00	0.50	0.061
Restore/maintain service delivery and access, address increased needs	Treatment of injured patients	0.43	0.00	0.43	0.053
	Rehabilitation of patients disabled due to trauma	0.18	0.00	0.18	0.022
	Referrals: increased transport costs ambulances	0.32	0.00	0.32	0.039
	Treatment and care for increased # patients with mental health and/or psychological problems	0.13	0.00	0.13	0.016
	Ensure continuity of treatment chronic illnesses for people displaced (tents/hotels)	0.02	0.00	0.02	0.002
Interventions to address the loss of revenue/ability to purchase services	Waiving user fees/charges for health services (including diagnostic and medication), for patients with loss of income and/or displaced	0.09	0.00	0.09	0.011
	Waiving revenue in private health facilities that provided free services for patients affected by the earthquake	0.00	0.05	0.05	0.006
	Total loss services	1.16	0.05	1.20	0.148
Governance relation needs (coordination, emergency management, etc.)	Cost for coordination and disaster management	0.05	0.00	0.05	0.007
	Cost for early warning, surveillance systems related to the earthquake	0.06	0.00	0.06	0.007
	Total loss governance	0.11	0.00	0.11	0.014
Mitigate/reduce risks related to the crisis	Health promotion and public awareness campaigns to address health risks	0.10	0.00	0.10	0.012
	Vaccination/immunisation campaigns (e.g. influenza)	0.00	0.00	0.00	0.000
	Total loss risks	0.10	0.00	0.10	0.012
Total in million EUR		**1.87**	**0.05**	**1.91**	
Total in billion ALL		**0.230**	**0.006**		**0.235**

Data Source: Ministry of Health, affected Health Institutions at regional level

The damage to the health facilities, the need to address the health needs and 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, led to increased expenditures, as well as reduced revenues as patient fees were waived.

Beside their use for the evacuation of patients, ambulance services were also required to transport injured people. In addition to the costs of treating the 943 people with injuries, by the end of December, 180 patients are undergoing physical rehabilitation due to earthquake-related trauma, while another 130 patients require continued mental health services for at least six months.

Additional interventions were also initiated for populations affected by the earthquake to ensure continuity of treatment of chronic illnesses, providing them with free medication.

There have been significant losses of revenue in the Health sector due to the 1,652 people who lost their incomes. In the private sector, this loss has been more limited, as only 120 patients with loss of incomes received services.

As explained above, the MoHSP and IPH incurred new costs for establishing emergency-related response and recovery coordination mechanisms. These were supported by the activation of emergency disease surveillance systems. To address increased health risks, additional health promotion campaigns and seasonal influenza vaccination also led to higher expenditures than expected. It is expected that the health risks will return to baseline levels by mid-2020.

Damages and losses in relation to ownership, specified by municipality, are summarized in Table 4. All the damages reported are in the public sector, while losses reported are 98.4% public and 1.6% private.

Table 4 Damage and loss of Health sector by municipality and ownership

Health damages and losses						
Municipalities	Disaster effect				Ownership by Sector	
	Damages	Losses	Total	Total in billion ALL	Public	Private
	In million EUR				In million EUR	
Durres	1.33	0.17	1.50	0.184	1.50	0.00
Shijak	0.07	0.04	0.11	0.014	0.11	0.00
Kruja	0.27	0.08	0.34	0.042	0.34	0.00
Lezha	0.27	0.00	0.27	0.033	0.27	0.00
Mirdita	0.00	0.00	0.00	0.000	0.00	0.00
Kurbin	5.24	0.33	5.57	0.684	5.57	0.00
Tirana	0.84	1.28	2.13	0.262	2.08	0.05
Kamza	0.00	0.00	0.00	0.000	0.00	0.00
Vora	0.00	0.01	0.02	0.002	0.02	0.00
Kavaja	0.00	0.00	0.00	0.00	0.00	0.00
Rrogozhina	0.00	0.00	0.00	0.00	0.00	0.00
Total in million EUR	**8.02**	**1.91**	**9.94**		**9.89**	**0.05**
Total in billion ALL	**0.99**	**0.235**		**1.22**	**1.217**	**0.006**

1. 4 The Sector Recovery Strategy

Reconstruction and recovery needs

Reconstruction and rehabilitation needs (Table 5) are based on the reported damage to health facilities and assets, and the costs for full reconstruction, repair, and/or replacement of particularly damaged equipment and furniture. The hospital in Kurbin and the four health centres that were fully damaged will be rebuilt according to disaster-resilient building codes and based on the new standards for health facilities. These new standards are based on rationalisation and rightsizing of the services, taking into account new models of care and recent changes in demographics/prognosis of disease.

Given these considerations, the Kurbin hospital will have significantly fewer beds than it had before, and it will be smaller in size. Its reconstruction will cost less than the full replacement cost as used for the estimation of the damage. Delivery service, which is provided in the damaged hospital, will not be available in the new one, because for many years, women have been encouraged to deliver in the regional hospital of Lezha. Facilities with partially damaged equipment will receive more updated models than those damaged by the earthquake.

Table 5 Reconstruction Health sector needs

Facility Classification	Number facilities to be rehabilitated affected	Reconstruction need costs	
		In million EUR	In billion ALL
Tertiary level	9	0.72	0.089
Secondary level	5	6.16	0.757
Primary level	22	0.82	0.100
Total in million EUR		**7.69**	
Total in billion ALL			**0.946**

Recovery needs (Table 6) are based on the interventions and functions that were reflected under the losses (Table 3). Interventions will need to continue for as long as displaced people remain in accommodation centres, or until the increased risks for health have returned to pre-disaster baselines. It is expected that most of these interventions will no longer be needed after the summer of 2020.

Several initial investments are proposed to increase the resilience of the MoHSP and health services. These include recovery actions that contribute to being better prepared for, able to respond to and able to ensure the continuity of the health system during emergencies. These include further assessments of Hospital Safety at the hospitals in the affected areas, and training of their staff, including simulation exercises, to respond to emergencies (WHO, 2015). This assessment is not currently performed across all hospitals and remains a priority and objective of the MoHSP. Assessments of country readiness will be undertaken to develop and implement improvements in Albania's response capacity, including its ability to respond to sexual and reproductive health needs during emergency situations. Staff in the Kurbin hospital, once rebuilt, should receive on-the-job training to adapt their work to the new models of care, and in the use of updated equipment.

Table 6 Recovery needs for Health sector, including risk reduction / resilience

	Need	Public	Private	Total	Total in billion ALL
		In million EUR			
Recovery needs					
Infrastructure	Demolition and rubble removal	0.13	0.00	0.13	0.016
	Managing temporary health infrastructures (additional service capacity for IDP tent areas/hotels)	0.36	0.00	0.36	0.044
	Rental costs for temporary health facility	0.01	0.00	0.01	0.001
Restore/maintain service delivery and access,	Treatment of injured patients	0.43	0.00	0.43	0.053
	Rehabilitation of patients disabled due to trauma	0.18	0.00	0.18	0.022
	Referrals: increased transport costs ambulances	0.32	0.00	0.32	0.039
	Treatment and care for increased # patients with mental health and/or psychological problems	0.13	0.00	0.13	0.016
	Ensure continuity of treatment chronic illnesses for people displaced (tents/hotels)	0.02	0.00	0.02	0.003
Interventions to address loss of revenue / ability to purchase services	Waiving user fees/charges for health services (including diagnostic and medication), for patients with loss of income and/or displaced	0.09	0.00	0.09	0.011
	Loss of revenue in private health facilities that provided free services for patients affected by the earthquake	0.00	0.05	0.05	0.006
Governance relation needs (coordination, management, etc.)	Coordination and disaster management, response and recovery	0.05	0.00	0.05	0.007
	Managing early warning, surveillance systems related to the earthquake	0.06	0.00	0.06	0.007
Mitigate/reduce risks related to the crisis	Health promotion and public awareness campaigns to address health risks	0.10	0.00	0.10	0.012
	Vaccination/immunisation campaigns (e.g. influenza)	0.00	0.00	0.00	0.0005
Needs for increased resilience					
Investments for increased resilience (BBB)	Safe hospital program: assessment and training	0.02	0.00	0.02	0.002
	On the job training of staff in the hospital reconstructed to modern standards, to adapt to new models of care	0.02	0.00	0.02	0.002
	Public Health Emergency Operation centre	0.17	0.00	0.17	0.022
	After Action Review of the EQ response; initial investment to improve coordination model for Health EOC, preparedness and contingency plan for earthquakes	0.01	0.00	0.01	0.0007
	Initial investment for National Emergency Medical Teams	0.02	0.00	0.02	0.003
Total in million EUR		**2.09**	**0.05**	**2.14**	
Total in billion ALL		**0.259**	**0.006**		**0.264**

While the Health sector's response to this emergency was considered appropriate and effective, it was mostly ad hoc. The MoHSP does not yet have a unit or Emergency Preparedness Program responsible for emergency planning and response, and Albania's all-hazard Emergency Operational Plan is still a draft. The staff has significant experience but needs training in emergency operations and management. Operational Plans, contingency plans, simulation exercises, and After-Action Reviews are not routinely used to prepare for and improve the response to emergencies and disasters. In addition, the MoHSP does not yet have a Public Health Emergency Operation Centre, and this greatly limited inter- and intra-sectoral coordination. The Joint External Evaluation of International Health Regulations (IHR) Core Capacities of Republic of Albania also recommended priority actions to strengthen coordination and disaster risk management by increasing the involvement of all relevant sectors in developing a multi-hazard public health emergency preparedness and response plan and addressing the issue of coordination and communication in multi-hazard public health emergency preparedness.

Therefore, to strengthen health emergency and disaster risk management capacities in the MoHSP (ECDC, 2017), an After-Action Review of the earthquake response is proposed to learn lessons and propose more detailed recommendations for improvement. Furthermore, investments are proposed to improve the coordination model and aid the creation of a Public Health Emergency Operations Centre and to develop "Emergency Operation Plans" of Health Institution and as part of the "contingency plans,," for all hazards building on the recent experience. Furthermore, investment for building national capacity to deploy Emergency Medical Teams (EMTs) is prioritised as part of Albania's recovery. Support will be sought from countries that can deploy international EMTs for training and simulation exercises, such as Italy and Israel. Such support will be considered with WHO's facilitation.

Vision and Guiding Principles

To support the recovery implementation, the MoHSP developed the following vision:

To restore service delivery capacity and ensure the shortest possible interruption in access to essential services, in particular for vulnerable groups such as children, pregnant and lactating women, older people and patients with chronic illnesses, while using the recovery to the earthquake as opportunity to increase the resilience of the health system and accelerate modernization of service delivery in the affected areas. There is an urgent need to build capacity among Health sector partners to better respond at the onset of an emergency as well as to ensure that basic services, including sexual and reproductive health services, are addressed by the primary health care for the longer term.

Principles

- Special attention to address possible increased health risks and barriers for accessing services linked to gender, age, socio-economic condition, culture, religion, and/or geographic location;
- Where possible, use the recovery to support ambitions for ongoing Health sector reform, including the implementation of new models of care, that will lead to increased efficiencies and better address changes in health needs;
- Special attention to ensure that all health professionals are trained on prevention of sexual violence, and response to the needs of survivors, with the establishment of clear SOPs and referral pathways for GBV survivors in case of emergency;
- Build on existing partnerships with national and international partners, and where indicated, adapt ongoing investments to support recovery and health system resilience;
- Build on community capacities to reduce risks and strengthen community preparedness and resilience, including professionally addressing post-traumatic stress disorder.

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 Health.

The Sector Recovery Plan

The rehabilitation of partially damaged health facilities or construction of those that have been severely damaged will be based on 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 the target population, and to make this service more efficient and effective by concentrating resources (infrastructure, human resources and budgets).

The rehabilitation and construction of fully damaged health facilities is planned to be completed by the end of 2020, with the exception of Kurbin Hospital which is scheduled to be completed by mid-2021. This hospital will serve as a model and will reflect the MoHSP's policy for the establishment of modern, safe health facilities with the capacity to provide quality services, in accordance with the target population and the development prospects of the territory they cover.

Reconstruction and repair of health facilities will be accompanied by standardization and modernization of equipment, communication systems and furniture.

During Albania's recovery from the earthquake, particular attention will be given to training of human resources on the elements of health security and service delivery. The training will be part of a work program on emergency preparedness and response. Actions to make hospitals and other health facilities safe and operational before, during and after disasters will remain a priority for the Ministry of Health. With the support of the WHO, MoHSP will adopt and implement the Safe Hospitals Program at national and subnational levels of health service. The goal of the Safe Hospitals Program is to continue to provide health-care services in times of emergencies and disasters. This is to enable hospitals to continue to function and provide appropriate and sustained levels of health-care during and following emergencies and disasters; to protect health workers, patients and families; to protect the physical integrity of hospital buildings, equipment and critical hospital systems, and to make hospitals safe and resilient to future risks, including climate change.

Above all, to reduce the risk and increase the resilience of hospitals, special attention will be given to ensuring not only physical safety but also to increasing preparedness for future emergencies. An important part of this program will be the development of preparedness capacities at the hospital level.

To strengthen the national capacity to prepare for and respond to a public health event, it is crucial to have a functional public health emergency operations centre (PHEOC) that enhances early warning systems, supports effective coordination of responses and enhances real-time communication at all levels of the national health system. Key actions that MoHSP has planned for the development of a Public Health Emergency Operations Centre include reviewing and amending the necessary legislation, setting up a policy group and steering committee responsible for PHEOC planning, information and communication technology infrastructure and training, including exercises.

The MoHSP has decided to conduct an after-action review (AAR) to evaluate the Health sector's response to the earthquake of 26th November 2019. This multi-sectoral, multi-institutional and multi-disciplinary activity will review all actions taken by the health service to evaluate the functional capacity of the Health sector in emergency response and to identify areas for continued improvement.

Based on this evaluation, a multi-year work program, action plan and budget requirements 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.

Table 7 Proposed interventions in short, medium and long term for Health sector

Interventions for health sector	Short	Medium	Long	Total	
				In million EUR	In billion ALL
Reconstruction					
Tertiary care level	0.72	0.00	0.00	0.72	0.089
Secondary care level	6.16	4.71	0.00	10.86	1.336
Primary care level	0.82	0.00	0.00	0.82	0.101
Recovery					
Demolition and rubble removal	0.13	0.00	0.00	0.13	0.016
Managing temporary health infrastructures (additional service capacity for IDPs)	0.36	0.00	0.00	0.36	0.044
Rental costs for temporary health facility	0.01	0.00	0.00	0.01	0.001
Treatment of injured patients	0.43	0.00	0.00	0.43	0.053
Rehabilitation of patients disabled due to trauma	0.14	0.04	0.00	0.18	0.022
Referrals: increased transport costs ambulances	0.32	0.00	0.00	0.32	0.039
Treatment and care for increased # patients with mental health and/or psychological problems	0.13	0.00	0.00	0.13	0.016
Ensure continuity of treatment chronic illnesses for IDPs	0.02	0.00	0.00	0.02	0.003
Waiving user fees/charges for health services (including diagnostic and medication) for patients with loss of income and/or displaced	0.09	0.00	0.00	0.09	0.011
Loss of revenue in private health facilities that provided free services for patients affected by the EQ	0.05	0.00	0.00	0.05	0.006
Cost for coordination and disaster management	0.05	0.00	0.00	0.05	0.006
Cost for early warning surveillance systems related to the earthquake	0.06	0.00	0.00	0.06	0.007
Health promotion and public awareness campaigns to address health risks	0.10	0.00	0.00	0.10	0.012
Vaccination/immunisation campaigns (e.g. influenza)	0.00	0.00	0.00	0.00	0.000
Increased resilience					
Safe hospital program: assessment and training	0.01	0.01	0.00	0.02	0.003
On-the-job training of staff in hospitals reconstructed to modern standards to adapt to new models of care	0.01	0.01	0.00	0.02	0.003
Public health Emergency Operation Centre	0.17	0.00	0.01	0.17	0.021
After Action Review to improve coordination model of EOC preparedness and contingency plan for earthquake	0.00	0.00	0.00	0.01	0.001
Total in million EUR	**9.76**	**4.78**	**0.01**	**14.54**	
Total in billion ALL	**1.203**	**0.587**	**0.001**		**1.79**

THE EDUCATION SECTOR

2

2.1 Context

Albania's Education sector consists of pre-school, basic, secondary, vocational education and training (VET), and higher education. Table 8 indicates the number of students in each of these categories and the number of public and private education institutions.

Table 8 Education sector at a glance

Education facility	No. of years	No. of Students	No. of Teachers	Type and No. of Institutions		
				Total	Public	Private
Pre-school	3-5	77,858	5,143	2,117	1,875	242
Basic (1-9)	9	294,879	24,315	1,231	1,112	119
Secondary (10-12)	3	108,901	7,432	458	346	112
VET	3	19,026	1,621	41	33	8
Higher	3-6	139,043	9,742	41	15	26

Source: MoESY administrative database, 2019.

Albania has made steady progress in enhancing access, equity and efficiency in education, and remains committed to aligning its education policies with Europe and meeting the Sustainable Development Goals (SDG). The country has sustained near-universal enrolment rates in primary and secondary education. The Gross Enrolment Rate (GER) in pre-primary education was at 80% in 2018 (UIS, 2019). Despite a substantial reduction in the number of out-of-school children in recent years, some groups of vulnerable children, particularly children from linguistic and ethnic minorities (children from Roma and Balkan Egyptian communities), children with disabilities and from lower wealth quintile households, are at particular risk of dropping out of school (UNESCO, 2017).

Children's learning outcomes in Albania are gradually improving, as demonstrated in the latest PISA results, although students still scored lower than the OECD average in 2018 (OECD, 2019). The quality of education, particularly 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. The physical infrastructure of educational 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 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, whereas in higher education, private institutions account for more than 60% of universities and colleges. Different institutions govern Albania's education system: crèches[3] and pre-schools are mainly a local municipal responsibility, the school system falls under the Ministry of Education, Sports and Youth (MoESY), VET is managed by the Ministry of Finance and Economy (MoFE) and higher education is largely organised by public–and some private – universities.[4] There are district and municipal administrative bodies, such as regional education directorates and departments for education.

Public spending on education remains low at 3.2% of GDP and 10.8% of total public expenditure. 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 lack 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.

2.2 Effects of the Disaster

Effects on Infrastructure and Physical Assets

Prior to the earthquake there were 47 crèches,[5] 603 pre-schools, 497 compulsory, 153 secondary, 11 VET schools, and 30 universities in the 11 affected municipalities. About 328,000 children and students attended these educational institutions, including VET schools, universities and colleges, with more than 23,000 teachers and other teaching staff employed.

According to data collected by the Institute of Construction of the MoIE, 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 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 in smaller municipalities were also damaged, such as Vora where half of all education facilities were either fully or partially destroyed. It is important to underline that three-quarters of the fully and partially destroyed educational institutions were built before the 1990s.

Compulsory schools were the most badly hit with a total of 143 or 45% of all affected institutions. Crèches, pre-schools, secondary schools, VET, higher education and dormitories combined represent the remaining 178 or 55% of all damaged institutions, see details in Table 9. Seventy-six education facilities were severely destroyed and are unfit for use (most will be demolished), 75 were partially destroyed, and

[3] Crèches/nurseries for children aged 0-3 with a care component were included in the education sector PDNA.

[4] National Agency for Funding Higher Education Institution" (NAFHE) is another key institution, established in 2017, responsible for distribution of public funds to public universities. Until it is in full operation, its functions are currently fulfilled by MoESY.

[5] The data presented is only for public crèches. Private sector data is not available.

Table 9 Number of damaged institutions by education facility[6]

Education facility	Fully Destroyed		Partially Destroyed		Lightly Damaged		Total		Total
	Public	Private	Public	Private	Public	Private	Public	Private	Public & Private
Crèche	1	0	2	0	4	0	7	0	7
Pre-school	5	1	7	2	7	17	19	20	39
Basic School	36	0	33	0	71	3	140	3	143
Sec. School	10	0	11	1	26	9	47	10	57
VET	2	0	2	0	3	0	7	0	7
HE	4	0	11	1	18	0	33	1	34
Dormitories	17	0	5	0	12	0	34	0	34
Total	**75**	**1**	**71**	**4**	**141**	**29**	**287**	**34**	**321**

170 sustained light damage. While crèches, pre-schools, VET and higher education (HE) institutions are mostly urban, 60% of destroyed and damaged compulsory schools are rural. 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, Pre-University Education Quality Assurance Agency (ASCAP), and MoFE, did not sustain any damage to their infrastructure or physical assets.

Effects on Access and Availability of Services

The earthquake disrupted education and learning. More than 55 schools failed to re-open until after 9th December 2019, when learning was officially resumed in the entire territory; some private basic and secondary schools remained closed until 16th December 2019.[7] The Faculty of Civil Engineering of the Polytechnic University and the University of Medicine in Tirana only resumed on 6th January 2020. The VET schools adjusted their school calendar by substituting academic classes with apprenticeships and practical assignments.

The MoESY developed emergency preparedness and exit plans, as well as oversaw 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. 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.

[6] Fully Destroyed Schools: refers to school buildings that are no longer suitable for use, should be demolished and reconstructed (100% of surface area); Partially Damaged Schools are those buildings with no structural damage that can be restored to the original condition without dismantling (30 – 50%of surface area); and Lightly Damaged Schools need small repair (=<10% of surface area).

[7] The standard school calendar per year is about 190 days, with 180 days for teaching-learning and the rest for examinations, extracurricular activities, and other non-teaching functions.

The disruption in education and relocation of children to a new school environment can negatively affect the 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. The earthquake could also lead to a rise in the number of children with disabilities or with severe injuries, who may not be able to access host schools or temporary learning centres. With the demand for additional labour at home, it is reasonable to assume that some children, particularly in the higher grades, might attend less regularly or eventually drop out altogether and have less motivation to learn.

Teachers and school principals reported that learning in the host schools has been offered in multiple shifts, with reduced teaching time, and accompanied by a lack of adequate teaching and learning materials, lab equipment and sports facilities. Children reported missing their schools where they have a stronger sense of belonging and greater student camaraderie. Many have also complained about the difficulty in adapting to a new learning environment, where, for example, host schools and temporary learning centres may use different textbooks.[8] While the loss of learning-teaching time is hard to quantify, affected children are likely to lag behind their peers and will need more time to catch up academically. It is, therefore, likely that there will be a decline in the learning outcomes of affected children in the short to medium term.

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 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 ASCAP

[8] As per the Law on the Pre-University Education System, as of 21 June 2012, article 47, textbooks for students are optional and are selected by teachers from the list of provided options.

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

Disasters affect different segments of society in disproportionate ways. As mentioned, disruption in education and relocating children to host schools could increase the number of out-of-school children and reduce the quality of education, especially for internally displaced children. For socio-economically disadvantaged children, ethnic minorities, children with special needs, and for 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.

2.3 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. The value of damage alone (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 share of damage and losses incurred by education facilities are as follows: Basic and secondary education account for 51% of the total; VET schools, universities, colleges, and dormitories for 45%; and crèches and pre-schools for 4%.

Table 10 Damage and losses by type of education facility

Education facility	Damages				Losses			
	Public	Private	Total		Public	Private	Total	
	Million EUR	Million EUR	Million EUR	Billion ALL	Million EUR	Million EUR	Million EUR	Billion ALL
Crèche	0.41	-	0.41	0.050	0.002	-	0.002	0.0003
Preschool	1.72	0.13	1.85	0.228	0.15	0.002	0.16	0.020
Basic School	20.65	0.05	20.7	2.548	4.7	-	4.7	0.578
Sec. School	9.12	0.41	9.53	1.173	2.16	-	2.16	0.266
VET	2.4	-	2.4	0.295	0.22	-	0.22	0.027
HE	9.11	0.11	9.22	1.134	0.26	-	0.26	0.032
Dormitories	19.47	-	19.47	2.396	1.25	-	1.25	0.154
Total million EUR	**62.88**	**0.70**	**63.59**		**8.76**	**0.002**	**8.76**	
Total billion ALL	**7.738**	**0.086**		**7.824**	**1.078**	**0.002**		**1.079**

The public sector sustained 99% of the sector's 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 underestimated.

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.

In terms of geographic distribution, the results show that Tirana and Durres sustained significant shares of all damage and losses, at 64% and 13% respectively, while the remaining seven municipalities combined account for 23%. Education establishments in Mirdita and Rrogozhina did not sustain any damage or losses.

Table 11 Damage and losses by municipality for Education sector

Municipality	Damage				Losses			
	Public	Private	Total		Public	Private	Total	
	Million EUR		Million EUR	Billion ALL	Million EUR		Million EUR	Billion ALL
Durres	7.42	0.05	7.47	0.919	2.28	-	2.28	0.281
Shijak	1.99	-	1.99	0.245	0.42	-	0.42	0.051
Kruja	4.15	-	4.15	0.510	0.89	-	0.89	0.109
Lezha	2.45	-	2.45	0.302	0.46	-	0.46	0.056
Mirdita	-	-	-		-	-	-	-
Kurbin	3.43	-	3.43	0.422	0.57	-	0.57	0.071
Tirana	41.80	0.65	42.45	5.224	3.61	0.002	3.61	0.444
Kamza	0.06	-	0.06	0.008	-	-	-	-
Vora	1.01	-	1.01	0.125	0.17	-	0.17	0.021
Kavaja	0.57	-	0.57	0.070	0.36	-	0.36	0.044
Rrogozhina	-	-	-		-	-	-	-
Total million EUR	**62.88**	**0.70**	**63.59**		**8.76**	**0.002**	**8.76**	
Total billion ALL	**7.738**	**0.086**		**7.824**	**1.078**	**0.0002**		**1.079**

2.4 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). Of this total, over 83.32 million EUR (10.2 billion ALL) or 88% constitutes reconstruction needs.

The needs for basic and secondary education account for more than half of the total reconstruction needs and stand at 58%. Higher education and dormitories combined comprise 34%. VET schools and pre-schools, including early childhood care institutions (crèches), is at 5% and 3%, respectively.

Table 12 Reconstruction and recovery needs by component for Education sector

Recovery Component	Reconstruction	Recovery	Total	
	Million EUR		Million EUR	Billion ALL
Infrastructure and Physical Assets	83.32	2.95	86.28	10.62
Continuation of Service Delivery	-	5.27	5.27	0.65
Capacity Development and Governance	-	1.25	1.25	0.15
Risks Reduction and Resilience	-	2.03	2.03	0.25
Total in million EUR	**83.32**	**11.50**	**94.83**	
Total in billion ALL	**10.25**	**1.42**		**11.67**

Table 13 Reconstruction needs by education facility

Type of education facility	In million EUR	In billion ALL
Crèche	0.50	0.06
Pre-school	1.44	0.18
Basic School	34.27	4.22
Sec. School	14.52	1.79
VET	4.50	0.55
HE	20.37	2.51
Dormitories	7.74	0.95
Total in million EUR	**83.32**	
Total in billion ALL		**10.25**

However, for the private sector, as in the case of damage and loss, the estimated value of needs should also be viewed as a lower bound estimate of the actual needs required for recovery and reconstruction. Given that private education institutions (crèches, schools, VET schools and universities) are not funded by government resources, it is recommended that they are provided with access to subsidies and soft loans for the reconstruction in return for meeting the required safety standards.

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 enrolment and attendance of children, especially among 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.

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.

Table 14 Short-, medium- and long-term need for the Education sector

Recovery Component	Short		Medium		Long		Total Recovery and Reconstruction	
	Reconstruction	Recovery	Reconstruction	Recovery	Reconstruction	Recovery		
	Million EUR						Million EUR	Billion ALL
1. Reconstruction of Infrastructure and Physical Assets	49.89	1.48	33.43	1.48	-	-	86.28	10.62
2. Resumption and Continuation of Service Delivery	-	2.20	-	3.07	-	-	5.27	0.65
3. Capacity Development and Governance Needs	-	0.33	-	0.49	-	0.44	1.25	0.15
4. Risks Reduction and Resilience Education	-	0.10	-	0.91	-	1.03	2.03	0.25
Total in million EUR	**49.90**	**4.09**	**33.43**	**5.95**	**0.00**	**1.46**	**94.83**	
Total in billion ALL	**6.14**	**0.50**	**4.11**	**0.73**	**0**	**0.18**		**11.67**

Short-Term Needs

Infrastructure Reconstruction and Physical Assets

Detailed structural assessment of destroyed/damaged school buildings through a facility-by-facility survey to update estimates on reconstruction and rehabilitation needs (soil test, buildings, furniture and equipment and learning materials.)

Reconstruction of fully destroyed education facilities as per new building codes using the principles of Build Back Better, which include disaster-resilient technology, quality improvements and accessibility features for those with disabilities and more energy-efficient systems. It is estimated that 50% of all fully destroyed education establishments will be reconstructed in the first year of the recovery plan.

Relocation of schools to safer locations: It is assumed that 5% of all fully destroyed basic and secondary schools in affected municipalities will be relocated to safer locations. Provisions for adequate land allocation must be made accordingly.

Retrofitting and repair of partially destroyed schools through a detailed assessment of these buildings. It is estimated that around 80% of partially destroyed schools will be retrofitted and repaired during the first year.

Repair of lightly damaged schools through the provision of small grants to schools. It is estimated that all lightly damaged schools will be repaired in the first year.

Resumption and Continuation of Service Delivery

Provision of free daily transportation for relocating 21,300 children and 1,300 teachers from/to host schools until the reconstruction works are completed.

Training of teachers on psycho-social support: 17,000 additional teachers will need to be trained on the provision of psycho-social support and counselling by the MoESY and ASCAP with support from development partners.

Provision of textbooks and teaching and learning materials: Given the damage to teaching-learning materials, it is necessary to provide supplies for the meaningful resumption of teaching-learning processes.

Capacity Development and Governance Needs

Improving existing legal and oversight mechanisms for strengthening and ensuring school safety in all education facilities. Revision of existing regulations regarding minimum safety standards for school infrastructure, maintenance and operation is required.

Development of appropriate designs and prototypes for disaster resilient education facilities, especially for higher education, and standards/manuals for the retrofitting of all types of education facilities. For the timely reconstruction of higher education facilities and rehabilitation of partially damaged school buildings, it is necessary to have these documents in place during the first year.

Creation of a construction quality control unit within the MoESY: The MoESY has no capacity within its structures to ensure quality control over the construction of schools. Therefore, it is suggested that a unit be created with three full-time staff members (two civil engineers and one architect). These staff members will work together with the engineers based at the municipal level to conduct school safety assessments and oversee any construction and rehabilitation works in the Education sector.

Development of mechanisms for the monitoring and reporting on enrolment and attendance of children within schools, especially in severely affected municipalities. This will, inter alia, be used to create equity profiles and track emerging disparities.

Medium-Term Needs

Infrastructure Reconstruction and Physical Assets

Reconstruction and retrofitting of schools will be continued in the second year of the recovery plan. In addition, schools that were hosting relocated children will undergo light repairs. Reconstructed and repaired education facilities will be provided with furniture and relevant equipment.

Continuation of Service Delivery

Provision of free daily transportation for children and teachers hosted in other schools will be continued until reconstruction works are completed.

Capacity Development and Governance Needs

Establishing national and sub-national (municipal level) contingency plans to support educational continuity. Education authorities at central and municipal levels will have their capacity enhanced in the development and implementation of contingency plans to ensure adequate preparedness to respond to and recover from emergencies.

Strengthening of an on-going initiative on Education Management Information System (EMIS) development and the incorporation of a module on school safety, education in emergencies and DRR (including equity profiles).

Provision of research grants in disaster-related topics. The MoESY will encourage research in disaster-related topics by allocating 20% of its research budget for this purpose.

Risk Reduction and Resilience Education

Mainstreaming Disaster-Risk Education into education curricula, teaching and learning. The MoESY and ASCAP will comprehensively review the learning standards and curricula and include risk reduction. Quality teaching and learning materials for students and teachers will be developed to address all dimensions of climate-smart risk reduction education: disaster mechanisms, key messages for safety and preparedness, understanding risk drivers and mitigating the consequences of disasters, and building community risk reduction capacity and a culture of safety and resilience.

Strengthen school-based Disaster-Risk Management (DRM) guidance. There is a manual on school safety and management of emergencies that was developed by ASCAP with support from UNICEF in 2018. It is important to build on that manual to produce other relevant guidelines, education and communication materials to provide practical guidance for a) the creation of disaster-risk management committees involving staff, students, parents, and community stakeholders; b) standard operating procedures for hazards, including building evacuation, evacuation to safe areas, shelter-in-place and lockdown, and safe family reunification; and c) practising and improving response preparedness with regular school-wide and community-linked simulation drills.

Non-structural mitigation of all schools. All education establishments in the country will implement cost-efficient, non-structural mitigation activities (at least with furniture and content, e.g., fixing the bookshelves against the walls) to minimise non-structural risks.

Longer-Term Needs

Risk Reduction and Resilience Education

Training of master trainers on the new curriculum and textbooks in the teacher training institutes (ASCAP). It is assumed that after revision of the curriculum and textbooks, master trainers will have to be prepared, who will, in turn, train teachers through regular INSET programmes – 67 trainers will be trained from ASCAP.

Strengthening the capacity of schools, parents' councils and childrens' groups to implement school-based disaster-risk management. It is estimated that all pre-schools, basic and secondary schools in the country will benefit from capacity-building efforts to implement school-based DRM.

Implementation Arrangements

The government, at all levels with support from development partners, will need to play a key role in the planning and implementation of the recovery of the education system. 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 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 by 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;
- Support first the children with a higher extent of trauma.

THE HOUSING SECTOR

3

3.1 Context

Building Stock

In this report, we take into consideration 10 out of the 11 affected municipalities; in Rrogozhina municipality, no housing losses were recorded. The building stock can broadly be divided into the periods before 1993 and after when the previous Albanian state-controlled economy started shifting toward a free market-based economy. During this transition period, urban areas experienced rapid growth and a construction boom. This rapid growth led to an increase in illegal settlements, as the implementation of a legal framework for urban planning and control of land tenure issues was not fully enforced also due to increased construction activity and the expanding urbanisation.

Up until 1993, residential buildings were predominantly low-to-mid-rise masonry buildings and a smaller portion were prefabricated reinforced concrete.[9] After 1993, and especially after 1997, buildings with reinforced-concrete frame systems and infill masonry walls, some of which were taller than ten floors, became a common feature. Meanwhile, the construction of unreinforced masonry houses declined across urban areas but remains highly present in rural areas. The quality and compliance of these new buildings related to design/construction codes vary significantly.

A law for legalization of illegal settlements and constructions was passed by the Albanian Parliament in 2006 to support the legalization process of informal developments. However, the lack of land administration capacity within the local government has hindered the legalization process.

Table 15 shows the number of housing units prior to the disaster event in the affected municipalities.

Data on housing (see Table 15), indicate that there are almost 1.3 million people living in more than 530,000 housing units in the 10 disaster-affected municipalities. Individual buildings prevail, accounting for 91% of total buildings. Apartment buildings represent only 9% of the total buildings, although these multi-storey buildings include a large number of housing units, representing about two-thirds of all housing units in the affected area.

[9] 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, built between the 1970s and mid-1990s with 4- and 6-storeys. High-rise residential buildings were not common.

Table 15 Population, buildings and housing stock

Municipality	Population	Total number of buildings	Total Housing Units
Durres	193,329	39,012	115,749
Shijak	30,760	8,481	10,378
Kruja	66,037	13,723	19,724
Lezha	61,308	15,877	30,304
Kurbin	43,241	9,490	14,977
Mirdita	20,646	4,384	7,745
Tirana	665,873	64,403	253,711
Kamza	124,461	22,673	36,582
Vora	30,474	6,817	8,928
Kavaja	47,895	14,340	35,639
Total	**1,284,024**	**199,200**	**533,738**

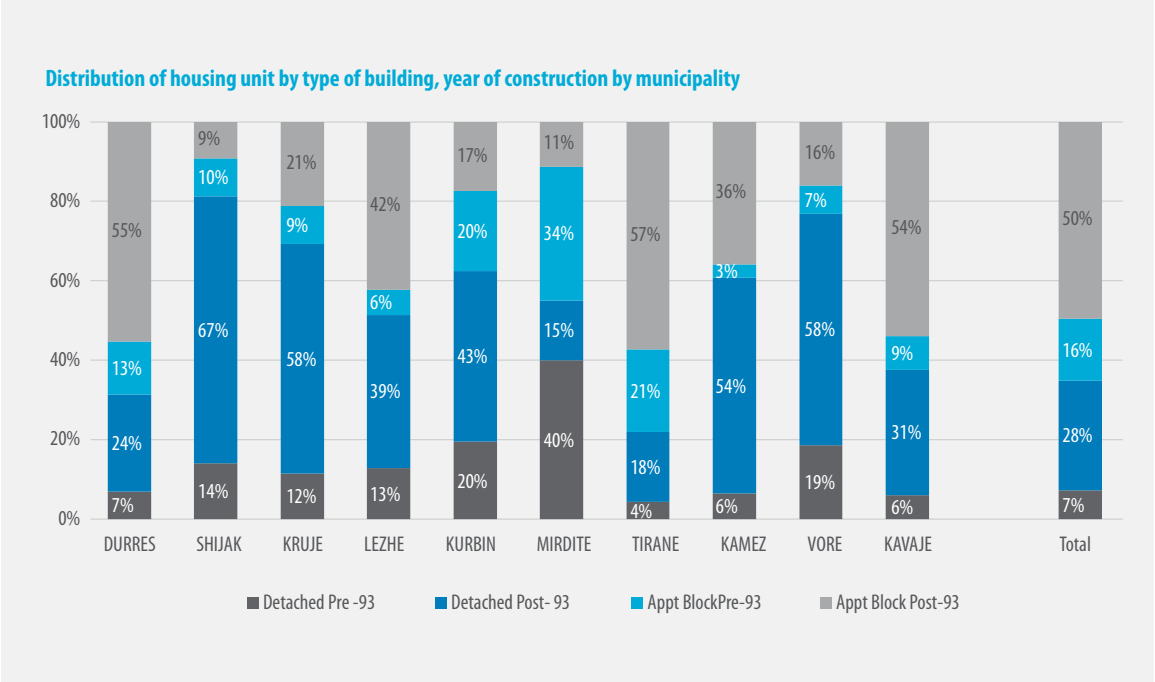
Source: National Address Book, INSTAT

Table 16 Distribution of buildings and housing units by type and year of construction

Type	Detached		Appt. Block	
Period	Pre-93	Post-93	Pre-93	Post-93
Buildings	19%	72%	3%	6%
Housing Units	7%	28%	16%	49%

Figure 1 shows that most housing has been constructed after 1993, confirming a general trend of urbanization, specifically in Tirana, Durres, Kavaja and Lezha.

Figure 1 Distribution of housing unit by type of building and year of construction



Policies, Legislation and Regulations on Housing and Settlements

The responsibilities of territory planning in Albania are divided into central and local levels. Municipal governments are the first line forces responsible for managing cities. Law No. 107/2014 "On Territorial Planning and Development" is currently in effect, as well as some subsidiary legislation that enacts procedures to issue construction and development permits, and planning instruments and regulations on development.

The currently enforced Albanian Seismic Design code is KTP-N.2-89- Earthquake Resistant Design Regulations (1989). The code defines building design intensities for Durres, Tirana and Lezha. Thus, more than 75% of the residential buildings in the affected area are assumed to have been designed according to this code, and 15%-20% of buildings recorded to have been built before 1989 followed the previous seismic design standards KTP-1963 and KTP-1978 (based on the last census in 2011).

The seismic zoning of Durres, intensity VIII, and the surrounding areas where the earthquake occurred, has not changed significantly between the KTP-1963 and KTP-N.2-89 codes. This territory, however, is characterized by soft soil conditions, which amplify the seismic impacts on existing ground structures. For the territory of Tirana, the zonation has changed, from VI intensity in KTP-1978 to VII intensity in KTP-N.2-89, which leads to an elastic spectrum[10] for Tirana on the order of 2-3 times lower than the 1989 code. This affects around 15% of the existing building stock in Tirana.

[10] The standard simplified representation of the expected seismic load to be used in the seismic design and assessment of buildings

In the last decade, the EUROCODE standards have been introduced to engineers in Albania. Resources have been invested in the translation and preparation of national annexes, national guidelines and training materials. Currently, eight parts of the EUROCODE system are translated and accepted as Albanian Standards. However, they have not yet been approved as "Albanian Technical Codes" and are used only on a voluntary basis.[11]

The latest condominium maintenance law in Albania was approved in 2009. The law expands the requirements related to the operation of condominium associations and the obligations of members. However, neither the national government nor the local municipalities have allocated budget dollars for the implementation of this law, and cities do not have the right or responsibility to monitor its implementation. As a result, maintenance of multi-family apartment buildings is very low or is undertaken by non-officially registered homeowners' associations.

3.2 Disaster Effects

It is clear from initial assessment information that the sector of housing and human settlements was the most affected by the earthquake. As recorded up until 14th January 2020, a total of 4,803 buildings were categorized as fully destroyed or having to be demolished (DS4 and DS5). It is estimated that this number, in terms of housing units, will reach 11,490. In addition, another 17,698 buildings were categorized as either partially or lightly damaged (DS1, DS2, DS3), accounting for 83,745 housing units. Effects on household goods (including furniture, personal items and supplies) were also considerable.

The calculation of disaster effects was based on more than 50,000 buildings ascertained in the field, as a result of the Ascertainment Act process, conducted and coordinated by the Institute of Construction. As of 14th January 2020, inspections of residential buildings in Shijak and Vora were complete and also in a significant part of Durres. The Building Ascertainment Act measured the damage sustained based on six level degrees. For the purpose of the ascertainment, an ad-hoc IT system was developed for capturing real-time data on damage status of the buildings. The IT system integrates three databases including the National Address system, the Albanian Power Distribution Operator billing system and the State Authority for Geospatial Information (orthophotos). The Ascertainment Act assessment process started at the beginning of December and is still ongoing.

Effects on Infrastructure and Physical Assets

As noted above, a total of 11,490 housing units were categorized as fully destroyed or to be demolished,[12] and 83,745 housing units were either partially or lightly damaged.

About 2% of all the housing units in the 10 affected municipalities are severely damaged or collapsed (respectively 2%, 5% and 1% for Detached, Pre-93 and Post-93 buildings). Overall, it can be indicated that the quake affected about one-fifth of the housing stock within the 10 affected municipalities.

The damage was most extensive among the housing units built before 1993 and least extensive among those built after 1993. Figure 2 shows that in total about one-third of all housing units built before 1993 was damaged, compared to 14% of those built after 1993; this is partly because of the type of construction made, as explained above. Furthermore, it should be noted that the level of damage varies between municipalities, with Shijak, Durres, Kruja and Vora being the hardest hit.

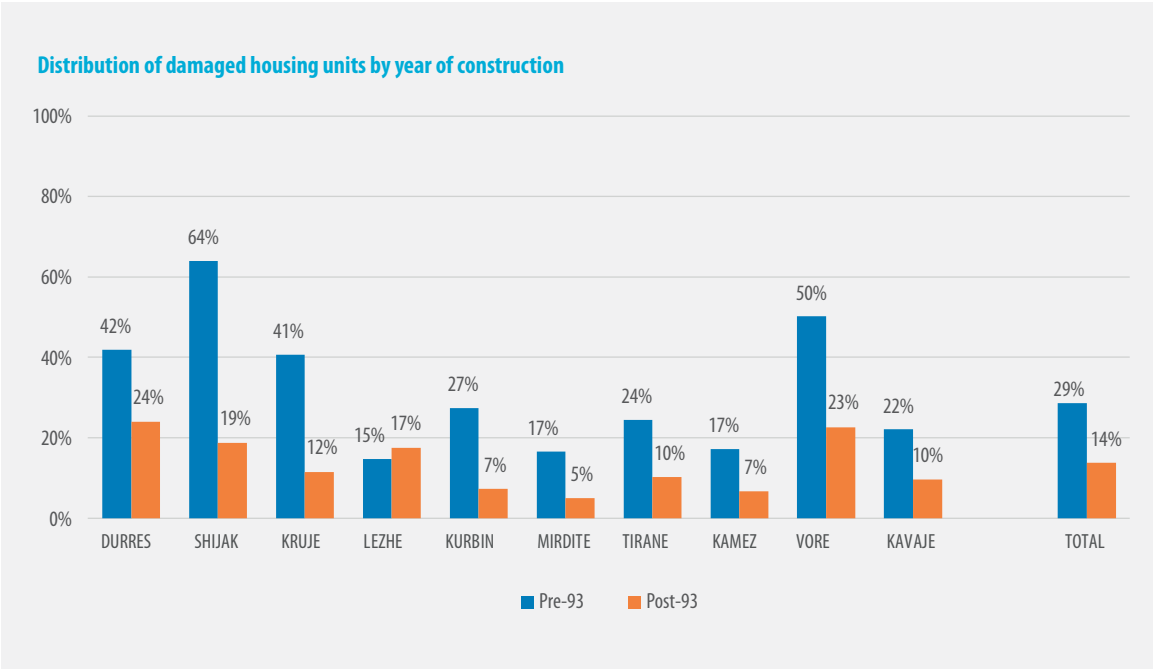
[11] Rikard LUKA Chairman of TC-250 Mirror Committee -Albania, Oct. 2018

[12] In the current damage assessment, damage levels are defined as follows: DS1+DS2 – Light damage; DS3 – medium damage; DS4+DS5 – severe damage and collapse.

Table 17 Damaged housing units per municipality

Municipality	Damaged (1)			Destroyed (2)	TOTAL	% of affected
	Light	Medium	Severe		(1 + 2)	housing stock
Durres	27,390	7,043	2,386	360	37,179	33%
Shijak	1,201	691	1,162	-	3,054	29%
Kruja	2,284	1,386	1,355	122	5,147	26%
Lezha	1,434	659	370	-	2,463	8%
Kurbin	1,346	585	416	20	2,367	16%
Mirdita	625	225	27	-	877	12%
Tirana	24,508	6,872	3,517	189	35,085	14%
Kamza	2,126	229	191	-	2,546	7%
Vora	1,505	275	877	-	2,657	31%
Kavaja	2,345	1,016	499	-	3,859	11%
Total	**64,765**	**18,980**	**10,799**	**691**	**95,235**	**18%**

Figure 2 Distribution of damaged housing units by year of construction



Underlying factors of the vulnerability of housing stock:

While the assessment is still on-going, a few overarching conclusions regarding the level of damage and collapse can be made:

- The intrinsic seismic vulnerability of unreinforced unconfined masonry. The disaster demonstrated once again the high vulnerability of this type of lateral-load-resisting structures;
- The likely unauthorized adding of floors to buildings, removal of load-bearing components, and other structural modifications;
- Housing units built by non-professional labour (constructed by owners to-be) during the 1980s resulted in low quality;
- Soft-storey construction practices and insufficient seismic-design requirements of the currently in-force design code KTP-N.2-89 might have also contributed to the damages (not sufficiently addressed modern construction practices that gradually prevailed after 1991);
- Insufficient construction quality control;
- Use of low-quality materials;
- The lack of maintenance and inadequate repair after previous damaging seismic events.

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. Around 17,090 persons were accommodated in hotels (25% or 4,324) and tents (75% or 12,766); others were either hosted with family or friends or are renting premises; while about 1,000 have left to Kosovo*.

Shortly after the earthquake, GoA started to provide rental subsidies for those who found "temporary" living places, until their houses are rehabilitated or reconstructed.

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

Also, due to increased demand, the average level of rent has increased compared to the level before the earthquake; with the exception of Tirana, where it has maintained the same price. Therefore, finding a home to rent at a reasonable price is one of the key concerns of the displaced population, especially in Durres, Shijak, Kruja, where there is insufficient available stock.

Effects on Governance

The event brought up two aspects of governance to be addressed: construction regulations and finance. 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 enforce the EUROCODE.

As far as finance is concerned, the event has and will have an impact on the government budgets, specifically for the compensation to the affected population, whose property suffered damages or was totally destroyed.

* 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.

Effects on Risk and Vulnerabilities

It is estimated that a total of 47,000 people have been directly affected by the earthquake. Collective accommodation has 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 further medical attention due to chronic illnesses and types of disabilities. Overall 22% of the displaced population in temporary accommodation are children (3,801 children 0-18 years old), while 17% (2,873) are accommodated in tents, with higher risks for diseases due to the cold and overall insufficient conditions. Furthermore, women and children accommodated in temporary shelter (represent 49% and 22% respectively) are more vulnerable to human trafficking.

Following the displacement, a number of houses were looted. Some of the families had taken loans to buy those goods. Other reported losses are related to families that have sold their furniture and appliances because they had no place to store them after their houses were destroyed.

3.3 Estimation of the Value of Damage and Loss

The total effects 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 33.94 million EUR (4.18 billion ALL). Household bills for water and electricity have not been included in these calculations. It appears that all residential damages occurred to private housing with no public housing recorded as being damaged, however when completed, the full inspection of properties will confirm this.

Damages

Based on the assessment of damaged residential buildings, estimates of costs for full reconstruction and repair, and replacement of household goods and other assets,[13] the total estimated damage has been estimated at 662.3 million EUR (81.50 billion ALL) wherefrom effects on household goods (furniture, personal items and supplies) amounts to 28.72 million EUR (3.53 billion ALL)), see Table 18.

[13] The replacement costs of household goods has been estimated only for those housing units categorized as totally damaged (DS4+DS5+Demolished)

Table 18 Cost of damage to housing

Municipality	Lightly Damaged	Partially Damaged	Totally Destroyed	Household Goods	Total Damages	Total Damages in billion ALL
	In million EUR					
Durres	69.59	62.16	69.97	6.87	208.59	25.67
Shijak	4.18	7.48	35.73	2.90	50.29	6.19
Kruja	7.44	13.77	44.85	3.69	69.75	8.58
Lezha	3.6	5.65	10.44	0.92	20.61	2.54
Mirdita	1.37	1.88	1.04	0.07	4.36	0.54
Kurbin	3.69	6.35	12.98	1.09	24.11	2.97
Tirana	54.09	52.83	88.68	9.26	204.86	25.21
Kamza	5.64	2.27	5.67	0.48	14.06	1.73
Vora	5.15	3.24	27.38	2.19	37.96	4.67
Kavaja	5.54	8.3	12.62	1.25	27.71	3.41
Total in million EUR	**160.29**	**163.93**	**309.36**	**28.72**	**662.3**	
Total in billion ALL	**19.72**	**20.17**	**38.07**	**3.53**		**81.50**

Losses

The recorded losses comprise costs related to debris removal, temporary shelter (costs of setting up tents, accommodation in hotels and rental bonuses) as well as rental losses from the affected house owner, see Table 19.

Table 19 Type of losses of the housing sector by municipality and total effects

Municipality	Removal of Debris	Rental Losses (1 year)	Provision of Temporary Shelters	Total Losses	Total Losses in billion ALL
	In million EUR				
Durres	4.3	0.25	7.65	12.20	1.50
Shijak	2.20	0.10	0.31	2.61	0.32
Kruja	2.76	0.17	0.33	3.26	0.40
Lezha	0.64	0.04	0.88	1.56	0.19
Mirdita	0.06	0.00	0.00	0.06	0.01
Kurbin	0.80	0.04	0.44	1.28	0.16
Tirana	5.46	0.68	3.34	9.48	1.17
Kamza	0.35	0.02	0.06	0.43	0.05
Vora	1.68	0.09	0.43	2.20	0.27
Kavaja	0.78	0.04	0.11	0.93	0.11
Total in million EUR	**19.03**	**1.46**	**13.45**	**33.94**	
Total in billion ALL	**2.34**	**0.18**	**1.67**		**4.18**

* Provision of temporary shelters includes a) Cost of setting up a tent b) Accommodation in hotels till March 31, 2020 c) Rent bonus estimated till December 31, 2020.

3.4 The Sector Recovery Strategy

Reconstruction and Recovery Needs

Based on the damages and losses, the recovery and reconstruction needs are estimated to be 803 million EUR (99.301 billion ALL) over the short, medium and longer term, shown in Table 20. Overall, 11,490 housing units will need to be constructed, and other 83,745 houses will require repair and retrofitting in the course of the reconstruction programme. Also, temporary accommodation needs should be supported and financed. And 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 20 Needs and proposed interventions for housing at short, medium and long term

Type of Intervention	Short	Medium	Long	Total	Total in billion ALL
	In million EUR				
Reconstruction					
Repairs, retrofitting and new construction	389.89	371.15	0.00	761.04	93.6
Recovery					
Provision of temporary hotels	3.2	0.0	0.0	3.2	0.4
Provision of temporary tents	0.1	0.0	0.0	0.1	0.0
Temporary rental support	18.4	0.0	0.0	18.4	2.3
Demolition and debris removal	18.1	0.0	0.0	18.1	2.2
Finalization of housing reconstruction policy	0.0	0.0	0.0	0.0	0.0
Communications and consultations	0.1	0.1	0.1	0.3	0.0
Development of a housing recovery plan	0.2	0.2	0.2	0.6	0.1
Housing data management system	0.1	0.1	0.1	0.3	0.0
Capacity building	0.3	0.2	0.0	0.5	0.1
Quality assurance	0.1	0.1	0.1	0.3	0.0
Updating national building codes to EUROCODE standards					
Total in million EUR	**430.51**	**371.85**	**0.50**	**802.86**	
Total in billion ALL	**52.97**	**45.76**	**0.06**		**98.80**

Vision and Guiding Principles

The vision for the housing sector recovery and reconstruction process is to support the owner-driven reconstruction (ODR) process of housing and ensure the shortest possible duration for people living in temporary shelter accommodation.

Special focus will be given to vulnerable groups such as children, women, people with disabilities, older people and patients with chronic illnesses. The recovery process will ensure that the temporary shelter arrangements meet the needs of the affected population and do not exacerbate existing, or create new, vulnerabilities and risks for those utilizing these accommodations.

The following guiding principles should form the basis of strategy and planning of post-disaster recovery for the Housing sector:

- The principles of equity, inclusion and community participation through an owner-driven reconstruction (ODR) approach to build-back-better (BBB) will drive recovery and reconstruction of the housing sector;
- Encourage the participation of communities by empowering them to take control of the reconstruction of their houses and ensuring the facilitation of ODR;
- Adequate housing for an individual or family shall be considered as housing that guarantees privacy, a safe, peaceful and dignified life;
- A comprehensive view of housing reconstruction should include holistic habitat development, with basic services and community infrastructure. The principle of BBB should translate into the concept of safer and more accessible settlements;
- Reconstruction should be seen as a vehicle to build long-term community resilience by reducing vulnerabilities and strengthening community capacities to mitigate future disasters through improved construction practices for the majority of the building stock in the country;
- Strengthen the local economy through reconstruction and processes that work to the benefit of the poor and marginalized sections who are mostly in the informal sector. Reconstruction should provide an opportunity for the poor to upgrade their living conditions;
- Ensure sustainable and environment-friendly reconstruction processes, taking note of climate change, natural resource management and scientific risk assessments.

Women and Social Inclusion

Recovery and reconstruction present the opportunity to ensure vulnerable groups' needs are incorporated into the process – including supporting improved accessibility requirements with building back housing and settlements. Technical and construction committees (community-level user committees) should ensure participation of women and representatives of vulnerable groups (including people with a disability) not only at the level of work (labour) but also at the level of decision-making, management and monitoring/supervision. The settlement planning and design of shelters and services should integrate social and protection issues generally faced by women. The reconstruction may present an opportunity to demonstrate women's right to equality by ensuring that they are accorded equal rights to their land and property.[14]

The Sector Recovery Plan

Strategy for the Transitional Phase

In the short term, the focus of the recovery strategy will be on addressing the immediate needs of the affected people during the transitional phase; on completing the housing assessment process; and on planning, preparing and commencing the reconstruction phase – including defining what BBB means for the housing sector, clarifying roles and responsibilities, and managing expectations and risks with the development and implementation of a clear communications plan. Solutions for transitional shelter are needed so that people can live with a certain degree of comfort and dignity until permanent reconstruction or repair and retrofitting work is completed. People must be informed of ways to improve the transitional shelters as they may have to inhabit them for a couple of years.

[14] For example, the government can make joint ownership a compulsory condition for receiving government-aided recovery and reconstruction support.

Demolition, Debris Clearance and Salvaging Material

The demolition and debris clearance process provides an opportunity for homeowners to salvage materials. Field observations show that owners of low-strength masonry buildings can quickly demolish and salvage materials. Owners of reinforced concrete frame buildings are in a more difficult situation as damaged buildings that are still standing may be in a perilous state and may require specific skills and tools for demolition. Moreover, debris disposal will have to be carefully planned, keeping in mind environmental considerations, so as to avoid blocking waterways or damaging agricultural lands. An environmental assessment should be made on-site in order to identify hazardous materials and contaminated land. A plan for the storage, transport, and sale of recovered materials should also be insured. Deconstruction waste is most often recycled into:

- Crushed concrete and masonry as concrete aggregate for road construction;
- Concrete, block, masonry and other clean debris used for rip-rap and borrow pit fill;
- Planks and other dimensional lumber sawn from large wood beams;
- Metals (steel, aluminium other non-ferrous) for both domestic and export markets; etc.

Health and Safety

As the affected area is seismically active, immediate actions are needed to rapidly assess any risks of housing buildings in the public space that have the potential to collapse in total or part with another event, and any areas at risk of rockfall that could impact housing. A plan should be developed that involves the evaluation of public areas and establishment of fencing or other methods to reduce risk to the public. Further, clear communications around existing health and safety guidelines should be provided to the affected community and construction sector to minimize any health and safety risks – including any potential asbestos or contaminated land risks and appropriate management of risks.

Planning for Reconstruction

The GoA has already started the development of rigorous and transparent housing units damage assessment and household eligibility survey. The eligibility criteria are already in place for supporting the reconstruction programmes.

Families, who have lost their housing unit due to the demolition of buildings, benefit from the following programmes (i) new development areas; (ii) on same land reconstitution building; (iii) housing fund. Under each of the programmes, GoA will ensure an Ownership Agreement based on the different modalities and geographical location (urban/rural).

Strategy for the Reconstruction Phase

The entire housing reconstruction process is likely to take up to five years. Households will be facilitated with significant technical assistance to manage reconstruction. Further, a review of legislation and regulations/policies to reduce unnecessary hurdles for affected households will be undertaken – whilst ensuring social and environmental risks are managed. Cascading training programs, including the delivery of BBB in housing reconstruction, will be needed on a large scale to build the necessary pool of trained consenting officers and building contractors.

Specific strategies will be required to address the complex process of recovery of urban environments, among them the management of demolition in dense neighbourhoods, fragmentation of building ownership, high levels of tenancies, and, particularly, the dynamic migration patterns of people needing temporary accommodation while their houses get repaired/rebuilt. The tools and activities to support housing recovery would include monitoring systems for displacement and migration; detailed hazard mapping; review of the seismic building code and compliance; strong quality control of new builds and retrofits/repairs; and rental stock support plans.

Recovery should tackle underlying causes of vulnerability and risks, as mentioned through the report.

Building Construction Technologies

During reconstruction, modern concepts of seismic-resistant design should be applied as much as possible. This requires improvement of the acting seismic design standards, together with the seismic hazard and strengthening of the design approval process and construction control. Since EUROCODES have already been introduced to practitioners in Albania, an option in the short term is to enforce them as National Technical Standards and to agree on the use of an updated seismic zoning map. This should include the development of guidelines and the delivery of training for designers, builders and construction specialists. Increasing public awareness on the importance of BBB should also be considered in parallel with the improvement of the engineers' competence. Construction practices associated with high seismic risk should be clearly identified and forbidden for high-seismic areas.[15]

The Requirement of Construction Materials and Labour

With over 11,000 houses to be constructed and about 83,000 to be repaired and retrofitted, there will be a rise in building construction activities spread over several years. Two critical potential bottlenecks for effective reconstruction are the availability of construction materials and labour (in addition to the availability of finance). Mechanisms will be needed to ensure that materials are available at a reasonable price and are accessible in locations where needed.

[15] For example, buildings with soft-storeys, unreinforced unconfined masonry buildings, reinforced concrete frames with infills which can cause short-column failure mechanisms, reinforced concrete flat slabs, the practice of building additional floors, single disconnected foundations in liquefiable soils, etc. Non-structural components should also be addressed. Clear prescriptions should be issued for the anchorages of heavy façade elements and parapets, also heavy components on the roofs like water tanks, solar panels, billboards. Assessment of buildings to check for structural modifications should be undertaken

Awareness Programme for House Owners

As the recovery effort is going to be largely owner-led, it is essential to make them aware of the need for disaster-resistant construction. They will require guidance on the choice of building typologies, materials and costing in addition to the minimum disaster-resistant features to be adopted. To hire builders and decide on the type of material and construction system, owners need a degree of awareness. Dissemination of required information on reconstruction, repairs and retrofitting (including structural modification constraints) is very important.

Concurrent Monitoring and Quality Assurance

Independent technical monitoring and auditing of house construction, as well as repairs and retrofitting, is essential. A stronger earthquake (which is expected for this region) could occur and could result in higher fatalities, especially if it occurs near Tirana. Therefore, a BBB program is needed, with a strong focus on monitoring and quality control. It is important to ensure that such quality assurance mechanisms are activated during the reconstruction phase for timely reporting on the progress and quality of work achieved so that any redress of deficiency, if present, is addressed. It is necessary to see that independent professional institutions are involved in concurrent quality assurance to provide this feedback so that the government mechanism can then take appropriate decisions to redress the issues that come up.

Financial and Policy Facilitation

The Government of Albania has developed core legislation to support the housing sector recovery and reconstruction process, including the Normative Act No.9 "On the Resolution of the Natural Disaster Consequences" as approved on 16th December 2019. The Act outlines financial assistance in respect to lease payments at the average free-market value of one year, to be approved by the municipalities. Further, a homeowner reconstruction grant scheme was approved on 6 January by the Council of Ministers.[16]

Implementation Arrangements

The GoA has undertaken immediate actions to support a strong housing recovery and reconstruction process:

- The Normative Act "On the Resolution of the Natural Disaster Consequences" has been approved to facilitate and oversee the housing reconstruction effort.
- A high-level body representing 11 key ministries/agencies has been created to provide guidance on key housing policy matters.
- A reconstruction fund has been set up to which will comprise funds from the state budget and donor's contribution.
- A technical committee has been set up to provide planning and implementation advice.
- 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, according to the level of damage ascertained.

[16] DCM no. 5 of 06.01.2020, "Definition of rules and procedures for benefiters from the reconstruction grants program and design models.

4 THE PRODUCTIVE SECTOR

4.1 Summary of Sector Findings

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 as did 79 employees from 124 businesses in trade. In the Tourism sub-sector, there was damage to 18 public and private 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 relate 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 52.95 million EUR (6.5 billion ALL) in damage and losses, most of it due to the damage sustained by 714 businesses in manufacturing and trade.

Table 21 Damage and losses by sub-sectors of the Productive sector

Sub-sector	Damage		Losses		Total	
	Million EUR	Million ALL	Million EUR	Million ALL	Million EUR	Billion ALL
Business and Employment	47.48	5,842.41	5.46	671.85	52.95	6.5
Tourism	16.71	2,056.17	73.53	9,047.87	90.24	11.1
Cultural Heritage	5.31	653.40	0.44	54.14	5.75	0.7
Agriculture	1.3	159.97	0.22	27.07	1.54	0.2
Total million EUR	**70.8**		**79.65**		**150.48**	
Total billion ALL		**8.7**		**9.8**		**18.5**

In relation to the geographic distribution of damage and losses, the municipality of Durres is by far the most affected with a total of almost 64.97 million EUR (7.99 billion ALL) or 43% of the total. The second most affected municipality is Kavaja with 37.77 million EUR (4.6 billion ALL) or 25%, followed by Tirana with almost 21.89 million EUR (2.7 billion ALL) or 15% of the total.

Table 22 Total damage and losses, by municipality of the Productive sector

Municipality	Business & Employment		Tourism		Cultural Heritage		Agriculture		Total	
	Million EUR	Billion ALL	Million EUR	Billion ALL	Million EUR	Billion ALL	Million EUR	Billion ALL	Million EUR	Billion ALL
Durres	27.2	3.35	36.46	4.486	0.6	0.074	0.71	0.087	64.97	7.99
Shijak	4.3	0.53	0.88	0.108	0	0.000	0.00	0.000	5.18	0.60
Kruja	2.0	0.25	1.12	0.138	2.54	0.313	0.00	0.000	5.66	0.70
Lezha	1.8	0.22	4.58	0.564	0.13	0.016	0.58	0.071	7.09	0.90
Mirdita	0.0	0.00	0.00	0.000	0.06	0.007	0.00	0.000	0.06	0.007
Kurbin	0.5	0.062	0.11	0.014	0.01	0.001	0.00	0.000	0.62	0.076
Tirana	11.0	1.354	8.81	1.084	2.07	0.255	0.01	0.001	21.89	2.70
Kamëz	1.0	0.123	0.22	0.027	0	0.000	0.00	0.000	1.22	0.15
Vora	4.2	0.517	1.23	0.151	0.14	0.017	0.00	0.000	5.57	0.69
Kavaja	0.9	0.111	36.82	4.531	0.05	0.006	0.00	0.000	37.77	4.60
Rrogozhina	0.0	0.00	0.0	0.000	0.14	0.017	0.00	0.000	0.14	0.02
Total Million EUR	**52.94**		**90.24**		**5.75**		**1.54**		**150.48**	
Total billion ALL		**6.5**		**11.1**		**0.7**		**0.2**		**18.5**

The recovery needs in this sector amount to 51.83 million EUR (6.4 billion ALL), over half of which 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).

Table 23 Short-, medium- and long-term recovery needs of Productive sectors

Sub-sector	Short		Medium		Long		Total	
	Million EUR	Billion ALL	Million EUR	Billion ALL	Million EUR	Billion ALL	Million EUR	Billion ALL
Business and Employment	10.00	1.228	13.80	1.696	4.05	0.499	27.84	3.4
Tourism	5.96	0.733	2.99	0.368	1.93	0.237	10.88	1.3
Cultural Heritage	0.75	0.092	2.77	0.342	3.84	0.473	7.40	0.9
Agriculture	1.86	0.229	1.73	0.210	2.11	0.257	5.70	0.7
Total million EUR	**18.61**		**21.29**		**11.93**		**51.83**	
Total billion ALL		**2.29**		**2.62**		**1.47**		**6.4**

4.2 Sub-sector Reports

4.2.1 The Business and Employment Sub-Sector

Context

Albania was granted 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%).[17] The Central region (predominantly Tirana and Durres), 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.[18] Micro and small enterprises comprise the largest share of businesses, representing almost two-thirds in the Manufacturing sector. The largest number of active businesses have two to four employees.[19]

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.

Table 24 Number of businesses by type and municipality

Total number of businesses										
Municipality	Warehouse	Production	**Total for Manufacture**	Shop / Trade centre	Expo	Parking	Services	Office	**Total for Trade**	**Total**
Durres	75	72	**147**	970	1	1	217	11	**1200**	**1347**
Shijak	34	24	**58**	134	0	0	81	0	**215**	**273**
Kruja	46	36	**82**	598	9	1	52	4	**664**	**746**
Lezha	30	28	**58**	305	0	1	131	5	**442**	**500**
Mirdita	14	8	**22**	273	0	0	16	5	**294**	**316**
Kurbin	4	1	**5**	134	0	0	11	0	**145**	**150**
Tirana	345	86	**431**	2,688	7	17	993	45	**3,750**	**4,181**
Kamëz	26	32	**58**	752	1	0	214	4	**971**	**1029**
Vora	59	25	**84**	95	2	3	72	10	**182**	**266**
Kavaja	76	18	**94**	380	1	0	128	5	**514**	**608**
Rrogozhina	0	0	**0**	0	0	0	0	0	**0**	**0**
Total	**1418**	**660**	**1,039**	**12658**	**22**	**46**	**3830**	**178**	**8,377**	**9,416**

[17] Based on the INSTAT business survey conducted after the earthquake.

[18] Accommodations and food services (bars/restaurants) are covered by the Tourism section report.

[19] Based on the INSTAT business survey conducted after the earthquake.

The labour market in Albania is characterized by disparities in terms of gender and age. In 2018, the 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 1564 year 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. However, the Albanian government has made it a priority to improve the employment position of people with disabilities and it is one of the measures in the Law on Employment Promotion.

Effects of the Disaster

The assessment of the Business 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.

The assessment results found that a total of 300 businesses in manufacturing and 414 in trade were damaged, while the remaining 2,820 had no damage. The breakdown of damage to businesses by type of facility and type of damage is presented in Table 25, and can be summarised as follows:

- 179 businesses were fully damaged (118 in manufacturing and 61 in trade);
- 131 businesses were partially damaged (56 in manufacturing and 75 in trade);
- 404 businesses had minor damage (126 in manufacturing and 278 in trade).

Table 25 Number of damaged businesses in trade and manufacturing, by municipality

Municipality	Fully Damaged			Partially Damaged			Minor Damaged			Total	
	Manuf.	Trade	**Total**	Manuf.	Trade	**Total**	Manuf.	Trade	**Total**	Manuf.	Trade
Durres	46	20	**66**	33	35	**68**	68	141	**209**	147	196
Shijak	20	9	**29**	7	12	**19**	9	26	**35**	36	47
Kruja	12	9	**21**	6	5	**11**	14	10	**24**	32	24
Lezha	4	0	**4**	0	1	**1**	1	4	**4**	5	5
Mirdita	0	0	**0**	0	0	**0**	0	0	**0**	0	0
Kurbin	4	1	**5**	3	1	**4**	4	6	**10**	11	8
Tirana	8	8	**16**	1	6	**7**	6	31	**37**	15	45
Kamëz	2	3	**5**	0	0	**0**	1	6	**7**	3	9
Vora	21	8	**29**	5	11	**16**	23	43	**66**	49	62
Kavaja	1	3	**4**	1	4	**5**	0	11	**11**	2	18
Rrogozhina	0	0	**0**	0	0	**0**	0	0	**0**	0	0
Total	**118**	**61**	**179**	**56**	**75**	**131**	**126**	**278**	**404**	**300**	**414**

The following are the main three types of businesses affected:

- 245 warehouses were damaged, equal to 117,544 M2 of damaged facilities;
- 234 shops were damaged, equal to 85,757 M2 of damaged facilities;
- 122 services were damaged, equal to 42,840 M2 of damaged facilities.

Although there were only 55 production facilities affected, the damaged square meter is close to the total damages of 234 shop / trade centres.

Table 26 Number of businesses damaged by type of business

Municipalities	Damages			Grand Total	Damages per square meter		
	Full	Partial	Minor		Full	Partial	Minor
Warehouse	105	45	95	**245**	36,960	38,242	42,341.8
Production	13	11	31	**55**	24,035.9	12,941	43,765.3
Total Manufacture	118	56	126	**300**	60,995.9	51,183	86,107.1
Shop/Trade Centres	27	38	169	**234**	10,167.5	21,604	53,984.9
Expo	0	0	0	**0**	0	0	0
Parking	16	7	25	**48**	1,339.3	995.8	4,081.3
Services	15	28	79	**122**	5,843.5	13,768.8	23,228.3
Office	3	2	5	**10**	1,047.0	725.3	1,217.7
Total Trade	61	75	278	**414**	18,397.3	37,094.2	82,512.2
Grand Total	**179**	**131**	**404**	**714**	**79,393**	**88,277.4**	**168,619.3**

The total cost of damaged equipment, furniture, machinery and goods for 179 businesses is 2.64 million EUR (0.325 billion ALL), most of it in manufacturing businesses with 2.4 million EUR (0.295 billion ALL).

Estimation of the Value of Damage and Loss

The total cost of damage and losses in the Business and Employment sub-sector is 52.95 million EUR (6.5 billion ALL). Nearly 47.48 million EUR corresponds to damage (5.85 billion ALL) and 5.46 million EUR (0.67 billion ALL) to losses.

In terms of the geographic distribution of damage and 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.[20]

Losses were calculated for three main categories 1) employment loss, 2) income loss and 3) demolition and debris removal, as shown in Table . 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

[20] Data on Rrogozhina municipality was not available and Mirdita was the only municipality without any registered damage or losses.

Table 27 Damage and loss to Business and Employment Sub-sector, by municipality

Municipality	Damage		Losses		Total		Total		
	Million EUR	Billion ALL	Million EUR	Billion ALL	million EUR	Billion ALL	Public	Private million EUR	Private billion ALL
Durres	24.6	3.027	2.6	0.320	27.2	3.347	0.0	27.2	3.3
Shijak	3.5	0.431	0.8	0.098	4.2	0.517	0.0	4.2	0.5
Kruja	1.5	0.185	0.5	0.062	2.0	0.246	0.0	2.0	0.2
Lezha	1.7	0.209	0.1	0.012	1.8	0.221	0.0	1.8	0.2
Mirdita	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.0	0.0
Kurbin	0.4	0.049	0.1	0.012	0.6	0.074	0.0	0.6	0.07
Tirana	10.5	1.292	0.5	0.062	10.9	1.341	0.0	10.9	1.3
Kamëz	0.9	0.111	0.1	0.012	1.0	0.123	0.0	1.0	0.1
Vora	3.5	0.431	0.7	0.086	4.2	0.517	0.0	4.2	0.5
Kavaja	0.8	0.098	0.1	0.012	0.9	0.111	0.0	0.9	0.1
Rrogozhina	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.0	0.0
Total billion EUR	**47.48**		**5.46**		**52.95**		**0.0**	**52.95**	
Total billion ALL		**5.85**		**0.67**		**6.52**			**6.52**

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 (0.181 billion ALL).

In trade, a total of 79 employees from 124 businesses have temporary 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 (0.058 billion 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. The estimated income loss is 1.93 million EUR (0.238 billion ALL), of which 1.27 million EUR (0.156 billion ALL) correspond to manufacturing businesses and 0.66 million EUR (0.204 billion ALL) to businesses in trade. Finally, the cost of demolition and debris removal is estimated to be 1.59 million EUR (0.196 billion ALL).

Table 28 Losses by category of Business and Employment sub-sector

Type of Loss	Million EUR	Billion ALL
Cost of demolition / debris removal	1.59	0.196
Employment in manufacturing	1.47	0.181
Employment in trade	0.47	0.058
Income losses in manufacturing	1.27	0.156
Income losses in trade	0.66	0.081
Total in million EUR	**5.46**	
Total in billion ALL		**0.672**

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 'BBB' approach, in line with best practices in construction standards and the EUROCODE. The short-term interventions support business reactivation giving priority to the employment of those who lost their jobs. 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 to 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. Table29 indicates the cost for short-, medium- and long-term recovery interventions.

Table 29 Short-, medium- and long-term reconstruction and recovery needs of Business and Employment sub-sector

Type of intervention	Short	Medium	Long	Total	
	Million EUR	Million EUR	Million EUR	Million EUR	Billion ALL
Reconstruction					
Demolition costs, debris removal and BBB Reconstruction in Manufacturing (Warehouse and production)	6.05	7.23	0.00	13.28	1.634
Demolition costs, debris removal and BBB reconstruction in trade (sops/trade centre, parking, expo, services and offices)	2.63	3.41	0.00	6.03	0.742
Furniture, equipment, machinery for manufacture	0.0006	0.0004	0.0004	0.0014	0.0002
Furniture, equipment, machinery for trade	0.0001	0.0000	0.0000	0.0001	0.0001
Sub-total for Reconstruction	8.68	10.65	0.00	19.33	2.376
Recovery					
Immediate short-term post-disaster generated employment supporting economy reactivation	0.30	0.40	0.30	1.00	0.123
Post disaster business model innovations with supporting administrative/regulatory burden reduction	0.50	1.00	1.00	2.50	0.308
Support enterprise recovery and employment promotion strategy at the local level	0.25	0.75	1.50	2.50	0.308
Revision of business resilience and safety standards	0.25	1.00	1.25	2.50	0.308
Sub-Total for Recovery	1.30	3.15	4.05	8.51	1.047
Grand Total million EUR	**10.0**	**13.8**	**4.05**	**27.84**	
Grand Total billion ALL			**0.499**		**3.423**

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.

Figure 3 The Recovery Plan for the Business and Employment Sub-sector

OVERALL GOAL	**Risk-informed economic growth** **Increased post-disaster employment** **New resilient investments** **Sustainable competitiveness**
SHORT TERM	**Immediate short-term post-disaster generated employment supporting economy reactivation** 1) Temporary employment schemes in earthquake damaged community infrastructure and business recovery reconstruction as the immediate short-term intervention (demolition works, removal of rubble, temporary safety measures etc.)
MEDIUM TERM	**Post-disaster business model innovations with supporting administrative/regulatory burden reduction** Support to business registration/licensing mechanisms reducing post disaster administrative and regulatory burdens Risk-informed business innovation capacity building
	Support enterprise recovery and employment promotion strategy at local level VET programme recommendations targeting employment needs as a result of earthquake impacted changes in business sector Post-disaster policies and programmes aimed at unemployment reduction amongst women, minority, youth and persons with disabilities
LONG TERM	**Revision of business resilience and safety standards** Situation analysis of existing legal and oversight mechanisms targeting minimum safety standards for business infrastructures, maintenance and operation Post-disaster capacity building trainings/workshops and public awareness campaigns

4.2.2 The 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 tourism, but the municipalities of Durres and Lezha are also developing cultural tourism. For several years the Durres area has been the main destination of tourists with travel packages. About 35% of all accommodations are hotels, motels, B&Bs, etc. and 65% are rooms, villas and apartments.

Rooms, villas and apartments are mainly informal, and therefore it was not possible to obtain the baseline number of them before the disaster. Informality is important in the Albanian Tourism sector, and pervasive even in formal private accommodations and food-and-beverage businesses. It is estimated that an additional 8.9% is linked to informality with respect to the official turnover figures.[21] This coefficient was, therefore accounted for when calculating the losses in turnover.

The following are the main categories considered in the assessment of the Tourism sub-sector:

1) Private and public accommodations (hotels)

Before the earthquake, 6,632 employees worked in a total of 671 private accommodations (also referred to as hotels) in the 11 affected municipalities. The capital of Tirana had 256 hotels with 3,252 employees. The municipalities of Kavaja and Durres have the highest numbers of hotels, with 140 hotels and 1,028 employees, and 121 hotels with 1,233 employees, respectively. The other municipalities have more modest numbers of hotels and employees. Gender disaggregated data was not available on employees in the 11 affected municipalities.

2) Private accommodations (rooms, villas, apartments)

Tourists in the affected area are generally accommodated in private apartments, villas and rooms, which represents 65% of the total. It is considered that damage to this type of private accommodations is accounted for in the Housing sector. There is no data available on which houses also serve as private accommodations for tourists.

3) Food-and-beverage facilities

Prior to the disaster, there were 2,169 food-and-beverage facilities active in the 11 affected municipalities, with a total of 12,179 employees. The majority of employees are in Tirana (9,369), followed by the municipality of Durres (1,608) and Lezha (768). Gender disaggregated data was not available on employees in the 11 affected municipalities.

The Ministry of Tourism and Environment (MoTE) is responsible for designing and implementing policies supporting the development of tourism at the national level and including in the affected municipalities.

[21] Estimate based on discussions with the PDNA Secretariat.

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 30, of the 671 private accommodations present in the 11 earthquake-affected municipalities, 18 were damaged, all located in Durres. Of this total, seven were fully destroyed, among them six private hotels (Vila Verde, Tropikal, Gostivar, Ljubjana, Mira Mar, and Vila Palma), and one public accommodation belonging to the Ministry of Interior in Durres (Konvalishenca).

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 affected municipalities prior to the disaster. Eleven of these facilities were totally damaged, including the restaurants of the seven hotels, two in Shijak, one in Kruja, one in Kamza, and three in Vora.

Table 30 Number of damaged tourism facilities 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
Total	**671**	**18**	**2,540**	**42**

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.

Effects on Governance and Service Delivery

There was no disruption of services 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 absence of a classification system in Albania means that facilities in the Tourism sector are not classified according to international standards.

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). In terms of the geographic distribution of damage, the municipality of Durres was overwhelmingly affected compared to the other municipalities, while the losses were high for both Durres and Kavaja with 36.46 million EUR (4.49 billion ALL) and 36.82 million EUR respectively (4.53 billion ALL).

Table 31 Total value of damage and loss, by municipality of Tourism sub-sector

Municipality	Damage		Losses		Total	
	Million EUR	Billion ALL	Million EUR	Billion ALL	Million EUR	Billion ALL
Durres	14.67	1.805	21.79	2.681	36.46	4.486
Shijak	0.60	0.074	0.28	0.034	0.88	0.108
Kruja	0.02	0.002	1.1	0.135	1.12	0.138
Lezha	0.03	0.004	4.55	0.559	4.58	0.563
Mirdita	0.0	0.000	0	0.000	0	0.000
Kurbin	0.04	0.005	0.07	0.008	0.11	0.013
Tirana	0.13	0.016	8.68	1.068	8.81	1.084
Kamza	0.19	0.024	0.03	0.004	0.22	0.027
Vora	1.03	0126	0.2	0.024	1.23	0.151
Kavaja	0.0	0.000	36.82	4.531	36.82	4.531
Rrogozhina	0.0	0.000	0.0	0.000	0.0	0.000
Total million EUR	**16.71**		**73.53**		**90.24**	
Total billion ALL		**2.056**		**9.046**		**11.103**

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

- Projected losses due to a decline in foreign visitors;
- Employment losses;
- 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;
- Losses linked to debris removal, particularly from the seven destroyed hotels.

Table 32 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 during 2020.

Table 32 Total value of losses by category of Tourism sub-sector

Type of losses	Million EUR	Billion ALL
Turnover losses	1.77	0.218
Losses due to decline in foreign visitor (2020)	41.35	5.088
Losses due to decline in foreign visitor (2021)	19.85	2.443
Losses due to decline in foreign visitor (2022)	9.93	1.222
Employment losses	0.36	0.044
Debris removal losses	0.27	0.033
Total million EUR	**73.53**	
Total billion ALL		**9.048**

Projected losses due to a decline in foreign visitors in Albania are linked to the fact that the earthquake has generated fear related to 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 MoTE 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 MoTE 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 and public accommodations because they were calculated based on the average daily spending of a tourist, the average number of days stay, and the overall lost number of visitors for the years 2020 to 2022.

Since it is estimated that the share between hotels and private accommodation (rooms, villas, apartments) is 35% and 65% respectively, it is possible to conclude that the informal sector of private accommodations will be incurring losses too as a result of the decline in foreign visitors due to the earthquake.

489 employees in the Tourism sector lost their job as a result of the disaster, in private and public accommodations and in food and beverage facilities, as shown in Table 33.

Table 33 Overall employee losses in Tourism sub-sector

Business category	No. of employees who lost jobs due to light damage	No. of employees who lost jobs due to partial damage	No. of employees who lost jobs due to total destruction	Total
Private accommodations	59	39	131	229
Public accommodations	0	0	134	134
Food and beverage facilities	83	29	14	126
Total	**142**	**68**	**279**	**489**

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.

Durres was the municipality that was the most affected, and, as a result, will bear most of the costs for reconstruction. The reconstruction in Durres will focus on the public hotel that was completely destroyed and its 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 some are 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. The other seven partially damaged and 24 lightly damaged food and beverage facilities are spread among the other affected municipalities. Total reconstruction needs will be 5.58 million EUR (0.687 billion ALL), most of which will take place over the short term. Total recovery needs will be 5.3 million EUR (0.652 billion ALL), to be implemented mostly between the short and medium terms.

The recovery needs over the short, medium and long term are described below.

Short-term

- The reconstruction of damaged buildings and facilities, for both accommodations and food and beverage businesses;
- Enforcement of construction safety standards that follow the EUROCODE 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

- Increase the capacities 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

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

Table 34 Short-, medium- and long-term reconstruction and recovery needs for tourism

Type of intervention	Short	Medium	Long	Total	
	In million EUR				In billion ALL
Reconstruction					
Repair and retrofitting of private hotels	0.3	0	0	0.3	0.041
Reconstruction of the public hotel	0.8	0.8	0	1.6	0.192
Reconstruction, repair and retrofitting of private food and beverage facilities	2.6	0	0	2.6	0.322
Reconstruction of the restaurant attached to public hotel	0.3	0	0	0.3	0.037
Replacement of furniture and equipment for food and beverage private facilities	0.2	0	0	0.2	0.027
Replacement of furniture and equipment for public hotel	0.0	0.3	0	0.3	0.033
Replacement of furniture and equipment for food and beverages for public facilities	0.0	0.01	0	0.0	0.001
Demolition cost and debris removal for tourism facilities	0.3	0	0	0.3	0.033
Sub-total for Reconstruction	4.51	1.06	0.00	5.58	0.687
Recovery					
Promotional campaign to re-stimulate demand, promote Albania as a safe tourist location and reduce projected tourism loss	0.8	0.6	0.6	1.9	0.234
Introduction of innovative safety measures in tourism facilities with inclusive capacity building for employees	0.5	0.9	0.9	2.3	0.283
Support to risk-informed tourism development policies accompanied by adequate legislative framework	0.2	0.4	0.4	1.1	0.135
Sub-total for Recovery	1.44	1.93	1.93	5.30	0.652
Total million EUR	**5.96**	**2.99**	**1.93**	**10.88**	
Total million ALL	**0.733**	**0.368**	**0.237**		**1.33**

4.2.3 The 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. Cultural heritage is also important to the national economy and to employment.

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.[22]

The assessment of the Cultural Heritage sub-sector focused on the following three main categories for which the baseline information is presented in relation to the affected areas (counties of Durres, Tirana and Lezha):

1) Museums and cultural heritage sites (MS): affected municipalities have five national museums and two cultural heritage sites (Castle of Lezha / archaeological park and Amphitheatre of Durres) that are administered by the MoC and can be visited with an entrance fee. The local museums identified in the affected areas in Kavaja, Durres, Kruja and the respective local governments administer Lezha. During the PDNA, data on the number of visitors for these local museums could not be obtained, so the baseline on the number of visitors and revenues from visitors to museums reflects only data from the museums administered by the MoC.

2) Tangible cultural heritage: Monuments and Sites (CM): these comprise private and public built heritage, archaeological sites, etc. In affected areas there are 352 monuments/sites[23] that constitute about 16% of the overall number in Albania, and 41 protected zones that constitute about 20% of the total number in the country. Two monuments within this region are included on the UNESCO Tentative list (Amphitheatre of Durres and Bashtova Castle).

3) Collections and repositories (CR): these comprise historical, archaeological, ethnographic, and painting collections as well as books, archives and film collections, a testimony to the rich history of the country. In the affected areas, there is a total of 54,298 movable / cultural heritage objects and collections registered in the national database of movable cultural properties.[24] Of these, 32,368 objects are located in museums and repositories administered by the MoC. The number of registered collections in some institutions may not reflect the real number of collections, because the institutions that administer collections are in the process of registering these collections to the National database of the Institute of Registration of movable cultural heritage.

[22] National Strategy for Culture 2019-2025.

[23] The total number of 352 monuments include 137 monuments of 1st category and 215 of 2nd category.

[24] Baseline data on the number of registered collections is gathered from the National database of the Institute of Registration of movable cultural heritage.

Table 35 Number of monuments / sites and registered collections

Municipality	No. of Cultural Monuments	Protected Zones	No. of Registered Objects / Collections
Tirana	243	16	47,623
Kamza	0	0	
Vora	2	1	
Kavaja	13	1	
Rrogozhina	2	2	
Tirana Total	**260**	**20**	**47,623**
Durres	29	7	4,222
Kruja	28	4	1,445
Shijak	1	0	
Durres Total	**58**	**11**	**5,667**
Lezha	17	6	1,008
Mirdita	11	3	
Kurbin	6	1	
Lezha Total	**34**	**10**	**1,008**
Total affected area	**352**	**41**	**54,298**
Total Albania	**2,224**	**210**	**92,237**

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.[25] The level of damage to these monuments is presented in Table 36.[26]

Of those inspected, 23 monuments were classified as high risk, which refers to those with a high risk of collapse. An additional 30 monuments were classified as medium risk, which refers to those that do not have structural damage or risk collapsing but have some surface or roof damage. The Castle of Durres, Castle of Kruja and Castle of Preza are among the most damaged cultural monuments.[27]

Several monuments were classified as uninhabitable by the Institute of Construction and are still closed to the public.[28] 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.

[25] See annex for details on the methodology used.

[26] See map in the annexes that shows the assessed level of damage in the inspected cultural heritage assets in the earthquake-affected areas.

[27] 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.

[28] 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.' The heritage specialized inspection teams in the most damaged cases that are administrative buildings (premises used by administration staff) or visited buildings (museums, etc.) or houses (inhabited places) collaborated with the Institute of Construction. All the 111 inspected monuments mentioned have an assessment form completed but only a small number of them (inhabited ones) had an inspection from the Institute.

Table 36 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 a damaged state (before the earthquake)	9
No. of inspected monuments / sites / institutions in affected areas	111
Percentage of inspected monuments	32%

In addition, some collections were damaged such as cracking and breaking of the stone, ceramic artefacts 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 in this report.

More details describing the damage to some of the main monuments can be found in the Annexes, including photographs.

Effects on Access and Availability of Services

Following the earthquake, all museums and cultural heritage sites with entrance fees located in 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. Two national museums and three local museums remain closed, namely the National Historic Museum and Museum of Secret Surveillance "Gjethi", both in Tirana; and the Ethnographic museum-house of Aleksandër Moisiu in Durres, the Ethnographic museum-house of Arkaxhinj in Kavaja, and the Ethnographic and Earthquake museum-house of Mlikaj in Lezha.

Effects on Governance and Service Delivery

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.

Estimation of the Value of Damage and Loss

The total damage in this sub-sector is 5.31 million EUR (0.653 billion ALL), while losses were much lower with 0.44 million EUR (0.054 billion ALL). The vast majority of the damage was to cultural monuments as shown in Table 37. In relation to the geographic distribution of damage and losses, the municipality of Kruja was the most affected with 2.54 million EUR (0.313 billion ALL), followed by Tirana with 2.07 million EUR (0.255 billion ALL).

Table 37 Damage and losses by category of Cultural Heritage sub-sector

Type of Cultural Heritage	Damage				Losses				Overall Total	
	Public	Private	Total		Public	Private	Total			
	Million EUR			Billion ALL	Million EUR			Billion ALL	Million EUR	Billion ALL
Museums and Cultural heritage sites (MS)	0.25	0.00	0.25	0.031	0.17	0.000	0.17	0.021	0.42	0.052
Cultural Monuments (CM)	4.08	0.97	5.05	0.621	0.27	0.002	0.27	0.033	5.32	0.654
Collections and repositories (CR)	0.01	0.00	0.01	0.001	0.00	0.000	0.00	0.000	0.01	0.001
Total million EUR	**4.34**	**0.97**	**5.31**		**0.44**	**0.002**	**0.44**		**5.75**	
Total billion ALL				**0.653**				**0.054**		**0.707**

Table 38 Damage and losses by municipality for Cultural Heritage sub-sector

Municipality	Damage		Losses		Total	
	Million EUR	Billion ALL	Million EUR	Billion ALL	Million EUR	Billion ALL
Durres	0.54	0.067	0.06	0.007	0.60	0.074
Shijak	-	-	-	-	-	-
Kruja	2.42	0. 298	0.12	0.015	2.54	0.313
Lezha	0.06	0.008	0.07	0.009	0.14	0.017
Mirdita	0.06	0.007	0.002	0.0002	0.06	0.008
Kurbin	0.01	0.001	0.003	0.0004	0.01	0.001
Tirana	1.98	0.244	0.09	0.011	2.07	0.255
Kamza	-	-	-	-	-	-
Vora	0.13	0.015	0.01	0.002	0.14	0.017
Kavaja	0.04	0.005	0.01	0.001	0.05	0.006
Rrogozhina	0.07	0.008	0.07	0.009	0.14	0.017
Total million EUR	**5.31**		**0.44**		**5.75**	
Total billion ALL		**0.653**		**0.054**		**0.707**

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 (such as in the fortification tower of Preza); 3) the cost of debris removal (such as Tower C in the castle of Durres and the Preza Clock Tower), 4) the dismantling of fragile structures that were a risk to surrounding area; 5) the use of necessary signage for security in at-risk areas; and 6) addressing further risks and vulnerabilities in some structures and collections (such as the very fragile state of walls in the castles of Lezha and Bashtova).

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

Table 39 Comparison of revenue from visitors in Nov. and Dec. 2018 – 2019 of cultural sites

Museums and Cultural Heritage Sites with entrance fee	Location	Revenues - visitors 2018 (in ALL)		Revenues from visitors 2019 (in ALL)	
		Nov-18	Dec-18	Nov-19	Dec-19
National Historic Museum	Tirana	369,400	153,500	578,080	35,960
Archaeological Museum	Durres	150,900	38,400	90,900	38,100
Gjergj Kastrioti Skënderbeu Museum	Kruja	274,300	196,900	321,100	221,240
Ethnographic Museum	Kruja	136,200	54,300	173,610	80,250
Amphitheatre	Durres	42,400	17,600	48,600	43,000
Castle of Lezha, Archaeological Park	Lezha	10,000	3,000	10,500	4,000
Museum of Secret Surveillance «Gjethi»	Tirana	389,080	197,230	478,000	26,960
Total revenue (in ALL)		1,372,280	660,930	1,700,790	449,510
Total revenue (in EUR)		11,152	5,371	13,822	3,653
Difference = Nov - Dec (in ALL)			711,350		1,251,280
Decrease in rate for December			52%		74%
Decrease in rate experienced after the earthquake 2019 in the PDNA region					22%

revenue from November and December 2018 with revenue in the same months in 2019. As seen in Table 39, the results indicate a revenue decrease of 22% (for museums within the affected areas).[29] Revenue losses were estimated for the monuments and sites that were closed as a result of the earthquake, namely the National Historic Museum and Museum of Secret Surveillance "Gjethi" in Tirana. Given that data on the number of visitors for the local museums could not be gathered, the loss in revenues (from tickets) for these could not be calculated within this PDNA.

The Sector Recovery Strategy

Recovery Needs and Proposed Interventions

The reconstruction and recovery needs for Cultural Heritage are presented in Table 40, indicating the needs by type of intervention and divided into short-, medium- and long-term recovery (based on urgency). Total needs are 7.37 million EUR (0.9 billion ALL).

Table 40 Short-, medium- and long-term recovery needs for Cultural Heritage sub-sector

Type of intervention	Short	Medium	Long	Total	
	Million EUR			Million EUR	Billion ALL
Detailed assessment and studies	0.22	0.00	0.00	0.22	0.027
Restoration /reconstruction of damaged monuments	0.3	2.60	3.27	6.17	0.759
Subtotal reconstruction	**0.52**	**2.60**	**3.27**	**6.39**	**0.786**
First aid measures	0.17			0.17	0.021
Repair of damaged equipment and equipment for monitoring and rapid assessment	0.06	0.00	0.00	0.06	0.007
Training and Capacity Building Programs and raising awareness	0.00	0.18	0.46	0.64	0.079
Development of risk management plans for Cultural Heritage assets and improvement of building codes for restoration	0.00	0.00	0.11	0.11	0.014
Subtotal Recovery	**0.23**	**0.18**	**0.57**	**0.98**	**0.121**
Total million EUR	**0.75**	**2.78**	**3.84**	**7.37**	
Total billion ALL	**0.092**	**0.342**	**0.473**		**0.907**

Short-Term Recovery Needs

First Aid Measures: refers to urgent needs for temporary shoring and propping of damaged and fragile structures that have a potential risk to collapse; temporary measures for collections that risk being damaged; temporary displacement of collections from closed pavilions due to structural damage.

Restoration/reconstruction of damaged monuments: emergency measures for conservation and restoration work on damaged monuments, reinforcement of fragile structures; restoration works based on approved projects (as per national legislation).

[29] 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 for a table indicating the visitors and revenue between 2018 and 2019.

Detailed assessment and studies: cost of project design and technical studies that are necessary to define interventions and methodology to restore monuments; geological studies / surveys and detailed structural analysis for the bearing structural capacity and laboratory analysis. Based on legislation this cost is calculated as 12% of the restoration works needed.

Repair of damaged equipment: to repair damaged equipment in museums and administrative buildings; equipment for monitoring and rapid damage assessment (equipment to monitor cracks, fragile structures, test pit excavations for foundations, the condition of collections, etc.).

Medium-Term Recovery Needs

Restoration/reconstruction of damaged monuments: based on approved restoration projects and detailed studies and technical assessments done during the short-term phase. In some cases (such as the castle of Kruja) reinforcement of the terrain is considered as an integral part of the restoration / stabilization of the monument.

DRR measures: includes the BBB coefficient for restoration works which is calculated as 20% of the restoration cost; developing evacuation plans for buildings and sites.

Development of a web/mobile application for gathering and managing data on damage assessment on cultural heritage assets.

Training and Capacity Building Programs: includes the need to strengthen professional capacities through capacity building (short and medium training) on drills, the use of traditional techniques in damaged built heritage, emergency response to damaged cultural heritage, etc. Training on tangible cultural heritage shall be implemented by the Regional Centre for Conservation and Restoration of South-East Europe (National Institute of Cultural Heritage) under the auspices of UNESCO. Training on collections shall be implemented by the Ministry of Culture and the main national museums.

Long-Term Recovery Needs

During the long-term recovery phase, efforts will continue to implement several on-going interventions (from the medium-term phase above), namely:

- Restoration/reconstruction of damaged monuments;
- DRR measures;
- Training and Capacity Building Programs

In addition, during this phase, the following recovery initiatives will be implemented:

Awareness Raising Programs: need for the community awareness and engagement process in the protection of cultural heritage at risk. Promotional campaigns, workshops, promotional publications, audio-visual materials, etc.

Development of Risk Management Plans for Cultural Heritage Assets: archaeological sites and main national museums need risk management plans. As per new national legislation on Cultural Heritage and Museums - management plans should be developed for tangible cultural heritage sites and museums, and it should also include risk management.

Improvement of Building Codes for Restoration: to improve design standards in the restoration of cultural heritage sites for the inclusion of technical safety norms /standards against seismic and fire risk. This process needs close collaboration with civil emergency experts and international experts in the field.

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 on cultural heritage are also on-going and planned as part of the integration process to the European Union. The main guiding principle should be to respect traditional building techniques and materials, pay due consideration to the national context in reconstruction, and respect cultural heritage values.

4.2.4 The 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; there are approximately 321,492 farms in the country (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.

Table 41 Agricultural holding with agricultural building

Prefecture	Store room for agricultural products (inside the house)	% of total	Store room for agricultural products (outside the house)	% of total	Hangar for mechanical equipment	% of total	Stable for animals	% of total	Separate buildings for other gainful activities	% of total	Other agricultural buildings	% of total
Durres	1,720	6	2,237	6	315	6	10,689	7	350	13	633	5
Lezha	625	2	1,892	5	284	6	12,403	8	109	4	370	3
Tirana	1,214	4	4,107	11	498	10	14,832	9	300	11	2,063	17
Total Albania	**29,602**		**38,757**		**5,118**		**160,242**		**2,754**		**11,942**	

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 are 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. Some agriculture and veterinary service providers were themselves affected – impeding their service delivery. Access to markets for agricultural products, apart from the temporary slowdown, was unaffected. The decrease in the quality of agricultural production will impact the income of farmers and to a very limited extent the value chains. 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.

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 (MoARD), 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 due to 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 little 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 suffered significant setbacks. The damage to embankments and water drainage stations from the 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 (1.3 million ALL), while damage to the building of the Ministry of Agriculture is still pending confirmation but is roughly estimated to be 90,000 EUR (11.1 million ALL).

The estimated losses in the Agriculture sub-sector amount to 222,000 EUR (27.3 million ALL). 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.

Table 42 Damage by municipality and to embankments / drainage for agriculture

Damage by Municipality	In million EUR	In billion ALL
Tirana	0.099	0.001
Durres	0.382	0.047
Lezha	0.015	0.002
Subtotal	0.404	0.050
Damage to embankments and drainage station		
Durres (embankments and drainage station)	0.325	0.040
Lezha (only drainage station)	0.569	0.070
Subtotal	0.894	0.110
Total in million EUR	**1.301**	
Total in billion ALL		**0.160**

The Sector Recovery Strategy

Recovery Needs and Proposed Interventions

The proposed recovery strategy for the Agriculture sub-sector 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 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. It will also focus on building back better irrigation and drainage infrastructure as well as agricultural production systems, and on increasing the resilience of farming households and local communities to weather-related shocks.

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 animal feedstocks. The following are the specific interventions proposed:

Recovery of the agricultural livelihoods in the affected municipalities:

- Supply agricultural inputs to re-start agricultural production;
- Replace lost or damaged agricultural equipment;
- Provide financial services to support, rehabilitate or introduce micro-enterprise recovery and development, and create employment opportunities;
- Provide support services for agricultural rehabilitation, extension services, farming schools, technical expertise, capacity building training, etc.;

- Develop support tools to enable the economic recovery of affected farmers;
- Strengthen the capacity of the MoARD and relevant agencies, to deliver national legislation, policies and strategies on DRR, through technical advice, human resources and expertise, training, practical tools and services.

Improvement of the DRR and DRM Sector of Albania:

- Assess the possibilities for improving the agricultural insurance system, enabling coverage of farmers in higher-risk areas;
- Develop state support mechanisms which enable improved agricultural insurance coverage;
- Develop a state subsidy system which compensates farmers for limited activities in disaster-prone areas.

The total recovery needs for agriculture amount to 5.66 million EUR (696.5 million ALL). Table 43 presents these recovery needs by intervention and over the short, medium and long term.

Table 43 Short-, medium- and long-term recovery needs for Agriculture sub-sector

Recovery intervention	Short	Medium	Long	Total	
	Million EUR			Million EUR	Billion ALL
Reconstruction of two water drainage stations in Durres and Lezha	0.90	0.00	0.00	0.90	0.111
Agricultural inputs to re-start agricultural production	0.09	0.63	0.00	0.72	0.089
Financial services / micro-enterprise recovery	0.27	0.18	0.18	0.63	0.078
Strengthen capacity of the Min. of Agriculture and relevant agencies	0.45	0.09	0.11	0.65	0.080
Assessment for Municipal Disaster Risk Assessments and Risk Reduction Plans in agriculture	0.05	0.27	0.63	0.95	0.117
Assessment for agricultural insurance for farmers in higher risk areas	0.05	0.27	0.27	0.59	0.073
Assessment to strengthen Municipalities on Resilience and Damage Assessment in agriculture sector	0.05	0.27	0.90	1.22	0.150
Total million EUR	**1.86**	**1.71**	**2.09**	**5.66**	
Total million ALL	**0.229**	**0.210**	**0.257**		**0.697**

5 THE INFRASTRUCTURE SECTOR

5.1 Summary of Sector Findings

This sector covers the following six Infrastructure sub-sectors: Energy, Transport, Communication, Water and Sanitation, Community Infrastructure, and Buildings owned by the Government of Albania.[30] 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 the damage, railways suffered some damage, namely its wagon repair workshop and railway station,[31] and a flyover bridge in Durres was affected.

Table 44 indicates the total damage and losses estimated for the Infrastructure sector, which amounts to 33.42 million EUR (4.1 billion ALL). Most of the damage relates to the Government Building and Energy sub-sectors. In relation to the geographic distribution, over one-fourth of the combined damage and losses is in the municipality of Durres as shown in Table 45.

Table 44 Damage and losses to Infrastructure by sub-sector

Sub-sector	Damage				Losses			
	Private	Public	Total		Private	Public	Total	
	million EUR			billion ALL	million EUR			billion ALL
Community Infrastructure	0.00	6.06	6.06	0.746	0.00	0.16	0.16	0.020
Energy	0.00	8.18	8.18	1.007	0.00	0.00	0.00	0.000
Government Buildings	0.00	10.07	10.07	1.239	0.00	2.26	2.26	0.278
Communication	0.50	0.42	0.92	0.113	0.10	0.06	0.16	0.020
Transport	0.00	4.83	4.83	0.594	0.00	0.43	0.43	0.053
Water, Sanitation & Hygiene	0.20	0.15	0.35	0.043	0.00	0.000	0.00	0.00
Total million EUR	**0.69**	**29.71**	**30.40**		**0.11**	**2.91**	**3.01**	
Total billion ALL	**0.085**	**3.656**		**3.742**	**0.014**	**0.358**		**0.370**

[30] The infrastructure sector does not include irrigation, health or education facilities, these are covered in their corresponding sector reports.

[31] Which may be covered by the project for reconstruction of Tirana – Durres railway, as this project is expected to start by mid of 2020 through WBIF funding - EBRD+EU.

Table 45 Damage and losses by municipality[32] to Infrastructure sector

Municipality	Damage		Losses		Total	
	Million EUR	Billion ALL	Million EUR	Billion ALL	Million EUR	Billion ALL
Durres	8.48	1.044	0.47	0.058	8.95	1.101
Shijak	1.81	0.223	0.03	0.004	1.84	0.226
Kruja	0.53	0.065	0	0.000	0.53	0.065
Lezha	1.38	0.170	0	0.000	1.38	0.170
Mirdita	0.8	0.098	0	0.000	0.8	0.098
Kurbin	2.29	0.282	0.03	0.004	2.32	0.286
Tirana	2.11	0.259	0.04	0.005	2.15	0.264
Kamza	0.49	0.060	0	0.000	0.49	0.060
Vora	0.98	0.121	0.02	0.003	1	0.123
Kavaja	0.5	0.061	0	0.000	0.5	0.062
Rrogozhina	0.05	0.006	0	0.000	0.05	0.006
Government Buildings	10.07	1.239	2.26	0.278	12.33	1.517
Communication	0.92	0.011	0.16	0.020	1.08	0.133
Total million EUR	**30.41**		**3.01**		**33.42**	
Total billion ALL		**3.742**		**0.370**		**4.112**

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 sector's total recovery needs are 61 million EUR (7.5 billion ALL). The breakdown of short-, medium- and long-term recovery needs for each sub-sector are presented in Table 46.

Table 46 Short, medium and long term recovery needs by Infrastructure sub-sectors

TotalSub-sector	Short	Medium	Long	Total	
	Million EUR			Million EUR	Billion ALL
Community Infrastructure	1.05	6.32	3.16	10.53	1.296
Energy	2.71	9.56	0.63	12.9	1.587
Government Buildings	2.66	15.93	7.97	26.56	3.268
Communication	0.26	1.55	0.78	2.59	0.319
Transport	0.75	4.48	2.24	7.46	0.918
Water, Sanitation and Hygiene	0.1	0.58	0.29	0.96	0.118
Total million EUR	**7.52**	**38.42**	**15.06**	**60.99**	
Total billion ALL	**0.927**	**4.728**	**1.853**		**7.506**

[32] Based on data received from eight municipalities (Durres, Kamza, Kruja, Kurbin, Lezha, Shijak, Tirana, Vora).

Guiding Principles for Recovery

The following guiding principles are recommended for the recovery of the Infrastructure sector:

- Provide a future model for new infrastructure that is earthquake resilient;
- Develop practical guidelines in the design phase of any recovery activity;
- Address the key risks and vulnerabilities facing communities and infrastructure;
- Improve institutional mechanisms for operations and maintenance, including sustainable cost recovery;
- Dedicate efforts to promote suitable technologies, use local materials, and earthquake-resistant designs, incorporate the role of the private sector, and generate technology development opportunities;
- Put in place specific capacity-building programs for strengthening local small- and medium-size construction enterprises, such as vocational training for municipalities promoting technology transfer from foreign engineering firms, etc.

5.2 Sub-sector Reports

5.2.1 The Community Infrastructure Sub-sector

Context

Community infrastructure is a relatively small-scale facility planned, built, owned, and operated and/or maintained with the active involvement of the community.[33] On a day-to-day basis, local service structures are crucial to community life. The following is covered under this sub-sector:[34]

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

[33] The Community Infrastructure sub-sector does not include water and sanitation, sewerage or solid waste management.

[34] The list is not exhaustive and may be adapted during the recovery process.

Estimation of the Value of Damage and Loss

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 (0.765 billion ALL).

Recovery Needs and Proposed Interventions

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 Arrangements

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 enterprises (SME) should be given priority in the reconstruction phase.

5.2.2 The Engery Sub-sector

Context

Albania is entirely dependent on hydropower for its electricity supply. Albania generates 5,895 GWh electricity each year.[35] The Albanian Power Operator (KESH) is a government company that is responsible for the generation of electricity and managing electricity generated by private companies. Transmission System Operator (OST) and Albanian Power Distribution Operator (OSHEE), both are fully owned by the Government of Albania (GoA). In Albania, 100% of the households, both in rural and urban areas, are connected to the electricity.[36]

Estimation of the Value of Damage and Loss

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

[35] The Energy Sector in Albania (https://bankwatch.org/beyond-coal/energy-sector-in-albania)

[36] Albania- Access to electricity (https://www.indexmundi.com/facts/albania/indicator/EG.ELC.ACCS.ZS)

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 systems 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% were 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 and Proposed Interventions

The recovery of the Energy 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.
- Develop a plan and keep sufficient tools, parts, and equipment as back up replacement, 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.

5.2.3 The Government Buildings Sub-sector

Context

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.

Estimation of the Value of Damage and Loss

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 because of the low intensity of the ground shaking. The damage and losses sustained by government buildings are estimated at 12.33 million EUR (1.5 billion ALL).

Recovery Needs and Proposed Interventions

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,[37] 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 (rent);
- Demolition and clearance.

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 aligned with modern disaster-resistant standards. Also, energy-saving and disability-facilitated access measures may also 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;

[37] It is worth noting that, irrespective of faith (Catholic, Muslim, Baktashi or any other), the majority of religious buildings were built or re-built after 1990.

- Clarification of legally operating building codes;[38]
- 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.

[38] To date, only the National Building code dated 1979 applies by law, however the National Building code dated 1985 also applies, as well as the more advanced EUROCODE.

5.2.4 The Communication Sub-sector

Context

The Communications 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 a public-private partnership (PPP) arrangement. The Electronic and Postal Communications Authority (AKEP) is the telecommunications 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.

Estimation of the Value of Damage and Loss

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, etc. Two buildings supporting three telecommunication antennas 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 broadcasters and cable television 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 and Proposed Interventions

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, 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 Arrangements

The Communication sector in Albania is owned by both the private and public sectors, or under a 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) Develop a coordination arrangement among various service providers such as between telecom operators, so they have better sharing arrangements to minimize interruptions, and 2) Construct a disaster recovery integrated data centre.

5.2.5 The Transport Sub-sector

Context

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 (ARRSH). The roads, railways, airports, and seaports are owned by the GoA. Different parts of Albania are linked by a reasonably good land transport system.

Estimation of the Value of Damage and Loss

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 Ishmi 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 and Proposed Interventions

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 Arrangements

The railways in Albania are administered by the National Railway Company (HSH), which 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.

5.2.6 The Water, Sanitation, and Hygiene Sub-sector

Context

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).

Estimation of the Value of Damage and Loss

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 and Proposed Interventions

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 that includes building 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.

6 THE SOCIAL PROTECTION SECTOR

6.1 Context

The social protection system in Albania combines cash (economic assistance and disability benefits) and care programmes (social care services) (MoHSP, 2019). 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, social protection spending amounts to 9% of GDP, significantly lower than the EU average of 28%.[39] Spending is dominated by social insurance outlays (contributory programmes), which accounts on average for over 80% of total spending between 2015 and 2019 (estimate). Spending on pensions is relatively low, at an average of 6.8% of GDP between 2005 and 2018, despite having increased in both nominal and relative terms but still accounting for the bulk of total (9.4% of GDP) social protection spending in Albania. The major non-contributory social protection programmes with extensive coverage include the means-tested poverty-alleviation programme (social assistance) and disability benefits, which account on average for 14% of total public social spending during the same period. The remainder is dedicated to active and passive employment programmes, managed by the Ministry of Finance and Economy (about 1% of the total budget) as well as social care services, emergencies and the management of the social protection strategy. As cash benefit schemes dominate the social protection system, capacities for social protection programme administration are limited at all levels, both in terms of the number of staff as well as technical competency. Services provided through the non-public sector – mainly financed by international CSOs and charities – have attempted to fill the gaps in public social services provision.

Social Assistance – *ndihma ekonomike* (NE) is based on a Unified Scoring Formula and an automated process of applicant data registration and management. The average amount provided through the NE programme is 5,200 ALL (42.6 EUR) for a family of four members on a monthly basis, which is equal to 31% of the minimum wage (211 EUR or 26,000 ALL, DCM, No. 809/ 2019).

Disability Allowance (DA) – the other cash assistance programme under social protection is disability allowance, currently under reform. In terms of **disability allowance**, the scheme targets about 71,710 persons with disabilities (PwD), while another 74,669 persons with work-related disabilities benefit from the Social Insurance Scheme. The typology of reintegration services that people with disability need are not sufficiently developed and certainly not accessible across the country, while overall infrastructural accessibility for this category is still under development. Some of the main difficulties that persons

[39] European System of Integrated Social Protection Statistics (ESSPROS).

with disabilities face concern school attendance and educational attainment, specialised rehabilitation services, participation in the labour market, and employment of the informal caregiver as well as health expenditures.

Social care services are non-cash interventions supplied to individuals and families to help reduce poverty, mitigate risks, improve inclusion and integration, and to fully cover their basic needs. The social care system provides public and non-public services for persons in need of residential and day-care services. Public social services are financed by the state budget. Social care service provision is limited in offer and unevenly distributed in the territory, concentrated in the main urban areas and suffers from a lack of resources and capacities. The latest mapping for the social care services (SSS, UNDP, 2019) indicates that there are about 276 public and non-public social services available in the Albanian territory. Some of the challenges in service provision are linked to quality, coverage, the inclusion of persons with disabilities and sustainability. Overall, 44% of the social care services infrastructure is located in the three affected regions, whereas the use of services remains low at the national level with only 0.35% of the total population use social care services.

Another programme related to social protection is the unemployment benefit, which is a flat rate benefit unrelated to previous earnings, set at 50% of the gross minimum wage. The total unemployment rates for the regions are 16% for Tirana, 9% Durres and 4% Lezha. In the affected three regions, the pre-disaster share of jobseekers receiving unemployment benefits is 33 % (Tirana with 24%, followed by Durres with 5% and Lezha with 4%).

Data from the National Employment and Skills Agency (NAES) shows that 53% of the registered unemployed are women, and they also represent 51% of the long-term unemployed (over one year). In rural households, a vast majority of women are engaged in unpaid family farm work. Labour Force Survey 2018 (LFS, INSTAT 2019) data indicate that women are 1.8 times more likely than men to be contributing free family workers.

The 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, delivered through local governments, monitoring and appeal institution for social care services as well as delivery of national scale social care services. The MoHSP is the lead institution for coordinating social protection and health emergencies preparedness and response and is also part of the "Inter-Ministerial Committee for Civil Emergencies." At the regional and local level, coordination of response to emergencies or disasters is done with the Regional Directories for Social Services and municipalities. The ministry leads and coordinates the support provided by national and international non-government organisations in response to the communities affected by a disaster.

6.2 Disaster Effects

Effects on Infrastructure and Physical Assets

There were some damages identified on the infrastructure of social protection included in the infrastructure report. The assessment included public facilities only, while very little information was obtained from the private sector providers (CSOs) and therefore is missing also in the Infrastructure sector report. In total, only eight community centres and social care service facilities were reported as partially damaged, see Table 47.

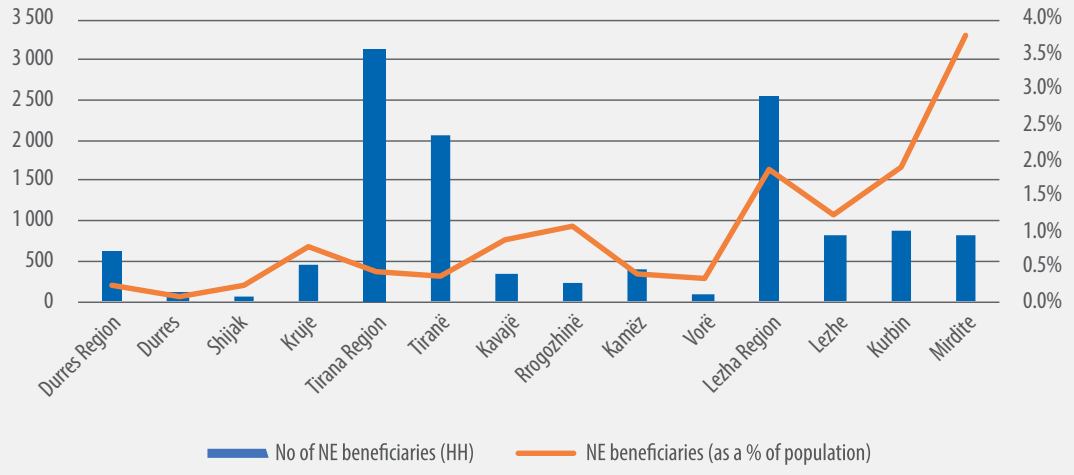
Table 47 Damage of social protection facilities by location

Municipality and name of facility	Numbers partially damaged	
	Public	Private
Tirana		
Social Centre "Të Qëndrojmë së Bashku", Kombinat	1	
Durres		
Regional Directory of State Social Services, Durres	1	
Community Centre for children with disabilities (day-care)	1	
Centre for children without parental care (Shtepia e Foshnjes) (residential)	1	
Development centre (residential)	1	
Hope Centre (day-care)		1
Christian Centre (day-care)		1
Total	**5**	**2**

Effects on Access and Availability of Services

Overall, there have been no disruptions of the cash programmes (cash payments - NE and disability allowances have been running normally). In terms of NE - while the total number of beneficiaries is 59,082, their share in the earthquake hit municipalities is about 10.6% (or 6,275 families). In the absence of an agreed minimum income for an average size family, it is difficult to assess the adequacy and impact on poverty alleviation as a result of cash transfers and also to estimate humanitarian cash transfers; meanwhile these families might be falling deeper into poverty if they are not prioritised during the recovery. Lezha Region has the highest share of beneficiaries (Figure 4) in comparison with the population (2%), with Mirdita Municipality having 4% the population recipients of cash assistance, followed by Kurbin (2%) and Lezha municipality (1%).

Figure 4 Social protection - economic assistance beneficiaries



Source: SSS,MoHSP, December2019

In the earthquake-hit areas, there are 22,875 people with disabilities (PwD) and 28,685 work invalids, each representing 2% of the affected population. This share is higher in Lezha Region (Mirdita 4%, Kurbin and Lezha 3% each).

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

The overall social care services provision was not significantly affected. The vulnerable population in these areas include Roma and Egyptians, children, women with protection orders and families in need of shelter. Residential centres opened the doors to host additional beneficiaries, especially during the first weeks. Some of the day-care and community-based services for the first days up to two weeks following the earthquake were closed (one centre reported two weeks[40]) but all the teams shifted their support from facility-based to mobile teams providing services to the areas where the affected communities were accommodated, either in hotels, tents or community buildings. Joint teams made up of government and non-government staff have been providing 24-hour-a-day support services in facilities, including counselling, psychosocial support and health-related needs. CSOs report about 5,000 beneficiaries being addressed during the period from 26 November 2019, to January 2020. Comparing the information received from different service providers, this means an additional nearly 60% of beneficiaries reached out during the post-disaster period. Though these numbers indicate a high level of engagement by all service providers, it also underlines a high caseload in an unprepared and under-resourced emergency response system. Based on contacts with earthquake-affected persons, local government employees reported that 90% of them wish to return to their former living locations and do not think about being relocated elsewhere. The main problem for those affected is their longer-term housing solution.

CSOs have adapted their activity to the post-earthquake situation and needs. They are also designing action plans and fundraising campaigns that will aim, on the one hand, to provide services to the target groups respectively, such as children, women, people with disabilities, youth, and, on the other, to respond to the needs of different groups resulting from earthquake consequences such as psychosocial services for family members, and after-school services for children who have school breaks.

Some of the services included the provision of housing, food, bedding, blankets and clothing, medical services and medication for illnesses, psychosocial services as well as child-specific services (mainly through animators). In general, those affected continued to receive services where they were provided, in the day or residential centres, and their distance or health status was not an obstacle. However, the displaced population have encountered difficulties in accessing some of the services that require documentation to be obtained from the relevant administrative unit.

Effects on Governance

The Ministry of Health and Social Protection mobilised the regional Directories for Social Services, Agency for Protection of Child's Rights and cooperated closely with the municipalities to assess the immediate needs. CSOs were immediately mobilised to provide support under the coordination of MoHSP. About 260 psychologists were able to be mobilised through the "Order of the Psychologist of Albania" and were dispatched to different CSOs working in the affected areas. Additional 274 social workers and psychologists (534 in total) and over 300 volunteers were also engaged through the CSOs.

[40] Community Center for Children with Disabilities, Durres

The teams engaged have been reporting and coordinating weekly with the MoHSP, discussing the needs and planning the interventions and work areas attempting to ensure better coverage with services and avoid service overlaps. Special attention was given to displaced persons, persons with chronic diseases, children, and people with disabilities. The Ministry of Health and Social Protection has issued instructions to facilitate the smooth operation of the cash assistance programme.

Municipalities, in addition to social services staff, have also mobilised staff from other departments in response to the needs for field services. Mobilized personnel (both at public and private institutions/ civil society organizations) received their salaries regularly but no compensation for overtime. Moreover, transport costs of the public employees (estimated by MoHSP about 124) travelling to the affected areas or where the families have been displaced to have not been covered / compensated by municipalities so far. No particular support for staff engaged in the affected areas was provided, while the personnel have been experiencing fatigue and increased stress at a personal level, but also as a result of the situation created and the challenges in managing it. Some of the main challenges staff face are lack of needed logistics, lack of funds, panic and pressure exerted by earthquake-affected persons to meet their needs, including out-of-focus requirements for social protection, part-time work, fieldwork, increased stress and management and organization problems. Some of the staff (public and private) suffered personal property damages and consequently are more vulnerable to the increased psychological burden in the provision of services.

Not only local civil emergencies could not cope with such events, but also the organization and coordination of regional and local state structures and civil society have been a significant challenge. Municipalities had no emergency plans in place, nor adequate structures and resources. They encountered several organizational, management coordination and service provision difficulties. 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 the Needs Assessment and Referral Units (NARUs) and financial mechanism to address the needs for social care services have not been set up yet. The existing municipal plans and capacities can handle only a few light emergency cases per year. According to local officials, the effects of the last earthquake exceed the human and financial capacity of municipalities to cope.

Although a Management Information System (MIS) for social care services has been designed and has been in place for two years, it is yet to be used. This system would offer real-time information on the requested services, what has been provided and where the gaps are. MIS is a useful instrument for future planning. The event on 26th 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. The issue of insufficient psychologists and social workers in schools has been recognised even before the earthquake. The disaster only highlighted the time pressure in dealing with the existing gaps, as currently there are no plans to introduce the psychosocial support service in early education. The need

for professionals is also pressing in social care services, while the Order of Social Workers is yet to become functional.

Effects on Disaster Risks and Vulnerability

About 17,090 persons were accommodated in hotels (25% or 4,324) and tents (75% or 12,766). Others were either hosted by family and friends or in rented accommodation, while about 1,000 have been displaced to Kosovo. Symptoms of anxiety and trauma are more prevalent in the population living in their damaged homes (85.2%) and tents (88.4%) compared to those accommodated in hotels (61.1%) and the need for psychosocial services is critical. On the other hand, physical symptoms (fever, chills, flu, headaches, infections, etc.) are more widespread in tents (59%) and damaged homes, compared to those accommodated in hotels, highlighting the need for dedicated health services. Furthermore, affected populations, especially those accommodated in tents, have an urgent need for heating (75%). The rapid assessment survey (World Vision, 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 and emotional concerns. Children are reported (by 51% of responses) as the most vulnerable group. Parents report that 74% of children are scared and/or traumatized. Other groups recognised as vulnerable are the elderly, women and people with disabilities. Collective accommodation (tents or hotels) worsened the vulnerability of people with disability, the elderly, children and pregnant women as these accommodations were not equipped to meet their needs.

Roma and Egyptians

Based on reports from various organisations working in the affected areas, a number of the Roma and Egyptian communities have left their homes since the earthquake. Disaggregated data on the damaged houses of these communities are not available. About 356 families (approximately 1,541 persons) from the Roma and Egyptian communities are affected by the earthquake. Most of these families are located in Tirana (103), followed by Durres (110) and Kamza municipalities (76), while these numbers are lower in other municipalities (26 families in Kurbin, 17 in Shijak, 13 in Kruja and 11 in Lezha). Post-disaster administrative data (SSS, 2019) indicate that only 8% of families are recipients of economic assistance. CSOs report that nearly 120 Roma and Egyptians left for Kosovo.

Nearly 50% of their population are children (559 children 6-16 years old and 183 children of 0-5 years old) highlighting an increased risk of vulnerabilities. These communities may not have property titles and/or live in poorly built settlements. Some of them that were renting (without proper documentation), now are left homeless without being able to prove that they were affected by the earthquake. More specifically, only 11% of families live in houses with an ownership certificate, others (12%) declared that their houses are in the process of legalisation, while 9% of them live in informal settlements. 37% of families live in state-owned buildings. For a considerable share of families (32%) no information was reported on the ownership status (Kamza) and some of them were reported as living in huts or tents (Kruja). About 32% (110) of their settlements were destroyed/are to be demolished by the earthquake, about 33% (116) were severely damaged and the rest 33% (119) were slightly damaged. Only 4% (14) of the families were accommodated in hotels, 16% of the families (58) live in tents next to their houses. Some of the municipalities have already granted rental bonuses to some of them (16% of the Roma and Egyptian families living in the affected areas), while longer-term solutions are needed for all the affected community members. 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. They accounted for 9% of registered unemployed job seekers during the months of January-November 2019, while 47% of them are women-headed households. Incidents of discrimination were also reported as were instances when access to accommodation in hotels was denied.

Women and girls

The earthquake increased the burden on women and pushed them further towards traditional roles and activities, caretaking of children and the elderly, the disabled or ill family members as well as what is left behind of 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. About 24% of the households accommodated in tents and hotels are women-headed. CSOs working in the affected areas also report new cases of domestic violence which have resulted from the increased levels of stress, insecurities, or lack of or severely damaged housing. If the needs of these affected communities are not addressed, especially for the most vulnerable ones, there is a significant risk of new families falling in poverty.

Income and wellbeing

Findings from a rapid assessment conducted by the World Vision (WV) in the affected areas after the earthquake highlight that income (66%) alongside poverty (63%) is one of the most important problems the affected families are facing. Though the earthquake did not significantly damage livelihoods in the rural context, affected families report living in poverty prior to the disasters, while 18% of interviewed households stated that they rely mainly on economic aid and 9% go into debt to meet basic needs. Only a third of them have access to income through work (32%), casual labour (18%) and pensions (32%). Cash transfers (49%) and assistance to rebuild lost livelihoods (46%) were considered as two key mechanisms to deal with post-earthquake impacts (WV, 2019). Findings from the surveys targeting the population accommodated in tents and hotels indicate that about 62% of the population in these facilities are unemployed, with the majority of them (48%) belonging to the population accommodated in tents. While two other groups such as pensioners (15%) and people with disabilities (4%) may also need medical attention apart from counselling and support, due to chronic illnesses and types of disabilities (WV, 2019).

Families have been displaced from their area of residence because their settlements have been damaged and are assessed as unsafe; wherefrom 69% are accommodated in tents, leading to a higher level of vulnerabilities compared to those accommodating in hotels. Displaced families are facing poor nutrition and deprivation. Net food buying households are suffering further due to the loss of purchasing power. Following the displacement, several houses were looted including personal belongings, furniture and electrical appliances and goods. Some of the households had taken loans to buy those goods. Other reported losses are related to families that have sold their furniture and appliances because they had no place to store them after their houses were damaged. Finding a home to rent is one of the key concerns of the affected population as it has become difficult to find one at a reasonable price for a rental in both Durres and Tirana where there is insufficient stock. The housing situation adds to the stress and experiences of deep anxiety of the affected population; and a few cases of suicidal attempts have been reported. Distress and trauma symptoms (WV, 2019) are more prevalent in the population living in their houses (85.2%) and tents (88.4%) compared those living and hotels (61.1%).

Furthermore, most of the low-skilled employees receive the minimum wage – so even though they have not lost their jobs, the income they can generate cannot cover their immediate basic needs. Findings from the Survey of Households due to Earthquake (SHDE, 2019) indicate that the percentage of the population employed post-disaster in 2019 at the reference week is 28.3% compared to 25.6% in 2018, increasing by 2.7 percentage points – which can be short-term employment helping affected communities. There is a slight increase in reported unemployment, as 19.1% are declared as unemployed in 2019 compared to 16.8% in 2018.

Indeed, the post-earthquake survey (SHDE, 2019) indicates that severe material deprivation[41] is estimated at 41.6% compared to 33.2% in 2018, increasing by eight percentage points. According to the self-assessment, the material/financial status of the interviewed sample (SHDE, INSTAT 2019) is estimated to have increased by 2.3 percentage points compared with their previous status captured by SILC survey in 2018 (14.2% measured at the post-disaster survey, SHDE in 2019 against 11.9 % in 2018). The risk of vulnerability of the affected population could also be illustrated by their affordability to fix the damages using their income sources. 61% of households declare that they cannot afford to fix the damages without financial support. About 90.1% of households report difficulties in paying the rent after the earthquake, which may lead to an increased number of applications to the social housing programmes. The realistic needs assessment by municipalities is crucial for the budgetary allocations to respond to the immediate needs of the population. Therefore, it would be important to observe the trend in social housing requests during the first half of 2020. It must be also noted that 65.3 % of SHDE (2019) interviewed population are accommodated in family, relatives, or friends' premises.

6.3 Estimation of the Value of Damage and Loss

Damage

Even though eight social service facilities were partially damaged, the total value of those damages are accounted for under the Infrastructure sector report (as part of the community infrastructure).

Loss

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 one-third are public and two-thirds are private. This is due to the fact that few damages were reported to social services facilities and services have resumed in other locations provided by the local government, so there are no losses to report from rental costs, see Table 48.

Following the displaced and accommodated in hotel, tents and community buildings, the public and non-public teams provided 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 were the communities were located. Though their salaries were covered by the respective institutions, they were not compensated for the overtime or 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.

[41] Severe material deprivation is defined as the percentage of the population with an enforced lack of at least four out of nine material deprivation items.

Besides the counselling services, nearly 100 referrals have taken place for persons in need. Where these costs were health-related, the transport costs and services are accounted for 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 private sector). These losses on health revenues at the private level are accounted for in the Health sector report. Families that have lost members due to the earthquake received special social protection allowances (costs to help with the expenses), and the government has provided them free housing under their ownership. The housing costs are accounted for in the Housing sector. For the 1,000 families that are displaced in Kosovo, the host families there have absorbed additional costs of 'hosting,' which have not been included in the table below. The costs of hosting can be substantially influenced by whether the host family is inter-family (parties are related to each other) or intra-family (parties are unrelated to each other).

The average level of rent has increased compared to the level before the earthquake, except in the municipality of Tirana which has maintained the same rent level on the free market. As a result, affected families may be resettled in suburban areas, due to availability of rental housing and the lower value of rent.

Table 48 Losses by the Social Protection sector

Loss	Public	Private	Total	Total in million ALL
	In thousand EUR			
Infrastructure				
Accounted for in Infrastructure Sector				
Total loss infrastructure	0.00	0.00	0.00	0.00
Restore / maintain service delivery and access				
Referrals: increased transport costs reaching out to displaced persons	6.70	8.13	14.83	1.83
Psycho-social counselling and support for the affected population	0.00	405.45	405.45	49.89
Social protection costs for affected families and education allowance	0.25	0.00	0.25	0.03
Services for PwD (physiotherapy, counselling etc.)	0.00	5.00	5.00	0.62
Governance				
Cost for coordination and disaster management	203.23	0.00	203.23	25.01
Total in million EUR	**209.94**	**413.57**	**623.51**	
Total in million ALL	**25.86**	**51.51**		**77.37**

6.4 The Sector Recovery Strategy

Recovery Needs

The recovery needs (Table 49) reflect the interventions and functions that were identified as losses (Table 48). In the context of a missing DRR system, the earthquake placed a lot of pressure on the existing ill-equipped structures and scarce resources.

The social protection system at all regional and local levels needs adequate capacities to respond to natural disasters. The MoHSP has tried to effectively coordinate the support for this emergency, yet this was 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 the Education, Employment and Health sectors, inter- and intra-sectoral coordination is substantial for a coherent response for the affected population. Better linkages are also needed between schools and support services for children, such as psychosocial support, and 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 26 November highlighted the need for better social services and for a functional assessment and referral system, which is linked to and interacts with the cash assistance programme. Table 49, summarises the recovery needs of the sector.

Table 49 Recovery needs of the Social Protection sector

	Needs	Public	Private	Total	Total in million ALL
		In million EUR			
Infrastructure needs					
Infrastructure	Accounted for in Community Infrastructure Sector	0,00	0,00	0,00	0,00
Recovery needs					
Restore/maintain service delivery and access, address increased needs	Psycho-social counselling and support for the affected population	0,45	0,15	0,60	73,83
	Rehabilitation services for Persons with Disability	0,00	0,06	0,06	6,77
	Social protection for the affected families and education allowance	0,50	0,00	0,50	61,53
Governance relation needs (coordination, management, etc)	Address DRR needs in social protection	0,00	0,07	0,07	8,00
	Addressing the needs for developing an Emergency Framework for the sector	0,66	0,00	0,66	81,71
Needs for increased resilience					
Investments for increased resilience	Emergency response protocols working with different groups in disaster situation.	0,10	0,18	0,28	34,46
	Strengthening the capacity of Service Providers	0,04	0,05	0,09	10,46
	Awareness raising on awareness on existing support services and right to services	0,07	0,00	0,07	8,00
	Awareness raising on awareness on existing support services and right to services	0,07	0,00	0,07	8,00
Total recovery needs in EUR		**1,88**	**0,50**	**2,38**	
Total recovery needs in ALL		**231,21**	**61,53**		**292,74**

Vision and Guiding Principals

Vision: Reducing risks and increasing the resilience of the population, with particular attention on vulnerable groups and minorities by fostering the preparedness of the social protection system through an integrated approach.

The guiding principles are aligned with the needs and vulnerabilities exposed by the earthquake and the vision of the Albanian National Social Protection Strategy (MoHSP, 2019) 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. Strengthening the role and capacities of local governments is also included in the guiding principles, as a priority for addressing the needs of the population in emergencies.

Priority principles for guiding recovery:

- Focus on the needs through the participatory inclusion and engagement of vulnerable groups, such as ethnic groups, women, children, and people with disabilities;
- Address the immediate housing and accessibility needs of the most vulnerable groups, while making sure they are engaged in the process. Special attention towards vulnerable communities without property titles such as Roma and Egyptians;
- Prioritising children in education in the affected areas during the recovery, Introducing school meals contributing to improved nutrition, and education as well as providing support to the families in need;
- Strengthen social protection systems at the local level to respond to emergencies;
- Increase efficiency in the system – operationalising of the MIS system and social protection emergency planning;
- Build partnerships with local, national and international organisations to continue support recovery and building community resilience.

Recovery Plan

A summary of conclusions on the impacts and actions in the short, medium and long term is outlined below. Community engagement is considered a cross-cutting principle and action for the recovery strategy of the sector.

The recovery strategy focuses primarily on two main directions, **risk reduction** and **increasing the resilience of the population**, with particular attention on vulnerable groups and minorities, as well as the preparedness of the social protection system.

Assessment of needs in the social protection system, preparedness capacities and special needs of the population. The findings and proposed actions of the assessment will have to be aligned with the national framework policy of social protection.

An **emergency framework for social protection** needs to be developed, to respond to the emerging needs of the vulnerable communities. The framework should have clear medium-term and long-term work plans, well-defined roles and responsibilities for each of the involved entities, as well as response protocols and coordination mechanisms that come into force immediately after an emergency. Special attention should be paid to ensuring that measures address all communities and have a focus on protection and rights of children in emergency and post emergency, especially those with other higher vulnerability risks such as disability, chronic illnesses, marginalized communities, children without parental care, etc. Integrating the work and support of CSOs and other partners should also be part of this framework emergency preparedness document.

Furthermore, this document should provide the **conceptual framework for building a defined national social protection floor** based on which policies and operational plans of social protection provisions could be ensured, guided by inclusiveness and a lifecycle social protection support approach. Specifically, the defined social protection floor would also help in estimating the value of social protection schemes for disaster preparedness.

Part of the emergency preparedness will also be setting up an early warning system and the capacity building of social protection human resources on the elements of human security and service delivery for different population groups. This will also entail the detailed **protocols working with different groups, needs and vulnerabilities in a disaster situation.**

Psychosocial services: Counselling services and needs for psychosocial support were one of the main needs identified for all the affected populations, but especially for children. Getting back to normalcy is imperative while social protection systems and service delivery structures need to be better prepared to address the post-disaster needs. This service needs to be coordinated with the Health and Education sectors as well, while mobile teams of psychologists can be engaged for the affected municipalities where they can provide support during the short-term period, with the first six months being the more intensive.

Building **community resilience** to help create resilience from this earthquake. Build back better through strengthening the communities in becoming resilient in disasters is part of the recovery strategy. Building community resilience can be developed jointly with schools and community centres aiming at bringing people together and strengthening the communities' safety nets.

Special Pensions and education allowance for families who lost their members because of the earthquake. The government has decided to offer lifetime special pensions to nine affected families and education allowance for their school age children for the entire duration of their studies.

Rehabilitation Services for Persons with Disability in the affected areas. The needs are very high for these services, along with a workforce capable of serving this category, following an earthquake event.

Strengthening the MIS for Social Protection System: The operationalisation of the Management Information System for social services can start in the affected three regions, and progressively extend towards the national level. The system is imperative for service planning based on needs and ensures that they are well integrated within the social protection system.

Strengthening the Capacity of Service Providers: Capacities of public and non-public social protection service providers will be strengthened with an initial focus on the affected areas addressing DRR and post-disaster situations. Yet, as the earthquake highlighted the need for resourced and capacitated structures, significant investments of human and financial resources are required not only in line with the legal obligations (such as setting up NARUs) but should also reflect the needs of DRR at every level of social protection service provision.

The recovery interventions split in short, medium and long term are presented in Table 50.

Table 50 Proposed social protection interventions in the short, medium and long term

Type of intervention	Short	Medium	Long	Total	Total in million ALL
	In million EUR				
Reconstruction					
*Infrastructure costs are included in Infrastructure Recovery costs	0	0	0	0	0
Recovery					
Special Pensions for affected families and education allowance	0.10	0.20	0.20	0.50	61.02
Providing psychosocial services - through mobile teams to the affected areas	0.30	0.15	0.15	0.60	73.83
Rehabilitation Services for Persons with Disability	0.02	0.02	0.02	0.06	6.77
Provision of assessments of the effects and needs of the affected communities	0.05	0.03	0.00	0.08	9.84
Develop an emergency framework for social protection- defining roles and responsibilities for key actors	0.03	0.05	0.00	0.08	9.84
Develop a conceptual framework defining national social protection standard	0.12	0.03	0.00	0.15	18.46
Review and strengthen the MIS for Social Protection System and capacities of personnel	0.03	0.02	0.00	0.05	6.15
Increased coordination costs at local level	0.11	0.11	0.11	0.32	39.87
Awareness-raising on awareness on existing support services and right to services	0.04	0.02	0.02	0.07	8.00
Resilience					
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	0.00	0.00	0.07	8.00
Emergency response protocols working with different groups in a disaster situation and developing protocols for four categories (children. women. PwD and minorities)	0.15	0.13	0.00	0.28	34.46
Building community resilience (programs)	0.12	0.18	0.20	0.50	61.53
Strengthening the capacity of service providers on DRR	0.06	0.03	0.00	0.09	10.46
Total in million EUR	**1.19**	**0.96**	**0.69**	**2.83**	
Total in million ALL	**146.43**	**118.13**	**84.90**		**348.23**

THE CIVIL PROTECTION AND DRR SECTOR

7

7.1 Disaster Risk Reduction System in Albania

7.1.1 Country Risk Profile

Albania is a disaster-prone country. The four main hazards affecting the country are earthquakes, floods, forest fires and landslides. 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%). According to the annual World Risk Report (BEH-IFHV, 2019), which calculates the Disaster Risk Index for 180 countries based on exposure, susceptibility, vulnerability and coping and adaptive capacities, Albania ranks first in Europe and 61st the world.

The potential losses in Albania from a disaster with a 250-year mean return period are estimated at EUR 2.08 billion for earthquakes and EUR 1.18 billion (145.2 million ALL) for floods (World Bank, 2014). Albania is at high risk of forest fires, particularly in the dry summer season. More than 95% of fire events are small (less than 100 ha 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. 33.6% of its territory is relatively stable, and 9.8% is unstable (UNDP, 2003).

7.1.2 Affected Area Risk Profile

The earthquake of 26th November 2019 affected an area which has been known to be seismically active for a long time. Old chronicles show that Durres was almost completely destroyed in 177 BC, 334 or 345 AD, 506, 1279, 1869 and 1870 and totally destroyed in 1273. Durres was also affected by the 1926 event during which extensive liquefaction phenomena occurred (Aliaj et al., 2010). The location of historical earthquakes is shown in Figure 5. The location of these earthquakes is centred within the Balkan Peninsula's highest seismic hazard zone.

The 26th November earthquake was preceded on 21st September by a magnitude Mw 5.6 earthquake that occurred 5km north of Durres and was followed by four aftershocks of magnitude 5.1 to 5.4 in the next 36 hours. The most affected areas in 2019 have been the Durres city and Thumane town, while damage was also reported in Laç town, Fushe-Kruja town, Kamza and Tirana city. The geology of the affected area comprises recent deposits (Lekkas et al., 2019b). The most affected part of Durres is composed of marshy deposits including unconsolidated clays, sands and peat. The town of Thumanë, where the majority of the fatalities were reported, is composed of alluvial deposits with gravels and sands and proluvial

Figure 5 Distribution of Mw≥4.0 earthquake epicentres in Albania from 510 B.C. to 2008[42]

deposits with boulders and clays. The towns of Fushe-Kruja and Kamza present geological settings similar to Thumane. These types of soils significantly amplified the ground motion in a range of frequencies (Duni and Theodoulidis, 2019) which caused greater effects in reinforced concrete multi-storey structures. What was observed in the 2019 earthquake is in line with the results of microzonation studies of the area (Koçiu et al., 1985) which were used in 1989 to update the building code map.

According to Albanian technical code (KTP-N.2-89), the design intensity in Durres is VIII on the MSK-64 macroseismic scale, but IX on bad soil conditions, while in Lezha it is VIII and in Tirana VII, but VI in the previous KTP-1978 zonation. Thumane is also in an area of intensity MSK-64 VII, but during this earthquake a greater intensity was observed, raising questions on the reliability of the 1989 seismic map. Microzonation studies (Koçiu et al., 1985; Koçiu et al., 2004) also evidenced that the areas close to the sea and rivers, or where the water table is sufficiently high, can be prone to soil liquefaction which was actually observed during the 2019 earthquake.

The risk to the region is also driven by the seismic vulnerability and exposure of buildings. The unreinforced structures with load-bearing masonry walls show generally un-engineered informal construction, poor quality of material, workmanship, construction, and lack of maintenance and inadequate repair after previous seismic events. The newer reinforced concrete residential buildings built from the 1990s, often exhibit significant vulnerabilities such as floors with wide windows, doors, and large unobstructed commercial spaces, irregularities in structural layout, the addition of floors without building permits, insufficient transversal reinforcement and poor soil conditions (World Bank GRAD RAS Team 2019). Increased vulnerability follows increased physical exposure of people and assets due to mass migration from rural to urban areas, resulting in high population density in unsafe zones with respect to earthquakes and flooding. Higher levels of exposure are a result of a myriad of factors including inadequate territorial and land use planning, lack of integration of disaster risk criteria into development planning and lack of compliance with existent safety norms and standards.

The affected area is also prone to other risks, such as floods, landslides and forest fires, as well as rising sea levels in the coastal areas. Major floods occurred in 2013, 2014, 2016 and 2017. Urban floods are common in Tirana, Kamza, Durres, Shijak, Lezha and Kurbin.

7.1.3 Country Disaster Risk Reduction System

The National Strategy on Civil Protection (CP) and Disaster Risk Reduction (DRR) is a draft document not yet adopted by the GoA. However, the main principles are contained in the National Strategy for Development and Integration 2015-2020 (DCM 348/2015). In July 2019, a few months before the earthquake, GoA

[42] Lekkas et al., 2019a

approved the new law "On Civil Protection" (L. 45/2019), which replaced the Law 8756/2001 "On Civil Emergencies." The new law established the National Civil Protection Agency (NCPA), under the Ministry of Defence (MoD),. This function was previously handled by the General Directorate of Civil Emergencies under the Ministry of Interior (MoI) until 2017, and then under MoD. The law provides a solid framework for promoting disaster risk reduction and requires preparation of a disaster risk assessment at both the national and local levels within two years of its approval. It also requires preparation and adoption of national and municipal DRR strategies, as well national and local Civil Emergency Plans, with special attention given to gender, and marginalised and other vulnerable groups. However, sub-laws, strategies, plans and activities at national, regional and municipal levels still need to be harmonised with the new law. At the time of the earthquake, the National Civil Emergencies Plan (DCM 835/2004) and the Disaster Risk Assessment in Albania (UNDP, 2003) were still in use. By coincidence, on 20th November 2019, a few days before the earthquake, the NCPA mission was defined (DCM 747/2019) and competencies on disaster risk assessment, civil protection, training and monitoring attributed.

The main operational structures in disaster response in the country are the Albanian Armed Forces (AAF), with available specialised Urban Search and Rescue (USAR) teams, Albanian State Police (ASP), Fire Protection & Rescue Service (FP&R) and the Emergency Medical Services (EMS). In the event of a major disaster, the GoA has established mechanisms to seek assistance from the EU Emergency Response and Coordination Centre (ERCC), the NATO Euro-Atlantic Disaster Response Coordination Centre (EADRCC), bi-lateral and other countries. The General Directorate of State Material Reserves (DPRMSH) provides relief goods.

In terms of DRR budget, the Law 45/2019 establishes the good practice that line ministries should have a separate budget line for disaster risk reduction and civil protection activities allocating 2-4% of their annual budget, while municipalities should budget no less than 4%.

Albania, together with Serbia and the Republic of North Macedonia, is participating in a Regional Catastrophe Risk Insurance Facility launched by the World Bank and other partners in 2010. According to the executive summary of the 2016 draft law, currently under revision on the terms of compulsory insurance on dwellings against earthquakes and floods, the market penetration of catastrophe insurance is still very low in Albania; on the order of 1-2 houses per 100.

The monitoring of earthquake, flood and wildfire hazard at the national level is done by the Institute of Geosciences, Energy, Water and Environment (IGEWE), currently under the Polytechnic University of Tirana (UPT). The automatic seismic network is equipped with eight broadband seismometers, 17 strong-motion accelerometers and nine GPS stations which transmit data automatically to IGEWE's Department of Seismology.

Another main risk in the country is related to flooding, for which the national legislation has not yet transposed the European Flood Directive. The EU financed PRONEWS programme (http://www.pronewsprogramme.eu) entails the production of flood hazard maps which are expected to be available in 2020. Another EU funded project, EU Support to Integrated Water Management (EUSIWM), entails the increase of transposition of key EU directives, including the Flood Directive. New legal developments, either amendments to existing acts or/and new acts, are expected to be proposed for adoption in 2020.

DesInventar methodology,[43] aimed at building Disaster Inventories, was implemented in the country in 2013 and from that time, all disaster data are collected and recorded. With the Law 45/2019, collecting disaster loss data has become mandatory at all levels. Albania has also successfully conducted reporting to the Sendai Framework Monitoring system for the year 2018.

In the country there are some public awareness activities and some civil society organisation participation in DRR measures. Education on hazards is included in school curricula, but education on DRR management has not yet been integrated.

7.2 Effects of the Disaster

This section considers the DRR mechanisms and the overall effect of the disaster on the institutional infrastructure, assets, equipment and other resources responsible for disaster risk reduction at all levels. It also analyses their capacity for service delivery such as early warning information, emergency response, and public awareness, as well as the capacity of the government to mainstream DRR into recovery processes to build back better.

Effects on Infrastructure and Physical Assets

Institutions involved in the DRR system have been adversely impacted, with a total of eight buildings destroyed and 59 buildings in need of major repairs. Out of 98 premises used by MoD for supporting civilian emergencies, seven were beyond repair and 57 damaged. The firefighting station in Lezha municipality was damaged to such an extent that it will have to be demolished. The Albanian Geological Survey (AGS) had two buildings that were partially damaged together with eight monitoring stations of

[43] https://www.desinventar.net

IGEWE, which suffered slight damage. The general directorate of State Reserves had six slightly damaged buildings. There are no reports of damage to institutions responsible for policy formulation, coordination, planning and implementing DRR, etc. The equipment and technology of the institutions involved in the DRR system overall have not been significantly affected by the earthquake.

Damages to infrastructures have been exacerbated by the fact that buildings were designed according to a seismic code from the 1980s and an obsolete seismic zonation from the same time period. The compliance of critical infrastructures with seismic standards, and national or regional plans for seismic risk assessment of critical infrastructures were unable to be produced at the time of this report. Similarly, seismic retrofit of critical infrastructure seems not to be a priority and no national plan was evidenced on this.

Effects on Access and Availability of Services

DRR services in the aftermath of the earthquake were made available by the national response with the support of the international response. DRR human resources have not been affected. Access to and availability of DRR services were influenced by some existing vulnerabilities of the DRR system. In general, there are no multi-stakeholder response policies and procedures and all frontline responders have insufficient training and equipment.

The three national USAR teams were immediately mobilised by the AAF. The number of national teams was insufficient to cope and not equipped or trained according to international standards. The national response had assistance from 12 international USAR teams. Firefighters were deployed from multiple unaffected municipalities. The majority of the deployed firefighters were neither adequately equipped nor fully trained to respond to earthquakes. The equipment provided is not standardised across the fleet of fire appliances. Previous disasters in the country were responsible for the much-depleted warehouse stock of the State Reserve, impacting on the provision of goods which then relied heavily on donations.

Considerable effort was put into post-earthquake building safety ascertainment. About 50,000 inspections have been performed, managed by the Institute of Construction (IC), and processed through Tablet Assisted Building Ascertainment (TABI). Results were recorded in an Ascertainment Act system for which the National Address system, the Electricity Distribution Operator (OSHEE) billing system and the State Authority for Geospatial Information (ASIG) orthophoto provided the baseline information.

Some institutions have limited capacity to provide services in emergencies, such as IGEWE, which has to provide immediate information on the seismic event to relevant authorities. The location of the hypocentre was different from the one estimated by other international institutions (Duni and Theodoulidis, 2019) and alert communications were provided manually through a mobile GSM communication network. The maintenance of the stations is unplanned, resulting in 50% of the stations being out of order. This situation is exacerbated by the fact that IGEWE's 24/7 monitoring room is equipped with only 30 minutes of energy backup and the monitoring stations do not have any energy backup. As a result, the Durres stations, the closest to the epicentre, which could have provided relevant information for future seismic risk assessment, stopped recording after 15 seconds from the event (Duni and Theodoulidis, 2019). It is acknowledged that all recordings have been disseminated by the Institute through its webpage.

Despite damages to its infrastructure, AGS has been able to provide a technical assessment on the soil conditions of the main collapsed buildings. However, the Institute's capabilities have not been entirely exploited in the aftermath of the earthquake. In addition, the assessment performed on ground effects (liquefaction, surface faults) remained limited to the scientific community and are not available on the internet.

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 provide early warnings for public dissemination, as well as on the capability to plan and implement structural and non-structural seismic prevention policies.

Effects on Governance

The earthquake occurred prior to the full implementation of the Law 45/2019 "On Civil Protection." The regulatory acts necessary for full implementation of the law are in process. This law clearly outlines the government direction of travel in relation to CP and DRR. The fact that the emergency occurred in the transition period between the old and new laws was one reason why the operational response, at times, adopted an ad hoc approach.

The GoA reacted with the establishment of a structure based on the National Inter-ministerial Committee (IMCCE) and the NCPA, the latter one acting with very limited human resources as Secretariat for IMCEE. The lack of specific training was partially compensated for by the October 2019 national-scale, earthquake-based, Command Post and Field Exercise conducted in the framework of the Adriatic Charter 5 initiatives. Interviewed actors reported that during the emergency, they performed activities similar to the ones practised during the exercise. DRR training and exercising remains largely insufficient for all stakeholders to meet identified risks. Ad hoc DRR training for institutions has been implemented in specific projects in the past years, such as the EU-funded projects IPAFLOOD, IPADRAM or the UNDP South-East Urban Resilience Building Project, but no systematic DRR training programme, and no national training centre for primary civil protection stakeholders, currently exists.

Coordination of the response was also influenced by factors such as a not fully operational NCPA emergency room, due to the transfer of the agency from MoI to MoD, and limited capacity and procedures. Similarly, the human resources of the General Directorate of Fire Protection and Rescue (GDFP&R), which has the duty of coordinating the deployment of the municipal FP&RS between municipalities, were substantially lower than required by the law and, in addition, GDFP&R did not have any operational room. In view of the significant international incoming assistance in the days after the earthquake, NCPA and DPRMSH coordination was a challenge and the coordination was taken over by the Union Civil Protection Team (UCPT) on post-earthquake building assessment and by the United Nations Disaster and Assessment and Coordination team (UNDAC) on the national and international NGO's assistance.

The effects on DRR Governance of the new law assigning 2% to 4% of budget to ministries and 4% to municipalities are not still visible and efficacy is not yet measurable. Because the law is new, funds are not yet been included in the current budgets. Therefore, interviewed managers at the municipal level identified some difficulties in how they would formulate the funding requirement and on the possible use of the funding.

The government body responsible for disaster management and preparedness is the NCPA. In November 2019, the GoA approved the organisation of the NCPA, which is expected to grow from nine to a full staffg of 106. Additionally, in order to support, at a strategic level, all recovery issues, the State Minister for Reconstruction (SMR) was appointed on 13/12/2019.

Effects on Risk and Vulnerabilities

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

- Appropriate and skilled human resources essential to DRR mainstreaming across all sectors are limited in Albania. Turnover policies could not guarantee the continuation of very specific technical services, as in the case of a 24/7 monitoring room at IGEWE, which has implications for issuing an immediate alert to relevant authorities in case of an earthquake. There was no evidence of high-level training specific for "disaster managers/ management;"
- The already mentioned lack of modern and homogenous equipment of operational forces, such as FP&R and USAR teams is a vulnerability in the country;
- The capacity of technical agencies to model, forecast, assess, monitor and warn/inform of the risks associated with hazards and climate change is lacking and 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. Disaster risk impact assessment is lacking and needs to be integrated into major development projects;
- As an additional vulnerability, even when hazard and risk information or technical advice is provided, it is either partially used or not used. The opinions on structural design issued by the CI are not prescriptive and enforceable, and therefore, there is no national process to certify safe construction. The landslide map produced by AGS and the soil amplification map produced by IGEWE and delivered to municipalities are seldom included in land-use planning. All sectors need to integrate DRR into their environmental, land-use and climate change-related policies and plans;
- Though the widely accepted EUROCODE has 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.

Identified emerging risks include:

- Failure to fully implement the planned CP and DRR system for implementing the new civil protection law and the involvement of all institutions and stakeholders, including civil society and private sector, DRR financing at the central and local level, etc.;
- Properly addressing the resettlement issues and challenges during the recovery phase. The process needs proper consideration of multi-hazard risks along with the availability of suitable livelihoods in new locations. The relocation process should also consider socioeconomic vulnerabilities related to land and population needs with special attention to the most vulnerable households. The reconstruction should follow modern seismic criteria with sound urban planning for urban resilience;
- Delay in the adoption of the EUROCODE and a new seismic hazard map, which will result in missing the objective of safe planning, safe design and safe reconstruction;
- Lack of addressing the issue of seismic retrofitting of critical infrastructures and in the medium-long term of the existing housing stock. It is necessary to start with a full inventory and proper assessment of the seismic resistance.

Table 51 Damages and losses of Civil Protection and DRR sector

Civil Protection and DRR	Damages	Losses	Total	Total in billion ALL
	In million EUR			
Total in million EUR	8.75	13.21	21.96	
Total in billion ALL	1.1	1.6		2.7

7.3 Estimation of the Value of Damage and Loss

The total value of damages and losses to the CP and DRR sector is estimated at 21.96 million EUR (2.7 billion ALL), see Table 51. Of this, the damage to infrastructure and physical assets is estimated at EUR 8.75 million (1.1 billion ALL). In addition to the damages, the sector has encountered losses of 13.21 million EUR (1.6 billion ALL), mainly on account of coordination and operational costs during the emergency, demolition of buildings and rubble removal. Losses in revenues have been reported for the only CI that had to suspend ongoing projects to allocate resources for post-earthquake safety assessments.

Damage

The public sector sustained most of the damages and losses. It was not possible to collect the losses of the private sector involved in this emergency. The private entities were mainly Non-Governmental Organisations (NGO). Similarly, the evaluation did not consider international in-kind assistance. It has been assumed that donations have been used to financially support the national response, and therefore, they are already accounted for.

It has not been possible to collect information disaggregated by geographic location because only some municipalities provided damages and loss data and at the same time, central institutions provided aggregated data. When damage is disaggregated by institution (Table 52), AAF suffered the most extensive damage to facilities, which are widely distributed over the territory. Because not all municipalities

Table 52 Damages disaggregated by institution of Civil Protection and DRR sector

Institution	Infrastructure		Equipment and Furniture		Total Damages	
	Completely Destroyed	Partially Damaged	Completely Destroyed	Partially Damaged	TOTAL DAMAGES	In billion ALL
	In million EUR					
Ministry of Defence / Albanian Armed Forces	5.21	2.22	0.00	0.00	7.43	0.914
Ministry of Defence / General Directorate of State Material Reserves	0.00	0.02	0.00	0.00	0.02	0.003
Ministry of Interior / Albanian State Police	0.00	0.16	0.001	0.00	0.16	0.019
Albanian Geological Survey Institute	0.00	0.15	0.00	0.00	0.15	0.018
Institute of Geosciences, Energy, Water and Environment	0.00	0.01	0.00	0.00	0.01	0.001
Municipalities	0.91	0.05	0.02	0.00	0.98	0.121
Total in million EUR	**6.12**	**2.61**	**0.02**	**0.00**	**8.75**	
Total in billion ALL	**0.753**	**0.321**	**0.002**	**0.000**		**1.1**

provided damage data, the table contains the cost of damages to DRR facilities, basically FP&R Stations, in eight out of the 11 municipalities considered in this PDNA. Since these damages were present in only two of the considered municipalities, no extrapolation has been done. A building is considered completely damaged when it requires new construction or reconstruction, or the cost of repairing or replacing the property is more than 80% of the complete replacement cost. Partially damaged means a building that can be completely repaired to its original position without dismantling. The costs of repair or reconstruction/replacement were provided directly by institutions. As already mentioned, the cost of damaged equipment and furniture of the institutions involved in the DRR system is negligible due to the fact that few buildings suffered severe damage and none suffered total collapse.

Losses

Disaggregation of losses (Table 53) shows that almost all institutions have losses in the first year due to emergency operations. ASP has greater losses distributed also in the medium term because unsafe, abandoned buildings and unsafe areas need to be guarded even after the end of the emergency. The losses associated to municipality sum up the costs incurred in DRR in each municipality, which include emergency coordination and the cost of firefighter operations. Only six out of 11 municipalities provided data; the extrapolation considered both the number of municipalities and the exposed population. Losses incurred by municipalities were related to the cost for emergency coordination and operational costs for rescue, immediate control of buildings and infrastructure, an awareness campaign to population, and assistance to the population.

NCPA and AFF were the other main actors considered in the assessment. Their losses are in line with those expected following an earthquake. These relate to the cost of emergency coordination, USAR team deployment and operations and a significant increase in wages, travel, transport and subsistence costs.

The AFF also have costs to replace the explosives they used for the emergency demolition of buildings that were in dangerous condition/positions.

AGS, IGEWE and IC identified losses due to monitoring and/or technical activities in the affected area. The table also shows the losses related to the post-earthquake building safety inspections, which include the cost of the development of the WegGis system to collect and record the results of the inspections and the cost of performing the inspections, the latter evaluated as a standard cost per inspection over all the inspected buildings.

Table 53 Losses disaggregated by institution of Civil Protection and DRR sector

Type	Institution	Total losses in million EUR	Total losses in billion ALL
Infrastructure	Cost of demolition and rubble removal	0.44	0.054
Restore/maintain Service delivery and access, address increased needs, operational costs	Ministry of Defence / Albanian Armed Forces	1.02	0.126
	Ministry of Defence / National Civil Protection Agency	0.74	0.091
	Ministry of Defence / General Dir. State Material Reserves	0.04	0.005
	Ministry of Interior / Albanian State Police	5.56	0.684
	Albanian Geological Survey	0.00	0.000
	Institute of Geosciences, Energy, Water and Environment	0.01	0.001
	Construction Institute	0.33	0.041
	Prefectures	0.61	0.075
	Municipalities	2.45	0.301
	Post-earthquake inspections (ITC and inspections)	2.02	0.248
Total in million EUR		**13.21**	
Total in billion ALL			**1.6**

7.4 The Sector Recovery Strategy

This section reflects the vision and the priorities for the recovery plan for reconstruction and improved disaster risk management and reduction over the short, medium and long terms.

Vision and Guiding Principles

Given the high seismic risk of the affected area, which is also prone to other hazards, to reduce future impacts of disasters, it is important to BBB and build resilient communities. The earthquake, sadly, provides a unique opportunity to reduce vulnerability and enhance resilience at all levels. Mainstreaming DRR into the post-earthquake recovery can improve how DRM is planned, organized, coordinated, and implemented. The guiding principles envisaged for the recovery strategy:

- Resilient governance. The recovery should focus on improving policy and institutional capacities in risk management at all levels of governance and the promotion of networking organisational structures. The institutional arrangements to lead and manage DRR in a multi-sectoral, multi-stakeholder context have been recently introduced in Albania with the Law. The increase in capacity of NCPA capacity will take time to be operationalised. Therefore, the planned-for enhancement of policies, procedures and systems to assist the wider DRR stakeholders and mainstream DRR need to be considered from a medium-term perspective;
- Risk and risk management awareness. The recovery should promote a cultural shift so "DRR thinking is a mind-set" as, for much of the governance, institutions and community, the concept of mainstreaming DRR is new. Adopting a "cultural change approach" will positively impact the wider society in time. It also includes education to prepare psychologically and practically for dealing with disasters;
- Resilient planning. The resilient recovery in municipalities should be based on resilient planning and management of risk-free human settlements through an integrated, comprehensive and transparent approach. Identified hazards and risk should be considered in land-use plans to assist the recovery. The territorial and civil emergency plans, albeit separate instruments, should be strongly interlinked. It is also crucial to reduce the risk to all buildings through the adoption of a modern seismic building code, an up-to-date seismic hazard map, systematic controls on designs and constructions, and risk assessment of existing critical buildings and infrastructures;
- Gender and vulnerable groups perspective. The recovery should include a gender perspective and focus on the most vulnerable groups and minorities and promote equality to prevent discrimination of any kind on the basis of race, colour, nationality, ideology, sex, ethnicity, age, language, religion, disability, property, and birth;
- Subsidiarity. Risk profiles may change over time and locals can more directly observe where action is required and taken. It is central that local actors – including local governments, the private sector, NGOs, community-based organisations and representatives of vulnerable groups – take part in the recovery process. Planning and prioritization should be done with sufficient information made available at the local level;
- Coordination and monitoring. The recovery should be coordinated in terms of strategy, planning, procedures, fund management, donations, and implementing agencies. The GoA, assisted by DRR related institutions, must assess the progress and effectiveness of the recovery interventions. The Monitoring and Evaluation plan should focus on critical indicators related to the disaster cycle.

The above is in line with the GoA vision for recovery focusing on i) structural adaptation which includes strengthening critical infrastructures, ii) post-disaster and social resilience, which includes contingency planning and related investments to ensure disaster response with minimal disruption to public services, and iii) financial resilience which includes contingency fund, credit lines and disaster insurance. This vision is also supported by normative acts (DCM 9/2019).

Reconstruction and Recovery Needs

The events that followed the earthquake showed that there is an urgent need to strengthen disaster preparedness and risk management capabilities, adopt adequate response systems and procedures, and improve the institutional capacity for DRR management coordination and interaction between public levels of government as well as with private and civil society actors.

Five pillars have been identified, mainly based on prevention and preparedness i) institutional capacity building, ii) enhancing emergency preparedness, iii) risk identification, assessment and planning, iv) structural risk mitigation investments, v) awareness and educational measures. The recommended action for DRR reconstruction and recovery over the short, medium and long terms have been categorised as reconstruction, recovery and DRR/resilience.

Reconstruction Needs

Reconstruction needs are related to the repair or reconstruction of destroyed DRR facilities, including the principle of BBB adopting up-to-date standards.

Recovery Needs

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

DRR/Resilience

- Improving Legal and Institutional Arrangements. A comprehensive lesson-identified process is required to inform the country's capacity to manage risk at different levels of government. There is a need to strengthen existing institutional, legislative and financial arrangements for comprehensive disaster risk management. Secondary acts of the Law 45/2019 on Civil Protection need to be implemented. An all-hazard doctrine of operations needs to be developed to facilitate the production of related policies and standard operating procedures. DRR needs to be integrated into all policies with attention being paid to environmental, land-use and climate change-related issues. There is a need to continue progress in applying for membership in the Union Civil Protection Mechanism (UCPM). Guiding principles on the use of the specific budgets legislated for DRR in the Law 45/2019 should be disseminated and a system to monitor expenditures and results developed. In order to facilitate and oversee the entire repair and retrofitting, and reconstruction effort over a period of up to five years, a proper mechanism should be instituted, and the existing system of governance and implementation will need to be strengthened.
- Improving Preparedness for Response. Preparedness and response need to be strengthened with structural and non-structural measures. Among the structural measures, there is a clear need for a fit-for-purpose building for the NCPA which will soon increase the staff to more than 100 persons. There is a need for an appropriate emergency operating room to complement those managed by the AAF, State Police and medical services. Prefectures and municipalities need emergency operations rooms equipped to be operable with the national emergency operations room. The lack of a national training centre for all DRR stakeholders from front line responders through to emergency management is a clear gap. The provision of a training centre can vastly improve preparedness and response at all levels. A comprehensive training programme on emergency management is required. The Existing military USAR and FP&RS teams require a standardised national training programme. They are also poorly equipped and require significant upgrades in their equipment. This is to enable them to carry out daily operations and to be better prepared to respond to larger scale emergencies. The state reserves' warehouses are located in old and poorly maintained buildings which need refurbishment and the levels of stock required should be reviewed and stored/monitored in line with modern practices. Civil emergency plans at national, provincial and municipal levels should be developed or upgraded integrating comprehensive risk identification/assessment and including multi-stakeholder standard operating procedures. Institutions communicate without a common system. The FP&RS and Police are not effectively linked to the national emergency number call handling centre. A system for processing calls to an "emergency number call handling centre" (112) is implemented only in Tirana and should be introduced in the affected area and later extended to the whole country.
- Enhancing multi-hazard Risk Monitoring, Vulnerability and Risk Assessment, Risk Information, Risk Mitigation, Dissemination and Awareness. Technical agencies need to improve their capacity to model, forecast, assess and monitor hazards and risks in order to provide data for informing and warning purposes with clear identification of high-risk areas and at-risk communities. Information needs to be provided in an accessible form and understandable to the end user. There is a need to continue to populate disaster databases at the municipal, regional and national level. There is a need

to properly take into account the results of hazard and risk analyses in territorial development plans and to link them to civil emergency plans. There is an urgent need to update building codes, including formalising integration of the EUROCODE (informally widely in use in Albania). A national seismic hazard map should be developed, involving relevant scientific institutions, and adopted, together with the national parameters and annexes required by the EUROCODE. Hazards and risks must be fully assessed and integrated when creating a national process for certifying safe planning, safe design and safe construction. For existing buildings, there is a need for the development of a comprehensive risk identification programme to identify the financial resources required to cope with structural measures for risk mitigation. Finally, there is a need for a substantial improvement to existing public awareness activities and educational campaigns. The DRR concept should be integrated into the school curricula to provide "life skills" education. Specific provision for gender and marginalised and other vulnerable populations should be added to Civil Emergency plans.

The Sector Recovery Plan

Due to the structural situation of the country, many of the needs which have been identified refer to CP and DRR gaps existing prior to the earthquake and can be partly considered as development gaps. Therefore, not all of them have been included in the recovery plan because they should be addressed with a different funding mechanism. However, it is also evident that addressing the needs of this earthquake without some development may result in inefficient use of resources. Therefore, the recovery plan addresses the following issues i) support BBB regarding repair, strengthening and reconstruction of damaged and destroyed DRR buildings infrastructures, ii) enable the rapid implementation of the recently approved civil protection law, iii) upgrade DRR procedures and services, iv) meet as many EU requirements as possible in relation to DRR. The identified needs and measures for the recovery plan have been prioritised and sequenced over the short, medium, and long term.

Reconstruction. Includes the BBB of damaged buildings and the rebuilding of destroyed infrastructure with up-to-date standards and as per new building codes. The cost of a new BBB facility has been assumed to be 35% more than the replacement cost, when considering management costs, technical expenditures and increased resilience for critical infrastructures which should remain operational after disasters;

Recovery. The plan includes the cost of DRR services in the recovery phase. Most of the losses have already been incurred. Therefore, for recovery phase only includes i) the demolition and rubble removal of destroyed buildings, and ii) the guarding of unsafe, abandoned, areas and tent camps, for 100 police officers for two years.

Resilience.

- Command and Control. The plan includes i) the construction of a new facility to address staffing needs, the national emergency operational room and IT equipment; ii) the setting up of the emergency operations rooms in each of the three affected prefectures, and iii) in each of the 11 affected municipalities. The emergency operational rooms at the local municipal level would link directly with each other and with the prefectural and national level. The emergency operational rooms at the prefecture and municipal level can be established in existing buildings, if seismically safe, to reduce the cost of development. Any other emergency operations centres should be interoperable with the NCPA central hub;
- Communications, warning and informing. The plan includes i) further development to introduce the 112-emergency number countrywide, currently functioning only in Tirana, through software development, hardware, training, exercise and technical assistance; ii) the development of whole-of-government communication and notification standard operating procedures (SOP) which will be tested and exercised at the national, prefecture, municipal and incident level, and iii) the improvement of citizen partnership to DRR through awareness raising, public information, risk understanding,

risk perception, participatory planning and educational campaigns, including drills in schools and development of curricular activities and laboratories in schools to address not only expected hazards but also DRR activities, all necessary to assist with the cultural change so that "DRR thinking is a mindset;"

- Training and equipment. The plan includes i) the construction of a training facility to serve all actors in DRR, from front line responder through to ministerial levels (coordination and operational forces), with practical, theoretical and residential facilities; ii) the implementation of training programmes for emergency managers, from central to local level, and non-emergency responders; iii) the improvement of the response to earthquakes of the USAR teams with upgraded equipment and training in line with international and UCPM standards, including the maintenance and storage of equipment; and iv) the improvement of the FP&RS teams with upgraded and homogeneous equipment across the country and training in line with international and UCPM standards;
- Resilience and Response. The plan includes i) BBB the three FP&RS Stations most at risk in the affected area, making use of innovative retrofitting materials and techniques. The building design should serve as a model for seismic mitigation programmes, ii) the improvement of the DPRMSH capacity strengthening four warehouses in the affected area, restoring relief goods capacity and implementing an operational room for coordination of relief good management, and iii) increased preparedness on post-earthquake inspections preparing the field manual and training material for inspections, conducting training courses and exercising inspectors, developing Host Nation Support (HNS) procedures for integrating foreign teams in the assessment, and creating a roster of experts;
- Technical. The plan includes i) progressing the national DRR strategy and the national civil emergency plans with the support of international technical assistance; ii) supported development of national seismic risk assessment including development of protocols for data gathering from relevant institutions, risk evaluation methodology, software development, IT, training; iii) technical assistance to assess and/or develop civil emergency plans at the municipal level integrated with prefectural and national civil emergency plans; iv) improvement of the seismic network, including upgrading, densification and optimisation of the seismic stations, power backup system of stations and at central headquarters, increasing capacity of data analysis, training of experts, and automatic alert to relevant authorities. At the same time, institutional arrangement should be developed to provide IGEWE with more administrative autonomy, v) preparation of the seismic assessment plan in the 11 affected municipalities, including identification of critical infrastructures, i.e. fire stations, police stations, town halls, schools, etc., detailed seismic risk assessment of identified facilities and preliminary evaluation of the retrofitting costs. The study will serve as the basis for setting up priorities in seismic strengthening, which will provide a more resilient response to earthquakes. It will also provide methodology and experience for the preparation in the medium term of the seismic assessment plan of residential buildings; vi) development, with the support of international technical assistance, of guidelines on incorporating risk assessment in territorial planning. Improvement or development of land-use planning and urban resilience planning in the 11 affected municipalities; vii) micro zoning of seismic hazard; viii) liquefaction mapping; ix) a zoning plan of high-risk area; x) adoption of EUROCODE, definition of National Determined Parameters, preparation and validation of National Annexes and specifically a new hazard map in terms of spectral acceleration for different return periods which brings in all relevant technical-scientific institutions, dissemination, training of professional and technical experts, preparation of manuals containing examples of design; xi) drafting technical guidelines for repair and retrofitting existing damaged buildings and infrastructures to support practitioners in repair and retrofitting design; and xii) quality assurance of the reconstruction process through the technical review and approval of the seismic design, including geological and geophysical conditions, and the monitoring of the construction quality involving IC, AGS, IGEWE. Modernisation of the IC equipment for testing construction materials in the laboratory and on-site with a mobile laboratory. Training of specialists.

The recovery plan with financial resources and time periods is detailed in Table 54.

Table 54 Proposed interventions at short, medium and long term of Civil Protection and DRR sector

Type of intervention	Short	Medium	Long	Total	Total in billion ALL
	In million EUR				
Reconstruction					
Rebuilding destroyed infrastructure	7.72	5.15	0.00	12.87	1.58
Recovery					
Demolition and rubble removal	0.44	0.00	0.00	0.44	0.05
Provision of services for security in the affected area	1.19	1.09	0.00	2.28	0.28
Recovery; Command, control and coordination; Communications, warning and informing					
Construction of the new National Civil Protection Agency facility including operational room and crisis room	0.70	1.00	0.00	1.70	0.21
Improving response to disasters through the implementation of an operational room at each of the three affected Prefectures	0.50	0.50	0.00	1.00	0.12
Improving response to disasters through the implementation of an operational room at each of the 11 affected municipalities	1.10	1.10	0.00	2.20	0.27
Further development of 112 emergency number	0.75	1.50	0.75	3.00	0.37
Develop a whole-of-government communications and notification standard operating procedures (SOP) and exercise them at all levels	0.40	0.60	0.00	1.00	0.12
Improve citizen partnership to DRR through public awareness-raising and educational campaigns	0.40	0.30	0.30	1.00	0.12
Recovery; Training and equipment, Resilience and response					
Construction of facilities for the new training centre to serve all actors in DRR (coordination and operational forces)	1.00	1.50	0.00	2.50	0.31
Implementation of training programs for emergency managers and responders other than Fire-fighter and USAR	0.40	0.60	0.00	1.00	0.12
Improvement of the response to an earthquake of the USAR teams with equipment and training in line with international standards	0.36	0.70	0.00	1.06	0.13
Improvement of the response to an earthquake of Firefighter teams with equipment and training in line with international standards	1.00	1.00	0.00	2.00	0.25
Strengthen/rebuilt three Fire Brigade Stations most at risk in the affected area	1.00	2.00	0.00	3.00	0.37

Type of intervention	Short	Medium	Long	Total	Total in billion ALL
Improve State Reserve capacity strengthening three warehouses and supplying goods	0.70	1.50	0.00	2.20	0.27
Increase preparedness in post-earthquake inspection drafting field manuals and conducting training courses for inspectors	0.30	0.10	0.10	0.50	0.06
Recovery; Technical soft measures					
Technical assistance on progressing the DRR Strategy and National Civil Emergency Plans	0.20	0.30	0.00	0.50	0.06
National seismic risk assessment	0.50	0.50	0.00	1.00	0.12
Technical assistance to assess and/or develop Civil Emergency Plans at municipal level in line with Prefectural and National Emergency Plans	0.60	0.50	0.00	1.10	0.14
Improving the seismic network and increasing capacity of data analysis. in order to provide an automatic alert to relevant authorities	0.50	0.80	0.00	1.30	0.16
Identification of critical infrastructures and implementation of a seismic assessment plan in the 11 affected municipality	0.60	0.50	0.00	1.10	0.14
Technical assistance for strengthening territorial planning (integration of risk assessment; land use and urban resilience planning)	0.75	0.75	0.00	1.50	0.18
Micro-zoning of seismic hazards	0.40	0.10	0.00	0.50	0.06
Liquefaction mapping	0.70	0.30	0.00	1.00	0.12
Zoning plan of high-risk areas	0.10	0.10	0.00	0.20	0.02
Technical Assistance for adoption of new building code according to EUROCODE including annexes	0.90	0.00	0.00	0.90	0.11
Technical assistance for drafting technical guidelines for retrofitting existing damaged reinforced concrete and masonry buildings	0.30	0.00	0.00	0.30	0.04
Quality assurance of building design and construction through involvement of corresponding institutes.	0.40	0.45	0.25	1.10	0.14
Total in million EUR	**23.91**	**22.94**	**1.40**	**48.25**	
Total in billion ALL	**2.94**	**2.82**	**0.17**		**5.94**

ANNEXES

8

8.1 Annexes by Sectors / Sub-sectors

8.1.1 Education

Sector Assessment Methodology

The Education sector assessment is part of an overall PDNA conducted for nine other sectors led by the Government of Albania with support development partners. The MoESY and UNICEF led the sectoral education assessment.

Methods, Tools, and Data Sources

The PDNA for the Education sector utilises a combination of quantitative and qualitative assessment tools. The main component is the estimation of damages and losses as per the DaLA methodology for the entire sector, which includes crèches, pre-schools, basic education, secondary education, vocation education and training and higher education. The disaster effects for the Education sector have been determined across five dimensions: effects on infrastructure and physical assets; effects on teaching and learning; effects on teachers and education personnel; effects on service delivery and governance; and effects on risk and vulnerabilities.

The damages and losses for the sector are calculated based on the data and information received from three primary sources:

1. MoIE: Institute of Construction of the MoIE conducted a rapid structural inspection of physical infrastructures, including education establishments, in all 11 affected municipalities. Deployed engineers, specialist and data enumerators, upon inspection of buildings, entered the data with photographic images onto the real-time dashboard managed by the MoIE - http://rka.datech.al/webHBDA/frmLogin.aspx. The damages have been measured by six different scales: DS0 – no damages; DS1 – light damages; DS2 and DS3 – partial damages; and DS4 and DS5 – major and severe damages.
2. MoESY: The ministry invited civil engineers from Kosovo and deployed them to 11 affected municipalities to conduct a structural assessment of severely damaged compulsory and secondary schools.
3. Local municipalities provided additional information on damages for crèches and dormitories of VET schools and universities, through a structured questionnaire.

Assessing the human impact of the disaster required additional qualitative data collection. To that end, field visits to a selected number of municipalities (Durres, Kruja and Tirana) were conducted from 23rd to 26th of December 2019. For this purpose, a standard questionnaire was developed by the assessment team (Annex 2) to guide the interactions with various stakeholders. Field visits helped to understand the broader effects of the disaster on access and the learning environment; teaching and learning processes; teachers and education personnel; service delivery and governance mechanisms; and, emerging risks and vulnerabilities. More importantly, the field visits were used to understand local perspectives on how the education system can build back better to reduce multi-hazard risks. In each municipality, visits were made to different types of educational institutions, and discussions were held with the local education offices, teachers, parents' boards, and childrens' groups. Furthermore, consultations with the representatives of the MoESY were also conducted to understand the effects of the disaster on the functioning of the education system and to solicit their suggestions for potential recovery strategies and interventions. The section on the disaster effects was also informed by different rapid assessments conducted by World Vision, UNICEF and Save the Children, which carried out structured interviews and focus group discussions with the affected populations.

Qualitative research within the Education sector PDNA will employ consultations with stakeholders through semi-structured focus group discussions (FGDs) and key informant interviews (KII) with predominantly open-ended questions that encourage probing and detailed discussions of the topic. This questionnaire is developed only for guidance during the interviews and shall not be shared with the interviewees or FDGs attendees. The interviewer will be using a selective approach by choosing the right question and adjusting it (as necessary) when leading the discussions and conducting the interviews based on who the interviewees are and their background. The answers will not be associated with the names of the interviewees and will be generalised and presented as a common position. In cases where two or more contradicting positions are obtained, the interviewer will triangulate the information with the factual data coming from other sources and various documented resources to offset possible biases and enhance the validity and reliability of the findings. While the questionnaire mostly asks qualitative research questions, it also requests numerical data, information or additional documents. These can be provided after the interviews.

8.1.2 Housing

Damage and Loss Estimation - Assumptions

Assessment Process

The building classification used for the evaluation of the damage and losses was based on the classification used in the 2011 Census and the parameters of the collected post-earthquake inspection data. Three types of residential buildings were specified:

1) Detached houses which includes separate houses and villas;
2) Multi-family apartment blocks built before 1993; and
3) Multi-family apartment blocks built after 1993

The assessment of the disaster effects was based on the inspection data collected up to 14 January 2020 for a portion of the building stock in the affected area and extrapolated for the entire housing stock in the region. Therefore, a number of assumptions underlie these estimations, and housing recovery needs/ costings will need to be adjusted once the inspection/assessment process has been completed.

Buildings damaged

To help ensure public safety, the building inspections focused first on the most severely damaged buildings. It is therefore considered that by January 14, 2020, **all buildings with DS4 and DS5** level damages have been inspected, so the absolute values of these buildings in the Ascertainment Act Database is used for all municipalities.

As the inspections have so far only been completed for 23% of the total housing stock in the affected municipalities, for DS0 – DS3 it is assumed that these are currently under-counted, therefore requiring extrapolation to estimate the total number of buildings affected (except for Shijak and Vora where the inspections are complete, and the absolute values from ascertainment are used). The extrapolation used the following assumptions:

- Based on the assessments, the municipalities were assigned to three general levels of impacts:
  - Severe: Durres, Shijak, Kruja and Vora
  - Medium: Kurbin, Tirana, Kamza and Kavaja
  - Light: Lezha and Mirdita
  - No Damage: Rogozhina
- For municipalities in the **severe impact level**, data from Durres was used as the *proxy for extrapolation*. This is chosen because Durres has the most completed inspections both in absolute and relative terms (40% of total housing stock). As a very conservative assumption, it was assumed that the remaining 60% of uninspected buildings in Durres experienced no damages. The resultant percentages of total buildings categorized as DS0-DS3 were then also applied to Kruja, however checking first that the absolute values for DS1-DS3 did not underestimate what is already reported during Ascertainment Act. If the extrapolation did underestimate the reported figure, the extrapolation was re-weighted to account for the discrepancies.
- For municipalities in the **medium and light impact levels**, Durres was again used as the proxy for extrapolation. However, based on the existing data, the total number of damaged buildings:
  - in the **Medium-impacted** municipalities was assumed 25% less than in Durres, and
  - in the **Light-impacted** municipalities 33% less than in Durres.

  Again, if the extrapolated absolute values for DS1-DS3 underestimated what was already reported in the HID, the extrapolation was re-weighted to account for the discrepancies.

- The analysis and the extrapolation process were broken down by the type of buildings, municipality and the level of impact.

Damage cost

An average number of housing units were assumed for different dwelling types:

- For detached houses, based on census data, an average of 1.03 housing units was used (some single-family houses are shared among extended families).
- For multi-unit residential buildings pre-93 (apartment blocks), INSTAT data was used and varies from 12-20 average number of housing units per building, depending on the municipality.
- For multi-unit residential buildings post-93 (apartment blocks), INSTAT data was used and varies from 5-26 average number of housing units per building, depending on the municipality.

The extrapolated distributions of DS0-DS5 damage levels were then applied to the sums of housing units by building category. Using average occupancy rates and family sizes by municipality (both from INSTAT), the number of people affected has been estimated.

The sum of all impacted surfaces was then used to compute the damage cost, using average construction costs of EUR 325/m^2, as defined in Government Decision of Council of Ministers (DCM) No. 3, dated 28 December 2016. In the calculation of impacted surfaces, it has been considered that the average surface area for a) **detached houses** is about 120 m^2, b) Pre-93 apartments is 60 m^2 and c) Post-93 apartments is 70 m^2 (using data from INSTAT).

It was assumed that lightly damaged buildings (DS1-DS2) experienced damages of 10% of the construction reference price, partially damaged buildings (DS3) experienced damages at 35% of the construction reference price, and fully damaged (DS4-DS5) experienced damages of 100% of the construction reference price.

Damages to household goods were assumed to only occur in totally damaged or destroyed buildings (DS4, DS5 and those destroyed by the earthquake). These were assumed to be EUR 2,500 per unit, as advertised for basic furnishing of a 60m^2 apartment by the domestic home furnishings retailer Best Seller™. This is considered by local experts as a conservative estimate.

Losses

The total cost of demolition, debris removal, transportation and disposal was set at EUR 20 per m^2 of buildings damaged, based on information provided by the National Inspectorate for Territorial Protection (IKMT).

For rental losses, UNDP surveys of displaced people (in hotels and tents) indicated that 2% of detached house occupants were renting, while for apartment blocks, 10% of occupants were renting. Information from real estate agents CENTURY21™ and RE/MAX™ indicated minimum rental costs of EUR 100-300 per month depending on building type and municipalities, which are considered conservative. Total rental losses were calculated also considering average occupancy rates as provided by INSTAT.

Reconstruction

For fully destroyed buildings, the cost of building back better (BBB) was considered as the additional cost of adhering to EUROCODE rather than the currently in-force national building code (KTP-N.2-89). This was assumed to increase the current average construction costs (EUR 325/m^2) by 25%, to EUR 406/m^2.

For retrofitting damaged buildings (DS1-DS3), it was assumed that an average 20% of total building cost is needed for BBB. This is composed of 15% for structural improvements, which is considered a conservative estimate, and 5% for energy efficiency, environmental and accessibility improvements

8.1.3 Business and Employment

Methodology

The assessment of the disaster effects related to the Business and Employment sub-sector, was based on two sources of information i) Ascertainment Acts data, conducted and managed by IC and 2) Business survey conducted by INSTAT.

Businesses were classified into two main categories: manufacturing and trade:

- In manufacturing, there were covered facilities such as production and warehouses, which have relatively lower construction values but a larger area and more expensive equipment and machinery.
- In in trade, businesses 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.

It was assumed that lightly damaged buildings (DS1-DS2) experienced damages of 10% of the market reference price for trade units; partially damaged buildings (DS3) experienced damages at 35% of the market reference price trade units and fully damaged (DS4-DS5) experienced damages of 100% of the market reference price trade units.

Damages to equipment or other goods were assumed to only occur in totally damaged buildings, i.e. DS4 and DS5; 18,633.54 EUR per unit in manufacturing facilities and 3,586.17 EUR per unit for trade facilities.

Losses linked to debris removal

According to IKMT, the cost of demolition and rubble removal including transportation was 2,470 ALL per square meter and calculated only for fully damaged businesses.

Employment losses in manufactures

According to INSTAT survey, 438 employees from 56 manufacture businesses inspected had temporarily lost their job as a result of the disaster. The duration of unemployment varies based on the severity of the damage to the manufactures where the employees worked. The average monthly salary in the private sector according to INSTAT, is 39,000 ALL. Estimated informality loss in manufacturing is 1.2%, according to INSTAT.

It is estimated there is an average 3.45 months period to access a job in manufacturing depending on the level of damages. Thus, disruption of services is estimated at one month unemployment benefit for fully destroyed facilities and 3.45 months for partially destroyed manufacture facilities.

Employment losses in trade

According to INSTAT, 79 employees from 124 manufacture entities inspected had temporarily lost their job as a result of the disaster. Average monthly salary in the private sector is 39,000 ALL and estimated informality in trade is 8.9%.

Estimates show that it would take an average of 4.45 months to access a job in trade depending on the level of damages. Thus, disruption of services in trade is estimated at one month for fully destroyed and 4.45 months for partially destroyed trade facilities.

Income losses

Income losses in manufacturing and trade were calculated only for fully damaged enterprises. The calculation was done for each municipality separately, taking into consideration that enterprise turnover is different between the municipalities and between the manufacture and trade.

8.1.4 Tourism

Methodology Used for the Assessment of Damage and Losses

The assessment of the disaster effects related to the Business and Employment sub-sector, was based on two sources of information i) Ascertainment Acts data, conducted and managed by IC and 2) Business survey conducted by INSTAT.

Turnover losses for accommodations

It is assumed that the six accommodations fully destroyed will not be reconstructed. Therefore, there are no related turnover losses. The hotel that was partially destroyed in Durres will suffer losses in turnover corresponding to six months, and the 10 hotels that were lightly damaged will suffer turnover losses corresponding to three months, which is the time estimated for them to reopen.

Turnover losses for public accommodations

It will take two years to reconstruct the public hotel that belongs to the Ministry of Interior that was fully destroyed. As a result, the Ministry of Interior will incur losses corresponding to a two-year turnover.

Turnover losses for food and beverages premises

The turnover losses for the restaurant attached to the public hotel that was fully destroyed are accounted for as part of the total losses in turnover for the public hotel.

The restaurants attached to the six hotels that were fully destroyed will not be reconstructed, so there are no turnover losses to report.

Other food and beverage premises that were totally destroyed will surfer a turnover loss corresponding to one year, partially damaged facilities will suffer losses in turnover corresponding to six months and lightly damaged facilities will suffer turnover losses corresponding to three months, which is the time estimated for them to reopen.

The loss from the decline of expected foreign visitors to the entire Tourism sector:

According to the MoTE, the number of foreign visitors in 2020 will be at the same level as in 2019. The Tourism sector will need four to five years to fully recover but will reach the same level of growth as before the earthquake after three years. Following this assumption, the losses are calculated for the years 2020, 2021 and 2022. The BoA estimated the average spending and days of a foreign visitor in Albania in accommodation and food/beverage.

The estimated lost revenue in 2020 is based on this information. . By 2021, it is assumed that there will be a 4% increase in the number of foreign visitors and in 2022 the increase will be 6%.

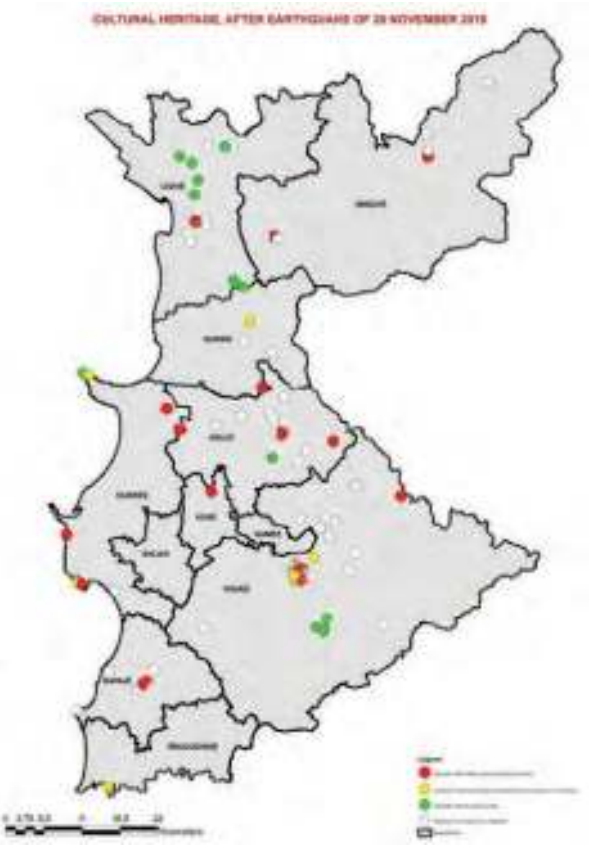
The sum of all missing income in three years gives the total amount of missing income (loss) from non-arrival of foreign visits. These losses have been distributed to five (Durres, Tirana, Kavaja, Kruja and Lezha) of the 11 affected municipalities, as these municipalities develop coastal and cultural tourism and are part of the sites included in tourist agency guides and tour operators.

8.1.5 Cultural Heritage

In the aftermath of the earthquake, under the coordination of the Ministry of Culture and based on the request of the Civil Emergency Planning Commission, a number of inspections were carried out in the whole territory of Albania by the technical staff of the National Institute of Cultural Heritage (NICH) and six Regional Directorates of Cultural Heritage that operate in the whole territory of Albania. The counties of Durres, Lezha and Tirana were considered the areas most affected by the earthquake and as such were considered a priority for inspection. A dedicated rapid assessment form was used for the inspections of cultural heritage monuments and sites and reporting following the international guidelines in this field.

The technical teams carried out a rapid visual assessment of the monuments and sites of cultural heritage importance, giving priority to areas where damage was reported and those in the range of seismic waves and also based to the monument's designation status - 1st and 2nd category. The work of the technical teams was supported in real time by the reporting team operating in the central offices. This team collected the information and assessment prepared by the technical teams in situ and reported to the Commission in a summarized format (database). The format is a priority-based report according to the state of emergency, visualized by three different colours (Grade III - red, Grade II-yellow and Grade I - green), as well as measures proposed to be taken (general database of inspections provided in Annex 2). For the monuments at most risk, Grade III – red and Grade II-yellow, preliminary costs and sketches were provided.

The map shows the level of damages in the inspected cultural heritage sites assessed in the earthquake-affected area.



8.1.6 Social Protection

Sector Assessment Methodology

The sector definition of social protection was based on PDNA guidelines, as a sector referring to "people and households that are socio-economically secure with regards to access to health care and safety at the workplace, even in the face of vulnerabilities and contingencies. This is particularly important for poor and marginalized segments of the population, often found in the informal economy. Commonly they are most in need of support and protection and yet are the least protected."[44]

Therefore, the Social Protection sector assessment focused mainly on national protection programmes. The sector assessment captures existing social protection mechanisms, interruption of service provision and income transfers as well as human resources engaged in responding to social protection needs. Gender and vulnerabilities were considered as cross-cutting elements under each sector and in particular, were addressed under the human impact assessment section and as such, are not discussed in detail under social protection to avoid overlapping. The MoHSP and EU Delegation led the sectoral social protection assessment with contribution from UNDP.

Methods, Tools, and Data Sources

The PDNA methodological approach for the Social Protection sector was based on a combination of quantitative and qualitative assessment tools. Under the DaLA methodology component, the estimation of damages and losses included losses mainly as costs related to damages and are accounted for in the Infrastructure sector report. There are two limitations related to the estimation of damages in this sector (1) the information gathered under infrastructure does not distinguish whether structures belong to the Social Protection sector or not as they have been counted as public buildings (municipal community buildings); and (2) there was limited information available on the social care service infrastructure managed by the private sector.

Several instruments were utilised for the preparation of this report: Focus groups (2) with public social protection structures (in Lezha) and one with 11 CSOs working in the sector (in Durres); Periodic Fieldwork Reports submitted to the MoHSP by all CSOs providing direct support to the affected communities; Questionnaires targeting the main CSOs mobilised in the affected areas; Two types of questionnaires targeting local authorities in the affected municipalities for gathering information on (1) the situation of Roma and Egyptian communities and (2) on damages and loses to identify the affected social care services.

Data sources included information from SSS and MoHSP on the number of applications during November – December, (including new applications) and beneficiaries of the cash assistance scheme, pre- and post-earthquake; data from NAES on employment/unemployment and unemployment benefit; findings from surveys targeting people accommodated in tents and hotels; data from the Survey of Households due to Earthquake (SHDE), carried out by INSTAT as well as other existing reports and post-disaster assessments.

[44] PDNA Guidelines Volume B, available at https://ec.europa.eu/fpi/sites/fpi/files/pdna/pdna_vol_b_en/pdna_vol._b_employment_livelihood_social_protection.pdf

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8.3 Acronyms

AAF	Albanian Armed Forces
AAR	after-action review
AD	Ano Domini
AGS	Albanian Geological Survey
AKEP	Authority for Electronic Communication and Post
ALL	Albanian Lek
ARA	Albanian Road Authority
ASCAP	Pre-University Education Quality Assurance Agency
ASIG	State Authority for Geospatial Information
ASP	Albanian State Police
BBB	Built Back Better
BC	Before Christ
CEDAW	Convention on the Elimination of all Forms of Discrimination Against Women
CM	Monuments and Sites
CP	Civil Protection
CR	Collections and Repositories
CSO	Civil Society Organisation
DCM	Decision of Council of Ministers
DPRMSH	General Directorate of State Material Reserves
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
DS	Damage State
EADRCC	Euro-Atlantic Disaster Response Coordination Centre
ECDC	European Centre for Disease Control
EMS	Emergency Medical Services
EMIS	Education Management Information system
EMT	Emergency Medical team
ERCC	Emergency Response and Coordination Centre
ESSPROS	European System of Integrated Social Protection Statistics
EU	European Union
EUR	Euro
FP&RS	Fire Protection & Rescue Service
GDP	Gross Domestic Product
GDFP&R	General Directorate of Fire Protection and Rescue
GER	Gross Enrolment Rate
GoA	Government of Albania
HE	Higher Education

HEOC	Health Emergency Operations Centre
HNS	Host Nation Support
IC	Institute of Construction
ICT	Information Computer Technology
IGEWE	Institute of Geosciences, Energy, Water and Environment
IHR	International Health regulations
IMCCE	Inter-ministerial Committee on Civil Emergencies
INSTAT	National Institute of Statistics
IPH	Institute of Public Health
LFS	Labour Force Survey
MIS	Management Information System
MoARD	Ministry of Agriculture and Rural Development
MoC	Ministry of Culture
MoD	Ministry of Defence
MoESY	Ministry of Education Sport and Youth
MoFE	Ministry of Finance and Economy
MoHSP	Ministry of Health and Social Protection
MoI	Ministry of Interior
MS	Museum and Sites
MSR	State Minister of Reconstruction
NAES	National Employment and Skills Agency
NCD	non-communicable diseases
NCPA	National Civil Protection Agency
NCQSAHI	National Centre of Emergency Medicine, National Center for Quality, Safety, and Accreditation of Health Institutions
NE	Ndihma Ekonomike (social assistance)
NGO	Non-Governmental Organisation
NHS	National Health Strategy
NIMS	National Incident Management System
ODR	Owner Driven reconstruction
OECD	Organisation European Cooperation and Development
OSHEE	Electricity Distribution Operator
PHEOC	Public Health Emergency Operations Centre
PPP	Public-Private Partnership
PwD	Persons with Disabilities
RC	Reinforced Concrete
SDG	Sustainable Development Goals
SHDE	Survey of Households due to Earthquake
SHI	Operator of Health Services, and the State Health Inspectorate
SMR	State Ministry for reconstruction

SOP	Standard Operation Procedures
SSS	State Social Services
TABI	Tablet Assisted Building Ascertainment
UCPM	Union Civil Protection Mechanism
UCPT	Union Civil Protection Team
UNESCO	United Nation Organization for Education, Science and Culture
UNDAC	United Nation Disaster Assessment and Coordination
UNDP	United Nations Development Programme
UPT	Polytechnic University of Tirana
USAR	Urban Search and Rescue
VET	Vocational Education and Training
WHO	World Health Organization
WTTC	World Travel and Tourism Council
WV	World Vision Albania

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