



**Vjosa Wild River National Park (VWRNP)
Integrated Management Plan**

Socio-economic Analyses¹

&

**Integrated Methodology to Identify a Value for ecosystem service (the
case of the Vjosa Valley in Albania)² and**

Vjosa Wild River National Park Stakeholder Consultation Final Report³

November, 2023

¹ Based on the analyses by PhD Klodian Muço

² Based on the analyses by PhD Elena Kokthi , PhD Fatmir Guri, PhD cand. Eneida Shehu, PhD Andrej Sovinc

³ Based on the report by PhD Simon Battisti, Ray Koci

ABBREVIATIONS

AKBN	Albania's National Agency of Natural Resources
CE	European Community
EIA	Environmental Impact Assessment
ERE	Energy Regulatory Entity
EU	European Union
FTE	Full-Time Equivalent
GDP	Gross Domestic Product
HPP	Hydropower Plant
INSTAT	Institute of Statistics
METE	Ministry of Economic Development, Trade and Entrepreneurship
MEI	Minister of Energy and Industry
SAVi	Sustainable Asset Valuation
WRNP	Wild River National Park
WTTC	World Travel & Tourism Council's

The IUCN Belgrade Office for Eastern Europe and Central Asia implemented the project “Saving Europe’s last free flowing wild river – Vjosa/Aoos” to protect the Vjosa River Valley in 2021, with the main objective of declaring the valley a protected area. As part of the project, a socio-economic analysis of the Vjosa River Basin was conducted to identify and analyse the socio-economic values of the Vjosa River Basin, including demographic patterns (age, education, household income), business environment, community development needs and livelihoods, employment and occupations in the area, and the nature of dependence on the area's natural resources.

PhD Klodian Muço was the lead expert who prepared the socio-economic study. The study provides a general overview of the demographic, social, economic and infrastructural aspects in order to present the current situation of the area, showing that the Vjosa Valley and the surrounding areas are economically oriented towards the agricultural, livestock and tourism sectors.

Methodology to Identify a value for ecosystem service (based on the case of the Vjosa Valley in Albania) was prepared by **PhD Elena Kokthi, PhD Fatmir Guri, PhD cand. Eneida Shehu and PhD Andrej Sovinc** (See **Annex 2**).

CONCLUSIONS - SOCIO-ECONOMIC STUDY

The report presents a comprehensive socio-economic assessment of the Vjosa valley and summaries findings of the scenario which transforms the Vjosa valley into a National park in function of tourism and respect for the environment.

The results of the socio-economic study:

- Estimates in the long run the fiscal revenues that will come from the turning the valley in a National Park.
- Show that the level of employment will be higher if this valley is transformed into a National Park, as this would stimulate complementary activities in Tourism, Agriculture and Livestock.
- Indicate that turning the valley into a National Park also means curbing the phenomenon of climate change and a minimal contribution to stimulating the convergence of Albania towards the European Union.

CONCLUSIONS ON ECOSYSTEM SERVICES

The report on Integrated Methodology to Identify a Value for ecosystem service for the Vjosa Valley brings the following conclusions:

- Ecosystem services in Vjosa Valley are considered to be very important in the opinion of experts, the population of the area, and respondents living outside the Vjosa Valley (0.82 out of 1 for experts and local actors and 0.75 out of 1 for the broader public). Their services are highly appreciated in all the components, namely 1) Provisioning services, 2) Regulation services, and 3) Cultural services. For all components, it is interesting to note that despite their differences, the experts (and local actors) and the broader public show a very high appreciation for the Vjosa Valley ES.
- Albanians are keen to pay more than €22 million per year to protect the Vjosa ecosystem. The figures elaborated by the study reflect the reticence of respondents to protect the environment during a health crisis period. According to similar studies focusing on other environmental resources, the WTP value may decrease by up to 30%. If the study's timing had been different, it is expected that a WTP of more than €28 million/year would have been indicated.
- The selection of the sample that spans not only the Vjosa Valley area but also other regions of the country, especially Tirana, since it represents a mixture of the country's population, was chosen to arrive at an evaluation that reflects the whole country. Each respondent is keen to pay, on average, 707 ALL/month or nearly 7% of total household income. This average value is not impacted by the socio-economic characteristics of respondents, which is typical for this method, showing that the payment for Vjosa ES is persistent in all population categories independent of age, education, gender, or income.

CHAPTER 1

LOCATION & METHODOLOGY

The Vjosa River in southern Albania is one of the last rivers in Europe that still has a natural course. From its source in the Pindos Mountains in Greece to its mouth in the Adriatic Sea, the Vjosa flows freely and without artificial obstacles. Recent studies confirm its rich and complex biodiversity and the functionality of the natural ecosystem (Miho, 2018; Shumka et al., 2018; Schiemer et al., 2018; Shumka et al., 2018). As a result, the Vjosa has become increasingly well-known and has gained international importance as the last free-flowing river in Europe.

BOUNDARIES

Albania has a total area of 28,748 square kilometers. Its administrative and territorial division has constantly changed, both in terms of geographical extent and the functions of the structures.

On July 31, 2014, the Albanian Parliament adopted Law no. 115/2014 on administrative-territorial reform, which divides the country into 12 regions and 61 municipalities. Law 115/2014 divided the municipalities into smaller units, the so-called administrative units.

In this study, the Vjosa Valley is considered (therefore the area that extends over the narrow National Park area along the Vjosa and three tributaries), which includes three districts or 10 municipalities: the regions of Gjirokastra, Fier and Vlora and the municipalities of Libohova, Përmeti, Këlcyra, Gjirokastra, Tepelena, Memaliaj, Mallakastra, Fieri, Vlora and Selenica. Figure 1 shows the catchment of the Vjosa river.

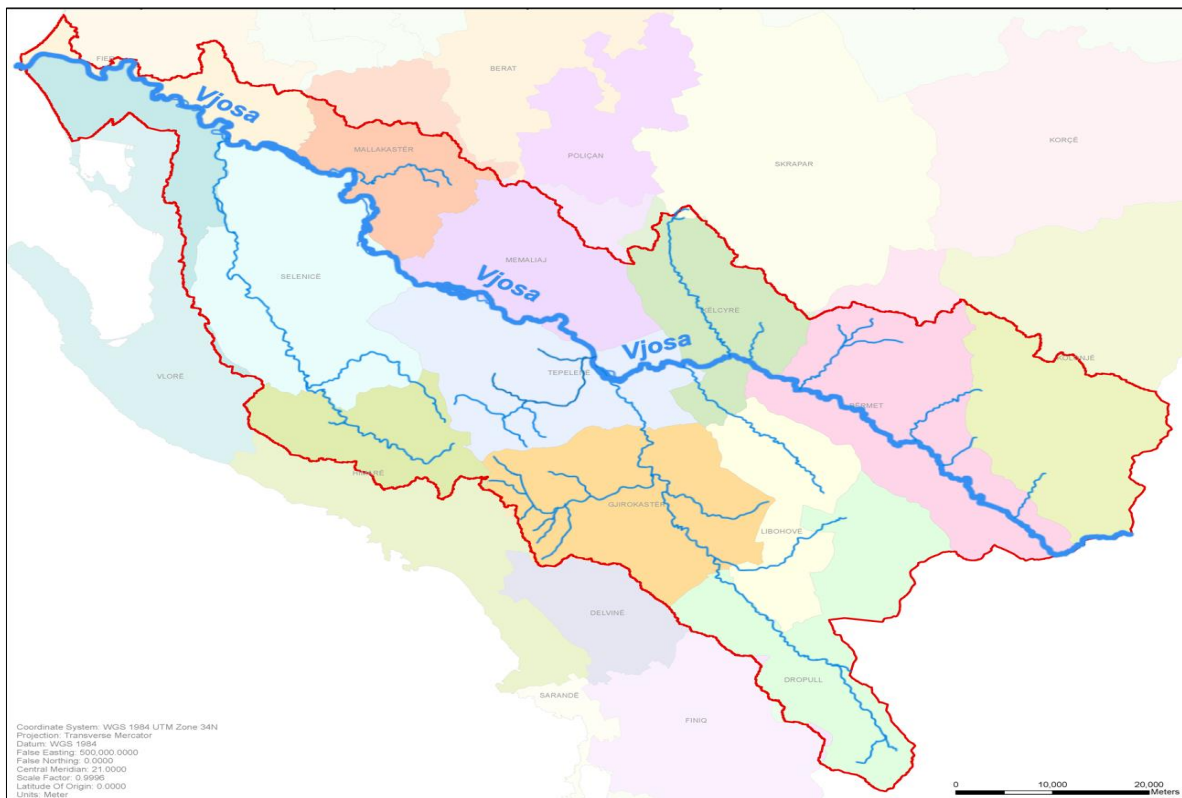


Figure 1: Vjosa catchment map

The Vjosa Wild River National Park (VWRNP) was established in 2023 according to national law (based on Article 100 of the Constitution and Article 8 point 2 and 10 of Law No. 81/2017 "On Protected Areas" as Category II of protected areas) and international standards (Category II, IUCN Protected Areas Category System). The national park includes the main river Vjosa and three tributaries (Drino with Kardhiq, Bënça and Shushica). It protects one of the last free-flowing wild rivers in Europe and its unique ecosystem (Figure 2).

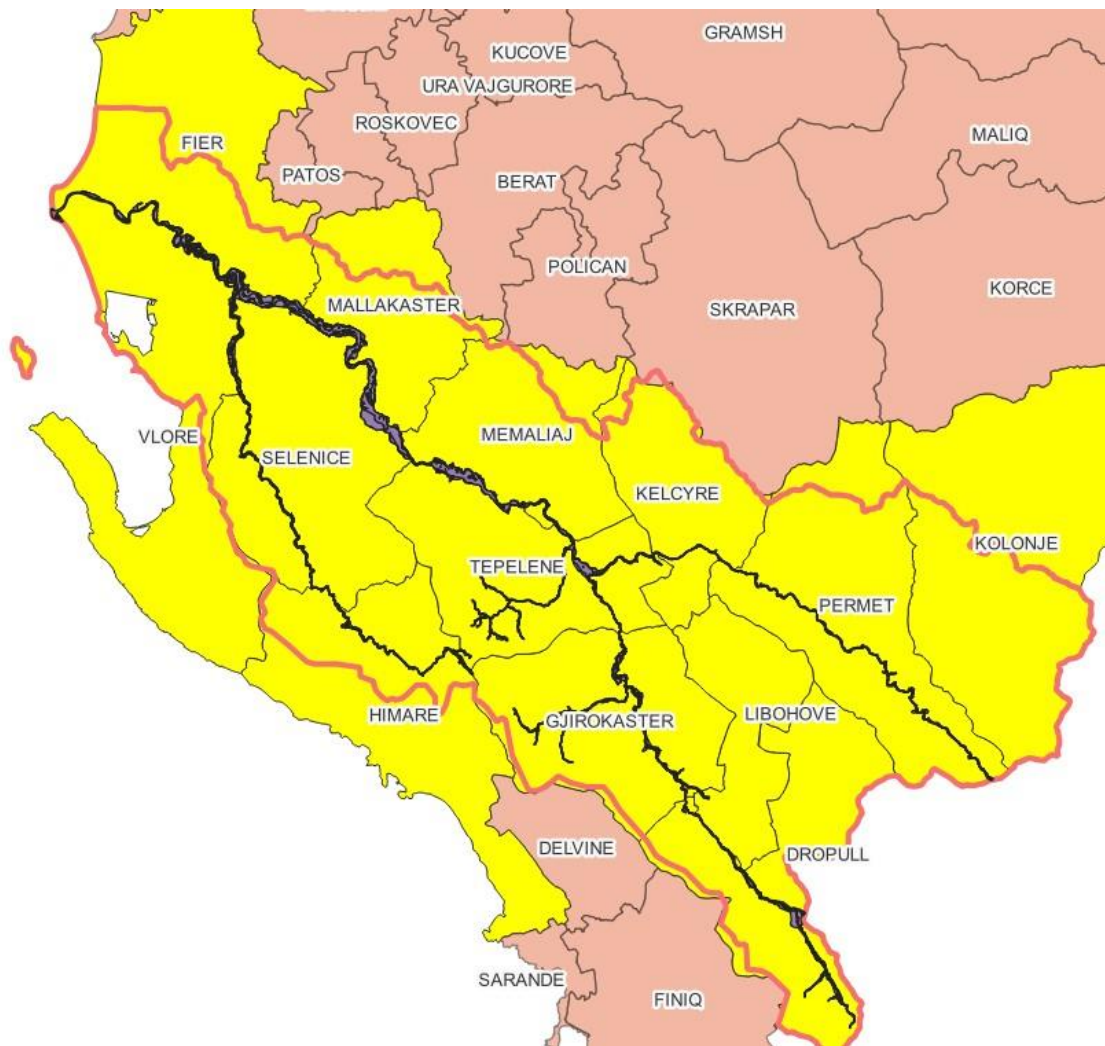


Figure 2: Boundaries of the Vjosa Wild River National Park (Schwarz, Dobbelsteijn, 2023).

The VWRNP has a total area of 12,727 ha, which includes mainly water areas (47.3%), coastal areas and floodplains (36.1%), land areas (9.5%) and river terraces (7.1%). It includes two protection zones: the strict central subzone (first degree of protection), which covers 92.9% of the total national park area, and the traditional use and sustainable development subzone (including forests, agricultural land, and pastures), where traditional activities can be carried out.

METHODOLOGICAL APPROACH

The analyses follow a methodological approach CASCADE. This methodology follows the process from the conceptual plan to the creation of the empirical plan. The cascading evaluation methodology is based on 6 main steps until the final report is produced.

The pre-assessment step was to establish the methodology for the assessment. This includes the schematic plans and the consideration of all variables and parameters to be analysed within the socio-economic aspects for the Vjosa Valley. This includes the consideration of the forms of observation, the definition of the variables, the approach to data collection and the methods to be used for data validation.

Against this background, the methodology consists of the following six steps, which are illustrated in Figure 3.

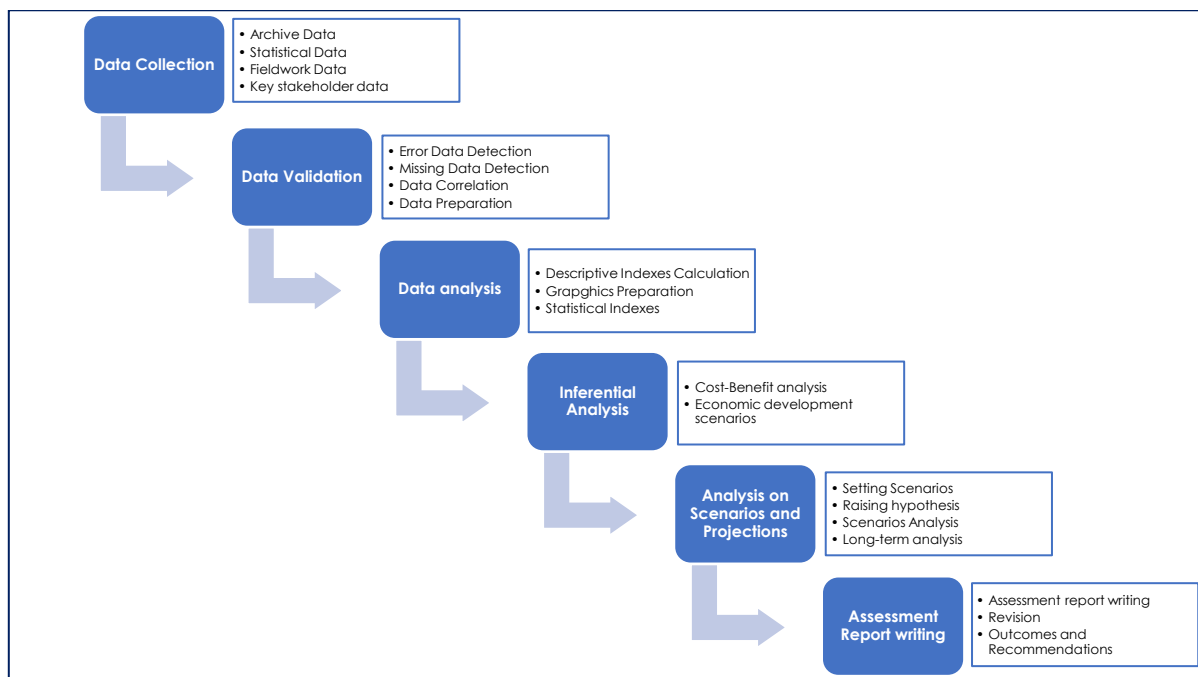


Figure 3: The Cascade assessment methodology

- **Step 1: Data Collection** This step consists on gathering the information from determined sources. In this context four different ways of data gathering are used:
 - a) Using all the historical data that the analysis should refer to from the archives;
 - b) Statistical data that includes all the data that can be found in the official statistical institutions in Albania;
 - c) Observation data that includes all the data that were gathered during the field-work surveys for the scope of this assessment;

- d) Key stakeholder data that includes the data generated by individual data gathered from key stakeholders in the valley.
- **Step 2: Data Validation** The process consists on data cross-checking. Basically this is a process that includes four main parameters to be assessed:
 - a) Errors detection - assesses the congruence of data from various sources/ the cross-checking process;
 - b) Missing Data Detections a process that consist on identification of necessary data that are not found but will be part of the assessment as assumptions;
 - c) Data correlation is the process of assessing the correlations between gathered/existing data;
 - d) Data Organization consists on organizing the data and unifying them to get ready for the next step that will be the analysis.
- **Step 3: Data analysis and descriptive statistical analysis.** The analysis at this step includes the evaluation of all descriptive statistics for the parameters that shall be considered by the analysis, such as Indexes calculated for key stakeholders that use or impact the valley's resources. The analysis is based on different categories of the stakeholders.
- **Step 4: Inferential Analysis.** In this step the cost-benefit analysis was conducted. Different economic development scenarios for the Vjosa River valley were prepared and further analysed, including relevant official governmental plans.
- **Step 5: Analysis on Scenarios and Projections.** This step consists on the profound analysis on the 'VWRNP scenario' with particular focus on the mid and long terms cost-benefit analysis.
- **Step 6: Assessment Report Writing.** This step includes finalizing the socio-economic analysis for the Vjosa River basin.

CHAPTER 2 SOCIO-ECONOMIC CHARACTERISTICS OF THE AREA

In this chapter, the socio-demographic profile, living conditions, demographic development and population distribution, the local economy and educational conditions formed the basis for the analytical work.

SOCIO-DEMOGRAPHIC PROFILE OF THE REGION

Some of the municipalities considered (Libohova, Përmeti, Këlcyra, Gjirokastra, Tepelena, Memaliaj, Mallakastra, Fieri, Vlora and Selenica) belong to high population density areas, where at least 50% of the population live in high population density clusters or 500 inhabitants per km² (Vlora and Fieri); some of them belong to medium density areas where less than 50% of the population live in rural areas and less than 50% of the population live in high density agglomerations (Gjirokastra and Përmet), while the remaining municipalities belong to low density areas or rural areas where more than 50% of the population live in rural areas.

Table 1 shows that all municipalities considered belong to low-density areas, as the population density does not exceed 100 inhabitants per km².

In terms of population trends, it can be seen that the population is declining at municipal, regional and national level. At national level, the population has fallen from 3.2 million in 1990 to 3 million in 2011 to 2.8 million in 2019 and is expected to reach 2.75 million in 2031. This decline is due to emigration, as 40.7% of the Albanian population lives in emigration and over 560,000 people have left Albania in the last ten years alone (Muço, 2020).

Apart from the emigration aspect, if we give an overview of the demographics of the Albanian population in Albania, we can say that at the regional level, the Fier region represents 10.3% of the population at the national level, the Vlora region represents 6.6% of the population at the national level and the Gjirokastra region represents only 2.2%.

The total population of these three regions makes up 19.1 % of the national population, which is a decrease compared to the 20 % in 2000. A share of 18.2% of the population is expected for 2031.

The municipalities considered have a total population of around 130,000 people and account for 4.64% of the total population at national level. The population of the municipalities included in this analysis has shrunk over the years due to declining birth rates and internal and external migration.

Table 1: Demographic data by Region and Municipality

District	Population	Surface in km ²	Municipality	Surface in km ²	Population
Gjirokaštër	70.331	2.884	<u>Libohovë</u>	248,24	3.667
			<u>Përmet</u>	601,95	10.614
			<u>Këlcyrë</u>	30465	6.113
			<u>Gjirokaštër</u>	469,25	25.301
			<u>Tepelenë</u>	431, 24	8.949
			Memaliaj	272,07	10.657
			Dropull	466,67	3.503
			Divjakë	309.58	34.254
Fier	312.448	1.890	<u>Fier</u>	619,90	120.655
			Lushnje	372,12	83.659
			<u>Mallakastër</u>	329,19	27.062
			Patos	82,55	22.959
			Rroskovec	118,01	21.742
			Delvinë	182,9	7.598
			Finiq	441,2	11.862
			Himarë	571,94	5.738
Vlorë	183.105	2.706	Konispol	221,8	8.245
			Sarandë	58,96	20.227
			<u>Selenicë</u>	561,4	18.436
			Vlorë	616,85	25.511

Source: INSTAT, 2020

LIVING CONDITIONS

Albania is one of the countries with the lowest salaries in the Western Balkans. In Albania, the average salary in 2019 was 51,531 ALL (€420), compared to 528 euros in Kosovo, 591 euros in North Macedonia, 644 in Serbia and 765 euros in Montenegro (Eurostat, 2019).

In Albania, the salary level is highest in the central areas of Albania, especially in Tirana and Durrës, while the average salary level in the study area is below the national average. The municipality with the highest average salary in the study area is the municipality of Fier with 50,752 ALL. The municipality of Përmet and the municipality of Këlcyra are the two municipalities with the lowest average salaries.

The low salary level has an impact on consumption. As can be seen in Table 2, the above-mentioned low-income municipalities have a lower average annual consumption. The municipalities of Selenica and Vlora also have low consumption. Gjirokastra and Libohovë, on the other hand, have the highest average annual consumption. The percentage of poverty shows the same trend as consumption, with Selenica, Vlora and Mallakastër being the countries with the highest percentage of poverty, while Gjirokastra and Libohovë are the countries with the lowest.

Table 2: Quality of life

Municipality	% of poverty	Gini index	Poor population	Average annual consumption per capita
Libohovë	0,064	0,249	496	10.736
Përmet	0,081	0,245	427	9.967
Këlcyrë	0,091	0,243	644	9.700
Gjirokastrër	0,069	0,272	5.352	11.295
Tepelenë	0,116	0,250	780	9.224
Memaliaj	0,12	0,243	643	9.019
Fier	0,11	0,271	15.093	9.826
Mallakastër	0,123	0,233	1455	7.784
Selenicë	0,178	0,257	573	8.349
Vlorë	0,141	0,247	1.889	8.608

Source: World Bank, 2016

The data in Table 2 was taken from a 2016 study by the World Bank (2016, pp. 79-85). In fact, the situation has changed dramatically in recent years (see Table 3). In 2018, the average monthly expenditure on family consumption at county level was 66.238 ALL in Gjirokastra, 71.117 ALL in Fier and 68.227 ALL in Vlora, while at national level it averaged 75.935 ALL. In Gjirokastra, therefore, there has been no significant increase in family expenditure in recent years, as is the case in Vlora and Fier.

Table 3: Money spent by Region

District	Food & non-alcoholic drink	Alcoholic drink and tobacco	Clothing and footwear	Health	Education	Entertainment and Culture	Expenses for rent, electricity, water	Other product
Gjirokastrër	47,6	2,2	2,5	3,9	2,6	1,6	10	36,4
Fier	41,9	3,2	4,5	6	3,5	2,3	9,1	29,5
Vlorë	52,4	2,8	3,2	3,6	3,1	1,4	10,1	24,4
Albania	44	3,5	3,5	4,2	3	3	10,5	33,3

Source: INSTAT, 2019

Most of the money was spent on food, which is even higher than the national average (the exception here is Fieri). This shows an increased level of poverty. The proportion of salary spent on education and culture in this area is relatively low compared to the national average. This is closely linked to the standard of living, which is relatively low in the study area according to the INSTAT statistical yearbook (2019, p. 62). Another interesting indicator is health costs, where Fier is the region that spends a high percentage of salary on health compared to the national average. This is only related to the level of pollution in the region due to industrialization.

DEMOGRAPHIC TRENDS AND POPULATION DISTRIBUTION

Some of the municipalities considered belong to high population density areas, where at least 50% of the population live in high-population density agglomerations or 500 inhabitants per km² (Vlora and Fieri); some of them belong to medium population density areas, where less than 50% of the population live in rural areas and less than 50% of the population live in high population density agglomerations (Gjirokastra and Përmet), while the remaining municipalities belong to low population density areas or rural areas, where more than 50% of the population live in rural areas.

A look at Table 4 shows that all the municipalities considered belong to the low population density areas, as the population density does not exceed 100 inhabitants per km².

With regard to the development of the population, it can be seen that the population is on a downward trend at municipal, regional and national level. At national level, the population has fallen from 3.2 million in 1990 to 3 million in 2011 to 2.8 million in 2019 and is expected to reach 2.75 million in 2031. This decline is due to emigration, as 40.7% of the Albanian population lives in emigration and over 560,000 people have left Albania in the last 10 years alone (Muço, 2020).

Beyond the emigration aspect, if we give an overview of the demographics of the Albanian population in Albania, we can see that at the regional level, the Fier region represents 10.3% of the population at the national level, the Vlora region represents 6.6% of the population at the national level and the Gjirokastra region represents only 2.2%.

The total population of these three regions makes up 19.1 % of the national population, which is a decrease compared to the 20 % in 2000. A share of 18.2% of the population is expected for 2031.

The municipalities considered have a total population of around 130,000 people and account for 4.64% of the total population at national level.

The population of the municipalities surveyed has shrunk over the years due to a decline in the birth rate and internal and external migration.

The municipality of Gjirokastra has experienced the sharpest decline in the last 5 years. Internal migration and emigration have also led to an increase in the average age of the population. In Tirana, for example, the city with the largest population influx from other regions, the average age of the population is 34.3 years. In the Fier region, the average age is 37.3 years, in the Gjirokastra region 39.4 years and in Vlora 38 years. Today, the district of Gjirokastra is considered the district with the highest median age in Albania.

In terms of natural population growth per 1000 inhabitants at regional level, Fier has an increase of 0.5, Gjirokastra has a negative increase of -3.5 per 1000 inhabitants, while Vlora has an increase of 0.3 per 1000 inhabitants.

Table 4: Demographic data by Region and Municipality

District	Population	Surface in km ²	Municipality	Surface in km ²	Population
Gjirokastër	70.331	2.884	Libohovë	248,24	3.667
			Përmet	601,95	10.614
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			Selenicë	561,4	18.436
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Source: INSTAT, 2020

Another data related to the complex demography is the pupil-teacher ratio in the 9-year compulsory education system. We note that in the area under consideration the number of students and the birth rate are low. In high density areas such as Tirana, this ratio is 17.1 per 1000, while in the municipalities considered in this study it ranges from 5.2 in Këlcyrë to 12.6 in Vlora. Thus, this indicator, together with the number of births (4,551 out of a total of 28,934 in 2018), shows that the trend of population growth in the study area is relatively low, as shown in columns 1 and 2 of Table 5, respectively by natural population growth and internal net migration.

Table 5: Demographic data by Municipality

Municipality	Natural Population Growth	Net Internal Migration	Average Monthly Salary*	Cattle no Livestock	No of Building Permit Process	Pupil to Teacher ratios 9 year Compulsory Education
Libohovë	-9	-9 ⁴	42.002	1.907	2	7,9
Përmet	-60	-133	38.398	1.605	8	8,6
Këlcyrë	-9	-85	38.378	1.551	2	5,2
Gjirokastër	-13	-163	45.307	5.203	6	11,2
Tepelenë	-9	-175	46.090	4.700	16	7,2
Memaliaj	-19	-248	39.990	3.200	2	6,4
Fier	11	-289	50.752	18.688	47	1,3
Mallakastër	7	-412	39.665	3.030	4	10
Selenicë	-50	-19	42.709	5.354	1	8,5
Vlorë	-98	-116	42.630	6.985	3	12,6

*Exchange rate euro/ALL=124 Source: INSTAT, 2020

Looking at the building dynamics in the study area with the aim of understanding future expansion dynamics, another interesting indicator is the number of building permits. Of the 1,194 building permits issued nationally in 2018, only 95 building permits were issued in the study area (Table 5).

Most building permits in the study area were issued for hotels and / or facilities for tourism purposes, while in other areas such as Tirana (819 building permits) the majority are issued for residential buildings.

LOCAL ECONOMY

a) Agriculture

The agricultural sector is one of the most important sectors of the Albanian economy, accounting for around 1/5 of GDP. About 37% of all employees in Albania work in this sector. There are about 41,000 registered farmers in Albania, of which 15,500 are active in the Vjosa Valley, i.e. in the study area. Agricultural products are part of the country's regional identity. The study area under consideration is strongly oriented towards this sector, where the area under cereal cultivation in 2018 amounted to 46,900 ha out of 140,000 ha in the whole of Albania, with the largest part of the area occupied by the Fier region with 34,600 ha. In terms of crops (potatoes, beans, vegetables, etc.), 70,300 ha of the 289,500 ha cultivated nationwide in 2018 were planted in this area, with the Fier region again dominating with an area of 56,000 ha. Grain production in this area is 233,300 tons out of 675,200 tons nationally. Of the 8,543,100 tons of crops produced nationally, 2,921,100 tons were produced in the area in question, with over 2.3 million tons produced in Fier in 2018. In terms of cereal yield, Vlora ranks first with over 4 tons / ha, which is a very high level compared to the national average of 3.69 tons / ha, and Fier also exceeds the national average in terms of yield (3.79 tons / ha).

Vegetable cultivation also plays an important role in this area with 8100 ha out of 25,900 ha planted throughout Albania, with Fier again accounting for the largest share. Production reaches 274,400 tons

⁴ The population was reduced by 9 people.

out of 771,700 tons produced in 2018 at national level. In addition, over 8,000 out of 26,000 fruit plants are planted in this area throughout Albania.

Table 6: Vineyard and Fruit trees area

Municipality	Vineyard production area (ha)	Production (tons)	Fruit trees area (ha)	Total production (tons)
Libohovë	21	150	10	235
Përmet	252	1.750	49	360
Këlcyrë	64	450	28	430
Gjirokastër	225	1.624	51	748
Tepelenë	43	426	69	523
Memaliaj	116	1.029	32	110
Fier	780	9.404	266	9.632
Mallakastër	281	3.084	1.124	2.618
Selenicë	228	1.711	71	1.900
Vlorë	661	4.936	122	2.329
Albania	10.179	110.442	16.669	274.343

Source: Annual Statistical Review, 2020

The above table once again confirms the importance of the area considered in this study for agriculture. Another sector closely linked to agriculture is livestock farming, which is considered particularly important for the country's economic and social progress.

B) The livestock sector

In terms of livestock structure, cattle make up the largest number of animals at 46.7%. Small livestock accounts for 30.3 %, pigs 6.3 %, birds 9.3 % and equidae 7.4 % of the total number of cattle. The region with the largest number of cattle is Fieri with 14.7% of the total number of head of cattle. Gjirokastra is the region with the lowest number of cattle with 4.2 % compared to the total number of cattle.

Municipality	Bovine	Sheep	Goat	Poultry	Swine	Bees
Libohovë	2.000	22.000	6.000	9.000	-	3.000
Përmet	2.000	16.000	21.000	13.000	-	5.000
Këlcyrë	1.000	27.000	17.000	15.000	-	2.000
Gjirokastër	6.000	272.000	24.000	32.000	-	6.000
Tepelenë	5.000	67.000	26.000	1.500	-	3.000
Memaliaj	3.000	44.000	21.000	58.000	-	3.000
Fier	19.000	135.000	20.000	640.000	10.000	8.000
Mallakastër	3.000	25.000	16.000	94.000	-	3.000
Selenicë	5.000	120.000	29.000	87.000	2.000	5.000

Table 0.2: Livestock

Source: Annual Statistical Review, 2020

The regions with the most sheep farms are Vlora with 18.6 % of the total number of animals, Gjirokastra and Fier with 14.6 % and 14.4 % respectively. The region with the most goat farms is Vlora, with 14.7%

of the total number of goats in the country. In some areas of the country, farmers are also expanding their activities to include beekeeping. The largest concentration of beehives can be found in the south-eastern part of the country.

The data in Table 7, based on INSTAT (2019) sources, shows that the study area is one of the most important areas for sheep and goat breeding and has a comparative advantage in the production of sheep and goat milk cheese. Milk production at national level amounted to 1,1145,000 tons in 2018, a large part of which is produced in this area. The structure of milk production in 2018 is: cow's milk 85.1%, sheep's milk 7.4% and goat's milk 7.5%. Milk production from cows in 2018 was 973,526 tons or 1.0% less than in 2017.

The highest yield was achieved in the country of Fier with around 4,100 kg per head. The lowest yield was achieved in the country of Gjirokastra with 1,852 kg of milk per head. Sheep milk production in 2018 is 2.5% lower than in 2017. The average annual yield of sheep milk is 61.8 kg per sheep. The average annual yield of goat's milk at national level for 2018 is 123.1 kg per sheep.

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The highest yield was achieved in the country of Fier with around 4,100 kg per head. The lowest yield was achieved in the country of Gjirokastra with 1,852 kg of milk per head. Sheep milk production in 2018 is 2.5% lower than in 2017. The average annual yield of sheep milk is 61.8 kg per sheep. The average annual yield of goat's milk at national level for 2018 is 123.1 kg per sheep.

C)The tourism sector

Tourism is another particularly important sector, alongside agriculture and livestock farming, which has experienced very rapid growth in recent years and is considered a priority sector of the Albanian economy.

The total contribution of tourism to our country's economy is estimated at around 14.3 % of GDP in 2019. The number of employees in this sector in 2019 amounts to about 100 thousand, with an increase of about 26% in the third quarter compared to the second quarter.

According to some INSTAT forecasts (2018), the number of employees in this sector is expected to reach 220,000 by 2025, or around 20.4% of total employment, with an average increase of 2% per year.

It is worth mentioning these facts to show that, according to Albania's long-term strategic development plan, the country's economic development will be based on the tourism sector. Tourism is very important in the area under study. Of the approximately 20,000 accommodation establishments in Albania, 4,750 are located in the three regions considered for this study (Gjirokastra, Vlora and Fier), i.e. 1/5 of the

national level. It can also be said that almost 30% of the income in Gjirokastra comes from tourism (Municipality of Gjirokastra, 2020), the weight of the latter is equally important for Përmet and Vlora.

According to data from INSTAT (2019), the Vlora region is at 13.7 % and Gjirokastra at 3 % of the preferred destinations within the country for private or business purposes in Albania in 2018. In terms of travel for leisure, Vlora comes in at 35% and Gjirokastra at 3.7%.

As for the number of tourists for 2019, it is estimated that there were around 6 million tourists at national level, of which 180,000 visited Gjirokastra and over 25,000 Permet. The numbers are also increasing in Tepelena and Vlora. In Vlora, only the island of Sazan was visited by more than 27,000 people last summer, and the total number of tourists who visited Vlora in 2019 is estimated to be around 1 million.

In terms of traffic, the area analysed in this study is highly developed with 170 cars per 1,000 inhabitants. In Gjirokastra, there has been a downward trend in this indicator in recent years. This region is considered the region with the sharpest decline (2.2% fewer per 1,000 inhabitants), while the trend is increasing in other regions. Gjirokastra also recorded a decrease of 6.8% fewer goods transport vehicles per 1,000 inhabitants in 2018.

D) Overview of the local economy

In 2018, GDP at constant prices increased by 4.1 % and reached 14.6 billion dollars, while in 2019 it increased by around 2.2 % and reached 14.9 billion dollars.

Looking at GDP at the local level, the Tirana region is the one that has the greatest impact on GDP and its growth, with a share of over 42 %. The economic growth of this region has been twice as high as the growth at the national level in the last two years.

As far as the study area is concerned, Fier is one of the regions with the greatest influence on GDP and contribution to its growth. In recent years, the country's GDP has increased thanks to the region's economy with +0.18% in 2017 and +0.21% in 2018, while Vlora was the region with the lowest contribution to national GDP growth with -0.19% in 2017 and -0.1% in 2018. Gjirokastra's contribution to national GDP growth was -0.13 % in 2017 and + 0.11 % in 2018.

Table 8: Table structure of GDP

District	Structure of GDP in %	GDP per capita in 000 ALL, 2017	GDP per capita in 000 ALL, 2018
Gjirokastër	2,28	548	570
Fier	10,76	556	579
Vlorë	5,53	454	467
Albania	100	540	562

Source: INSTAT, 2020

GDP per capita at national level amounted to around 562,000 ALL in 2018. The highest GDP per capita by region in 2018 was in the Tirana region with around 807,000 ALL or 38.33 % above the national average, and there was an increase of 7 % compared to 2017. This is followed by the Fier region with around 579,000 ALL or 3 % above the national average, which is an increase of around 4 % compared to 2017. This is followed by the district of Gjirokastra with around 570,000 ALL or 1.42% above the national average, an increase of around 4% compared to 2017. Vlora is considered one of the regions with the lowest GDP per capita compared to the national average (17% less).

Table 9: Impact of different sectors of the economy

District	Agriculture	Industry of extraction, production & energy	Construction	Commerce, transport & hotels	Information & communication	Education, health, public administration	Art and culture	Other
Gjirokastrër	28,37	8,01	12	18,85	2,82	15,95	3,16	13,84
Fier	45,4	15,68	7,21	11,9	1,97	7,92	0,89	8,80
Vlorë	28,07	10,34	11,2	18,85	2,18	13,09	1,85	14,42
Albania	21,77	12,83	10,5	18,44	3,53	13,41	3,05	13,38

Source: INSTAT, 2020

The table above shows the influence of the various economic sectors on GDP, broken down by district. Agriculture is a priority sector of the economy of the study area. The contribution of this sector is well above the national average, and moreover, this sector in the economy of Fier is twice the national level. The same applies to the tourism sector, trade and transportation, which have a much greater weight in the districts of Gjirokastra and Vlora than at the national level. To summarise, the area under consideration is an area that is oriented towards agriculture, livestock and tourism and considers these sectors a priority for the future.

SERVICES (EDUCATION/RETAILBUSINESS, TRANSPORT, ENTERTAINMENT, RELIGIOUS ETC.)

In 2018, companies at national level active in the production of goods and services generated a net turnover of € 17.58 billion, an increase of 7.0% compared to 2017. Investments made amounted to €1.91 billion compared to €1.86 billion in 2017, an increase of 2.8%.

There were 107,450 active companies in 2018, a decrease of 0.2%, while the total number of employees increased by 4.6% compared to 2017.

Manufacturers of goods accounted for 12.6% of the total number of activities. Accordingly: mining, 0.6%; manufacturing, 8.1%; energy and water supply and waste treatment, 0.6%; construction, 3.4%; while service producers 87.4% of which: trade 41.4%; accommodation and food service activities 17.7% transport, information and communication 7.1% and other services 21.2%.

The structure of the business sectors varies from municipality to municipality. Economic profiles of the Vjosa valley's Municipalities is presented in Annex 1.

EMPLOYMENT, EDUCATION AND HEALTH

a) Employment

The national employment rate is 59.4%, with the highest concentration in Elbasan (65.8%).

In the municipalities under review, the number of people in employment is highest in Fier at 64.9 %, which is even higher than the national average. An analysis of employment by economic sector shows that the service sector and agriculture account for the largest share of the workforce at 42.9 % and 37.4 % respectively, while employees in industry only account for 19.7 %. Tirana is the region with the highest share of employees in the service sector (66.5%) and the lowest share of employees in agriculture (6.9%). The region with the highest share of employees in industry is Durrës. Fier, with 61%, is one of the regions with the most employees in agriculture. Gjirokastra also has a high proportion of employees in agriculture and livestock farming (43%), while Vlora has around 30%.

At municipal level, however, agriculture, livestock farming and the tourism sector account for a large proportion of employment. A significant part of the workforce is also employed in public administration and public institutions (120,000 employees), of which a part works in the municipal administrations (32,213) (Porta Vendore, 2020). In 2018, there were around 547 thousand unemployed people in Albania, which corresponds to 12.3% of the total labour force. There has been a significant decline in the last three years.

In the area under review, Gjirokastra and Fier are among the regions with an unemployment rate below the national average (10.2 % and 10.4 % respectively). Vlora, on the other hand, has the highest unemployment rate at district level (21.9%), where more than one in five of the working population is unemployed. In the following, we will look at the level of education, which is closely related to the level of salary, employment and unemployment, as mentioned in the previous sections.

b) Education

In Albania, there are 502,120 students in pre-university education, a decrease of 3.6% compared to the previous year (INSTAT, 2019).

Vocational education has been a priority in recent years, as it is one way to meet the ongoing demand for skilled workers in various professions. Secondary vocational education records for 2018-2019 account for 18.2% of the total number of people enrolled in secondary education. Public VET will see the largest

growth this year. Gjirokastra has the highest number of graduates in vocational education, while Fier has the lowest number. As shown in Table 10, Fier has the highest number of students and the highest enrollment number in vocational schools, Vlora is in second place with a number similar to Fier, while Gjirokastra is in third place with a number equal to 17% of the students enrolled in Fier, while all other municipalities have no students enrolled in vocational schools.

Table 10: Enrolments in schools 2018-2019

Municipality	Children in kindergartens	Middle school	High school	Professional high school
Libohovë	96	286	79	-
Përmet	213	791	307	-
Këlcyrë	129	518	185	-
Gjirokastrë	865	2.390	1.268	200
Tepelenë	324	811	212	-
Memaliaj	278	869	313	-
Fier	2.780	11.486	4.035	1.163
Mallakastër	705	2.732	705	-
Selenicë	422	1.346	386	-
Vlorë	2.939	9.475	3.594	1.078
Albania	71.563	282.906	102.156	19.307

Source: INSTAT, 2020

While there has been a significant increase in enrolment in secondary, vocational or higher education at national level in recent years. In earlier years, the system was quite different, especially until 2004, when universities ran with closed numbers. So it can be said that the Albanian population in rural areas is not very well educated according to the latest census data. The vast majority are employed in agriculture and livestock farming, and there are few well-educated people.

Table 11: Percentage of resident population: educational attainment and districts, sex, urban and rural zones

Districts	Educational attainment							Literary	
	No diploma	Lower Elementary	Upper Vocational	Upper General	Upper Technical	University and Post-University	Total	Yes	No
<i>Total</i>	16,37	57,00	2,16	13,39	6,18	4,90	100,00	98,41	1,59
Fier	16,05	57,76	3,11	12,00	7,75	3,32	100,00	99,13	0,87
Gjirokastrë	15,77	55,29	2,36	13,05	7,28	6,26	100,00	98,85	1,15
Mallakastër	17,49	62,04	2,55	10,51	5,60	1,81	100,00	98,90	1,10
Përmet	14,80	58,90	2,14	12,93	6,43	4,79	100,00	98,71	1,29
Vlorë	16,01	54,88	2,57	14,56	6,96	5,02	100,00	98,80	1,20
Districts	Educational attainment							Lettered	
	No diploma	Lower Elementary	Upper Vocational	Upper General	Upper Technical	University and Post-University	Total	Yes	No
<i>Rural</i>	18,48	66,84	1,61	8,41	3,46	1,19	100,00	98,15	1,85
Fier	18,10	66,62	2,42	7,94	4,09	0,83	100,00	98,95	1,05
Gjirokastrë	18,62	62,95	2,12	8,82	5,48	2,02	100,00	98,48	1,52
Mallakastër	18,45	67,40	2,14	8,23	2,94	0,84	100,00	98,77	1,23
Përmet	16,13	67,97	1,73	7,82	4,62	1,74	100,00	98,45	1,55
Tepelenë	18,46	67,33	1,58	8,08	2,97	1,57	100,00	97,75	2,25
Vlorë	18,40	66,55	1,73	7,83	4,32	1,18	100,00	98,85	1,15
Districts	Educational attainment							Lettered	
	No diploma	Lower Elementary	Upper Vocational	Upper General	Upper Technical	University and Post-University	Total	Yes	No
<i>Urban</i>	13,53	43,82	2,90	20,07	9,82	9,86	100,00	98,76	1,24
Fier	12,84	43,89	4,21	18,34	13,49	7,23	100,00	99,41	0,59
Gjirokastrë	11,88	44,81	2,69	18,83	9,74	12,06	100,00	99,37	0,63
Mallakastër	14,28	44,09	3,93	18,17	14,49	5,03	100,00	99,34	0,66
Përmet	12,63	44,07	2,82	21,28	9,40	9,79	100,00	99,13	0,87
Tepelenë	12,94	47,82	2,84	20,32	8,61	7,47	100,00	99,15	0,85
Tiranë	11,87	37,62	2,62	21,31	11,19	15,39	100,00	98,79	1,21
Vlorë	14,26	46,38	3,19	19,46	8,88	7,82	100,00	98,77	1,23

Source: INSTAT Census, 2012

c) Health

Health is especially important for citizens who want to have a healthy life, prevent diseases, and look to receive the necessary health services. The causes of illness or death are determined by several factors such as age, gender, living conditions, work, and the surrounding environment. In recent years, we saw a reduction in mortality and an increase in diseases. In the study area considered for 2018, Gjirokastra has the highest decline in the number of deaths (9,4%). Vlora has the highest death toll at 2,4%. The leading causes of death are "circulatory diseases" and "tumours".

Table 12: Causes of death by regions, age group and main disease groups, year 2018 (in%)

District	Under 65 years		Over 65 years		Total cancer	Total Diseases of apparatus of circulation of blood
	Cancer	Diseases of apparatus of circulation of blood	Cancer	Diseases of apparatus of circulation of blood		
Gjirokastrë	5,8	6,5	11,3	34,9	17,1	41,4
Fier	5,3	5,3	10,6	47,3	15,9	52,6
Vlorë	6,3	6,1	12,4	46,7	18,7	52,8
Albania	6,1	10,9	7,1	46,1	17,0	53,2

Source: Ministry of Health and Social protection, 2020

The table above shows the percentage of causes of death from two disease groups that account for the largest share of mortality in the country, namely "diseases of the circulatory system" and "tumours".

At national level, 53.2 % of all deaths are attributable to the group of circulatory diseases and 16.9 % to tumour diseases. In the surveyed area, the mortality rate due to tumours is much higher than the national average for people over 65. Vlora is considered one of the regions with the highest incidence of cancer deaths at national level. It should be noted that tumours are caused by environmental pollution and the consumption of some low-quality products. As for primary health care, which is considered the first point of contact for solving the population's health problems, the facilities that provide these services are polyclinics, health centres, outpatient clinics and special services for counselling children and women. Most of these facilities are located in densely populated regions, particularly in the Fier region with three points of contact per person.

Table 13: Number of health centres, staff medical in primary service, average number of contacts, 2018

District	Total of healthcare center	No. of family doctor	Average no. of visits to service primary
Gjirokastrë	31	55	3.3
Fier	45	156	2.8
Vlorë	29	116	2.6
Albania	413	1.826	2.9

Source: Ministry of Health and Social protection, 2020

Gjirokastra is considered the district with the highest average number of visits to primary care, which is also due to its aging population.

Table 14: Number of hospitals, hospital beds per capita, staff, 2018

District	Number of hospitals	Hospital beds per capita	Doctor in regional hospitals
Gjirokastrë	3	55.3	66
Fier	4	20.1	161
Vlorë	4	31.4	137
Albania	55	30.9	1.851

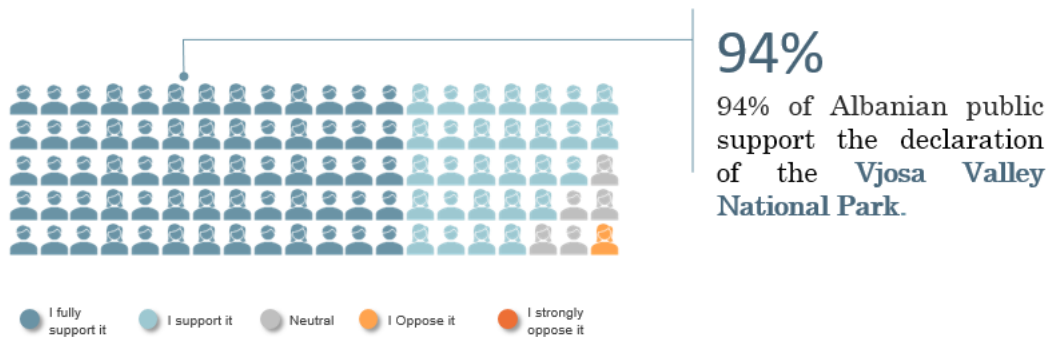
Source: Ministry of Health and Social protection, 2020

As can be seen in the Table 14, Fieri is considered as the district with the lowest number of hospital beds per person. This is also the district with the lowest number at the national level.

As far as social protection is concerned, it includes all interventions made by state and private bodies, which aim to alleviate the burden on families or individuals for a certain number of needs and functions. This intervention may be in the form of cash payments, in the form of reimbursement of expenses incurred by protected persons or in the form of goods and services supplied directly to protected persons. In the area under consideration, households receiving economic aid, account for 0,1-0,3% of the total number of beneficiary families nationwide. Gjirokastra is considered one of the areas with the largest increase in the number of pensions in recent years for every 1.000 inhabitants.

CHAPTER 3 RECOMMENDATIONS AND ANALYSES OF INTEREST GROUPS

According to the survey run by Idra & Eco Albania (2020) 94% of the population in Albania supported the declaration of the Vjosa Wild River National Park.



Considering that the declaration as a National Park means that the valley is protected by law, how much do you support the initiative to declare the Vjosa Valley as a National Park?

Turning the valley into a national park will provide more job opportunities, more prosperity and a better quality of life and increase employment opportunities. Healthcare costs would decrease, as according to a study by Merko et al. (2020), the cleaner the environment, the lower the costs to the healthcare system. In addition, the national park scenario would boost population growth in the valley to some extent and provide the opportunity to create even more opportunities for the provision of healthcare or educational services.

More detailed analysis of stakeholder responses to the establishment of the VWRNP and the ecosystem services provided by the area can be found in **Annex 2** of this report.

CHAPTER 4:**OPPORTUNITIES & WEAKNESSES**

The creation of a national park in the Vjosa valley will surely generate an increase in the income from tourism, would increase the agriculture development, and the national park would at least impact on reducing pollution and curbing climate change.

A significant increase in the contribution of the tourism sector to the economy is predicted for the next 10 years. This increase is also based on the government's strategy to support this sector, mentioning the 100 Villages government programme launched in 2018, which includes some villages in the Vjosa Valley, in particular Kalivaç, Nivicë, Peshtan, Kosinë, Maleshovë, Leusë, Antigone, Zhulat, Dhoksat, Nepravishtë, where hydropower plants are to be built today. In addition, the Vjosa Valley, which was considered in this study, is a very important archaeological and cultural area, not only for Albania, but also for the Balkan region.

OPPORTUNITIES**The tourism potential of the VWRNP in numbers**

The Përmet-Gjirokastra-Tepelena area has about 200,000 registered tourists per year, whose number has increased by an average of 15% per year in the last 5 years. While the Vjosa Valley is visited by an average of 5,000 adventure tourists per year, a large proportion of these are among those who have also visited Gjirokastra, Tepelena or Përmet. The designation of the Vjosa Valley as a national park will certainly double the number of tourists in the first year, in the second year the increase will be at least 50% and from the third year onwards the increase will match the increase in tourist numbers in the above-mentioned towns. So 15% increase in the next 10 years and at least 10% in the next 25 years.

Based on the fact that a tourist spends on average 35 to 64 euros per day or an intermediate value of 50 euros per day $[(35+64)/2]$, we can calculate the income from the establishment of the national park.

The national park can offer more tourist opportunities than just the entrance fee, but for the calculations we will stick with the version that will cost about 50 euros per day. Considering that the consumer price index in the tourism sector increases by an average of 5% per year (INSTAT, 2020), under these conditions the expenses can be indexed for the following years. In the end, it is given the income from the tax of 15%, as well as from the VAT, because in the expenses for tourism, the VAT is paid, which is 6% for the accommodation structures.

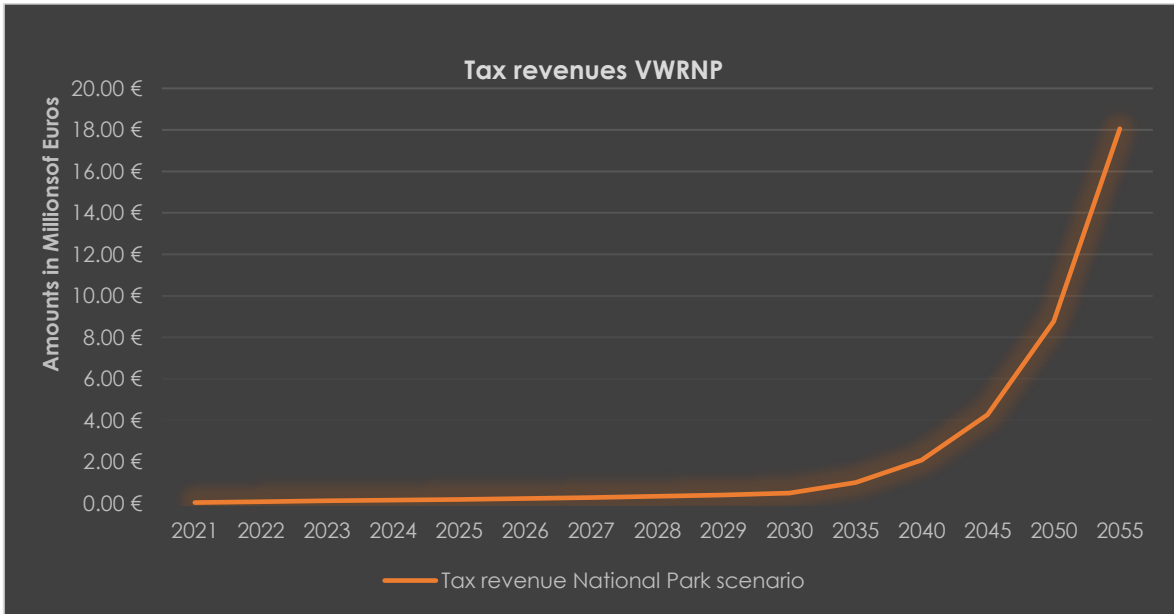
In fact, 50 euros per day are spent not only on accommodation facilities, but also on food or other payments (which are subject to 20% VAT), but to be prudent in the calculation, VAT is only applied at

6% for the entire value. The last column of Table 15 shows the total tax revenue that would flow into the state coffers over the next 35 years if the valley were to be declared a national park.

Table 15: Benefits of the Vjosa Wild River National Park

Year	Annual Number of Tourist	Expense by tourist	Revenues (euro)	Tax 15%	VAT 6%	Total revenue tax
1	5.000	50	250.000	37.500	2.250	39.750
2	10.000	52,50	525.000	78.750	4.725	83.475
3	15.000	55,13	826.875	124.031	7.442	131.473
4	17.250	57,88	998.452	149.768	8.986	158.754
5	19.838	60,78	1.205.630	180.845	10.851	191.695
6	22.813	63,81	1.455.799	218.370	13.102	231.472
7	26.235	67,00	1.757.877	263.682	15.821	279.502
8	30.170	70,36	2.122.636	318.395	19.104	337.499
9	34.696	73,87	2.563.083	384.462	23.068	407.530
10	39.900	77,57	3.094.923	464.238	27.854	492.093
11	43.890	81,44	3.574.636	536.195	32.172	568.367
12	48.279	85,52	4.128.705	619.306	37.158	656.464
13	53.107	89,79	4.768.654	715.298	42.918	758.216
14	58.418	94,28	5.507.795	826.169	49.570	875.739
15	64.260	99,00	6.361.503	954.225	57.254	1.011.479
16	70.686	103,95	7.347.536	1.102.130	66.128	1.168.258
17	77.754	109,14	8.486.404	1.272.961	76.378	1.349.338
18	85.530	114,60	9.801.797	1.470.270	88.216	1.558.486
19	94.083	120,33	11.32.076	1.698.161	101.890	1.800.051
20	103.491	126,35	13.075.842	1.961.376	117.683	2.079.059
21	113.840	132,66	15.102.598	2.265.390	135.923	2.401.313
22	125.224	139,30	17.443.501	2.616.525	156.992	2.773.517
23	137.747	146,26	20.147.243	3.022.087	181.325	3.203.412
24	151.521	153,58	23.270.066	3.490.510	209.431	3.699.941
25	166.673	161,25	26.876.926	4.031.539	241.892	4.273.431
26	183.341	169,32	31.042.850	4.656.427	279.386	4.935.813
27	201.675	177,78	35.854.492	5.378.174	322.690	5.700.864
28	221.842	186,67	41.411.938	6.211.791	372.707	6.584.498
29	244.027	196,01	47.830.788	7.174.618	430.477	7.605.095
30	268.429	205,81	55.244.560	8.286.684	497.201	8.783.885
31	295.272	216,10	63.807.467	9.571.120	574.267	10.145.387
32	324.799	226,90	73.697.625	11.054.644	663.279	11.717.922
33	357.279	238,25	85.120.757	12.768.113	766.087	13.534.200
34	393.007	250,16	98.314.474	14.747.171	884.830	15.632.001
35	432.308	262,67	113.553.217	17.032.983	1.021.979	18.054.962

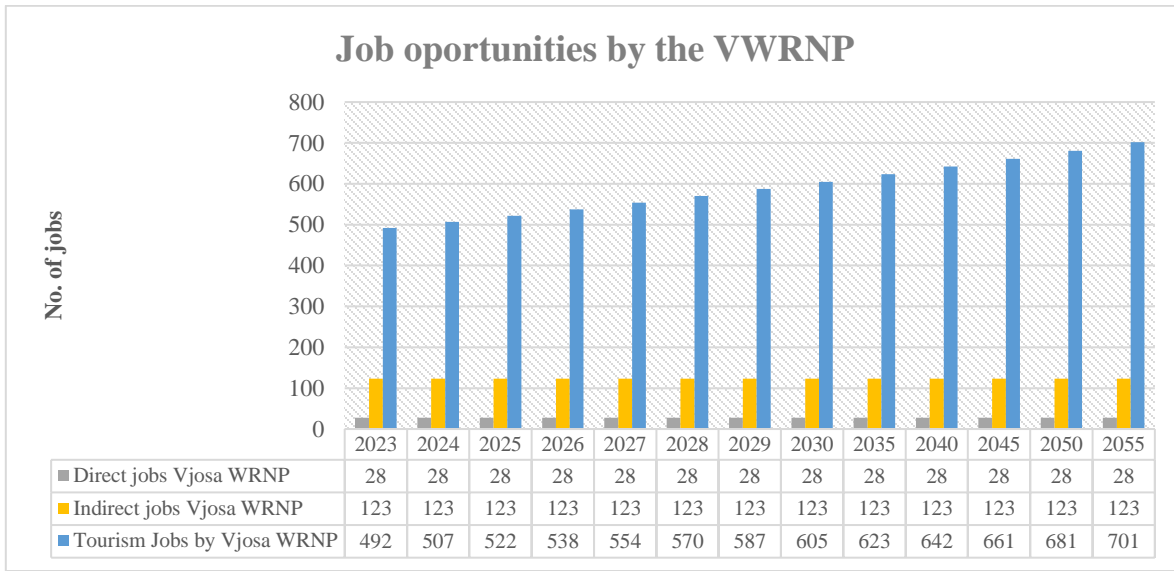
The national park will generate revenue from the entrance tickets sold to visitors to the park, tariffs may also be set for recreational activities, including employment, agriculture, environment, etc.



Graphic 1: Tax revenue VWRNP

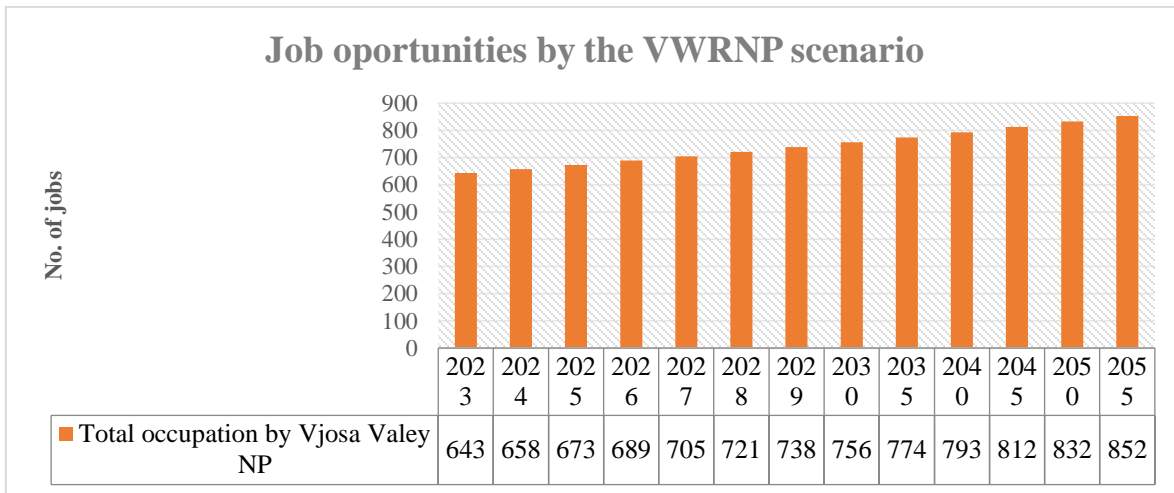
Impact of the VWRNP on Employment

The role that employment plays in the growth and economic development of a country is very important. The graphs below show the opportunities for job creation, taking into account the establishment and management of the VWRNP. It can be concluded that the VWRNP will provide 4.4 times as many indirect jobs as direct jobs (which only include employment through the VWRNP authority). In other studies, e.g. for the Mayella National Park in Italy or the Triglav National Park in Slovenia, this ratio was even higher (up to seven times more indirect than direct jobs). Taking into account the jobs in tourism created by the tourism development of the Vjosa Valley, the number of jobs in this sector will increase from around 500 in the first years of operation of the VWRNP to more than 700 in the next thirty years.



Graphic 2: Employment opportunities by the VWRNP

The total number of jobs created by the establishment and management of the VWRNP is estimated at 643 at the start of active management and more than 850 over the next 30 years.

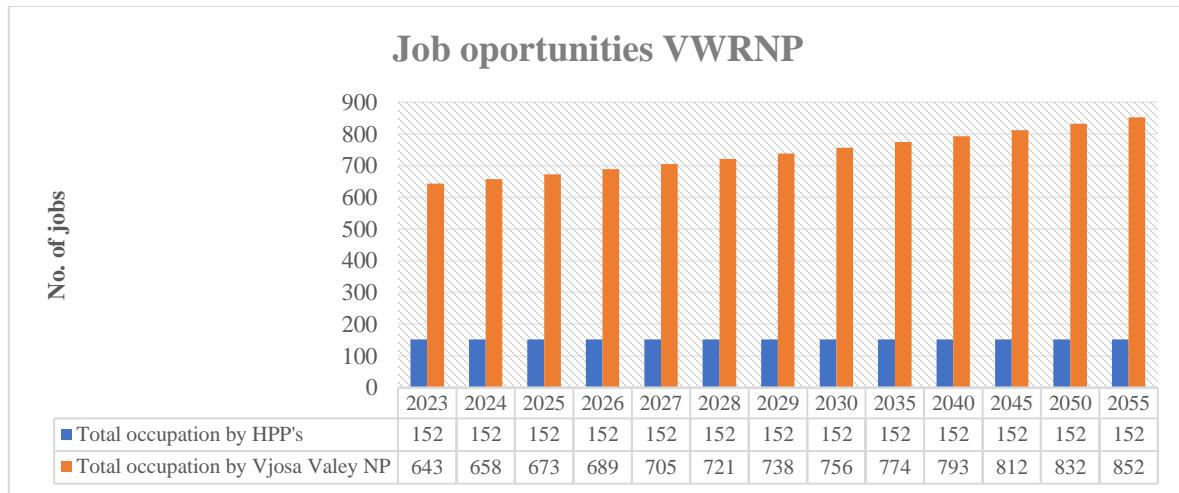


Graphic 3: Total employment opportunities by the VWRNP

Based on the results of the study on the operation of the VWRNP (Kovarovics et al., 2022), the Vjosa Wild River National Park will employ between 25 and 30 people (direct full-time jobs). Their salaries will be between 11,900 euros and 16,800 euros per month. .

The indirect employees will be between 100 and 127 people with salaries between 48,500 and 68,500 euros per month, while the induced employment through tourism and agriculture as a function of the park will be 485-500 people each with an average salary of around 210,000 euros per month.

Employment growth in the tourism sector will average 5% per year, as tourism in these areas has a growth potential of 15% per year. Employment generally increases at a ratio of 1 to 3, i.e. for every 3 % increase in tourism, employment will increase by 1 % (derived from Okun's Law of 1962).



Graphic 4: Total employment opportunities by different scenarios

WEAKNESESS

a) Non-utilization of the Valley

One of the problems of the Vjosa Valley today is its disuse. Today only one third of the valley is used as agricultural land for the cultivation of cereals, vegetables, fodder and fruit, with olives dominating. The rest, mainly 1/5 of the area, is used for grazing, tourism and fishing. One of the main problems that emerged from the open discussions with some entrepreneurs in the Vjosa Valley is the fact that tourism needs to be promoted by local or national institutions, while agriculture has low productivity and lacks markets.

The inhabitants of the area expect the quality of life and the economy to improve thanks to the support of public institutions

Table 16: Economic improvement or deterioration in different sectors according to 2 scenarios

Affected sectors	National Park hypothesis
Impact in Tourism	Positive
Fishing	Positive
Agriculture and Livestock	Positive
Small commercial activities	Positive
Education / postal service / water supply	ND
Religious preaching	ND
Transport	ND/Positive

The transformation of the valley into a national park will have no negative impact on the religious beliefs of the valley's inhabitants.

b) Specifics of the agricultural sector in the Vjosa Valley

Today, the population living in the Vjosa Valley is mainly employed in agriculture and animal husbandry, tourism, the service sector and local public institutions. In terms of sectoral issues, it can be said that the fragmentation of land and the use of technology makes it difficult to automate the development of the agricultural sector, which is why it is proposed for Albania to focus agriculture on processed products or typical local products (Muço, 2015).

Livestock farming is also not very well organized and its production is mainly for domestic consumption. In total, there are only 32 dairies in the valley, which are generally small and pose a problem for their expansion due to the lack of raw materials (Gjirokastra Regional Tax Inspectorate, 2020).

c) Health services

In recent years, it has been noted that there is a shortage of doctors or students, which makes it difficult to provide health services or a quality education system (few students in classrooms, leading to the establishment of collective classes).

Specifically, the hospital of Tepelena today functions like an outpatient clinic, as there are only two general practitioners, there are no other doctors in the region and doctors from other regions do not want to come there. The University of Gjirokastra, which can look back on a 60-year history with three faculties and a long tradition of teaching, is facing closure as the number of graduates in the region is decreasing from year to year. Even the few graduates who come from the school benches in the settlements near the valley want to move to Tirana. They believe that the region offers very few job opportunities.

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ANNEX 1 ECONOMIC PROFILES OF THE VJOSA VALLEY'S MUNICIPALITIES

Municipality of **Gjirokastra** has under its administration one town and 38 villages with a total surface of 469.25km². The municipality of Gjirokastra consists of the city of Gjirokastra, which since 2005 has been on the UNESCO World Heritage List, as well as the surrounding hilly rural areas.

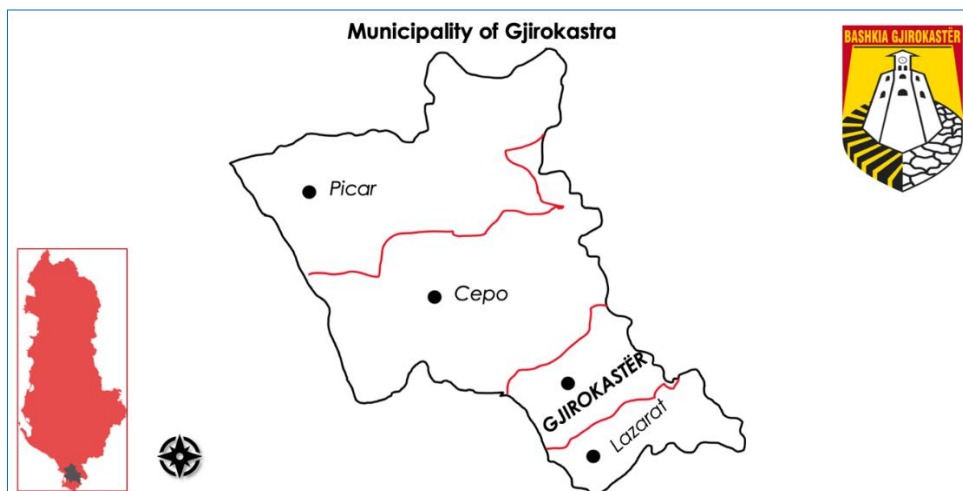


Figure I: Map of Gjirokastra Municipality

Table I: Municipality profile, Gjirokastrë 2018

	Data	Year 2018 (in ALL)
Activity	Total	2.122
	Productions of good	795
	Agriculture, Fishing Forest	636
	Industry	123
	Construction	36
	Production of service	1.327
	Commerce	628
	Transports and storage	86
	Accommodation, food service	269
	Information and communication	15
	Other services	329
	Income according to sources (in/ 000 ALL)	Local Income
Government transfer		776.046
Other income		-
Expenditures according to government functions in (000 ALL)	Total income	925.335
	General public services	131.490
	Economic issues	71.392
	Housing and community	205.405
	Health	-
	Entertainment culture and religious issues	37.420
	Instruction	181.108
	Social protection	297.301
Total expenses	924.116	

Source: Report: Co-Plan; LëvizAlbania, Swiss embassy, Ministry of Finance and Economy, 2018

In the municipality of Gjirokastra there are about 1,3% of total active enterprises. In structural terms, the business is oriented towards supplying services (63% of the total number of active enterprises), in the sector of trade and accommodation and food service.

In 2017, the number of producers of goods expanded by about 12% in annual terms, especially in the sector of agriculture, forestry and fishing (+95 active enterprises), while in 2018 and 2019 there was an average increase of over 7% where the tourist sector had a boost.

Regarding the financial resources available in the municipality of Gjirokastra, we can say that after an increase of about 7,6% in annual terms in 2017, in 2018 the financial resources remained unchanged. Revenues from intergovernmental transfers (conditional and unconditional) turn out to have expanded by about 16% in annual terms. In 2018, revenues from local sources recorded an annual increase of about 13.5% (dictated by the increase in revenues from local fees) and represented about 16% of total available resources. In contrast, local tax revenues have shrunk by about 24,3% in annual terms.

Gjirokastra Municipality spent about 32% of last year's budget on social protection (economic aid and disability payments), about 29.1% more than a year ago.

Expenditures in the function of housing and community amenities although declining in annual terms continue to have a significant share in total expenditures (from 24% in 2017 to 22% of total expenditures). Expenditures for the economic issues function marked a significant annual decrease of about 62% in 2018. Their weight to total resulted 8% from 21% a year ago. In contrast, expenditures on terms of education turn out to be about 44,5% in annual terms.

Municipality of **Fier** is located in a favourable geographical position, with a rich historical heritage, including unique national cultural heritage sites such as Ancient cities of Apollonia, Bylis, and the Monastery of Ardenica. The Municipality has under its administration the former municipalities Fier, Cakran, Dërmenas, Frakull, Levan, Libofshë, Mbrostar Ura, Portëz, Qëndër Topojë.

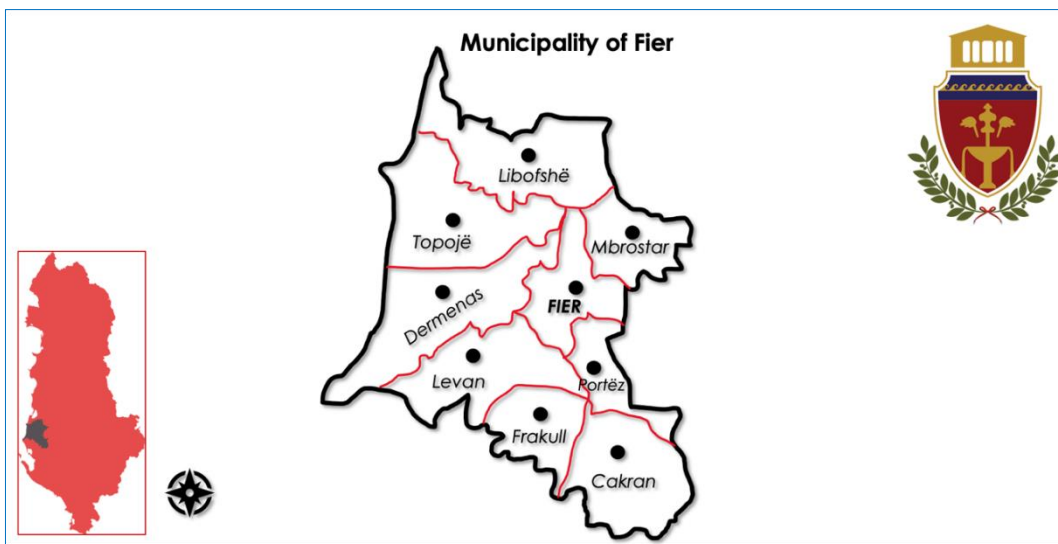


Figure II: Map of Fier Municipality

Table II: Municipality profile, Fier

	Data	Year 2018 (in ALL)
Activity	Total	7.510
	productions of good	2.873
	Agriculture, Fishing Forest	2.207
	Industry	483
	Construction	183
	Production of service	4.637
	Commerce	2.547
	Transport and storage	263
	Accommodation, food service	839
	Information and communication	531
	Other services	937
Income according to sources (in/ 000 ALL)	Local Income	597.909
	Government transfer	2.266.944
	Other income	3.655
	Total income	2.868.508
Expenditures according to government functions in (000 ALL)	General public services	722.663
	Economic issues	113.894
	Housing and community	858.740
	Health	-
	Entertainment culture and religious issues	53.985
	Instruction	291.548
	Social protection	825.758
	Total expenses	2.866.588

Source: Report: Co-Plan; LëvizAlbania, Swiss embassy, Ministry of Finance and Economy, 2018

About 4,6% of the total active enterprises are in the municipality of Fier. The business is oriented towards the provision of services (62% of the total number of active enterprises), mainly in the sector of trade and accommodation and food service". In 2017, the number of producers of goods expanded by about 13% in annual terms, especially in the agriculture sector. While in 2018 there was an increase of over 10% oriented by agriculture and services. Financial resources available to the municipality of Fier decreased by about 16,3% in annual terms, at the end of 2018. The narrowing of available financial resources was determined by declining revenues from intergovernmental transfers which account for about 80% of total resources. In contrast, revenues from its own local sources followed an upward trend during 2018. Revenues from local taxes increased by about 23,1% in annual terms (real estate taxes and infrastructure impact taxes from new constructions). Revenues from local fees also contributed positively to the overall performance of revenues from local sources (+ 9,0% in annual terms).

In 2018, the municipality of Fier, spent about 28,8% of the budget in the function of social protection (economic aid and disability payment), increased by about 2,5% in annual terms. Housing and community comforts absorbed about 30% of funding in 2018, down by about 20,1% in annual terms. In the function of education, the municipality of Fier turns out to have reduced expenditures by about 10,6% in annual terms.

Municipality of **Këlcyrë** is situated, among the mountains of Trebeshina and Nemerckë, which is crossed by the clear waters of Vjosa River with a total surface area of 304.65 km² and is bordered by the municipality of Poliçan, Permet, Libohova and Memaliaj.



Figure III: Map of Këlcyra Municipality

Table III: Municipality profile, Këlcyrë

	Data	Year 2018 (in ALL)
Activity	Total	405
	productions of good	250
	Agriculture, Fishing Forest	228
	Industry	22
	Construction	-
	Production of service	155
	Commerce	77
	Transports and storage	12
	Accommodation, food service	40
	Information and communication	3
	Other services	23
	Income according to sources (in/ 000 ALL)	Local Income
Government transfer		325.093
Other income		30.676
Total income		367.401
Expenditures according to government functions in (000 ALL)	General public services	29.621
	Economic issues	59.301
	Housing and community	181.805
	Health	-
	Entertainment culture and religious issues	3.129
	Instruction	15.720
	Social protection	77.825
	Total expenses	367.401

Source: Report: Co-Plan; LëvizAlbania, Swiss embassy, Ministry of Finance and Economy, 2018

In the municipality of Këlcyra, the number of active enterprises had an annual increase of 19,8% in 2017 while in 2018 the growth was almost halved (9,5%). It should be noted that the number of businesses in Këlcyra is low. In terms of business structure, they are focused on the production of goods, forestry, and fishing. Businesses running in the field of trade, accommodation and food service following new investments in tourism are also growing.

In Këlcyra, local revenues have been volatile after an expansion of about 64,3% in annual terms in 2017, financial resources shrank by about 6% in 2018. This decline in available financial resources was determined by declining revenues from other sources (inherited incomes), while intergovernmental transfers increased. Revenues from local sources are also increasing, especially real estate tax revenues. Revenues from local fees increased in 2018 by about 20% in annual terms.

The expenditures of the municipality of Këlcyra in terms of economic issues seem to have decreased significantly in 2018 with an annual decrease of about 59%.

Municipality of **Libohovë** is located in southern Albania and is part of Gjirokastra Region. It is composed by 3 administrative units, 1 city and 17 villages.



Figure IV: Map of Libohova Municipality

Table IV: Municipality profile, Libohovë

	Data	Year 2018 (in ALL)
Activity	Total	157
	productions of good	109
	Agriculture, Fishing Forest	104
	Industry	-
	Construction	-
	Productions of service	48
	Commerce	20
	Transport and storage	12
	Accommodation, food service	5
	Information and communication	-
	Other services	15
	Income according to sources (in/ 000 ALL)	Local Income
Government transfer		275.938
Other income		40.706
Total income		327.521
Expenditures according to government functions in (000 ALL)	General public services	35.509
	Economic issues	80.657
	Housing and community	153.034
	Health	-
	Entertainment culture and religious issues	99
	Instruction	30.581
	Social protection	27.642
	Total expenses	327.521

Source: Report: Co-Plan; LëvizAlbania, Swiss embassy, Ministry of Finance and Economy, 2018

In the municipality of Libohova the number of active enterprises followed an upward trend in the period 2013-2017, with an annual increase of 11,3% in 2017 while in 2018 the growth was only 3%. Businesses in this area are focused on producing food, forestry, and fishing. Also growing are businesses running in the field of accommodation and food service following new investments in tourism.

The financial resources available to the municipality of Libohova have been on the rise in the last three years. After an expansion of about 106% in annual terms in 2017, the increase in financial resources was moderated to about 37% in 2018. The increase in financial resources came from intergovernmental transfers. Revenues from local sources result in a slight decline, especially from real estate tax revenues and infrastructure impact taxes. In line with the increase in financial resources, the expenses incurred by the municipality of Libohovë increased in 2018.

The Municipality of Libohova significantly increased spending on the function of education and housing and community amenities in 2018. Annual increases of about 25,2% result in expenditures in the function of social protection.

Municipality of **Mallakastër** has under its management 1 town and 41 villages with a total area of 329.19 km² and is bordered by the municipality of Fier, Selenica, Memaliaj, Poliçan, Berat, Patos, Fier.



Figure V: Map of Mallakastër Municipality

Table V: Municipality profile, Mallakastër

	Data	Year 2018 (in ALL)
Activity	Total	805
	productions of good	262
	Agriculture, Fishing Forest	175
	Industry	68
	Construction	19
	Productions of service	543
	Commerce	265
	Transports and storage	48
	Accommodation, food service	130
	Information and communication	3
	Other services	97
	Income according to sources (in/ 000 ALL)	Local Income
Government transfer		698.159
Other income		-
Total income		1.011.112
Expenditures according to government functions in (000 ALL)	General public services	158.958
	Economic issues	120.965
	Housing and community	203.148
	Health	-
	Entertainment culture and religious issues	42.966
	Instruction	114.186
	Social protection	226.887
	Total expenses	867.110

Source: Report: Co-Plan; LëvizAlbania, Swiss embassy, Ministry of Finance and Economy, 2018

The number of active enterprises in the municipality of Mallakastra has been declining in recent years, with a decrease of 7% in 2017 and a decrease of 4% in 2018.

The orientation of businesses in this area is in the provision of services. While businesses running in the field of trade, accommodation and food service have been declining in recent years. Growth was recorded in businesses running in agriculture, forestry, and fishing sector.

Mallakastra municipality revenues expanded to about 23% in 2018. This expansion came from intergovernmental transfers. Revenues from local sources are also increasing, especially real estate tax revenues. During 2018, expenditures on economic tasks shrank by about 15% in annual terms. In 2018, the Municipality of Mallakastër has significantly reduced spending on agriculture, forests, and fishing.

The highest expenditure values are registered for social protection, which has an almost constant increase since 2016, and an increase of 11% since 2017.

Education, entertainment, culture, and religious issues also show significant growth in 2018 compared to 2017.

Municipality of **Memaliaj**, has under its administration a city and 53 villages with a total area of 372.07 km² and is bordered by the municipality of Mallakstra, Kelcyra, Tepelena, Himara, Selenica. The city known for years for its coal mine has long lost this profile because of its closure.

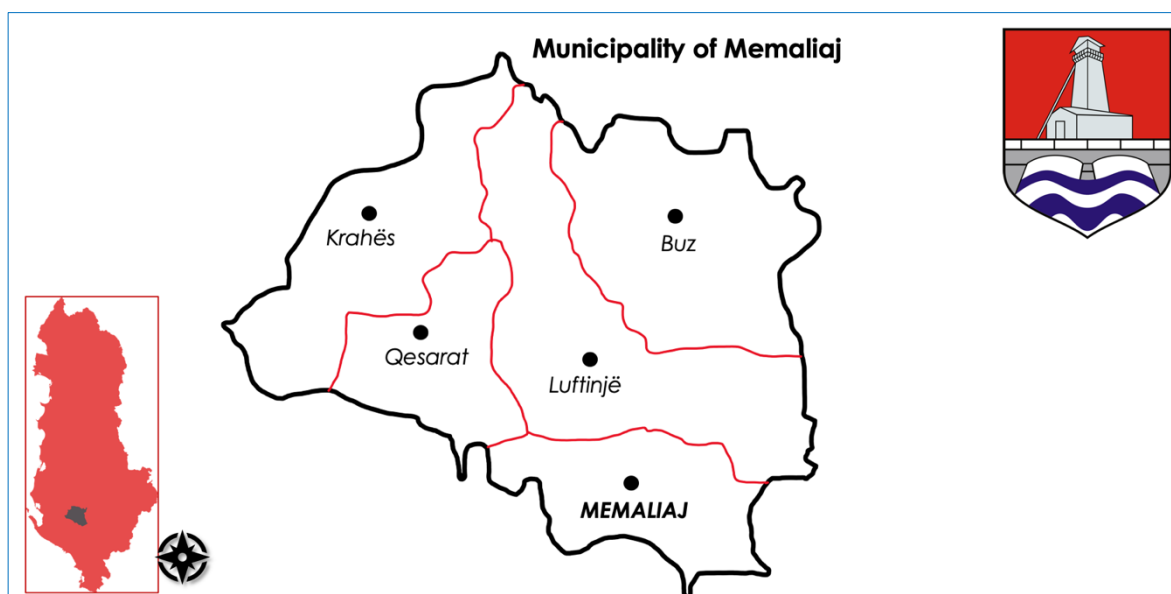


Figure VI: Map of Memaliaj Municipality

Table VI: Municipality profile, Memaliaj

	Data	Year 2018 (in ALL)
Activity	Total	311
	productions of good	171
	Agriculture, Fishing Forest	153
	Industry	12
	Construction	6
	Productions of service	140
	Commerce	63
	Transports and storage	-
	Accommodation, food service	48
	Information and communication	-
	Other services	19
	Income according to sources (in/ 000 ALL)	Local Income
Government transfer		316.453
Other income		10.176
Total income		337.470
Expenditures according to government functions in (000 ALL)	General public services	120.849
	Economic issues	7.501
	Housing and community	33.370
	Health	-
	Entertainment culture and religious issues	4.751
	Instruction	42.105
	Social protection	128.895
	Total expenses	337.470

Source: Report: Co-Plan; LëvizAlbania, Swiss embassy, Ministry of Finance and Economy, 2018

In the Municipality of Memaliaj, the number of active enterprises has an increasing trend, with 7% in 2017 and 3% in 2018. In structural terms, businesses are focused on the production of goods, agriculture, accommodation businesses and food service which have increased in the last 2 years. Businesses running in the field of trade are declining slightly. The financial resources available to the municipality of Memaliaj have been on the rise in the last three years.

After an expansion of about 6,4% in annual terms in 2017, the increase in financial resources was moderated to about 5,8% in 2018. The increase in financial resources came from intergovernmental transfers. Revenues from local sources are declining, real estate tax revenues and infrastructure impact taxes. Revenues from local fees declined in 2018 by about 9% in annual terms.

The Municipality of Memaliaj has significantly reduced spending on the function of economic issues, especially in transport and has increased them for increasing social protection by about 5% in annual terms during 2018.

Municipality of **Përmet** has 6 administrative units, Permet, Çarçovë, Frashër, Petran, Center Piskovo. It has under its administration a city and 49 villages with a total area of 601.95 km² and is bordered by the municipality of Skrapar, Kolonja, Kelcyra, Libohova.

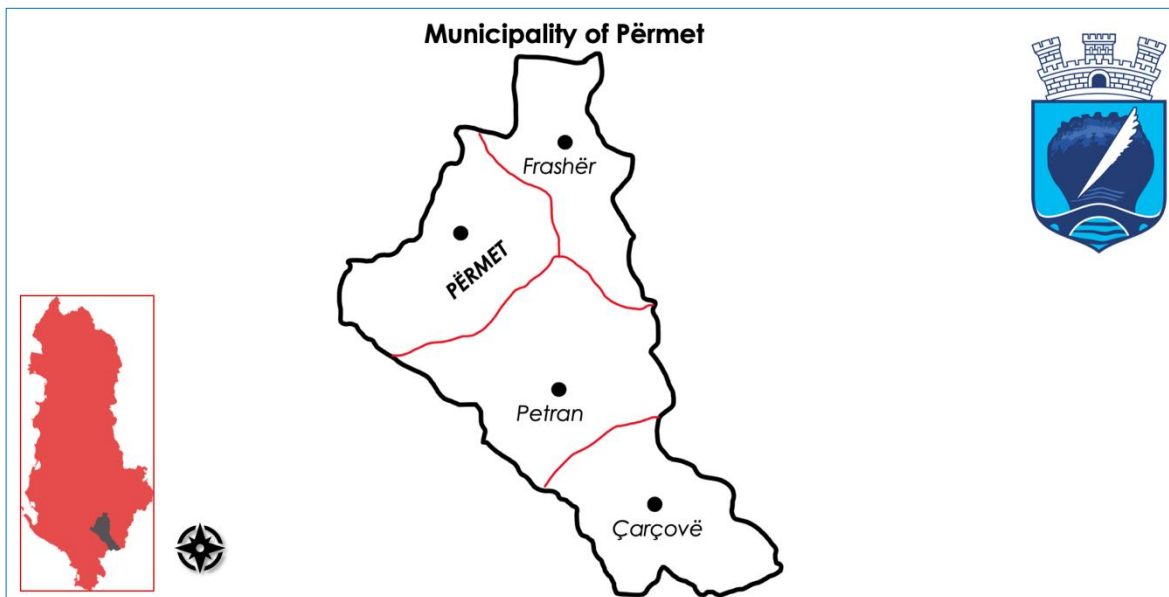


Figure VII: Map of Përmet Municipality

Table VII: Municipality profile, Përmet

	Data	Year 2018 (in ALL)
Activity	Total	767
	productions of good	422
	Agriculture, Fishing Forest	346
	Industry	60
	Construction	16
	Productions of service	345
	Commerce	154
	Transports and storage	22
	Accommodation, food service	90
	Information and communication	6
	Other services	73
	Income according to sources (in/ 000 ALL)	Local Income
Government transfer		381.724
Other income		3.513
Total income		423.366
Expenditures according to government functions in (000 ALL)	General public services	58.223
	Economic issues	69.481
	Housing and community	144.675
	Health	-
	Entertainment culture and religious issues	12.976
	Instruction	37.979
	Social protection	100.032
	Total expenses	423.366

Source: Report: Co-Plan; LëvizAlbania, Swiss embassy, Ministry of Finance and Economy, 2018

The number of businesses in Përmet has been growing steadily in recent years. In 2017, the increase was 7,9%, while in 2018 it was 8,3%. Businesses are distributed equally between services and goods. In the municipality of Përmet, it seems that businesses in the field of agriculture and trade prevail, which increased by about 19,5% in annual terms. Also, businesses running in the tourism sector and those of agro-processing have experienced a significant increase.

The financial resources available to the municipality of Përmet have been increasing, although this increase has faded in recent years from 4,7% in 2017 to 3,1% in 2018. As in other municipalities, the increase in financial income in Përmet has come from government transfers.

Revenues from local sources are also increasing, especially revenues from real estate tax and infrastructure impact tax from new constructions for 2018. An increasing trend is seen in the group of fees with about 20% in annual terms.

In the municipality of Përmet the expenditures in the function of education, entertainment, culture, and religious issues have been expanded by about 18,4% and 17,8% respectively in annual terms.

Expenditures for public services increase moderately. Meanwhile, the expenditures made for the function of economic issues turn out to have shrunk by about 56,8% in annual terms.

Municipality of **Selenicë** consists of one town and 47 villages and six administrative units (Kote, Sevaster, vllahinë, Armen, Selenice and Brataj). It has a total surface area of 561.24 km. The Municipality has in its territory the historic bitumen mine in Selenica, which also employs residents of the surrounding countryside, as well as the Vlahina oil-bearing area where oil is draining, leaving a large contaminated area behind.

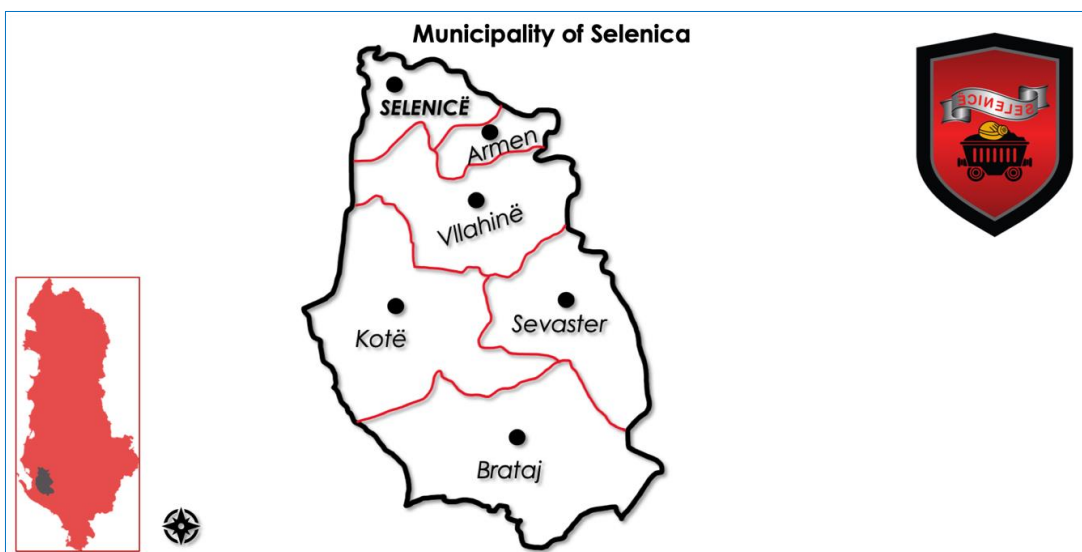


Figure VIII: Map of Selenica Municipality

Table VIII: Municipality profile, Selenicë

	Data	Year 2018 (in ALL)
Activity	Total	606
	productions of good	408
	Agriculture, Fishing Forest	368
	Industry	31
	Construction	9
	Production of service	198
	Commerce	90
	Transport and storage	43
	Accommodation, food service	47
	Information and communication	-
	Other services	-
	Income according to sources (in/ 000 ALL)	Local Income
Government transfer		488.722
Other income		89.757
Total income		634.019
Expenditures according to government functions in (000 ALL)	General public services	154.843
	Economic issues	116.831
	Housing and community	129.640
	Health	-
	Entertainment culture and religious issues	30.314
	Instruction	63.402
	Social protection	138.989
	Total expenses	634.019

Source: Report: Co-Plan; LëvizAlbania, Swiss embassy, Ministry of Finance and Economy, 2018

Even in the municipality of **Selenica**, the number of enterprises has been increasing, with an annual increase of 22,2% in 2017 and over 24% in 2018. In structural terms, businesses are focused on the production of goods, forestry and fishing which are increasing. Meanwhile, businesses running in the field of trade, accommodation and food service are declining.

The financial liquidity available to the municipality of Selenica has been on the rise in the last three years. After an expansion of about 25,3% in annual terms in 2017, the increase in financial resources was reduced to about 15% in 2018.

Revenues from intergovernmental transfers have been on the rise, while local sources show a particularly declining in revenue tax on infrastructure. Revenues from local fees marked a significant increase in 2018 by about 10% in annual terms. The Municipality of Selenica has significantly increased spending on education by over 50% in annual terms, has reduced spending on economic issues and has had a significant increase in funding for social protection and water supply.

Municipality of **Tepelenë** has under its administration a town and 24 villages with a total area of 431.24 km² and is bordered by Memaliaj, Këlcyra, Gjirokastra, Himara and Selenica municipalities.

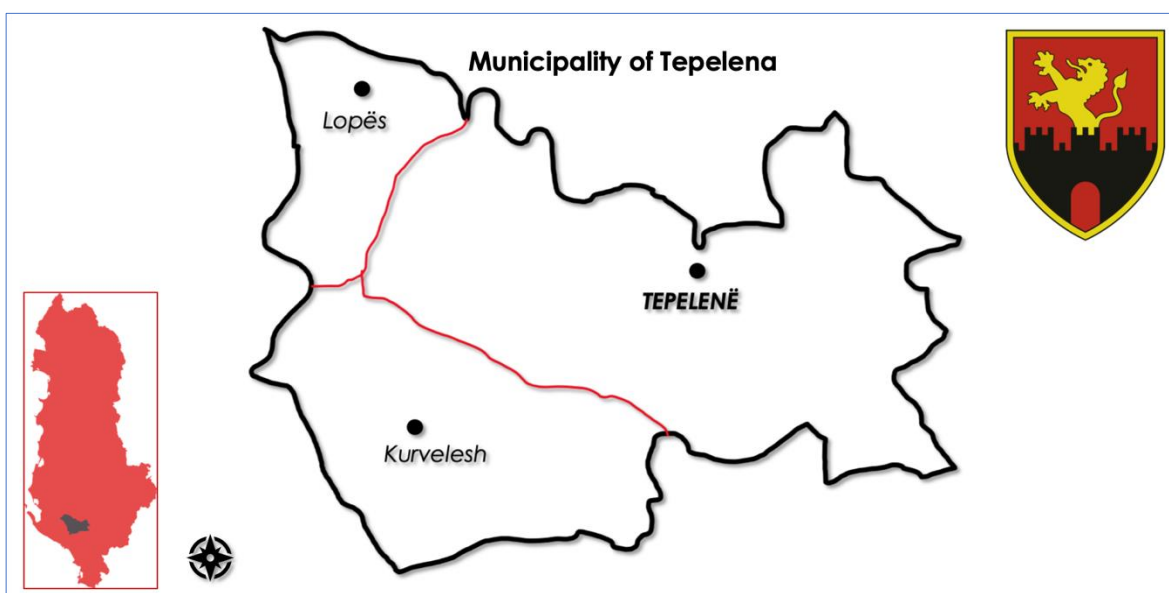


Figure IX: Map of Tepelena Municipality

Table IX: Municipality profile, Tepelenë

	Data	Year 2018 (in ALL)
Activity	Total	767
	productions of good	449
	Agriculture, Fishing Forest	389
	Industry	33
	Construction	27
	Productions of service	318
	Commerce	147
	Transports and storage	16
	Accommodation, food service	80
	Information and communication	6
	Other services	69
	Income according to sources (in/ 000 ALL)	Local Income
Government transfer		322.332
Other income		66.757
Total income		425.700
Expenditures according to government functions in (000 ALL)	General public services	78.829
	Economic issues	86.510
	Housing and community	93.002
	Health	-
	Entertainment culture and religious issues	4.752
	Instruction	50.227
	Social protection	112.381
	Total expenses	425.700

Source: Report: Co-Plan; LëvizAlbania, Swiss embassy, Ministry of Finance and Economy, 2018

In the municipality of Tepelena in recent years there has been a significant increase in economic activities, especially those in tourism and agriculture. In 2017 the increase was by 12,8% while in 2018 the increase was by 10%.

In structural terms, businesses are focused on the production of goods, the development of agriculture and accommodation in recent years. Meanwhile, businesses running in the field of trade and food service are declining.

Revenues from government transfers and from local sources in Tepelena have been on the rise. Revenues from local taxes increased by about 14,4% (infrastructure impact tax) while revenues from local fees decreased by about 12,6% compared to the previous year.

Referring to the data on expenditures, it can be said that those for housing and community amenities continue to occupy important weight and value in the expenditures of the municipality of Tepelena in 2018. Expenditures for education; entertainment, culture, and religious affairs; and public services are declining. The distributed expenses for social protection (conditional funds) turn out to have kept the same level as a year ago.

Municipality of **Vlorë** has two cities and 37 villages under its administration divided in the selected administrative units: Vlorë, Orikum, Qendër Vlorë, Novoselë, and Shushicë with a total area of 616.85 km² and is bordered by the municipality of Fier, Selenica, Himara.

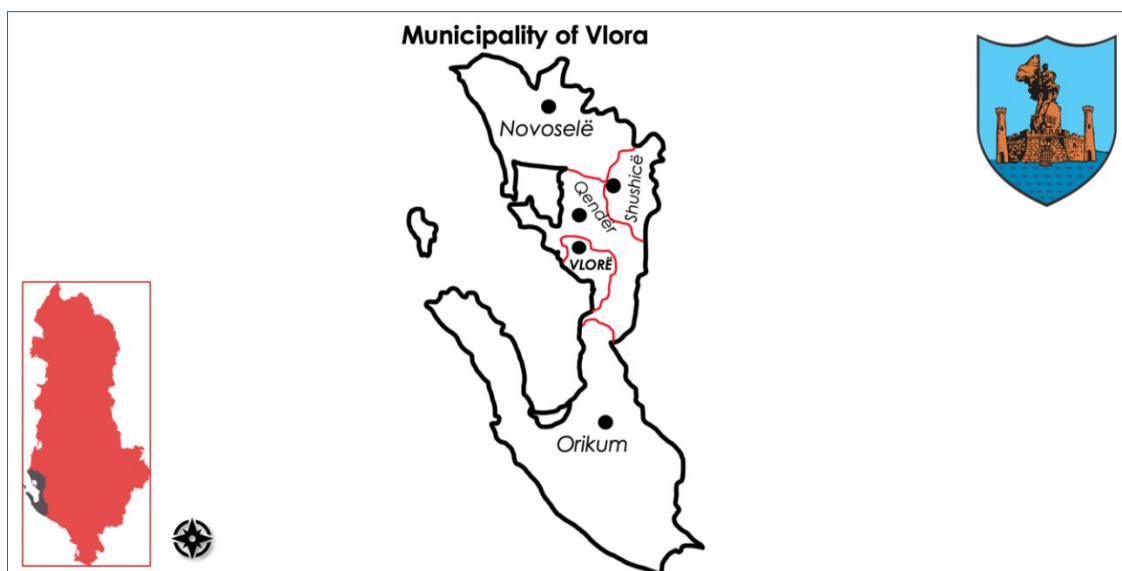


Figure X: Map of Vlorë Municipality

Table X: Municipality profile, Vlorë

	Data	Year 2018 (in ALL)
Activity	Total	6657
	productions of good	1378
	Agriculture, Fishing Forest	560
	Industry	521
	Construction	297
	Productions of service	5279
	Commerce	2432
	Transports and storage	318
	Accommodation, food service	1296
	Information and communication	78
	Other services	1155
	Income according to sources (in/ 000 ALL)	Local Income
Government transfer		2033662
Other income		-
Total income		2675393
Expenditures according to government functions in (000 ALL)	General public services	465177
	Economic issues	70052
	Housing and community	818379
	Health	-
	Entertainment culture and religious issues	99942
	Instruction	424968
	Social protection	724394
	Total expenses	2602911

Source: Report: Co-Plan; LëvizAlbania, Swiss embassy, Ministry of Finance and Economy, 2018

Vlora has had an increase in the number of activities in the last 10 years, this increase has been gradual with 4-6% per year. Businesses in the Vlora area are focused on the production of services, especially in the field of accommodation, trade, and food service.

In the commodity production group, agriculture, forestry, and fishing are the sector with the largest share, having an increase of about 66,7% in annual terms and thus surpassing industry.

The financial resources available to the municipality of Vlora shrank by about 5,7% in annual terms. The decline in financial resources is more as a statistical effect of the decline in income inherited from the previous year. Meanwhile, revenues from local sources increased by about 16,8% in annual terms due to positive performance in the collection of local tariffs (+ 41,4% compared to the previous year).

Revenues from local taxes declined by about 1,2% in annual terms. Revenues from unconditional intergovernmental transfers also marked positive developments. In 2018, total expenditures of the municipality of Vlora decreased by about 8,3% in annual terms.

Reduction of total expenditures materialized in marked decline of expenditures of economic affairs, shrinking expenditures in the function of public services by about 15,9% in annual terms and reducing expenditures by about 14,8% in annual terms for education. While spending on housing and community commodities increased by about 24,8%, spending on entertainment, culture and religion increased by 21,5%. Social protection also turns out to have absorbed about 27,8% of total spending, with annual growth of about 6,9%.

ANNEX 2 a**HOW MUCH DOES IT COST THE RIVER NEAR MY HOUSE? AN INTEGRATED METHODOLOGY TO IDENTIFY A VALUE FOR ECOSYSTEM SERVICE (THE CASE OF THE VJOSA VALLEY IN ALBANIA)****Abstract**

This study aims to identify and evaluate ecosystem services and calculate the total economic value of Vjosa Valley, an endangered riverine ecosystem. An instrumental-deliberative approach is used with experts and Albania's general public. The results show that experts highly evaluate Vjosa Valley for its cultural ecosystem services, while the general public assigns higher importance to regulation ecosystem services. Two monetary measures have been calculated, WTP and WTA. The results indicate no significant differences between WTP and WTA when using a payment card. Participants will pay, on average, 7% of their monthly incomes to protect Vjosa Valley from Hydropower Construction. This study was developed during the pandemic of Covid19, and the results may be affected by the context; however, it represents the first economic evaluation of this rare ecosystem in Albania and Europe.

Introduction

The debate among policymakers, environmental bodies, and academia about assigning a price tag to natural resources continues. Enormous efforts have been undertaken to make them tangible by quantifying the goods and services offered by nature to humankind through the concept of ecosystem services (ES). ES is defined as the direct and indirect contributions of fundamental importance to human well-being, health, livelihood, and survival (Costanza *et al.*, 2014). The conceptual framework of ES, as defined by the Millennium Ecosystem Assessment (MEA) in 2005, has become a model that links the functioning of ecosystems to human welfare. It persists as a dominant environmental paradigm that opens up crucial global conservation opportunities (Fisher *et al.*, 2009; de Groot *et al.*, 2010). In addition, a common conceptual framework is used to compare the different range of stakeholder perceptions of the role and value of ES to understand better the trade-offs involved—across sectors and stakeholders in a multiscale—from local communities, national, and international. This multiscale analysis at the local and national level is also used in the case of the Vjosa River Ecosystem. Vjosa/Aoos River is in a transboundary area of Albania and Greece, one of Europe's last living wild rivers. Throughout its entire course of over 270 kilometres, the Vjosa/Aoos River is a natural and free-flowing water body characterised by canyons, braided river sections, and vegetation-covered islands (Shumka, 2018a). The Vjosa River offers various and diversified ES that can be grouped into four groups according to the MEA 2005 ES classification. More than 15 priority habitat types of European interest have been identified (CE, 2013). At least 177 species listed in the Appendices of the Bern Convention, 13 out of 16 Albanian amphibian species and 32 out of 37 reptile species reported in Albania are present in either aquatic or terrestrial habitats of the Vjosa River (Shumka *et al.*, 2018b). The Vjosa Valley hosts around 70 of the 83 registered mammal species in Albania (approx. 84%), for example, the European otter, a globally endangered mammal, and 257 waterbird species to approximately 80% of the species known in Albania (Ibid.). IUCN has commissioned the preparation of a study for the protection of the Vjosa River Valley based on the IUCN Protected Area Standards (IUCN, 2021). The economic evaluation of the ecosystem's goods and services in the VWRNP is an important step that will provide a shred of clear and tangible evidence of the value of this unique ecosystem for Albania and Europe.

a) Literature review

Numerous studies demonstrate ES as a potentially powerful concept to guide sustainable and equitable natural resource management strategies (Costanza *et al.*, 1997, 2014; Costanza, 2000; Abson *et al.*, 2014). As previously mentioned, the MEA 2005 structures the ES in four main pillars: provisioning (PES), regulating (RES), cultural (CES), and supporting services (de Groot, Wilson and Boumans, 2002; Groot, 2009). Several studies have been dedicated to ES classification and TEV (Bastian *et al.*, 2012; Costanza *et al.*, 1997, 2014; Cropper & Oates, n.d.; de Groot *et al.*, 2002). However, still debated are the perspectives and concepts related to ES and the methodological tools that lead to monetary value (Fisher, Turner and Morling, 2009; Banzhaf and Boyd, 2012). Current research on ES is essentially focused in two directions, the first deals with biophysical assessments and the second with economic/monetary valuation (Plieninger *et al.*, 2013, 2015). A third, but largely overlooked, component of ES is the socio-cultural domain (Daniel *et al.*, 2012). In this regard, one of the critical challenges for ES research is to develop a comprehensive methodological approach in which biophysical, socio-cultural, and monetary values can be explicitly considered and integrated into decision-making processes (Hornung, Podschun and Pusch, 2019). Several scholars have considered CES the most salient and compelling reasons for people to conserve or restore natural systems despite their persistent underrepresentation (Chan *et al.*, 2012; Daniel *et al.*, 2012; Kirchhoff, 2012; Milcu *et al.*, 2013; Plieninger *et al.*, 2013; Schaich *et al.*, 2010; Willis, 2015). The ES valuation task is vital in developing countries because environmental goods and services are essential to family production functions. The lack of income diversification in developing countries also claims the urgency of CES and other passive economic values in TEV procedures.

Although value refers to several distinct concepts, values are central to fully understanding ES. Values can generally be considered evaluative beliefs about the worth, importance, or usefulness of something or moral principles (Hirons, Comberti and Dunford, 2016). A full review of ES values and methods to capture these values is beyond the scope of this paper. However, it is important to understand the diversity in which people value the environment because different elements of value are captured by different valuation methods, especially in riverine ecosystems.

The economic value attached to freshwater ES is estimated using a surrogate for the observable behaviour witnessed in the marketplace (Wilson and Carpenter, 1999). Within the inventory of methods used to measure the economic value of freshwater ecosystem services, the travel cost method (TCM), hedonic prices (HP), and contingent valuation method (CVM) have been used so far. Fleming and Cook (2008) used the zonal travel cost method (TCM) to evaluate the recreational value of River McKenzie.

CVM is a widely used method for all-purpose evaluation when dealing with ES services. Several scholars have used it to estimate economic values for all ecosystems and environmental services; see Wilson and Carpenter (1999) for a review on freshwater ES. CVM assigns monetary values to non-use values of the environment—values that do not involve market purchases and may not involve direct participation (Portney, 1994; Hanemann *et al.*, 1991; Boxall *et al.*, 1996). These values are sometimes referred to as "passive use" values. They include everything from the essential life support functions associated with ecosystem health or biodiversity to the enjoyment of a landscape or a wilderness experience, to appreciating the option to fish or bird watch in the future, or the right to bequeath those options to your grandchildren (Acharya, 2000; Ressurreição *et al.*, 2011; Pearce *et al.*, 2013). It also includes the value placed on simply knowing that the ecosystem exists. CVM deals not only with direct and indirect use-value, but also existence value and transgenerational value.

Citizens in nations as diverse as Norway, Turkey, Brazil, and Bulgaria indicated similar levels of Willingness to pay higher taxes for environmental protection, showing high levels of public concern for the environment (Inglehart, 1995). The more significant environmental concern among residents of

developing nations is attributed to life subsistence matters (Dunlap and York, 2008). This issue puts forward the problem of ES evaluation and implies that the institutional and cultural context largely affect this process. Thus, in contexts where monetary valuation methods are not considered appropriate or possible to develop, several non-monetary valuation methods can be used, such as scaling and ranking (Hirons, Comberti and Dunford, 2016). Thus, methods that prioritise stakeholder understanding and the co-production of knowledge also represent an alternative to the accurate evaluation of ES. Indeed, studies from different stakeholder perceptions, perspectives, values, attitudes, and beliefs may generate more meaningful insights regarding the contributions of ES to human well-being than purely biophysical assessments (Martín-López *et al.*, 2012, 2014; Iniesta-Arandia *et al.*, 2014). The present study proposes a combination of the instrumental approach, which aims to measure the TEV of the Vjosa Catchment ecosystem, and the deliberative approach based on local stakeholder perceptions. The following section introduces the operationalisation of these approaches.

a) Methodology

A small number of participants identified as local stakeholders and experts, about 53, were recruited through the snowballing procedure and participated in a Vjosa Catchment-ES rating. They represent local businesses, community participants, local and central government associations, NGOs, and academia. The deliberative approach [1] explored the desired ends and states of the functions and values of ES in the Vjosa Catchment. In addition, an instrumental approach [2] involving the ranking of preferences based on the ES framework typology proposed by the MEA 2005 was applied. Combining these approaches aims to avoid the biases generated by one single approach. In the case of the deliberative approach, we may not have a required degree of expert involvement, while for the instrumental method, the format of the question assures a higher response rate. Due to the Covid-19 pandemic, the focus groups have been partly developed online.

The value assigned to ES through CVM can be presented in two theoretically commensurate empirical measures (Wilson and Carpenter, 1999). Through the amount of money people are willing to pay (WTP) for a site not to be damaged or to prevent loss of a species (Fleming and Cook, 2008) and through the minimum amount an individual would need to be compensated for accepting a specific degradation in a good or service, "willingness to accept compensation" (WTA) (Kolstad and Guzman, 1999). The first scenario comprises a WTA mechanism using a payment card technique. The exact wording of the scenario was presented to respondents as follows: *Suppose that the companies that will build the hydropower plants will pay you for the damage they cause to the Vjosa Valley ecosystem in the form of a monthly payment per household. In your opinion, how much would the monthly payment be per family that would justify the damage to this ecosystem? 200 ALL⁵/Monthly, 400 ALL/Monthly, 1,000 ALL/Monthly, 0 ALL/Monthly. To avoid anchoring bias from the presented payment card, we have also included an open question. If you are unwilling to accept one of the payments listed on the card, how much would that be?*

As a result of the reported controversy over CVM, we have also used the WTP scenario as follows: *Suppose that you are required to pay a monthly family tax⁶ to provide the necessary budget that will impede the building of hydropower plants and thus preserve the Vjosa ecosystem intact. How much would you be willing to pay? 200 ALL/Monthly, 400 ALL/Monthly, 1,000 ALL/Monthly, 0 ALL/Monthly. The same open question is directed in the WTP scenario. The TEV will be calculated by generalising the values at the country level.*

⁵ Albanian Lek

⁶ It was explained in the questionnaire that respondents would not pay any tax and that this is a hypothetical situation that will be implicitly used to assign a value to the VVES. This explanation was offered to avoid the effect of mistrust in institutions and the tax payment.

The WTA and WTP are calculated based on the following formula:

$$S = \sum_{i=1}^4 s * N_i / n_i * M / N$$

Where:

S → WTA or WTP at Country level

s → sum of WTA or WTP of the sample

n_i → sample size (per Region)

N_i → population size (total population over 16 years old of the surveyed region)

N → Total population of the surveyed area

M → Total Population of Albania over 16 years old

Sample design

Since it is impossible to acquire a complete census of the targeted area, which has about 395,000 residents, a sampling technique is used. Considering that a minimum representative sample size is required, we suggested a sample size with a confidence level of 95% and a margin of error of 5%. This approach offers the minimum sample size without compromising the reliability of the results. The final sample comprises 400 residents in the Vjosa Catchment areas and 400 other residents in the Tirana Municipality. The sample selection for the municipality is calculated separately from the Vjosa Valley areas, and it occupies more than 70% of the total population of selected areas. The respondent sample is composed of the residents of the following areas: Municipality of Permet, Gjirokastra, Tepelena, Memaliaj, Kelcyra, Selenica, Mallakstra, Vlora, Sub-Municipalities of Kuta, Centre Tepelene, Brataj, Sevaster, Qesarat, Kote, and Tirana (see the map of the Vjosa Valley area). The main reason why Tirana, the capital of Albania, is included in this study is to gain a representative estimation of TEV of Vjosa Valley at a country level. This study's population comprises residents aged 15-64 years.

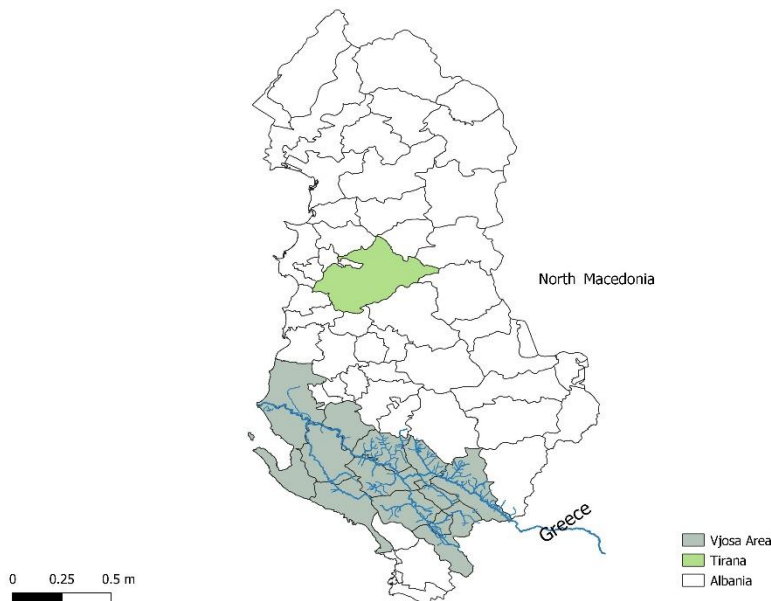


Figure 1 Map of the study area

Source: Authors' elaboration

To select residents in each area, we used the simple random sampling technique (when the list of contacts exists), while face-to-face interviews were applied to the areas that lack the predefined list of respondent contacts. However, due to the Covid-19 pandemic, we have combined face-to-face interviews, mail interviews, and phone surveys for this study. Face-to-face interviews were mostly used with residents living in rural areas because the list of phone numbers was unavailable. It was almost impossible to conduct online interviews due to poor internet access and limited information and communication technology (ICT) knowledge. Applying the questionnaires to several outlets assured a high response rate, about 90% (729 out of 800 questionnaires). The following section presents the results and their respective discussion.

c) Discussion of Results

Vjosa River is a central ecosystem for the whole region. Its services are very important; for the majority of experts and stakeholders (68%), it is the only ecosystem offering such services. Local stakeholders consider Vjosa to be a focal point of economic, cultural, aesthetic, and environmental sustainability and the development vector of the area. Although Vjosa has traditionally been an important development vector for the area, the economic activities that provide this development are not related exclusively to the direct use-value of the river ecosystem (e.g. fish, gravel, water for hydropower). The indirect use-value of the latter, like the sumptuous landscapes, green and natural areas, traditional varieties and elaborated gastronomic skills, are developed due to the river's existence.

The Vjosa ecosystem use and non-use values are not limited only to the area's local population. The totality of local actors and experts state that this ecosystem impacts the Albanian population, and some (43%) consider it to have an international reach. This is not due only to the international status of Vjosa (which borders Albania and Greece), but also the multiple ties that link this ecosystem with others in Albania or beyond through aquatic and non-aquatic fauna species; it is a nesting area for some types of birds and a habitat for some species of fish).

The main risk identified by the experts and local actors is related to the change from a lotic to a lentic environment that will produce significant changes in the functions of the ecosystem by reducing or interrupting them. Experts consider these changes to have a domino effect in all Vjosa ecosystems. While few (6%) think the river can adapt to these changes, even this minority requires necessary and particular intervention to restore the river's ecosystem.

The calculation of ES indexes based on 53 experts and local actors from the municipalities of VV, in addition to ES experts from Tirana, displays the high preferences of the latter concerning the ES of Vjosa Valley. The Vjosa ecosystem offers a high level of ES to the human community, ranked at 0.82 out of 1 (see table 1). Experts consider that the diversity of services, considering the three elements (i.e. PES, RES, CES), in this ecosystem runs from high to outstanding. Local actors think that Vjosa provides the community's cultural services. Although the difference between cultural and regulation services is unimportant, it still reflects the importance of Vjosa as a symbolic and historic attraction.

Table 3: Vjosa ecosystem services index

Vjosa ecosystem services	Experts ES Index	Public's ES Index
Provisioning services	0.75	0.75
Regulation services	0.85	0.83
Cultural services	0.86	0.77
Total index	0.82	0.78

Source: Authors' elaboration

The expert evaluation reveals that freshwater is PES's most important ecosystem service, with firewood and timber the least evaluated (see table 2). This is because the use of firewood and timber is strictly regulated in Albania, and partly forbidden due to a moratorium on its use. The difference in the importance index between firewood (0.63) and timber (0.5) is mainly related to the fact that the use of wood for fuel purposes is still allowed. The evaluation of experts tends to under-evaluate the use-value of ecosystem services (they prefer the conservation strategy over that of usage). However, it is interesting that even the broader public is inclined toward a conservation strategy since it has evaluated the same ES (see table 2).

Table 4: The ES index of Vjosa Valley based on expert and general public perceptions

ES Indexes	Provisional Ecosystem Services						Regulating Ecosystem Services			
	Freshwater	Food fish	Fuel wood	Fibre services	Genetic resources	Medicinal plants	Climate regulation	Disease regulation	Water regulation	Water purification
Experts	0.93	0.8	0.63	0.50	0.85	0.82	0.85	0.77	0.88	0.9
Public	0.89	0.8	0.63	0.63	0.75	0.78	0.82	0.82	0.83	0.85

Source: Authors' elaboration

Three other ecosystem services of the provisioning group, namely food, genetic resources, and medicinals and aromatic plants, show a very high and quite comparable index. The area is an important source of medicinal plants and other genetic resources that traditionally provide a consistent income for rural families. The expert group identified the importance of freshwater as an ES of Vjosa as a key element, especially in agriculture and for recreational purposes.

The second group of ES, Regulating Services, show a higher index than provision services (0.85 out of 1). This index is mainly related to water regulation and purification. Although the river run positively impacts the population of the Vjosa Valley, the experts do not identify any benefit to the population. The respective index is the lowest for this ecosystem services group. The index for the climate regulation service is higher, mainly related to the positive effects of the Vjosa River and its affluence on the area's climate. It is still important to underline that the Vjosa River plays an important role in the hydric system of the whole area and thus regulates the totality of hydric resources of the area. This main characteristic of Vjosa is already widely accepted by experts and policymakers in the Karavasta lagoon, where the role of the Vjosa River is considered substantial. The last group of ecosystem services is related to cultural services, which are highly rated by expert opinion. The Vjosa Valley gathers a wealthy cultural heritage due to the relationships and interactions between several cultures and populations with different

backgrounds. These relationships and interactions are also made possible because of the Vjosa Valley. It is important to note that the experts rate highly nearly all of the ES, except religious ones, with a lower evaluation rate (0.66 out of 1). This result is unexpected because the Vjosa Valley has assemblies for at least three of the four main religions in Albania. A possible explanation may be religion's limited relevance in Albanian society. All other ecosystem services related to the cultural services score much higher; all score an individual rate of more than 0.85 out of 1. Among those ecosystem services, recreation and ecotourism score the highest index, 0.94 out of 1 (see table 3). These complementary services show an extremely high value for the VV in terms of cultural services and the future development of the tertiary sector in the area. The VV is introduced as a unique selling proposition, especially in the municipality of Përmet.

Table 5: The CES index of Vjosa Valley based on expert and general public perceptions

ES	Cultural ecosystem services						
ES Indexes	Spiritual and religious	Recreation and ecotourism	Aesthetic	Inspirational	Sense of place	Cultural heritage	Educational
Experts	0.66	0.94	0.89	0.86	0.85	0.88	0.92
Public	0.62	0.79	0.75	0.77	0.79	0.85	0.79

Source: authors elaboration

The calculation of the ES indexes based on 729 questionnaires put to the selected sample shows that the PES index is 0.75 out of 1, regulating ecosystem services index (RES) is assigned 0.83 out of 1, and the CES index is 0.77 out of 1 (see table 1). The VV ecosystem offers a high level of ES to the human community; the total VV-ES index is 0.78 out of 1 (the expert-based VES is 0.82 out of 1), with slight differences from the local expert-based ES evaluation. Statistically significant differences in the indexes of ES in Tirana, Permet, Gjirokaster, Vlora, and Selenica are shown; the respondents have assigned a higher RES score than the other ES. Climate and disease regulation services show the same index score of 0.82 out of 1. This result is interesting and requires further study to understand the trade-offs between the two services. The water regulation index ranked 0.83 out of 1, and water purification scored 0.85 out of 1, which also explains the importance of freshwater service in the highly ranked PES category. In Fier, Memaliaj, Brataj, and Ane Vjosa, participants attributed higher importance to the PES, with the food index achieving 0.8 out of 1 and the freshwater index achieving 0.89 out of 1. These results show that according to community perceptions of those near and far from Vjosa Valley, this ecosystem can offer a myriad of ES; the outstanding index scores support this finding.

The findings show also that the respondents have demonstrated high preferences for RES. While the typology of PES is less preferred, the latter has also been less evaluated by experts and local actors. Interestingly, the respondents assigned high scores to the RES, which is not the case in the expert and stakeholder-based evaluation, especially for disease regulation services. This result is not expected since it is assumed that the experts have more knowledge on the effect of freshwater ecosystems regulating features. In the same vein, local stakeholders and experts should have more experience and knowledge regarding the regulating dimension offered by the Vjosa Valley-ES. This outcome may be linked to the Covid-19 pandemic, whereby health issues have become a priority to the respondents, and that is why they place RES in the first place (disease regulation having the higher score) when dealing with ES. An interesting finding is also linked to CES. The experts have evaluated this ecosystem feature more highly than the broader public; the expert index is 0.86 out of 1, while the public evaluation score was 0.77 out of 1. The ES, based on expert and local actors' evaluation, embeds the strategic role of VV-ES in the development of the areas near VV from a long-term perspective. The general public does not usually perceive this value.

The low indexes for Fibre and Firewood services show again the pertinence of using the ES framework to understand perceptions. As presented previously, RES shows the highest index among the ES. All of the RES scored higher than 0.8 out of 1. The greater importance of RES is observed not only in the population living in the area but also by the respondents living in Tirana. Communities in Albania are becoming increasingly aware of environmental issues and the impact of ES quality on the overall wealth of the population.

The idea of the intangible or non-material benefits of nature has found popular expression in the notion of CES as put forward in the Millennium Ecosystem Assessment (2003). Benefits derived from recreation, spiritual enrichment, inspiration, and cognitive development contribute to meaning and purpose in the individual's life (Willis, 2015). The respondents demonstrate a higher preference for the cultural heritage of the Vjosa Valley ES (0.85 out of 1), While recreation and ecotourism, a sense of place, and educational factors represent the same index (0.79 out of 1). Spiritual and religious ES display the lowest index among the CES. The local expert evaluation also assigned it the lowest score (0.66 out of 1). Three possible explanations can be made: firstly, the low importance of this ES may be linked to the limited relevance of religion in Albanian society; secondly, it lacks information regarding existing events that are organised around the religious characteristics of the area. Moreover, from the methodological viewpoint, cultural heritage is sometimes confounded with spiritual and religious aspects. In conclusion, the respondents in this study acknowledge the importance of VV-ES, an essential aspect that justifies the TEV approach application.

Analysis of the TEV of Vjosa Valley Ecosystem Services

In a favourable non-market situation with imperfect substitutes, the divergence of WTP and WTA value measures is persistent, even with repeated market participation and complete information about the nature of the good (Morrison, 1997). Plott and Zeiler (2005) show that there is no consensus regarding the nature or robustness of the WTP-WTA gap and, similarly, none about the fundamental properties of misconceptions or how to avoid them. In the present research, the WTA and WTP value on VV-ES is almost the same when comparing data from the payment card technique. When the open question is introduced in both payment mechanisms (WTP and WTA), the WTP doubles the WTA. The WTA value is approximately €10.4 million/year, and that of WTP is €22.2 million/year. This difference arises because about 21% of the respondents have reported an empty value for WTA, explaining that no price can be placed on damage caused to the ecosystem. The calculation of WTP and WTA is made on three levels: first for the surveyed sample, then for the whole population of Vjosa Valley and Tirana, and finally for the entire Albanian population (see table 4).

Table 6: WTP and WTA for Vjosa Valley ES (in ALL and EUR)

	WTA (Payment Card)	WTP (Payment Card)	WTP (Open question)
Sample (in ALL)	479 700	515 400	779 010
Surveyed area (total population) (in ALL)	609 553 395	635 894 207	1 306 399 847
Albania (in ALL)	1 286 157 663	1 341 736 776	2 756 503 677
Albania (in Euro)	10,372.239	10,820.457	22,229.868

Source: Survey

The respondent demographics such as age, gender, education attained, household income, sector of employment, and the origin of the respondent are collected to identify if there is any effect on the TEV.

Stratified forms of sampling are important concerning the social valuation of ES, particularly when some groups are likely to be affected by an ecosystem management decision more than the wider regional population (Raymond et al., 2014). In absolute terms, the total WTP of respondents living in Vjosa Valley is about 2.9 times lower than those living in Tirana. The difference is related to an external factor, such as the economic disparity between both populations. The average monthly expenditure per family is much higher for Tirana compared with the other regions in Vjosa Valley. The expenditure level is a trustful proxy for the family's income level, and if the income level is reduced considerably in recent years, this will directly impact the WTP of the local population. It is interesting to note that average monthly expenditures at the national level (Albania) are more or less the same as the average of the three regions (Tirana, Vlora, and Gjirokastra), especially in 2015 and 2018. This means that from the income perspective, the evaluation of WTP is representative of the Albanian population.

Several pieces of research have shown the inclination toward environmental issues and their linkage with economic development (Dunlap and York, 2008; Notaro and Paletto, 2011). High-income countries assign high importance to the environment compared to low-income countries because the latter has other emergent problems to cope with, such as unemployment and economic crises, among other issues. Albania lacks research in that direction. Nevertheless, in a recent unpublished work concerning the WTP regarding a very well-known national park named Lura, Albanian citizens reported a willingness to pay yearly about €30 for the rehabilitation and protection of the park. The WTP was recorded before and after the earthquake emergency in Albania in November 2019. As expected, following the earthquake, WTP decreased on average to €26 and has continued to decrease during the Covid-19 pandemic to €25.

The results from this study can also be used to understand the value attributed by Albanian citizens to the Vjosa Valley ecosystem from a broader perspective. The current analysis is developed during a pandemic, during which people usually assign lower importance to environmental problems because health issues have priority. Even though was not the scope of the present research, blue spaces (aquatic ecosystems such as lakes and rivers) affect long-term physical and mental health (Pretty *et al.*, 2005; Barton and Pretty, 2010; White *et al.*, 2014, 2017, 2020; Dzhambov *et al.*, 2018; Garrett *et al.*, 2019; Chiabai *et al.*, 2020; Chen *et al.*, 2021). This is shown also in the importance conferred to RES by respondents by implicitly giving the highest index to disease prevention service ES. The effect of Vjosa Valley on health is an object of future studies.

It is interesting to analyse the difference between the three methods i) WTA payment card, ii) WTP payment card, and iii) WTP open question. Other research shows a difference between the WTP and WTA; the WTP is generally low compared with the WTA (Brown and Gregory, 1999). The authors mentioned above list several studies where the ratio WTA/WTP ranges from 2:1 to 5:1. The CVM estimates may accentuate this ratio due to CVM's tendency to overestimate (Brown and Gregory, 1999) asymmetrically. Similarly, (Sayman and Öncüler, 2005) suggest that the lack of markets for environmental goods increases the difference between the WTA-WTP. Other studies show that the difference between WTA and WTP is smaller for ordinary private goods than for public and non-market goods (Tunçel and Hammitt, 2014). In the present research, the difference between the WTA and WTP is less than 5% which leads us to the conclusion that the perception of the consumers about the way both payments and acceptance is going to be the same by tax increases and tax reduction and not a direct payment or direct income. In that regard, the differences between the two values tend to be less evident. The concept of WTA among the Albanians tends to be biased due to the feeling of the consumers to consider the WTA as a payment to trade-off something very important for them. The low WTA value can be considered as well as a protest vote to protect the natural area. The elicitation format of the CVM also shows differences in the WTP estimation.

We consider that the most appropriate value of WTA is the open question WTP which considerably reduces the effects of payment card construction to achieve a more inclusive value of WTP.

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ANNEX 2 a
VJOSA WILD RIVER NATIONAL PARK STAKEHOLDER CONSULTATION
FINAL REPORT

See attached pdf document

