PREPARATION OF THE LOCAL DISASTER RISK REDUCTION PLAN FOR THE MUNICIPALITY OF LEZHA

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This document summarizes the work progress and the local context and challenges for the preparation of the Local Disaster Risk Reduction Plan in the Municipality of Lezha.

The project for the preparation of this plan is implemented in the Municipality of Lezha through the support of UNDP and Co-PLAN, Institute for Habitat Development.

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1. Aim and Methodology of the Local Disaster Risk Reduction Plan

According to the annual report of the World Risk of the United Nations University, which calculates the Risk Index of Disasters for 180 countries based on exposure, sensitivity, vulnerability and coping and adaptive ability, Albania is consistently ranked first in Europe for the period 2011-2019, and occupies the 61st place in the world for 2019 (UNDRR, 2019). Characteristics of disaster risks, such as hazards, exposure, vulnerability and coping capacity, are mostly local (UNISDR, 2015). Municipalities are also the 'first gateway' where citizens will 'knock' with their concerns about risk and vulnerability, not only because they are primarily responsible for the safety of their communities, but above all because of the proximity of the community with the authorities. In Albania, the experience of disaster management over the years has pointed out major shortcomings at the local level, where municipalities have had significant challenges with regard to the general capacity needed to manage disasters (REC Albania, 2018). There has been a general lack of understanding of the policies of Disasters Risk Reduction at the local level, resulting in uninformed development from the viewpoint of the risk of disasters.

The Municipality of Lezha faces a variety of hazards, and consequently risks of natural disasters, which mainly come because of its geographical position (Bashkia Lezhe, UTS-01, 2016). Lezha is endangered by the floods of the rivers Drin and Mat and at the same time by sea floods. Also, the acceleration of the impacts of climate change, manifested by an increase in sea level and change of precipitation regime, increases the probability of natural disasters in the future in the form of floods (UNDP, 2016). The earthquake of November 2019, although it did not damage Lezha at the same level as the municipalities of Durrës and Tirana, brought to attention a permanent risk. Meanwhile, other risks, ranging from landslides, falling rocks, to fires or snow blockages, although minor in the damage they cause, are always present in the territory of the municipality.

UNDP in cooperation with Co-PLAN and the municipality of Lezha have agreed to develop a pilot project, which consists of drafting a report on the assessment of natural disaster risks and strategic priorities for risk reduction in Lezha. Looking at the variety of risks faced by the municipality of Lezha, it was agreed that the pilot project will be developed in this municipality to test the methodology in different risk conditions. In addition, this project will serve the municipality of Lezha to further improve the legal measures and requirements in Civil Protection and will be a methodological and practical model for other municipalities. As part of the preparations for the project, in January 2020 a meeting was held with the Mayor of Lezha, the Chairman of the District Council and the Prefect of the Lezha 'Qark' to begin the process. The Mayor was ready to implement the pilot project in Lezha. Two other meetings were held, on 28 January and 5 February, with the Deputy Mayor and the technical staff to determine the scope of the pilot project.

From a methodological point of view, the project applies a comprehensive and integrated approach. Participatory planning is seen as an optimal method, as it a) enables the identification of specific problems in the territory in conditions of lack of periodic data and microdata; b) has the dual purpose of training the local community and other institutional instances through involvement in the project. The project focuses on institutional cooperation and the participation of various community groups in order to institutionalize the culture of disaster risk reduction and capacity building in this area. From the methodological point of view, the following instruments are being used: a) Direct observations through field visits; b) Semi-structured interviews with stakeholders (citizens, experts, businesses, etc.); c) Participatory risk mapping; d) Thematic focus groups (depending on the type of hazard, risk and sector); e) Participatory design of seasonal and historical risk calendars; f) Risk assessment using the GIS platform. This methodology has been drafted in accordance with the Sendai Framework for Disaster Risk Reduction and the

scientific and practical knowledge of the respective platform of the United Nations Office for Disaster Risk Reduction.

Figure 1. Summary of Methodological Instruments and respective steps

Field Observation	Semi-Structured Interviews	Participatory Mapping	Focus Groups	Historical and Seasonal Calendar	Use of GIS
Road Infrastructure Irrigation Canal Engineering infrastructure	Representatives from community	Mapping with Community	Focus Groups with the experts of the fields	Historical calendar of natural disasters	In-depth vulnerability
Education; Cultural; Health Institutions, etc.	Mayors of Administrative Units and Villages	Technical mapping with the experts of the field	Focus Groups with rensponsible / support institutions	Seasonal calendar of natural disasters	Risks scenarios
Environmental & Emergencies Hotspots	Mayors of Administrative Units and Villages				

Source: Authors

2. Institutional Framework

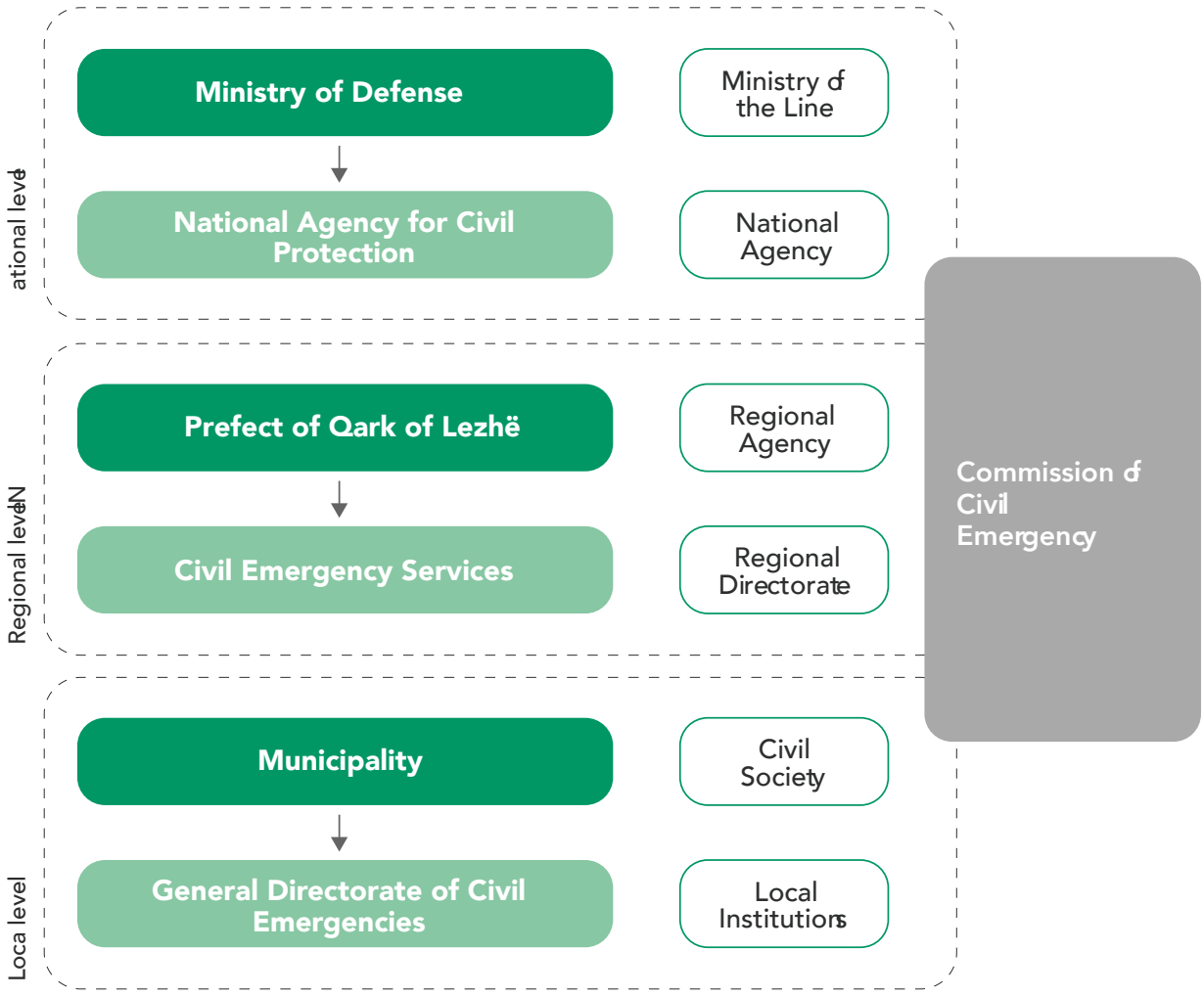
One of the basic principles of law 139/2015 "On local self-governance" is' Subsidiarity ', which is 'the principle of performing functions and exercising competencies at a government level as close as possible to the community, given the importance and nature of the task, as well as economic efficiency requirements' (Kuvendi i Republikës së Shqiperisë, 2015). In this context, based on article 29, the municipality, as a local authority, has direct competencies in the field of civil protection, which are subsequently granted by the sectoral legislation. Law 45/2019 "On Civil Protection" aims to reduce the risk of disasters and the implementation of civil protection, to guarantee the protection of human life, property, livestock, cultural heritage and the environment, through the strengthening of the civil protection system (Kuvendi i Republikës së Shqipërisë, 2019). The law states that the mission of civil protection is to create the conditions for a society capable of coping with various disasters and thereafter being able to recover, through the establishment of an integrated and efficient civil protection system in the Republic of Albania. This law has introduced a number of innovations in the field of civil protection in Albania, both from the institutional point of view and from the instruments used to achieve the goals. It proposes three main instruments to be used at both national and local level, namely: a risk and vulnerability assessment document, a risk reduction strategy, and a civil emergency plan.

At national level, following the legislative changes, the National Agency for Civil Protection has been established. This entity, currently functioning under the Ministry of Defence, is the main body at national level to exercise civil protection duties and to prepare the aforementioned instruments. The prefect of the 'Qark' has specific duties based on law 45/2019. These tasks

1. This instrument will be used to the extent that the existing scientific data on natural phenomena (risks) collected by the relevant public institutions will allow, as well as the mapping of the effects of risks according to the participatory planning method.

include coordinating the activities of bodies, institutions and structures operating at the 'Qark' level, and collecting and processing the necessary data from municipalities and other structures. In addition, the Prefect ensures the coordination and distribution of international assistance in cases of disasters, and controls the implementation of measures taken by the municipalities. Meanwhile, at the local level, according to law 45/2019, municipalities have several responsibilities, such as informing the public and the endangered community, and organizing training activities in the field of civil protection for employees and residents in their territory. In addition, municipalities provide, administer and update the necessary data for citizens and private entities that will engage in the prevention and coping of disasters, make preventive, protective and rehabilitative investments from disasters and appoint the head of the operation at municipal level. Based on the above law, all municipalities are obliged to establish as part of their structures the respective directorate of civil protection.

Figure 2. Institutional Framework for Civil Protection in Albania



Source: Authors

In the framework of the project for drafting the Local Disaster Risk Reduction Plan in the Municipality of Lezha, the 'Commission for Civil Protection' was established based on the provisions of law 45/2019 "On Civil Protection", specifically from points 2 and 3 of article 29, in coordination with the law 139/2015, dated 17.12.2015 "On local self-governance". In cooperation with the municipality, the commission included a wide institutional representation, including not only municipal structures but also other institutions at 'Qark' level, or the

regional directorates, such as the regional directorate of environment, the board of water management and the civil emergency office of the prefecture. Beyond the representations of public institutions, the commission will also include representatives of civil society, religious community, and representatives of local businesses. The order is also accompanied by a regulation on the internal functioning of the Civil Protection Commission, which addresses its internal functioning, the function of the technical secretariat, as well as the relations between the members of the Commission. A consultative meeting was held with the Civil Protection Commission of the Municipality of Lezha on 13.02.2020, attended by representatives of public institutions in the Lezha 'Qark'. The meeting was also attended by Mrs. Limya Eltayeb, UNDP Resident Representative for the Republic of Albania and other UNDP staff. On 11.03.2020, the draft order "On the establishment of the Civil Emergency Commission" and the Regulation "On the internal functioning of the Civil Protection Commission" were sent to the Deputy Mayor for further follow-up and approval by the Mayor (to be found in the appendix).

Figure 3. First Meeting of the Commission of Civil Protection in the Municipality of Lezha

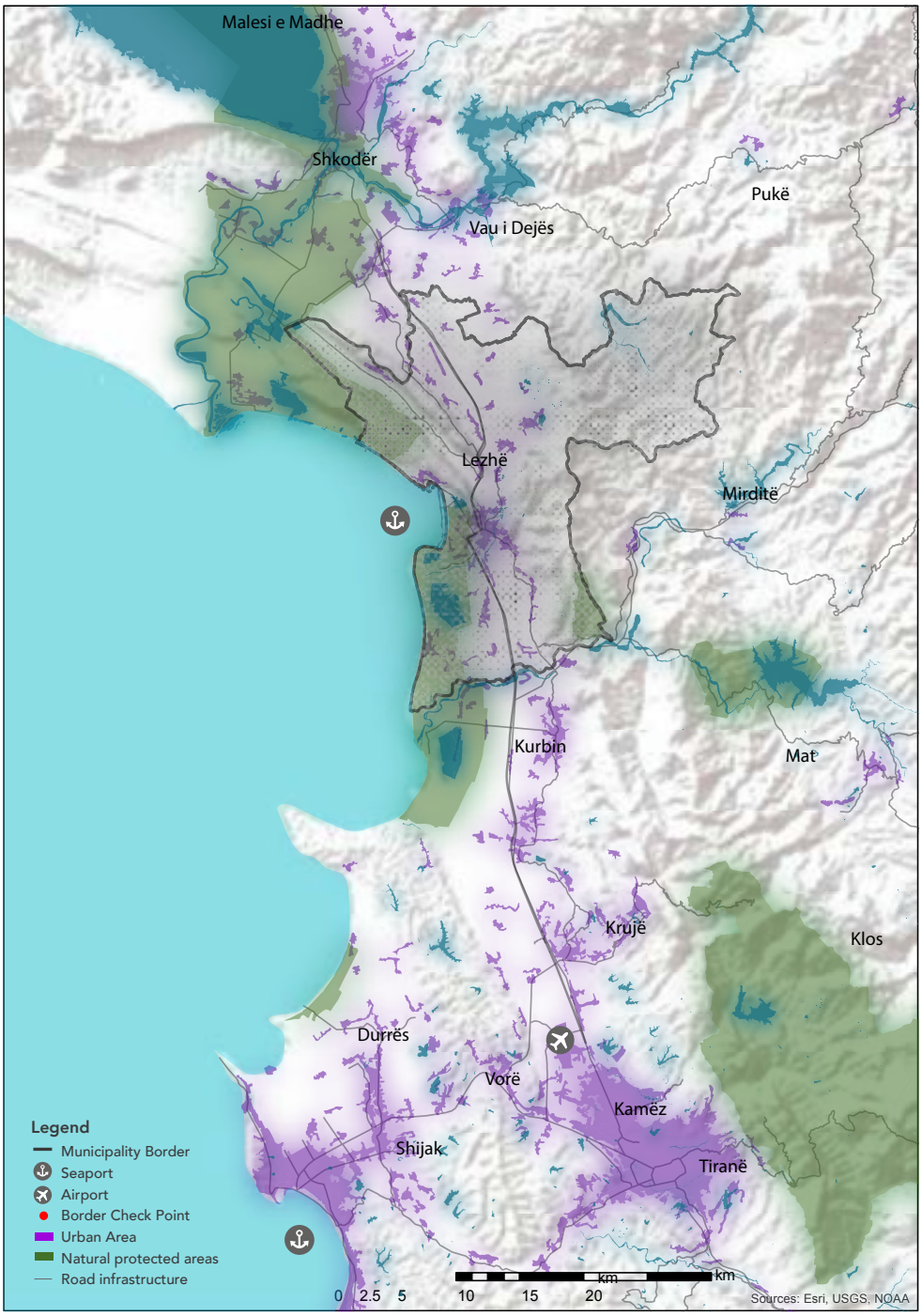
Source: UNDP 2020

3. Natural resources and the Urban and infrastructural system

3.1 Geographical position and General Characteristics

The Municipality of Lezha is located in the western plain of the Republic of Albania, in an area of 508.9 km2, bordered on the north by the Municipalities of Vau i Dejës and Puka, on the west by the Adriatic Sea and the Municipality of Shkodra, on the east by the Municipality of Mirdita and on the south by the Municipality of Kurbin. The municipality consists of 10 administrative units: Lezha, Shëngjin, Zejmen, Shënkoll, Balldren, Kallmet, Blinisht, Dajç, Ungrej and Kolsh. The territory contains two main urban areas (the city of Lezha and Shëngjin) and 65 villages. The total population of the municipality, according to the Civil Registry (2017) is 106,245 inhabitants, with

Figure 4. Geographic position of the Municipality of Lezha



Source: Authors

an average population density of 209 inhabitants / km2. This data positions the municipality among the 10 most populated municipalities in the country.

Lezha has a very favourable and strategic position, located in short distance to some of the main cities, such as Tirana (55km), Podgorica (98 km), Shkodra (44 km). Also, the municipality is located close to the main national infrastructure nodes, such as the Port of Durrës (70 km) and Rinas Airport (40 km), while the Port of Shëngjin is part of the municipality. Additionally, the north-south national transport corridor passes through the territory of Lezha.

In regards to the terrain features, the Municipality of Lezha, for the most part has a plain relief, where the western part consists of sandy beaches and the wetland area of Kune-Vain-Tale (Protected Landscape). In the eastern part, the terrain has a gradual increase in height and adopts mountainous hilly features. The natural landscapes are diverse and, in some areas, the terrain is below sea level. Its highest point is 'Maja e Velës' (Administrative Unit of Kolsh) with an altitude of 1170m, while the average height of most of the territory is 5 meters above sea level. This geomorphological variation poses a challenge to the municipality in managing various natural hazards.

The territory of the municipality has a very rich hydrography. The north-western part is traversed by a branch of the Drin River and Gjadri River, while in the south, the municipality is bordered by Mati River and its delta. Occasionally these rivers, as well as the entirety of the hilly-mountain streams, pose a threat of flooding, with significant consequences for agricultural land.

The Municipality of Lezha is recognized for its long coastline, which starts from the protected nature reserves of the Mati Coast and Kune-Vain-Tale to the rocky beaches in the north of the settlement of Shëngjin. The coast of Shëngjin, during the last 25 years has undergone a high-density development, non-consistent with surrounding natural features. Nevertheless, a large part of the coastline belonging to this municipality has not yet undergone any development, and there are still virgin beaches, which need to be protected and properly managed.

3.2 Demography and Economic Development

The population of Lezha Municipality has experienced gradual growth in recent years, at a rate of 1.84% (Bashkia Lezhe, UTS-01, 2016). With the exception of the Balldren and Ungrej administrative units, which continue to have declining populations, all other units are growing. The administrative units of Shënkoll, Lezhë and Shëngjin, as 2011 census shows, continue to have a higher increase compared to the rest of the administrative units of the Municipality of Lezha.

From an economic point of view, the most developed sector at qark level is agriculture, forestry and fisheries, with about 32.0% of the total Gross Value Added (GVA) in 2015. An important sector is also that of trade, transport and services, with about 14.5% of the total GVA of the region for 2015, according to INSTAT. Other sectors have less significant contributions. In terms of industry, many types of businesses conduct significant economic activity in the municipality, such as: shoe production, cement production, brick production, and fish processing. Other economic activities include marble processing, oil deposits, as well as exploitation of natural resources, such as quarries, inert extraction, etc. These industrial activities have a high and significant environmental impact on the quality of ecosystems and highly affect the risk of flooding.

3.3 Agriculture and Tourism

The agricultural sector is the largest contributor to the region's economy. Despite the inefficient management of the sector, about 60% of the population in the municipality of Lezha lives in rural settlements and is mainly engaged in agriculture. However, this trend tends to decrease, as the rural population is shrinking compared to the urban one. Farmers use the land mainly to meet daily needs and only a few of them engage in greenhouse farming. Agricultural land is quite fertile and with high soil productivity. Prior to the 1990s, agricultural land was drained by a well-managed system consisting of underground canals, drainage canals, and pumping stations. This system was connected to the rivers of the area. However, at present, the system is already quite damaged and its condition is almost critical.

Despite high productivity and very favourable climatic conditions for agricultural development, the territory of this municipality is recently facing flood problems that occur regularly almost every year, causing considerable damage to the sector. This natural hazard has caused decline in agricultural production, making soil less fertile and discouraging farmers from cultivating it. Lezha has 18,496 hectares of agricultural land, 19,256 ha of forests, 5,110 ha of pastures and 7,169 ha of unproductive land (Bashkia Lezhe, UTS-01, 2016). The agricultural land makes up 53% of agricultural land throughout the 'Qark' and 3% nationwide.

Agricultural infrastructure plays a key role in preventing flooding of agricultural land and adjacent residential units in the municipality. This infrastructure displays its own problems in terms of maintenance and rehabilitation. Agricultural drainage infrastructures include Reservoirs, drainage and irrigation canals, protective embankments and hydro-plants.

The tourism sector has a positive growth trend in the municipality of Lezha. In national economic terms, the contribution of tourism has been increasing since 2013. In quantitative terms, the tourism industry contributed about ALL 32.2 billion in total value added in 2017, increasing by about 15.2 % in annual terms. In addition to contributing to the benefit of the economy, the tourism sector can potentially contribute substantially to employment and improve welfare in local economies.

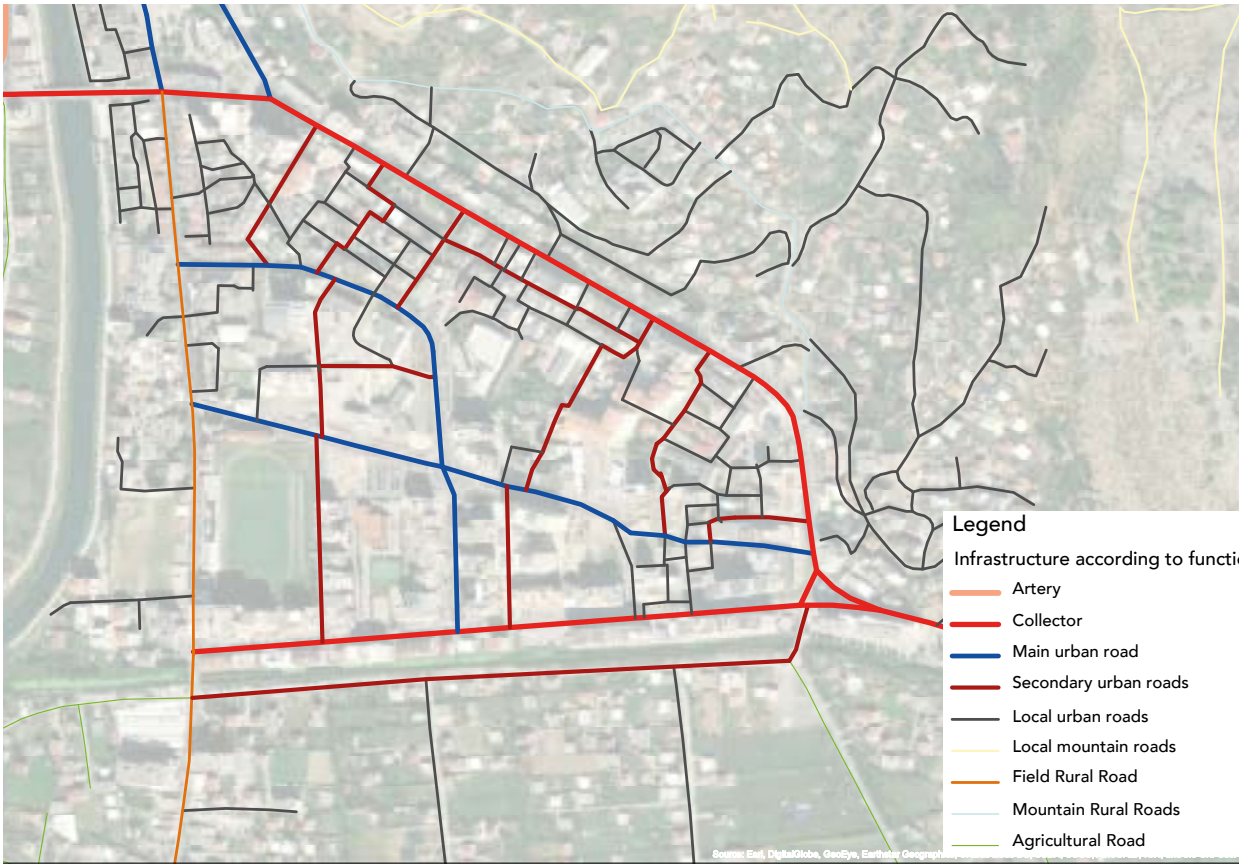
3.4 Healthcare

The healthcare service in the Municipality of Lezha is provided by the primary and hospital health services. The specialized primary health care service covers family doctor service, paediatric service, maternal and child counselling, cardiology, microsurgery, mini-laboratory service, and emergency medical service. In the city of Lezha there are two hospitals. The regional hospital, located in the city of Lezha, offers services in pathology, obstetrics-gynaecology, surgery, infectious, paediatrics, resuscitation, radiology and laboratory services. There are 35 specialized doctors and about 200 auxiliary staff in this hospital. The hospital has 162 beds and accommodated 7031 patients in 2013.

3.5 Urban Development and Road Infrastructure

Regarding road infrastructure and its respective functions, measurements conducted in GIS by the authors suggest that most of the roads are agricultural (44.6% of the total) and local mountain roads (27.7%). This is consistent with the agricultural character of a significant part of the territory, as well as with the mountainous features in the eastern part of the municipality. The road system of the municipality needs to be improved, as the western part is mostly below sea level and floods cause a lot of economic damage, both in agricultural production and on mobility.

Figure 5. Hierarchy of Road Infrastructure in the City of Lezhë



Source: Municipality of Lezhë and Co-PLAN (2020)

The analysis of the quality of road infrastructure in the Municipality of Lezha suggests that only 247.9 km of roads are paved and 968.3 km are unpaved. Approximately 20% of the total road infrastructure is in optimal conditions. This is partly due to the fact that most of the roads are of local and rural character, with no significant investment carried out in recent years. Whenever there is a small investment in these areas, usually the quality of works is poor. This fact, paired with a general lack of maintenance of the roads cause significant mobility problems, which are aggravated in times of flooding, impeding movement altogether and turning into possible accident hotspots. The mobility is also affected by landslides and falling rocks in some areas, and by snow/frost in others.

In terms of urban development, we can recognize two main urban centres in the municipality: the city of Lezha and Shëngjin. The city of Lezha is characterized by a mix of spatial and building typologies, being surrounded by the hilly system on the east side, and separated by the Drini river in the western part of the city centre. The urban territory displays a mixture of compactness in the central area and in some suburban areas, with urban sprawl on agricultural and hilly terrain in the other part. The analysis performed on connectivity (of road axes) and permeability (of space) in the city suggest two categories of results: good and normal axial connection for the central area of the city, as well as poor connectivity for almost all the rest. This is mainly due to the configuration of the central area as a quadratic spatial typology, which connects the main axes (boulevard and ring road) through many nodal points. The main boulevard turns out to be the most accessible road for the city, forming the most connections to the other road axes, as measured by the ratio of number of intersection points to the total length of continuous axial line. This analysis suggests that, even though the overall spatial density of the city is not high, the actual evacuation and emergency camping/standing sites are sufficient only in the center, but have no further linear continuity in the urban areas.

Figure 6. Analysis of Axial Connectivity in Lezha

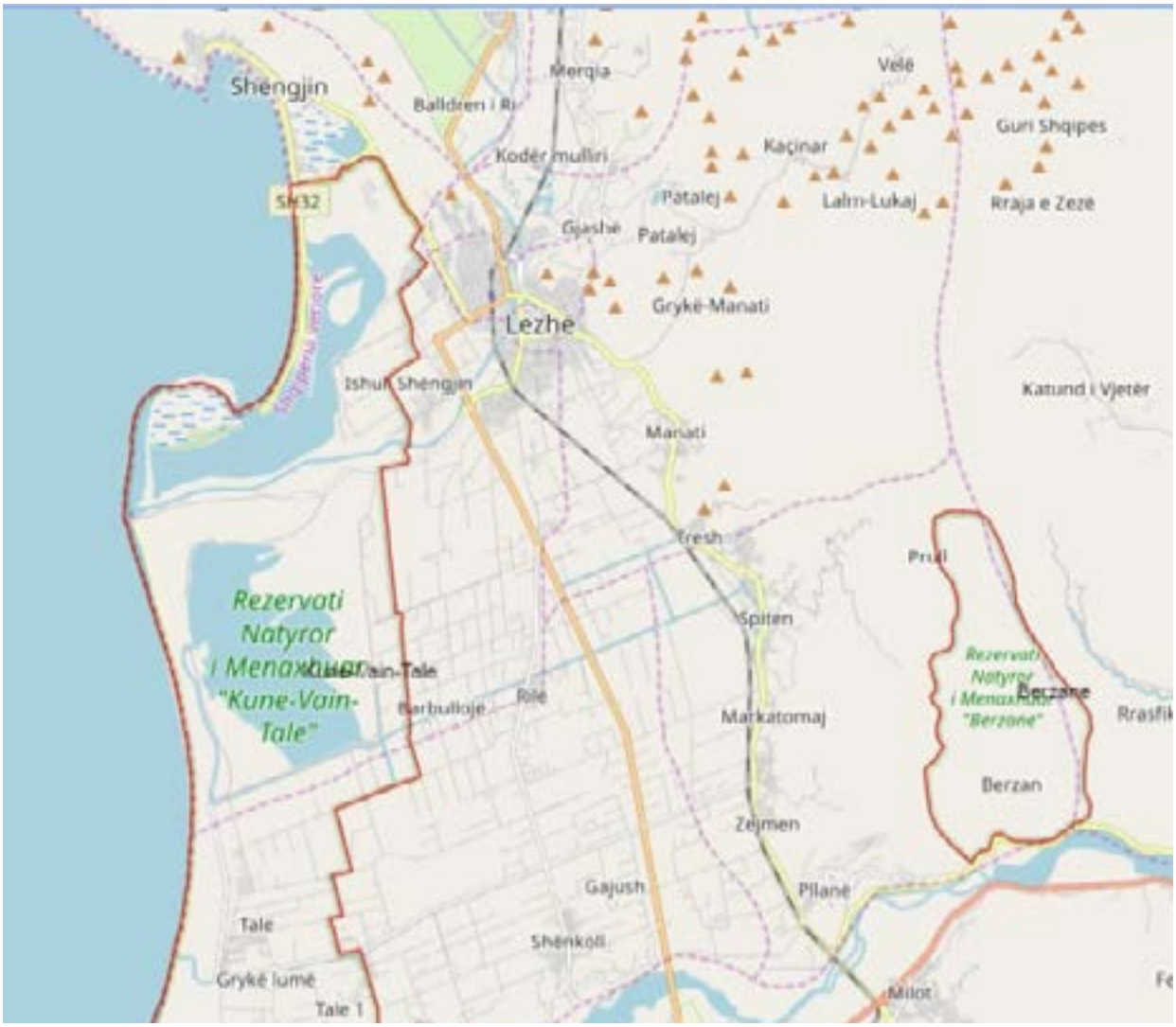
Source: Authors, conducted through Depthmax (UCL)

3.6 Environment

The Municipality of Lezha inherits an incomparably rich natural environment characterized by: diversity of terrain features and microclimate conditions; edaphic factors[2] that have created various forest formations; considerable plain areas; vast wetland areas accompanied by lithographs and sandy beaches; geological formations abundant in minerals and groundwater; as well as a rich hydrographic network. The Municipality of Lezha has a number of protected areas of national and international importance. The Kune-Vain-Tale Nature Reserve is a tremendous potential for the area. Another protected natural area is that of Bërzana, which is also classified as a Natural Reserve.

After the 1990s a series of actions were undertaken to demolish and disactivate some of the industrial facilities, such as the former Paper Factory, which was a growing cause of pollution. These actions had a positive impact on reducing industrial pollution. However, a number of other phenomena increased the pressure on the natural environment, leading to its degradation in some cases. Some of these artificially induced phenomena are: the increase in the use of

Figure 7. Map of protected areas in the Municipality of Lezha[3]



Source: National Agency of Protected Areas 2020

limestone and gravel from the Mat riverbed; overexploitation of groundwater and especially of the aquifer of the Mati Coast area; reduction of Drin e Mat river flows from cascade interventions; the use of forests and consequently the increase of erosion as a whole, especially coastal erosion; an increased traffic from motorized transport, and informal constructions in protected areas. In particular, the coastal area below sea level is experiencing major effects from climate change, such as high-tide marine storms, flooding by rivers and seawater, prolonged droughts, heat waves, strong winds, etc.

The coast of the Municipality of Lezha for decades has been facing a very aggressive erosion caused by the drastic reduction of solid sediments of the Drin River, as well as by the increase in the frequency and strength of marine storms that hit the coast. Studies confirm that the area is quite exposed to extreme climatic events, such as sea storms, accompanied by tides above the perennial average, intense flooding or prolonged droughts, which are becoming quite frequent (Le Tissier, et al., 2013). The coastal erosion activity in Kune-Vain has destroyed significant beach area and contributed to the elimination or destabilization of dunes and river banks.

2. Soil conditions such as texture, drainage, granularity, etc.

3. According to AKZM- http://akzm.gov.al/qgis2wwb_2019_05_13-09_58_25_161000/index.html

4. Risk of Natural Disasters

The territory of the municipality of Lezha faces a series of risks from natural hazards. Among the most important are seismic risk, flood risk, geo-hazards in the form of landslides and rock falls, risks from atmospheric factors such as snow blocking, forest fires, and risks that come as a result of climate change (Prefektura e Qarkut Lezhe, 2018). For each of them below is a brief description of the phenomenon, the most endangered areas, historical events and some perspectives on the potential hazard. Since the work for the identification and mapping of risks is still ongoing, and detailed and time-bound scientific information is limited, below is only a quick overview of the situation.

4.1 Seismic Risk

Albania is among the most exposed countries to risk of seismic phenomena. The Mediterranean basin, where Albania is located, is the most seismically active part of the European continent. Most of the strong earthquakes occur in three well-defined seismic belts, such as the Adriatic-Ionian belt in the eastern edge of the Adriatic microplate with northwest-southeast extension, Peshkopi - Korça belt with north-south extension, and the Dibër-Lushnja-Elbasan earthquake belt with the north-eastern extension (Sulstarova, Koçiaj, & Aliaj, 1980). Albania's seismicity is characterized by intense seismic micro activity ($1.0 < M \leq 3.0$), by very small earthquakes ($3.0 < M \leq 5.0$), by rare earthquakes of medium size ($5.0 < M \leq 7.0$) and very rarely by strong earthquakes ($M > 7.0$).

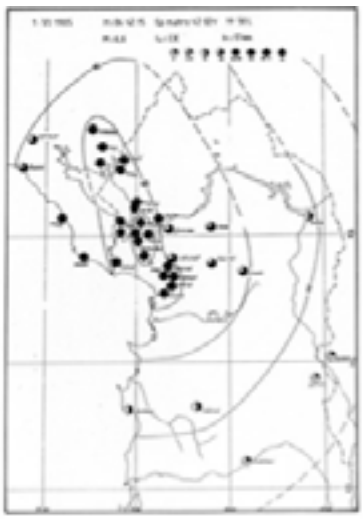
The territory of the Municipality of Lezha is located along the Adriatic-Ionian belt, where a series of powerful earthquakes have occurred over the years. The areas of active detachment faulting coincide with the seism-active areas (where earthquakes are occasionally generated). It is estimated that the seismic potential of the territory of Lezha has a magnitude 6.0-7.0 in Richter scale and epicentre intensity of 8-9 in the scale of MSK-64. The assessment of the probabilistic seismic risk of the municipality location, is based on the study of the probable seismic risk for Albania, published by the Academy of Sciences of Albania in 2011 (Aliaj, Koçiu, Muço, & Sulstarova, 2011). The values of maximum land acceleration - PGA and spectral acceleration - SA are calculated for rocky terrain, for two levels: 10% probability of overcoming in 10 years and 10% probability of overcoming in 50 years.

Following is a description of most historically important earthquakes that affected the area:

- The Earthquake of 1905 in Shkodra (magnitude of this earthquake in MS was 6.6; and intensity over 9 scales). The earthquake caused severe damage to people and property in Shkodra and surrounding villages (especially in the southwestern villages of Shkodra). About 1,500 residential units in the city of Shkodra alone have been completely destroyed; while the rest of the houses were badly damaged. Rozafa's castle was also severely damaged. The effect of this earthquake in the area of the Municipality of Lezha was perceived at an intensity level of 8.
- The earthquake of 1926 in Durrës (on December 17, a strong shock occurred, which was followed by a more powerful shock that damaged Durrës, Shijak and Ishëm. This shock had a magnitude MS = 5.8. It was accompanied by many other shocks. On December 18, another shock of magnitude MS = 6.2 was recorded. This shock destroyed and damaged many buildings in Durrës, Kavajë and Shijak and in the villages surrouding them. The earthquake was felt very strongly in Tirana, Shkodra, Berat, Lushnje and Elbasan. The intensity of this earthquake in the area of the Municipality of Lezha had a magnitude of 7 in the MSK-1964 scale.

- The earthquake of November 30, 1967 in Dibër and Librazhd (magnitude MS = 6.6 and intensity =9) severely damaged the districts of Dibra and Librazhd, as well as part of the territory of western Macedonia. This earthquake was felt in the area of the Municipality of Lezha with an intensity of 5-6 degrees.
- The earthquake of April 15, 1979 (earthquake in the Albania-Montenegro border area). Its magnitude is calculated MS = 7.2 and the intensity at the epicentre is estimated 9-10 in MSK-1964 scale. The main shock on April 15 caused 35 deaths and 382 injuries in Albania. More than 100,000 residents (mostly in the Shkodra and Lezha regions) were left homeless. The intensity of the earthquake in the Municipality of Lezha has reached level 8 of MSK-1964 scale.

Figure 8. Maps of the Isoseists[4] of three powerful historical earthquakes



Map of Earthquake isosceles on the 1st of June 1905

Map of Earthquake isosceles on the 17th December 1926

Map of Earthquake isosceles on the 15th April 1979

Source: (Sulstarova, Muço, Aliaj, Kuka, & Duni, 2003)

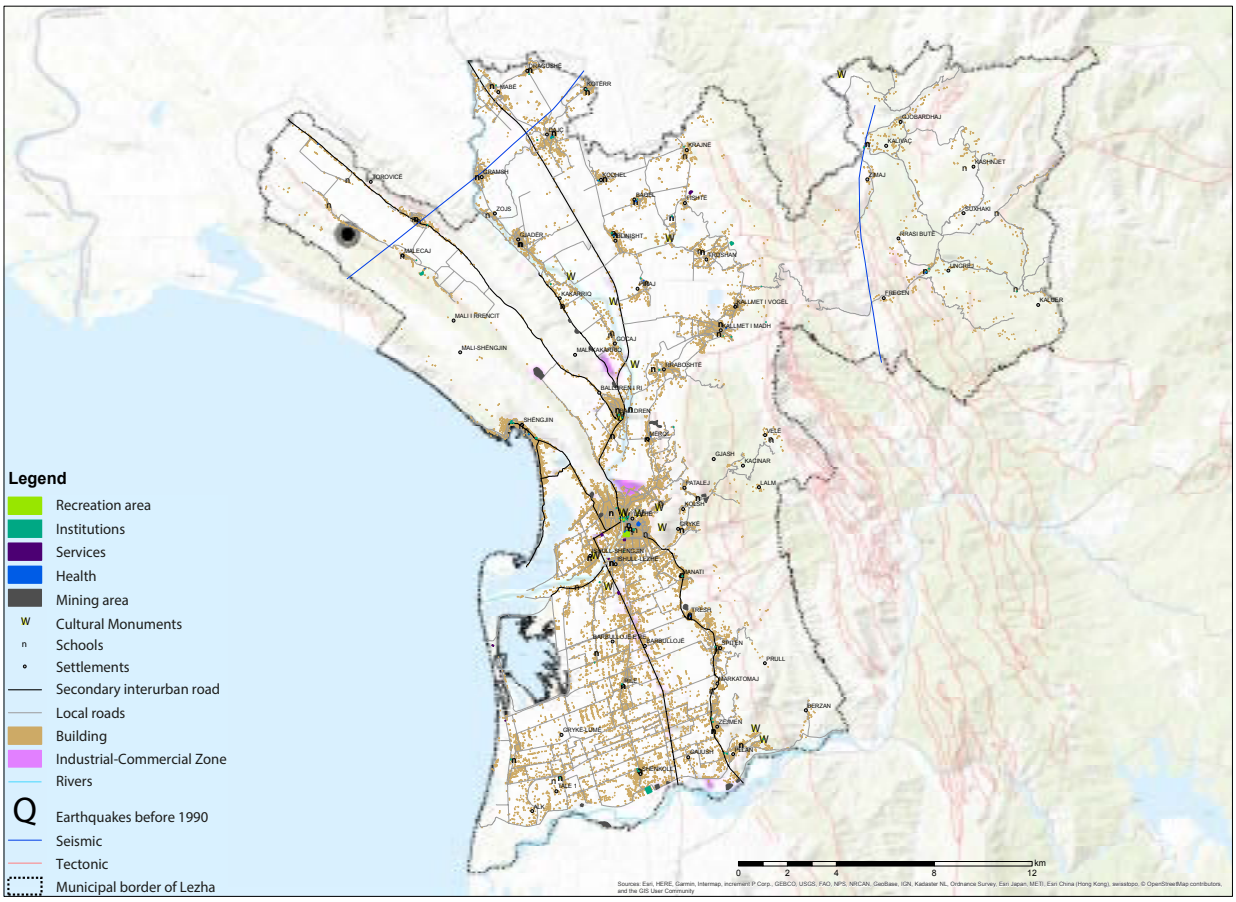
The last major earthquake that hit the territory of the municipality of Lezha was the earthquake of November 26, 2019. This earthquake had its epicentre in the Adriatic Sea, about 15 km from Durrës, and had a magnitude of 6.4 Richter. As a result, many material damages were caused in Durrës, Shijak, Thumanë, Laç and Tirana. In addition to the damage to buildings, the earthquake took the life of at least 51 people and injured about 3,000 others. This earthquake also hit the municipality of Lezha. As a result, in the municipality of Lezha 76 families, or 288 inhabitants were forced to move into tents. Beyond that, in the municipality of Lezha two schools have been severely damaged and are currently not-functional, namely the 'Gjergj Kastrioti' school in Lezha and the 'Llesh Nik Daka' school in Shënkoll. In the city of Lezha, most of the damage was seen in the Besëlidhja neighbourhood, which was constructed with prefabricated materials.

- In summary, the municipality of Lezha, being located along the Adriatic Sea, is highly exposed in terms of the seismic risks. The risks can be divided into several categories:
- Damage and demolition of buildings for residential purposes, especially buildings that were built before the 1990s, buildings built informally and without professional expertise, as well as new buildings where implementation may have deviated from the initial project.

4. The line in which the seismic intensity is the same.

- Damage to social and cultural objects such as museums, libraries or cultural and historical monuments.
- Damage to critical infrastructure, such as bridges, roads, power plants and water supply infrastructure

Figure 9. Earthquakes and Territorial Vulnerabilities



Source: Co-PLAN (2019) based on (SHGJSH, 2016)

One of the primary risks associated with seismic activity is the phenomenon of soil liquefaction. This phenomenon occurs especially in weak soils, mainly sandy ones. This phenomenon is present in marshy areas, which may be reclaimed or drained. As a result, it is important to show special care in avoiding constructions in these areas. Earthquakes and the phenomenon of liquefaction endanger especially the western part of the Municipality of Lezha, along the western lowlands.

Local testimonies: The community affected by the November 2019 earthquake has currently completed the damage declaration process and is awaiting financial compensation. Interviews with affected families suggest that they continue to carry out their everyday activities in their residences, but for sleeping they are placed in tents or are accommodated in houses of relatives. Some of the families had suffered damaged during the 1979 earthquake, but had already repaired the damages themselves.

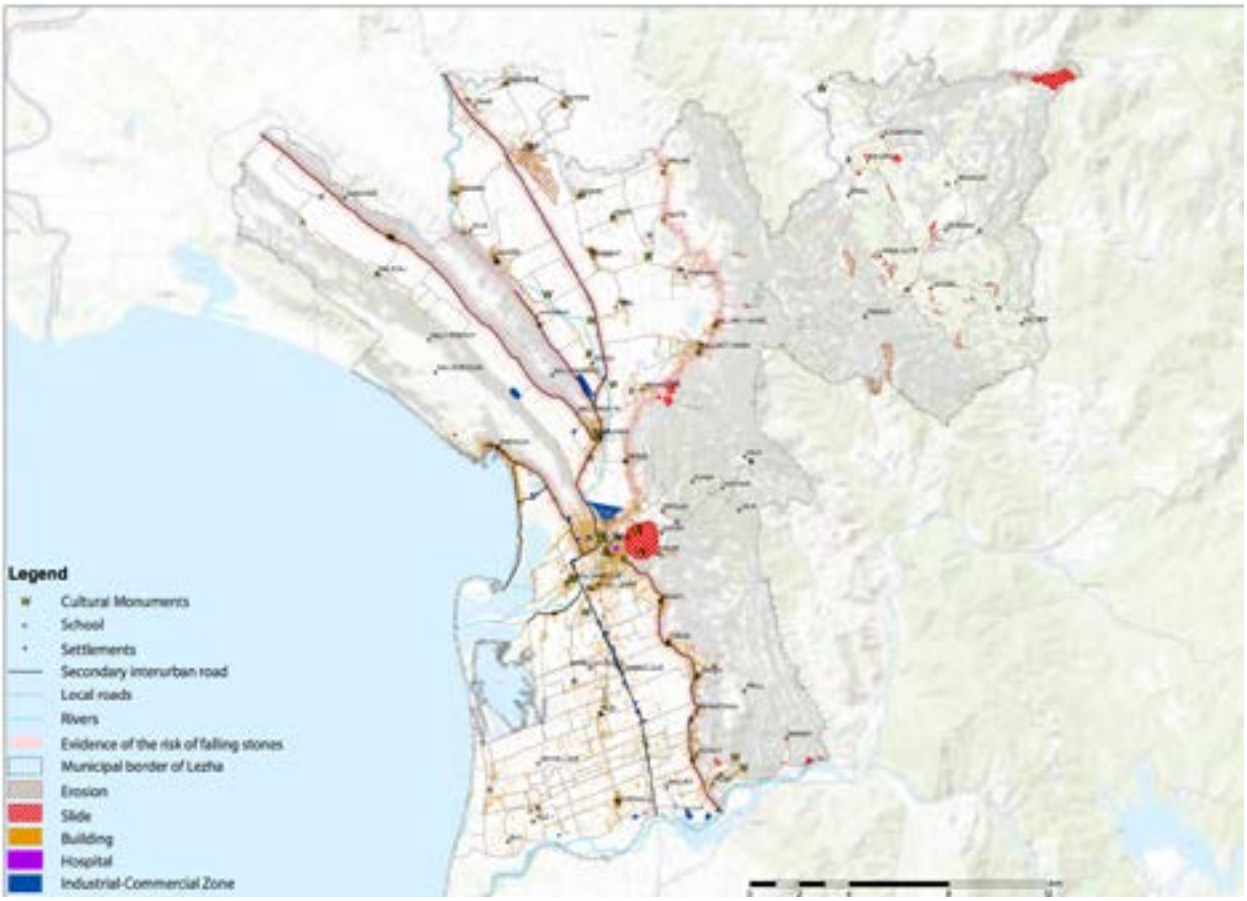
As far as the recent earthquake goes, damages categorized by the professional observation team as level DS1 - DS3 do not qualify for monetary compensation. Therefore, the residents have started to repair them themselves, especially the damages in the roofs.

There are several cases where the initial assessment declares the apartment uninhabitable, while the second considers it habitable (category DS2). Generally, families affected by the earthquake do not feel safe in their place of residence.

4.2 Geo-risks

Based on previous studies (Prefektura e Qarkut Lezhe, 2018) (IGJIU, 2017) (SHGJSH, 2016) in the Municipality of Lezhë there are different inhabited areas at risk from geo-dynamic phenomena, such as rock falling, lanslide and slope erosion. A direct role on the occurance of landslides and erosion is played by groundwater, which when flowing in the direction of the slope, creates large-scale slides. On the other hand, in these areas, the processes of suffocation are present,

Figure 10. Risks from landslides and rock falling



Source: Co-PLAN (2019) based on SHGJSH (2016)

5. DS: Category Classification of damages by earthquake. DS1 smaller category and DS5 higher.

which are reflected in the reduction of the land surface in the form of micro pipes and pits. The recognised areas exposed to landslide risk in the municipality are: the hill of Lezha Castle, Grykë-Zeza, the hills in Spiten, Pllanë, Troshan, etc. In the castle area, the land instability endangers also some buildings, which were constructed without a permit and with no proper technical conditions (Prefektura e Qarkut Lezhe, 2018). There are also road segments that are affected and damaged by this phenomena, as i.e. the Fishtë – Troshan segment, which is endangered by two landslides in close proximity to each other. Also, the hills above the city of Lezha, due to construction and deforestation have potentially become subject to landslides. In the event of heavy rainfall, these landslides can be triggered and may cause extensive damage.

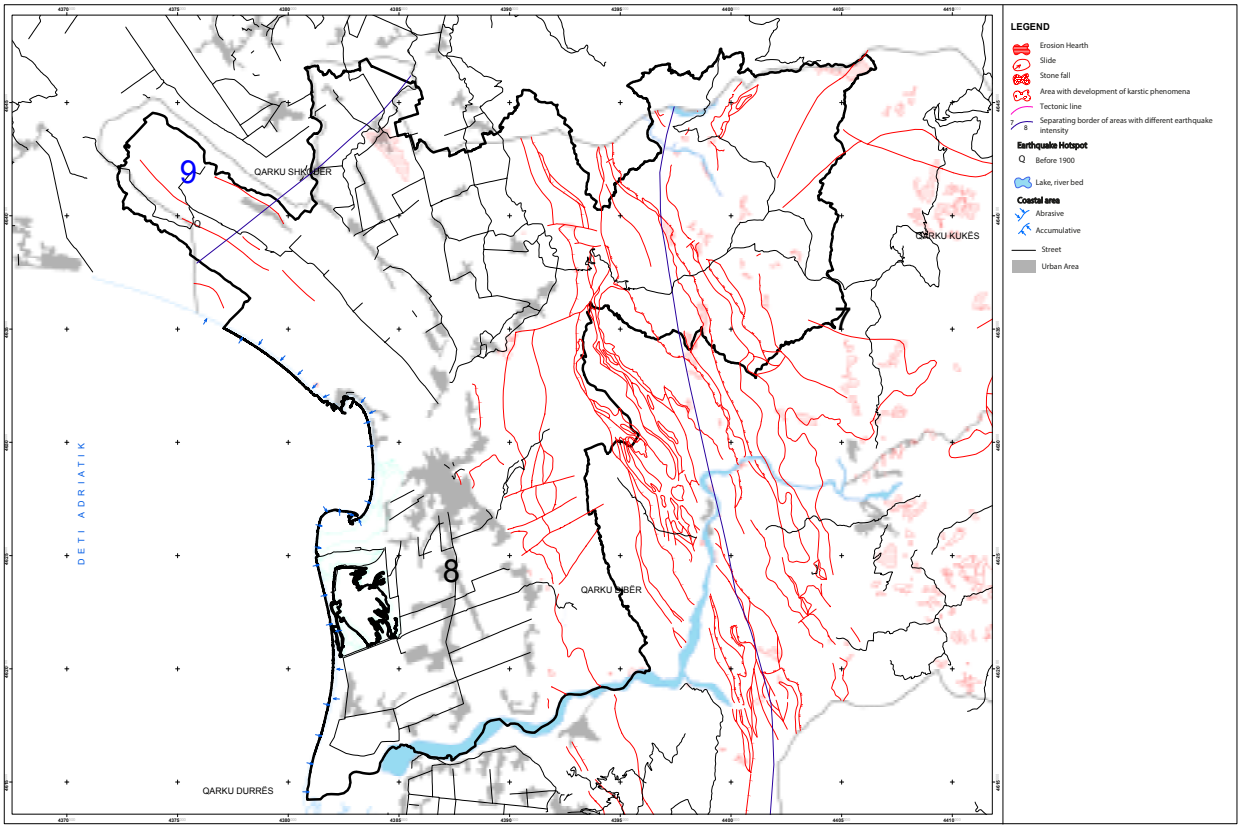
The phenomenon of rock falling is the detachment of rocks, or rock blocks from massive rock formations; or from stratified rocks, which then roll towards lower quotas of the terrain. The presence of strong rocks, mostly represented by limestones and less by flysch formations, which have been alienated and tend to get fragmented easily, as well as the morphometric features (with slopes above 40˚), are the reason that the phenomenon of rock falling occurs in some areas of the municipality. Along the Lezhë - Shëngjin - Rana Hedhun road segment, the phenomena is present due to massive rock falls and blocks; as well as gravitational gravel, coming from the hill on the right side. The latter has a slope of 45˚ and is composed of limestone with developed fragmentation. Such rock falls are found near the villages of Saks, Skutaj, Shëngjin and Rana Hedhun. The size of the fallen blocks is 0.3 - 0.5 - 1m³ (Bashkia Lezhë, 2018). In the Torovica – Lezhë road segment, the phenomenon presents a higher degree of danger, because the blocks of limestone located in the high slopes tend to detach, thus collapsing on the road and the houses next to it. The size of these blocks varies from 0.5m3 to several m3. In the vicinity of the 'Gurrat e Begut' neighborhood in Lezha, some households are endangered by rock falls and limestone blocks on the slope of the 'Shelbum' mountain. The area between the villages of Manati - Tresh - Spiten is also endangered, where the western part of 'Rasa e Treshit - Mali i Zejmenit' segment is often subjected to rock falls, which that threaten also the dwellings. Finally, the old road Milot – Rrëshen, in the segment close the 'Bridge of Zog' (Milot) is endangered by the fall of limestone and flysch rocks.

Local testimonies: Currently in the Municipality of Lezha there are some territories that are under geological risk and threatened by the collapse / fall of rocks. Community representatives have identified the phenomenon of falling rocks in the main road axes located along the hilly-mountainous areas in the Administrative Units Ungrej, Kolsh, Zajmen, Kallmet.

The community perceives the Lezha-Shengjin-Rana Hedhun axis as relatively dangerous, because of the collapse of 0.3-1m3 rock blocks. The Torovica-Lezha axis is considered highly dangerous, because the limestone blocks with detachment tendency may reach dimensions of over 0.5 m3.

In the Kolsh administrative unit, some areas are composed of mixture between rocks and pumice. Buildings constructed informally in this area are constantly under risk. Residents express concern about their possible collapse and the high cost of improvement interventions in the area. Moreover, in the village of Pllanë, there is a risk of a massive stone falling in the street. The Village Chairman proposed to have the slope protected by physical barriers.

Figure 11. Geological Risks



Source: Co-PLAN (2019) based on SHGJSH (2016)

4.3 Snow risk

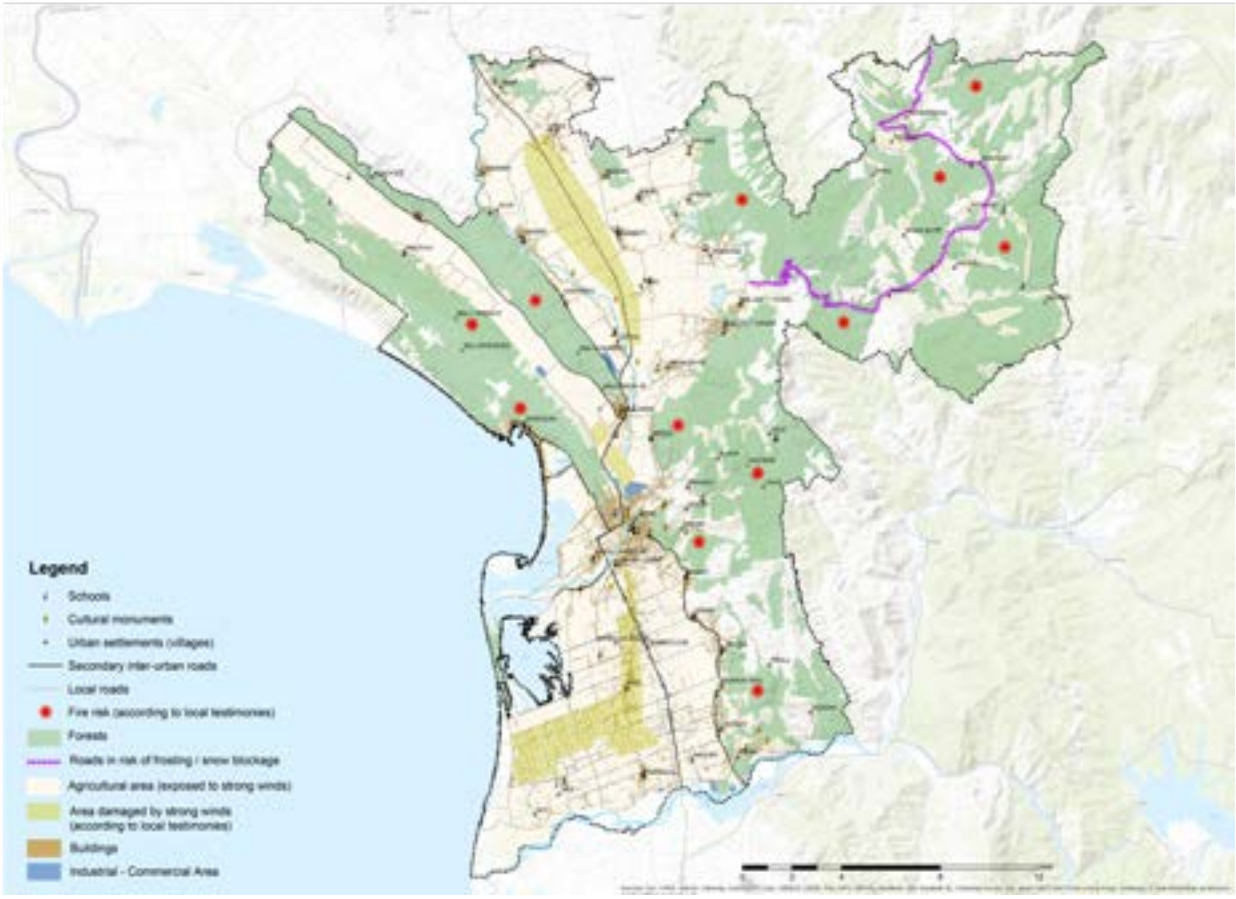
In the territory of the Municipality of Lezha, snow-related hazards mainly affect the administrative units of Ungrej and Kolsh, which are constantly facing this phenomenon. The average number of snowy days reaches 15-30 days a year. The snowfall period is accompanied by cold temperatures ranging from -5 to -200C. A snow thickness of 10cm creates an ice layer with a thickness of up to 5mm, which causes disruption of normal traffic and become an obstacle in the case of civil emergency operations. Meanwhile, an increase of the ice thickness to 25-30 cm completely blocks the road traffic of vehicles. Snowfall, frost, strong winds, rain, etc. have led to the blocking of road infrastructure, freezing of water supply, damage to power lines, avalanches, and many other phenomena. Frosts may also create emergencies due to the blockage they cause. It is worth mentioning the following winters: 2010-2011, 2016, and 2017, in which the road axes of Troshan-Kashnjet, Lezhë-Spital, Lezhë-Gurra, Lezhë-Castle were blocked, and the frost caused a problem in water pipes, water pumps and respective equipment installed in them, in the whole territory of the municipality. In addition, frost has caused damage to vegetation, orchards and livestock, and has affected education, because of the closure of school institutions for some periods of time. In the Administrative Unit of Ungrej, the mobility of the inhabitants became extremely difficult, and the food and basics supply was limited. Ungrej is also the most affected by snow blockage and, in emergency situations like the above, it is difficult to provide rapid assistance.

4.4 Fire risk

The Municipality of Lezha has a total of 18,200 ha of forests and 4,250 ha of pastures. The phenomenon of fires in the territory of the Municipality occurs in households, forests and pastures. Most fires occur during the summer period, because of high temperatures, lack of rainfall and long droughts. The main causes of fires, in addition to natural conditions, are negligence, or deliberate arson for pasture creation, weed cleansing, and opening of construction sites, etc. This phenomenon has seen an increase especially after 1992, when human activities in the territory began to be more evident. In particular, the burning of a fuel station in 2006 in Shëngjin caused a significant damage. Forest fires are also relatively common. One of the most relevant forest fires occurred in 2010 on Veles Mountain in Gjash, where residents were evacuated from the fire risk to safer areas. In the summer of 2016, significant areas of forests, meadows and pastures were burned on Shëngjin Mountain, endangering a large number of homes and the lives of citizens. In the summer of 2017, large forest areas were set on fire and eight dwellings were burned in Borizana, Torovica, Malecaj, Kakarric, etc.

Usually fire accidents in dwellings are more present, where the main causes have been malfunctions in the electrical system, and negligence. The closure of roads near high rise dwellings, their close proximity to each other, or the absence of water tanks to supply fire trucks, are some of the causes that endanger the lives of residents and the economy of various public and private entities (Prefektura e Qarkut Lezhe, 2018).

Figure 12. Risk from fire, snow and wind

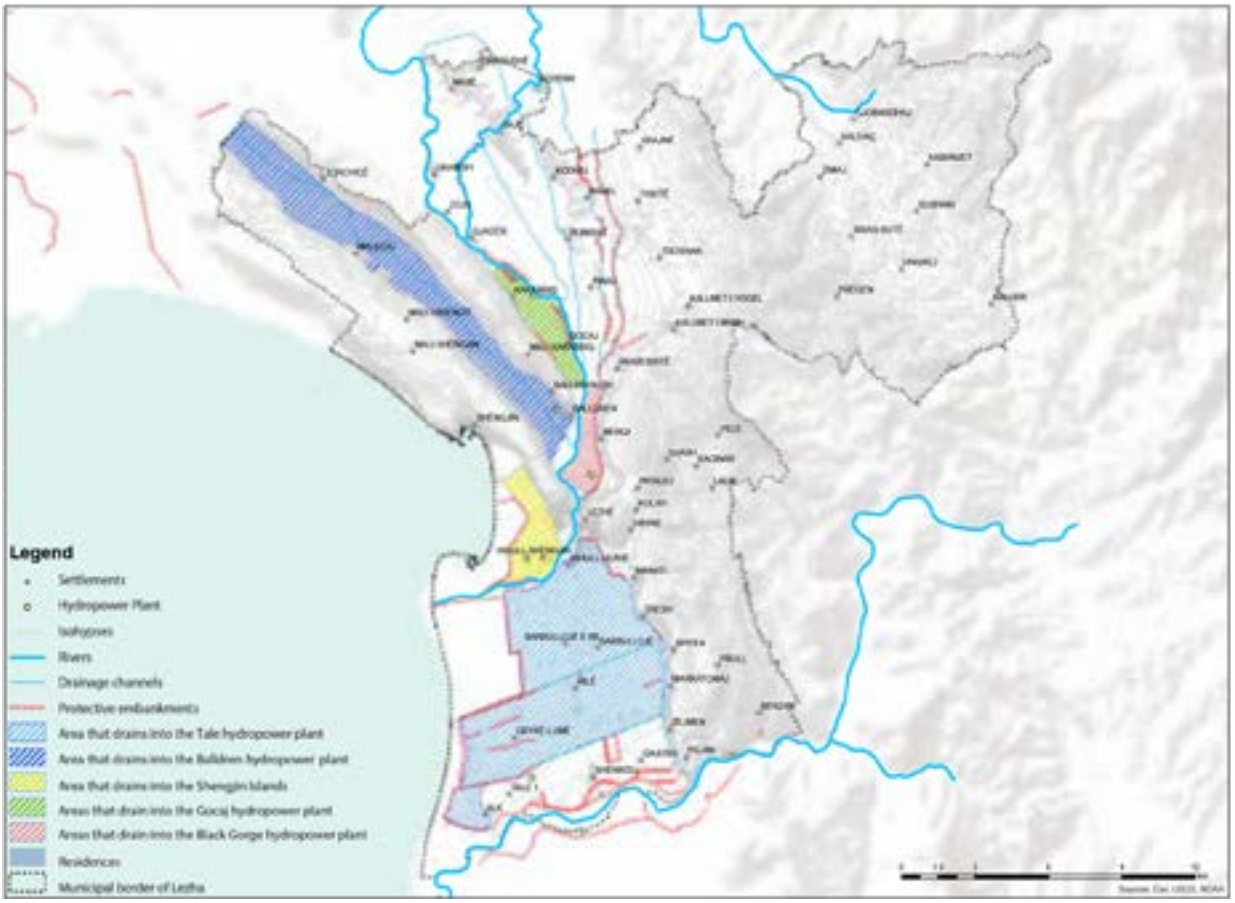


Source: Co-PLAN (2019) based on local testimonies and Le Tissier, et al., (2013)

4.5 Hydric System and Flooding

The hydrographic basin of the Municipality of Lezha covers an area of 1,300 km2. The potential and ongoing risk is flooding of the agricultural land that is located below sea level (former swamp), as in Mabe, Zojz, Gocaj, Torrovicë, Shëngjin Island, Barbulloj, Tresh, F. Kuqe, Adriatik, etc. (IGJIU, 2017).

Figure 13. Drainage Areas in Lezha

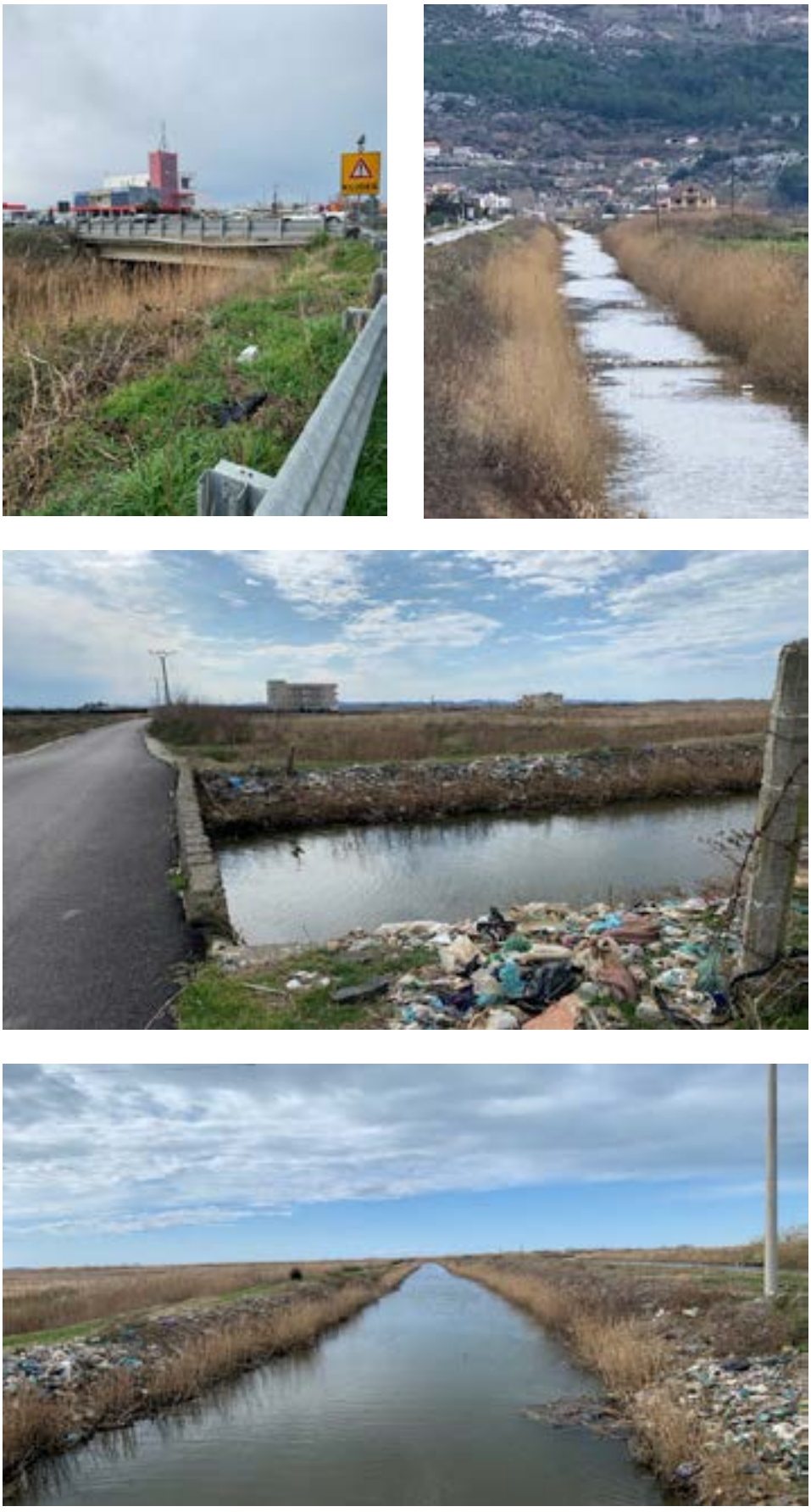


Source: Co-PLAN (2019) based on Prefektura e Qarkut Lezhe (2018)

The main factors that cause these floods are:

- Lack of maintenance of dams; damage or degradation of reservoir dams;
- High erosion of coastal dunes causes floods as a result of storm surges (Le Tissier, et al., 2013).
- Lack of cleaning service to secondary and tertiary drainage channels
- Failure of pumping stations (hydropower plants);
- Failure and damage of mountain stream embankments;
- Lack of efficient management of the flooded territory by the municipality and by the Agricultural Drainage Board.

Figure 14. Photos of the Main Drainage Channel



Source: Co-PLAN (2020)

Based on the history of floods, it turns out that the region of Lezha has been affected several times by this disaster. To be noted are the flooding events of 1962-1963, 1995-1996 and 2002 and 2004, 2009-2010. In all cases, except for heavy rains, the Drin, Mat and Gjadër rivers have overflowed their banks and flooded about 18,000 ha of land (Prefektura e Qarkut Lezhe, 2018). The table below provides a more complete summary of these phenomena in the last 20 years:

Table 1. Occurrence and effects of flooding according to time-periods and affected land

Time Period	Agricultural Land (ha)	Impact
November 1992	840	Fracture of the Mat and Drin river embankments
August 1995	700	Hydrovor plant malfunction in Ishull Shëngjin
September 1996	800	Very heavy rainfall
October 1996	700	Heavy rainfall and malfunction of hydrovor plant
February1998	500	Broken high water embankment
December 2000	300	Broken sea embankment in Ishull Shëngjin
February 2002	400	Broken sea embankment
September 2002	800	Broken embankment of river Drin
January 2007	1,200	Very heavy rainfall, Lezha
December-January 2010	8,600	Catastrophic flood. The sea tide (1.2-1.4m, 0.8 above normal) causes 1m flooding in Shengjin, Ishull Shengjin. The sea advances 300 m into land. 140 mm of rain was recorded within 3 hours. Flood of the Kakarriq area, due to malfunction of the hydrovor plants. Electric substations out of work
January 2012	950	Heavy rainfall, Lezha
January 2013	700	Heavy rainfall, Lezha
January 2013	850	Heavy rainfall, Lezha, Shëngjin, Kolsh
January 2014	650	Heavy rainfall, Lezha

Source: Bashkia Lezhe, UTS-01 (2016)

The post-hazard assessments suggest that great economic damages have been caused, in residential units and equipment, in agricultural and livestock products and in infrastructure. Almost all administrative units have felt the effects of the floods, but the most endangered regions are Zadrima field and the riverbed of Mati.

Local testimonies: Community representatives in Lezha emphasize that the problem of floods is the most urgent and costly for them. Almost every year there is flooding of agricultural land, but not always resulting in high damage. The most recent significant floods in the area have occurred in the last 3-4 years.

The floods are mainly caused due to problems with technical infrastructure, maintenance of secondary and tertiary agricultural canals, as well as mountain stream embankments. The following is a summary of the problems identified with residents and village chairmen:

- The secondary and tertiary irrigation and drainage canals have never been cleaned in the last 30 years. The municipality and farmers are responsible for the maintenance of these canals.
- The erosion of the Mat River due to the inert extraction activities in its riverbed is the cause of some floods.
- The floods from the sea cause major damages. Protective sea-embankments and river embankments (Mat River) should be maintained and reinforced accordingly
- Water supply and sewage infrastructure are problematic. An improvement is expected to be addressed by a project funded by the Albanian Development Fund. It will cover the area of Tale, Tale 1 and Tale 2 and will improve the Water Supply and Sewage infrastructure on the coast.
- Occupation of stream beds by solid waste, due to the lack of waste collectors in the villages
- The uncontrolled management of hydrovor plant gate opening causes a lot of water to flood the drainage canals and damage the buildings / businesses located on the road.
- The systems of wild high water streams, as well as the lack / damage of high water embankments cause the whole villages in the mountainous areas to flood when it rains for longer than 3 hours.

4.6 Climate Change

The Municipality of Lezha is influenced by two types of climate: the Continental one, in mountainous areas, with temperatures that reach -21 degrees Celsius and with snowfall that reaches from 0.5 to 2m width; and the Mediterranean one, in the plain and hilly areas, which is characterized by mild winters and hot summers, with a maximum recorded temperature of +42 degrees Celsius. Southern winds predominate, accompanied by rainfall, with an annual average of 1,200-1,800 mm. The rainfall regime within the period of 24 hours has reached a maximum of 300 mm of rain, which causes significant flooding.

All these climatic aspects, as well as the global effects of climate change in the last decade, have a significant impact on the territory, and cause potential risks. Technical studies such as Le Tissier, et al., (2013, p.8) show 'that patterns of coastal erosion may be altering beyond the 'normal' change associated with historical sea level fluctuations destroying coastal forests and vegetation and increasing the salinity in the lagoons and fields near the coast'. Based on the same study, erosion rates are estimated to be between 2 – 4 metres per year. Meanwhile, between 1936 and 1989 it is assumed that the coast has eroded more than 400m of land. Additionally, from the local testimonies, in the Shengjin area, during the last decade, citizens say that the coast has eroded almost 100-150m of land. The testimonies of citizens are based on the location of the 'army bunkers' which are now invisible (within the sea). The DMRD report (Le Tissier, et al., 2013) has identified some of the main impacts and changes that the area between the river mouths of Drini and Mati will face as a result of climate change. These include:

- More frequent and severe droughts with greater fire risk are likely (Frost days and cold waves

are very likely to become fewer while the number of days with the temperature above 35°C is expected to increase to approximately 10 days per year by 2100.

- An increase of the number of rainy days, with about 3-5 days of hazardous rainfalls, by 2100
- The occurrence of severe, moderate and dry drought is expected to increase by 2100
- Increased spring temperatures will increase soil temperature and extend suitable zones for summer crops and length of the growth season.
- The area could experience a general decrease in runoff, leading to an increase in demand for water
- Up to the year 2100 summer weather conditions for tourism are expected to change from an 'ideal' to an 'excellent' rating, especially by prolonging the touristic season also in May, June and September, October.
- There will be about 10 days less with a cold wave by 2030, 7 days by 2050 and 5 days for the 2080.
- Warmer winters will reduce "heating degree days" and the demand for heating energy.
- There will be an increase in the number of convective storm days as a result of the decreasing tendency in mean sea level pressure (MSLP) during summer
- Scenarios project a loss of wetland area (around 1 km2 by 2100) from sea level rise.
- Scenarios also project increases in coastal floodplain area and population size (respectively around 66 km2 and 4.6 thousands by 2100).
- Coastal forest area and low un-vegetated wetlands area are likely to decrease (Le Tissier, et al., 2013, pp. 12-13)

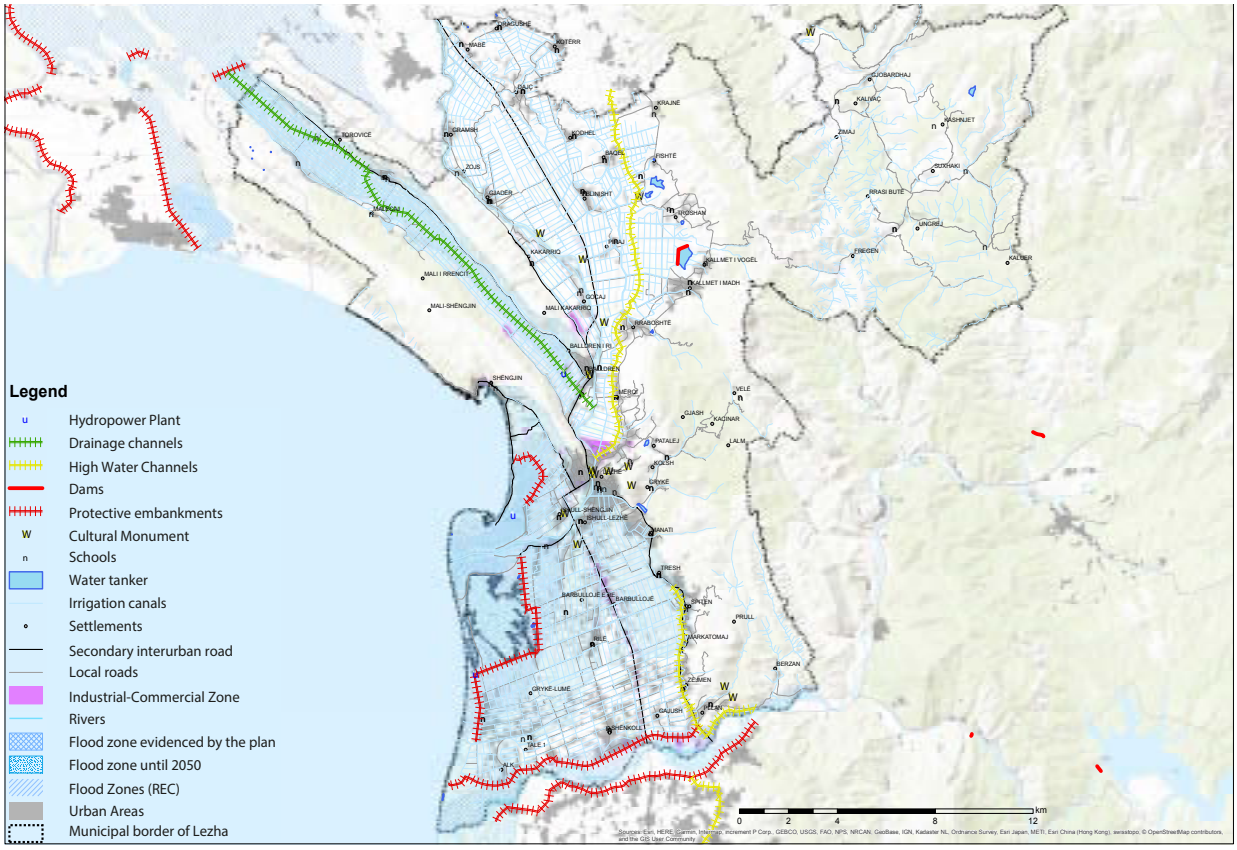
The below sections illustrate some of the events related to climate change and their impact in the territory of the Municipality of Lezha, especially in terms of sea-level rise and droughts.

Sea Level Rise

The Shengjin-Kune-Vain-Tale-Patok-Adriatic area has been identified as one of the areas most at risk from the effects of climate change at national level. This is escalated by the presence of numerous marine tides, as well as continuous coastal erosion, thus intensifying the floods.

In the period December 2009 - January 2010, the entire coastline of the municipality was affected by tides, with a level 80 cm higher than the normal annual quota of the Adriatic Sea (increase from the quota of 60 cm to 120-140 cm). This phenomenon caused one of the most catastrophic floods in the area, reaching over 1 m in Ishull Shëngjin and in Shëngjin, thus resulting in the damage of over 8,600 ha of agricultural land. The tide was triggered by 140 mm of rain during a period of 3 hours. As a result, the sea advanced to a depth of 300 feet [300 m] into the ground, causing the Tales hydroelectric substation to shut down. The domino effect of this disaster continued with the flooding of the Kakarriq area, which is protected from floods through the work of this hydrovor plant (Bashkia Lezhe, UTS-01, 2016).

Figure 15. Flood Risk



Source: Co-PLAN (2019) based on Prefektura e Qarkut Lezhë (2018)

Droughts

The Municipality of Lezha is characterized mainly by a mild Mediterranean climate due to its geographical position, wide access to the sea and generally low terrain in most administrative units. This area is characterized by hot and dry summers, mild and humid winters in the lower part and the city, and rainy and cold winters in the mountainous area. The average annual temperature for the region of Lezha is 15oC, averaging for the month of January to 7 oC, and for July 23-24oC.

The highest average monthly temperature values are reached in July (23.4oC) and the lowest values in January (6.5oC). The average annual value is 14.9oC. In terms of maximum absolute temperatures, their values rarely exceed 35-36oC. The highest value of the absolute maximum temperature is 39.0oC.

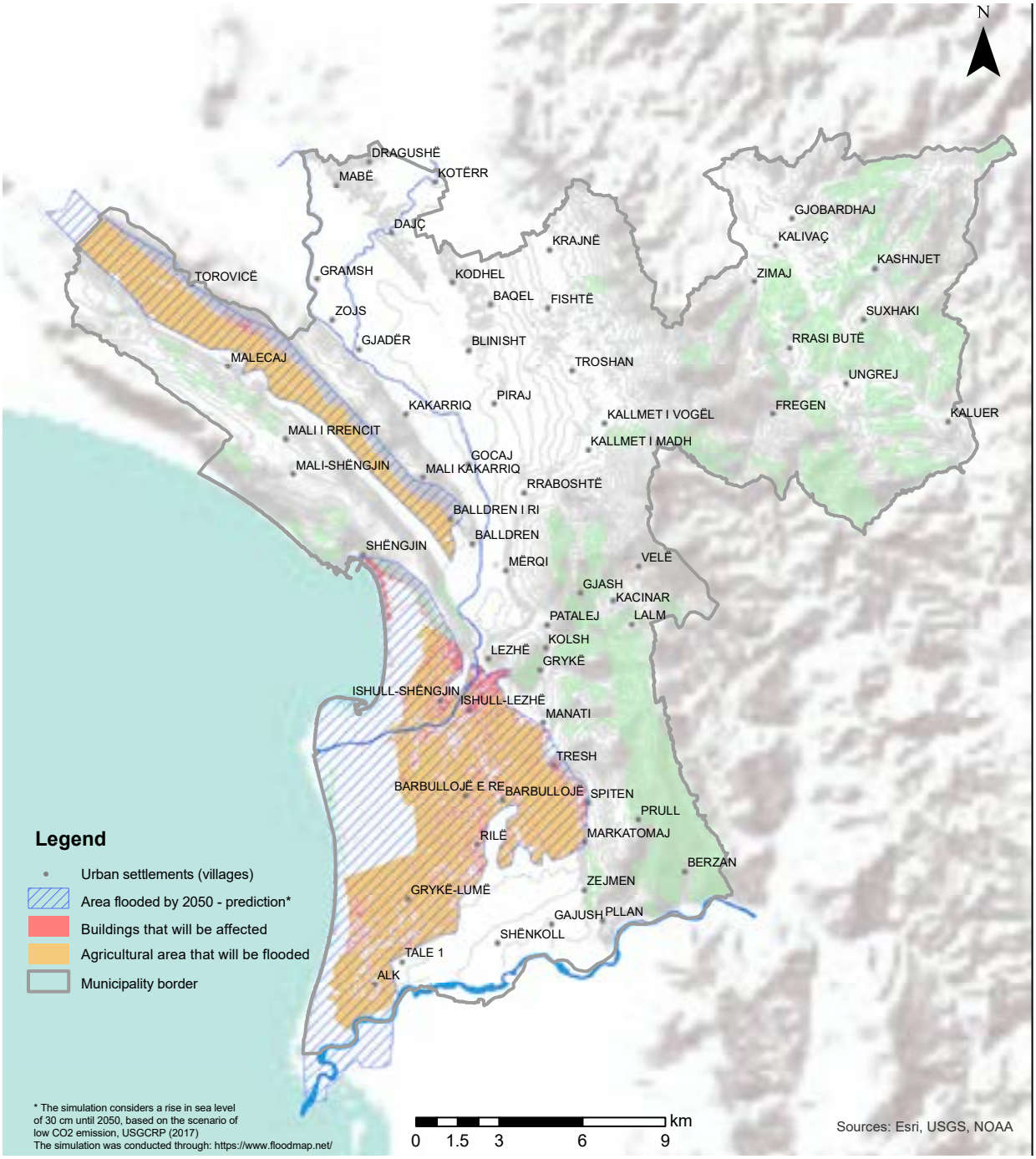
The average monthly solar values for July reach 2613 hours, which is a very high value for the region. Air humidity is also an important climatic element to consider. The highest values of relative air humidity are observed in the winter months (79-80-%), while the minimum values in the summer season (63-67%). The annual distribution of air humidity from which it appears that the value of this meteorological element varies in narrow limits (Bashkia Lezhe, UTS-01, 2016).

Hence the phenomenon of drought is present in the period of July. With climate change, drought becomes more pronounced and causes negative impact on agricultural products.

Local Testimonies: Discussions with the community suggest that there is not enough knowledge regarding climate change and the potential impact it has on natural disasters and their risk. However, the community manages to identify a significant number of features that are directly related to climate change:

- The unpredictability of rainfall: In the last 5-6 years, residents of rural areas find it impossible to predict the seasonal rainfall, as well as the volume of precipitation. It finds them unprepared for the possible floods that come from the blockage of agricultural canals, or the wild regime of high water streams.
- Rising temperatures: Residents have noticed an increase in average annual temperatures and an increase in drought throughout the year. This has a negative effect on their crops.
- Wind storms: In the last 5 years, wind storms are more frequent and endanger crops and greenhouses with plastic cover, especially in the village of Rrilë.
- Snowfalls: Residents have not noticed an increase in snowfall in recent years, but emphasize that it is difficult to predict the fall of snow, as a result of numerous fluctuations in temperatures.
- Fire phenomena: In general, there have been forest fires almost every year, but without resulting in any fatal consequence. Residents consider this phenomenon in 10% of cases caused by drought, while in most cases it is due to human activities (negligence or arson).

Figure 16. Flooding Risk



Source: Co-PLAN 2020 [6]

According to the forecasts for the increase of the sea level until 2050, in the municipality of Lezha they risk flooding:

- 7915 buildings (main residential function),
- 710.46 ha of agricultural land
- 3238.49 ha Complex cultivation models,
- 194.88 ha Agricultural land with significant natural vegetation,
- 2277.08 ha Barren (uninhabited) land.

6. The simulation considers a rise in sea level of 30 cm until 2050, based on the scenario of low CO2 emission, USGCRP (2017) The simulation was conducted through: https://www.floodmap.net/

In conclusion, the Municipality of Lezha faces a variety of challenges that can be summarized in the following table:

Table 2. Risks and Challenges in the Municipality of Lezhë

Type of Risk	Level	Municipal Capacities	Community Capacities
Seismic	High, it affects most of the urbanized areas, with high residential density	Low, lack of finances and capacity to influence the improvement of the situation	Low
Flooding	High, especially the lowland area is at risk of flooding	Continuous cleaning of the Secondary canals and coordination with the central level for cleaning the primary canals	Cleaning of tertiary canals. High ability but depends on farmers' awareness
Landslide	Medium, high risk especially near the Castle	Medium (mainly taking protective measures)	Medium (no possibilities of displacement)
Rock Falling	Low	Medium (protective measures, but no resources for community relocation)	Low
Snow Blocs	Average	Medium (road clearance)	Medium (annual historical risk, the community self-organizes to cope with the blockage)
Fires	Average	Medium (preparation and awareness-raising)	Low

Source: Authors

5. Disaster Risk Reduction through policies and sectorial instruments

Resilience has already become a guiding concept for policy-making related to spatial development and especially in terms of disaster risk. The concept of resilience has evolved over time and has different definitions, but one thing that is convergent in all cases is the ability of a country, authorities and socio-ecological systems to recover after a crisis (Davoudi, 2019). In this sense, the concept is comprehensive and multidimensional including not only the engineering, technical component but also numerous social and ecological factors. Resilience and disaster risk reduction have received significant global attention. This is seen in the priorities of the Sendai Framework, the United Nations Sustainable Development Goals, and the New Urban Agenda (UN Habitat, 2016) as well as the Urban Agenda of the EU (Informal Meeting of EU

Ministers Responsible for Urban Matter, 2016). These global strategic documents place an important emphasis on local authorities as well, considering that the biggest impact of crises is felt at the local level.

As a result, local institutions must be prepared both in terms of human, financial and technical capacities, and in terms of the instruments used to govern the territory. Meanwhile, in 2018, the Municipality of Lezha had drafted a civil emergency plan, which based on the new legal criteria, is no longer in force. This document placed great emphasis on actions in response to the post-crisis period. On the other hand, initiatives for crisis preparedness were few and not sufficient. The logic of the document, which in turn reflects the institutional tradition of responding to crises in Albania, pushes more towards the post-crisis reaction, than towards reducing the risk. This is one of the documents that will be revised and complemented throughout the project.

Currently, the Municipality of Lezha has approved the General Local Territorial Plan in 2016 (GLTP). This is the only document in force that has a direct link to risk reduction. Meanwhile, there are no documents or other sectoral and cross-sectoral plans that address risk reduction issues. The GLTP of the Municipality of Lezha presents a good basis for identifying the risks faced by the territory and the community. In particular, flood and earthquake issues are addressed in detail from the historical point of view of events. On the other hand, the GLTP's approach to risk management and policies to increase its resilience are limited. Mostly, this issue is resolved through the proposal of infrastructure projects, while the social and ecological aspects are not considered. In addition, in regard to the many risks facing the coastal area, there is a contradiction between proposed measures to protect against flooding and interests for economic development, especially tourism.

Territorial planning is seen as a very valuable and complementary tool to the risk reduction strategy, in order to enhance the resilience capacity of communities. As a result, a preliminary assessment suggests that the GLTP of the municipality of Lezha needs to be revised and complemented in some aspects that would strengthen and improve the abovementioned. These additions can consist on creating programs to improve building structures from the risk of seismicity, reviewing local development and planning standards, improving public space provision, forestation programs in certain territories, and climate change adaptation policies.

6. Work in Process

This document is a summary of the work for the project launched by UNDP, Co-PLAN and the Municipality of Lezha to draft an assessment, strategy and plan for civil protection and disaster risk reduction. Secondary data collection is currently underway, as well as field visits to identify potential hazards. During these visits, semi-structured interviews are conducted with residents, village chairmen, and administrators of administrative units. Up to the period of announced lockdown due to the expansion of the COVID-19 pandemic, visits to the administrative units of Shënkoll and Zejmen have been successfully carried out.

In fact, emergencies of health epidemics should also be part of risk reduction documents. In this project, this component will not be fully addressed as the challenges at the local level are numerous. There are a number of legal, institutional challenges related to financial and technical capacities, which are missing in municipalities nowadays. However, the strategy will include relevant recommendations, based on an analysis of the current situation regarding COVID-19 in the municipality of Lezha, in order to take afterwards institutional measures that include this very important component.

After conducting field visits and interviews with the community, a series of semi-structured interviews with institutions at the 'Qark' and national level will be conducted. Interviews serve as a good tool to engage the community and to increase sensitivity during the strategy drafting process. After that, several thematic workshops will be held to carry out a participatory risk mapping.

Beyond the study of secondary materials and data collected in the field, a very important component of analysis is the use of GIS tools. Upon the conclusion of the analytical part, a workshop will be held with the Civil Emergency Commission to validate the findings and at the same time to train the Civil Emergency Commission on the process. After that, the work will continue with the drafting of various risk scenarios, developed in GIS software. These scenarios will be widely discussed with the community and the commission and will then serve as a basis for defining the priorities of the risk reduction strategy. These priorities will then be translated into specific objectives and programs. A very important component of the project is capacity building, namely training the municipality, the commission and the community in terms of implementing and monitoring the strategy. In the end, a set of recommendations will be developed in terms of sectoral legal improvements, legal additions to the "Civil Protection" law, improvement and harmonization of national and local policies, as well as review of various sectoral instruments, especially General Local Territorial Plans. This project will serve as a model for the development and replication of similar practices in all municipalities in Albania.

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No. _____, dt.___/____/.2020

FOR

THE ESTABLISHMENT OF THE CIVIL PROTECTION COMMISSION

Based on the requirements of point 1 of Article 29 of the Law 139/2015, dated 17.12.2015 "On local self-governance"; point 2 and 5 of Article 9; Article 11, point 2 and 6 of Article 14; point "b" of Article 27; points 2 and 3 of Article 29; Article 30; point 2 of Article 63; of the Law no.45/2019, dated 18.07.2019 "On Civil Protection"; The National Plan on Civil Emergencies, approved with DCM No.835, dated 3.12.2004;

I ORDER

1. The establishment of the Civil Protection Commission in the Municipality of Lezhë, as follows:

No.	Name, surname	Position	Function
1	Pjerin Ndreu	Mayor	Head of Commission
2	Ermal Pacaj	Deputy Mayor	Deputy Director of Commission
3	Bardhyl Kaçorri	Head of Directorate of Civil Emergencies	Member
4	Brikena Doda	Directorate of Civil Emergencies	Member
5	Meme Bibaj	Directorate of Civil Emergencies	Member
6	Sokol Luka	Directorate of Civil Emergencies	Member
7	Nik Leka	Head of Directorate of Territorial Planning	Member
8	Gjovalin Marku	Directorate of Territorial Planning	Member
9	Alban Loçi	Directorate of Territorial Planning	Member

10	Naim Cara	Directorate of Territorial Planning	Member
11	Dodë Jaku	Head of Directorate of Agriculture	Member
12	Pashk Ndoci	Directorate of Agriculture	Member
13	Bardhok Bardhi	Directorate of Agriculture	Member
14	Artan Palushi	Head of Unit, Unit of Forest Administration, Directorate of Agriculture,	Member
15	Marte Fetaj	Head of Directorate of Social Service	Member
16	Elson Frroku	Head of Directorate for Education and Youth	Member
17	Renaldo Xhanej	Head of Directorate for Tourism and Culture	Member
18	Gergj Figuri	Directorate for Tourism and Culture	Member
19	Elton Zefi	Head of Directorate for Public Service, Unit for Institutional Maintenance	Member
20	Pjeter Lekgjoni	Head of Unit, Unit for Institutional Maintenance, Directorate for Public Service	Member
21	Gjergj Lazri	Unit for Maintenance of Rural Roads and Specific Trans., Directorate for Public Service	Member
22	Gjok Gjoka	Head of Directorate of Fire Protection and Rescue	Member
23	Simonela Florini	Head of Directorat for Programming and Development	Member
24	Zef Maçi	Director of J.C. Water Supply and Sewage, Lezhe	Member
25	Gentian Malotaj	Administrator of the Administrative Unit of Shëngjin	Member
26	Sandër Marashi	Administrator of the Administrative Unit of Balldre	Member
27	Liza Marku	Administrator of the Administrative Unit of Blinisht	Member
28	Lina Guri	Administrator of the Administrative Unit of Shënkoll	Member
29	Gjergj Malshi	Administrator of the Administrative Unit of Zejmen	Member
30	Fatmir Ndoka	Administrator of the Administrative Unit of Kolsh	Member
31	Besnik Simoni	Administrator of the Administrative Unit of Kallmet	Member
32	Majlinda Miloti	Administrator of the Administrative Unit of Dajç	Member
33	Gëzim Kola	Administrator of the Administrative Unit of Ungrej	Member

2. The Duties of the Civil Protection Commission are listed as follows:

a) To serve as an advisory body for the implementation of obligations arising at the local level by the Sendai Framework for Disaster Risk Reduction, the New Urban Agenda, Agenda 2030 for Sustainable Development and the Paris Agreement on Climate Change.

b) To serve as an advisory body for the implementation of obligations arising from the National Strategy for Disaster Risk Reduction, Local Disaster Risk Reduction Strategy, National Civil Emergency Plan, Emergency Plan at *Qark* Level, as well as Local Emergency Civil Plan

c) To serve as an advisory body to ensure that all policies and strategic documents of the municipality are informed about the risk of disasters and are equipped with measures to reduce it, in order to guarantee safety in the community and sustainable development.

ç) To serve as an advisory body to ensure that territorial planning and development at the local level is prepared in accordance with disaster risk assessment documents and disaster risk reduction strategies.

d) To plan, organize, coordinate and control all measures undertaken for the prevention, preparedness, response and recovery from disasters in the territory of the municipality and to ensure the coordination of all activities of state and non-state actors in the municipality for this purpose;

dh) In cooperation with central institutions and territorial branches, the Prefect of the *Qark*, various international organizations, private entities, associations and civil society organizations, international organizations and private experts, to:

- Undertake until August 2021, the assessment of disaster risks in the territory of the municipality of Lezha, to revise it not less than once every three years and to send the drafted document for approval to the Municipal Council;
- Draft the strategy for disaster risk reduction and revise it not less than once every five years; and to send the drafted document for approval to the Municipal Council;
- Draft the local plan for civil emergencies and revise it not less than once every three years; and send the drafted document for approval to the Municipal Council.

e) To cooperate with the Civil Protection Commission at *Qark* level and the respective commissions of the neighboring municipalities, for the assessment of the damages caused by the disasters in the territory of the municipality; as well as the assessment of the needs.

ë) To continuously monitor the functioning of the monitoring system, early warning system, alarm system in the territory of the municipality and to inform in a timely manner the National Civil Protection Agency, the Prefect of the *Qark* and endangered communities about the risks and disasters.

f) To coordinate the activities for the organization and equipment of the intervention forces in case of emergencies.

g) To follow and implement all other tasks in case of emergencies, both in the cases of Major Disaster Declaration, or when major disasters have not been declared by the state.

gj) The Secretary of the Commission prepares all the materials of the next meetings of the commission, keeps the minutes of the meetings and shares them with the Members of the commission.

3. The functioning of the Civil Protection Commission is determined according to the regulation approved for this purpose in this Commission.
4. The order of the Mayor of Lezha with no__, dated ____ "On the establishment of the Commission of Civil Emergencies in the Municipality of Lezha" is abrogated.
5. This order shall enter into force immediately

MAYOR OF THE MUNICIPALITY OF LEZHA

PJERIN NDREU