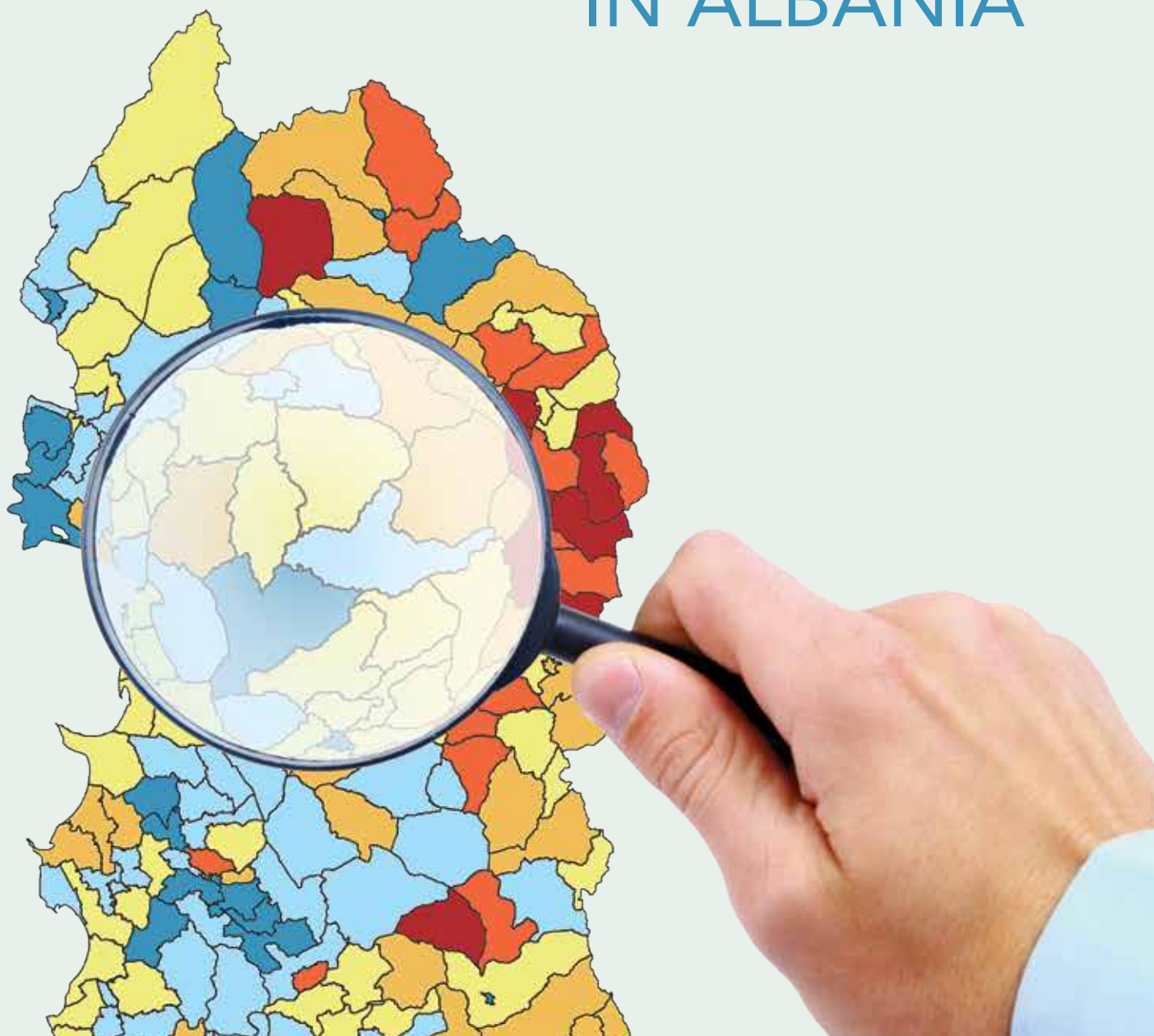




PORTRAITS OF POVERTY AND INEQUALITY IN ALBANIA



Portraits of Poverty and Inequality in Albania

Based on Census 2011 and Living Standards Measurement Survey 2012

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Abbreviations

ELL	Elbers-Lanjouw-Lanjouw (poverty mapping method)
INSTAT	Albanian Institute of Statistics
LSMS	Living Standards Measurement Survey
PSU	Primary Selection Unit

Preface

The Albanian Institute of Statistics (INSTAT) and the World Bank have developed the following report on poverty mapping in Albania. Small area poverty maps portray subnational geographical areas, such as municipalities, counties, and districts, and highlight the small areas most likely to exhibit the highest risk of poverty in a country. The poverty maps displayed in this report are designed to help policymakers, development partners and other stakeholders identify the parts of Albania with pockets of poverty, to inform targeted efforts to achieve the goals of reducing poverty and inequality.

The report describes the technical aspects of the process of creating — based on Census 2011 and Living Standards Measurement Survey 2012 data — accurate, detailed geographical presentations of poverty in the country and summarizes the nature of the insights about poverty and shared prosperity that are revealed by the maps. It displays sample maps to aid the reader in understanding the value of the approach by highlighting that the more finely grained poverty maps produced through the project expand the evidence supplied through more traditional and less-detailed geographical representations of poverty.

Team and Acknowledgements

This report has been produced jointly by the Albanian Institute of Statistics and the World Bank, under the guidance of María E. Dávalos (Senior Economist, World Bank) and Ledia Thomo (Director of Household Surveys, Albanian Institute of Statistics), with main contributions from Gianni Betti, Laura Neri, Thomas Pave Sohnesen, Robert Zimmerman and the Albanian Institute of Statistics technical team, particularly Teranda Jahja, Ruzhdie Bici, Blerta Muja, Alma Kondi and Mirela Deva. The team is grateful for comments received from Alexandru Cojocaru and Willian Seitz from the World Bank.

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CHAPTER 1

Introduction

As long as poverty and social exclusion exist, social progress may only advance haltingly because some population groups are unable to participate fully in the economic and social life of a country. Accurately identifying the poor and where they are located may thus help in delivering antipoverty relief and basic services and guiding programs aimed at reducing poverty and enhancing the equitable sharing of prosperity. Moreover, funding and targeting basic services and programs to reduce poverty and social exclusion within a country depend on the availability of detailed knowledge of the disparities in well-being across households.

Traditional methods of identifying the distribution of poverty across regions, provinces, and smaller administrative divisions rely on household survey data. However, household surveys are limited in their ability to localize the poor at low levels of geographical disaggregation and thus circumscribe the information upon which policy makers may rely.

Poverty is most often measured using data on consumption from a sample survey, such as the Living Standards Measurement Survey (LSMS), in which household per capita expenditures (or per adult equivalent expenditures) are compared with a fixed poverty line. Given the complexity and cost of undertaking this or a similar exercise, it is only feasible to collect this information from a sample of households in a survey. However, data describing the distribution of income across households at a high level of geographical aggregation often mask critical information from policy makers. For instance, there may be large numbers of the poor concentrated in small discrete areas in regions that show low overall poverty rates. However, poverty measures based on surveys have sampling errors, and these rise rapidly if we calculate such measures for smaller areas. This precludes analysis of poverty in such areas in this way.

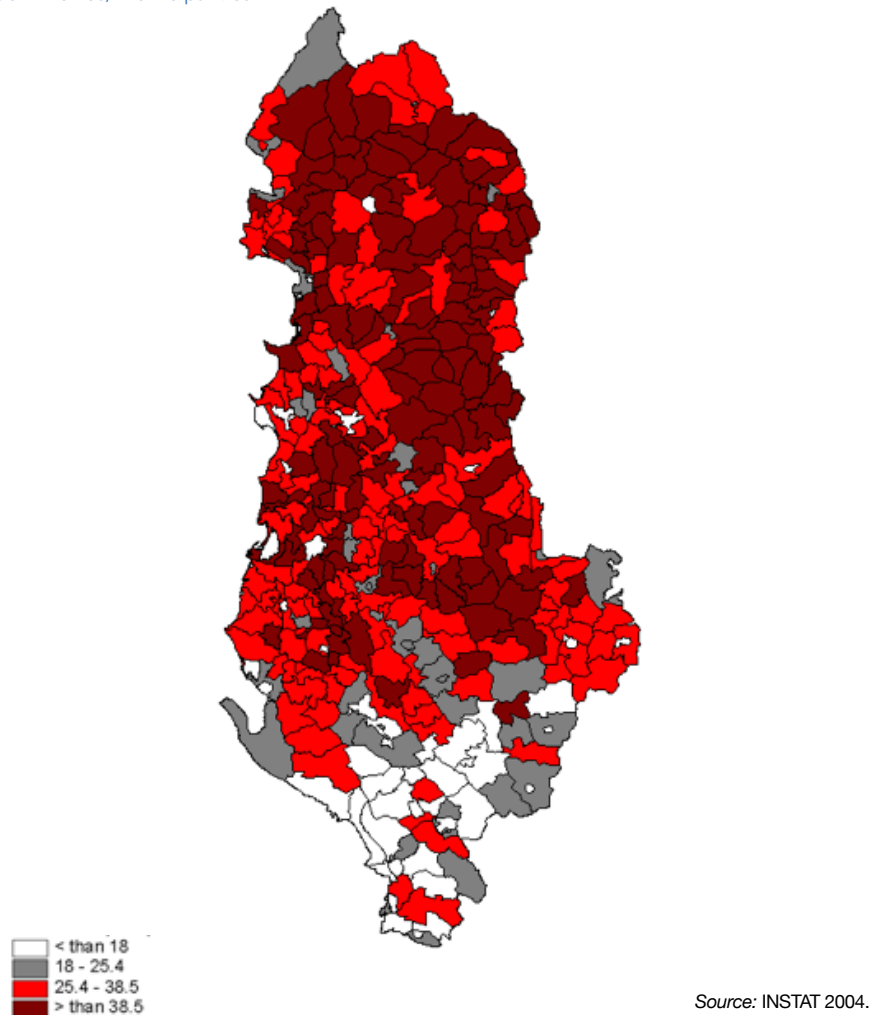
This study is based on 2011 Census and 2012 LSM and this shortcoming exists for the LSMS in Albania, as well as household surveys across most countries, despite efforts to improve the 2012 round of the study to provide poverty data that are representative of the 12 prefectures in the country.

Poverty mapping has emerged as a possible way around this problem. Poverty maps allow a focus in greater detail on the spatial distribution of poverty at the local level. As a result, reasonably precise poverty estimates can be obtained through this technique. The government of Albania has embraced the approach. Indeed, Albania has been a pioneer in applying the poverty mapping methodology.

In 2001, the World Bank, in collaboration with the U.K. Department for International Development, began assisting the government in a project to establish a permanent poverty monitoring mechanism. The objective was to create a reliable, sustainable system for the timely production of statistical information to guide decision making and policy making. It was expected the method would

Map 1: Poverty Maps and Poverty Rates (Headcount Ratio), Albania, 2002

a. Communes, municipalities



be particularly useful in the design, implementation, and evaluation of economic, social, and environmental development and financing programs so that these could efficiently target the areas of the country with the greatest need.

As of late 2000, Albania did not yet have a reliable, nationally representative survey to assess the living conditions of the population. In 2001, however, the Albanian Institute of Statistics (INSTAT), with donor support, carried out the country's first census since the end of the communist era. The following year, INSTAT implemented a nationally representative multidimensional household survey. That same year, the World Bank began to prepare a poverty assessment, and the government completed the preparation of a Poverty Reduction Strategy Paper.

The convergence of these events and the related data collection efforts supplied

the ideal opportunity to construct the first small area estimates of poverty and inequality in Albania, as well as poverty maps (see annex A, available online). The maps clearly show how an analysis of poverty might improve because of the detail at a more finely disaggregated level (map 1). Using the 2005 and 2008 LSMS, new rounds of the maps were calculated still based on the 2001 census.

The aim of the creation of the poverty maps was to estimate poverty and inequality for each of the prefectures, districts, and municipalities or communes, and for each minimunicipality of Tirana. This was the goal because (1) the poor in Albania are concentrated in rural and mountainous areas, but also in areas that are more well off; (2) the government was seeking to decentralize the delivery of services to local governments, which might develop independent strategies and interventions; and (3) the targeting of government antipoverty programs needed to be improved (World Bank 2015). All these aims show useful possible applications of the maps.

Following the mapping exercise, individuals involved in the preparation of the maps and potential users of the maps were interviewed. The interviews revealed three ways in which the poverty maps were applied in decision making and policy making: (1) as a benchmark against existing resource allocation criteria, for example, whether the allocation of social-assistance block grants according to previously established criteria correlate with an appropriate allocation based on current poverty rates; (2) as a tool in targeting public spending; and (3) for the provision of data to monitor the progress toward achieving the Millennium Development Goals (World Bank 2015). Several nongovernmental organizations also relied on the poverty maps in supplying advisory services to local governments and donor agencies and in designing joint intervention strategies. The poverty maps were likewise used to improve the prioritization of investments in secondary roads.

This report presents results for the new poverty maps that have been created in Albania using data of the 2012 LSMS and the 2011 Population and Housing census and incorporating improvements to the poverty mapping technique. This opens up a new opportunity to, with the most recent data available on welfare in Albania, better understand the distribution of poverty and inequality across the country, identify pockets of poverty and inform policymaking.

The report consists of five sections, including this introduction. The next section describes the process for constructing a poverty map. The following section outlines the main results of the new poverty mapping in Albania. With the aim of stressing the impact that poverty maps can have on policy making, the subsequent section highlights the applications of poverty mapping in policy making in Albania and elsewhere. The final section has the conclusions. There are also included five annexes, some available only online as indicated. Annexes provide more detail on the full results, selected technical aspects of the creation of poverty maps in Albania, and more precise information on the variables included in the models of consumption used in the construction of the maps.

CHAPTER 2

Constructing the poverty maps for Albania

A poverty map is a geographical profile in map form that shows the distribution of poverty within a country. It is used by policy makers to plan targeted public investments in education, health care, sanitation, water, transport, and so on to reduce poverty and social exclusion and thereby promote shared prosperity. Relevant institutions engaged in social issues and the development of social policies often use such maps so that investments designed to lower poverty rates can reach a maximum of the poor in a country or in smaller areas within a country.

A poverty map is therefore most useful if it can be constructed at a detailed level of geographical disaggregation, such as states or provinces, counties or districts, and municipalities/communes, while also highlighting the small areas most likely to exhibit the highest risk of poverty and social exclusion and supply a comprehensive picture of the spatial distribution of poverty and social exclusion.

However, achieving this outcome requires large datasets, which are typically provided only in nationwide household surveys and population and housing censuses. Yet, a household survey cannot both cover a large household sample and provide detailed information on household welfare, such as precise data on household expenditure or income. Typically, these surveys rely on sampling but are able to collect a wide range of rich data, from household expenditure to nonmonetary indicators, for example, assets, access to basic services, the physical quality of the home, and so on. Meanwhile, censuses do not generally collect detailed information on income or expenditures because the cost of gathering such data across an entire country is exorbitant. In both household surveys and censuses, there is a trade-off between survey size and data detail because achieving either goal is costly in terms of money and manpower.

2.1 Methodology

Elbers, Lanjouw, and Lanjouw (2002, 2003) have developed a method to create poverty maps by merging a household survey and a census to take advantage of the strengths of the two sources of data while minimizing the weaknesses. The strength of the household survey is the extensive detail on household characteristics that can be obtained because the samples are relatively limited. In the case of poverty, the basis might be, for example, information on household consumption. The strength of the census is the universal or near universal coverage of households. The method has become widely popular among development practitioners around the world.

The method proposed by Elbers, Lanjouw, and Lanjouw (ELL) has three stages. In *stage 0*, a set of variables common to both the survey and the census are identified and evaluated in terms of the extent to which their distribution across the two data

sources is similar.

In *stage 1*, a model of log per capita consumption expenditure is estimated in the survey data based on the identified variables. The model includes household-level variables that have a similar distribution in both the survey and the census. The model also includes the location-specific averages of variables found in the census and, potentially, other external variables available across small local levels across an entire country, such as variables pinpointed spatially through a geographic information system.

In *stage 2*, poverty estimates and the associated standard errors are computed. A simulated value of consumption for each census household is calculated, along with the predicted log expenditure and random draws from the estimated distributions of the disturbance terms. The ELL method offers a way to calculate poverty estimates and the standard errors properly, while accounting for potential sources of bias.¹

2.2 Data

Beginning with the exercise in 2002–04, poverty mapping in Albania has been based on the ELL method. The poverty maps produced then have now been updated using two primary data sources, the most recent (2012) LSMS and the most recent (2011) population and housing census. The updating has relied on several new methodological developments, including suggestions of Elbers and van der Weide (2014). (See annex B, available online for innovations in and criticisms of the ELL methodology.) The comparability of the two rounds of poverty maps is not straightforward (considerations in Annex D) and has not been conducted in this report.

The 2011 census

The last population and housing census, that of October 1, 2011, recorded 2.8 million residents in Albania. The census included a set of variables that can be compared with the variables of the LSMS 2012. Compared with the previous (2001) census, the 2011 census found notable changes. Thus, between 2001 and 2011, the population fell by 269,000 (8.8 percent); the average age of the population increased from 30.6 years to 35.3 years; the number of under-15-year-olds sharply declined, from 898,000 to only 579,000; and the number of people 65 years of age or older rose from 231,000 to 318,000.

Between the 2001 and the 2011 census, 228,952 individuals changed their prefectures of usual residence. These migrants accounted for 8 percent of the resident population in 2011. During the decade, there were 280,863 migrants between towns or villages. This internal migration led to large-scale urbanization

1. There are two sources of error involved in the estimation process: (a) errors in the estimated regression coefficients and (b) errors in the disturbance terms. Both types affect poverty estimates and the accuracy of the estimates.

in some areas and substantial depopulation in others. Because of the economic and logistic difficulties facing migrants seeking to settle in cities such as Durrës and Tirana, the surrounding areas received a wide majority of the internal migrants. Nearly half relocated to Tirana Prefecture.

The 2012 Living Standard Measurement Study

INSTAT conducted the LSMS in 2002, 2005, 2008, and 2012 to study various socioeconomic characteristics of the population, including consumption and poverty. The objectives of these surveys were similar. However, while the geographical domains in the 2002, 2005, and 2008 LSMS were defined as the urban and rural strata in four regions (central, coastal, mountain, and Tirana), the domains in the 2012 LSMS, which was carried out in September and October 2012, were expanded to produce representative results by urban and rural strata in the 12 prefectures of the country. This required a considerable increase in the sample size.

The data of the 2011 census provided the sample frame for the 2012 LSMS. This was considered a stratified, two-stage cluster sampling design. During the first stage, the sampling units were 834 primary selection units (PSUs) selected among the census enumeration areas, while, in the second stage, the sampling units were the households in each selected PSU. The selection of the households within each chosen PSU followed the procedure applied in the 2002, 2005, and 2008 LSMS. In this procedure, an initial sample of 12 households is selected according to the systematic sample. Using systematic sampling, 8 of these are then selected as the base sample, while the remaining 4 are substitutes that were available for use in case households in the base sample could not be contacted or were nonresponsive.

The instruments for the collection of information in the 2012 LSMS were (1) a household questionnaire, (2) a diary recording household food consumption, and (3) a price questionnaire. The final 2012 sample consisted of 6,671 completed questionnaires.

2.3 Model

The poverty mapping methodology requires, in stage 1, the estimation of a model of consumption based on the household survey. This model serves as the basis for estimating the consumption of each household in the census during stage 2 of the process. This subsection details how the model was constructed for the new round of poverty maps in Albania.

The consumption models

The Albanian poverty map is based on four regional consumption models (central, coastal, mountain, and Tirana). Why four regional models instead of one national model? The short answer is that these four domains were defined for sampling in

the LSMS because they were internally homogenous, thereby optimizing the sample size. This homogeneity makes these domains ideal for modeling consumption.

There are advantages and disadvantages to splitting the LSMS sample into four models. The division helps in more effectively capturing local circumstances, but also decreases the number of observations in the four domains or regions, thereby limiting the number of variables that can be included accurately in each model. The implicit assumption is that the parameter estimates on the regression are the same across households in each domain.

Meanwhile, a national model assumes that the relationship between household expenditure and household characteristics is uniform throughout the country. This may be a much less tenable assumption. Using separate models that are more internally homogenous allows the relationship between expenditure and the explanatory variables to vary by region, and it reduces the standard error of poverty prediction because of an error in modeling.

Nonetheless, if the domains chosen for the models are too small, they may become prone to overfitting, and the predictions could become overly influenced by idiosyncrasies in the LSMS sample.

Hence, there needs to be a balance between heterogeneity across the country and a smaller, but still adequate sample size. In Albania, the four domains seem to achieve this because the models replicate poverty as measured by the LSMS, without showing relatively large variations in the cluster effect, and they are based on relatively parsimonious models with high R squared values (see annex C, tables C.2 and C.3).

Selecting the model variables

As laid out in the methodology subsection above, a number of steps are required to create a poverty map. This subsection describes the work and the checks on the data in terms of the alignment of the explanatory variables in the 2011 census and the 2012 LSMS. The definition of poverty is the same in the poverty maps and in the LSMS survey, and the national poverty line of 4,891 ALL (in constant 2002 new leks) has been applied to all results (INSTAT 2013).

In the poverty maps, only variables that show similar distributions in the LSMS and the census are eligible as explanatory variables in the regression models. The estimation of the Albanian poverty maps represents a nearly perfect setting for this procedure because the census includes many variables that are highly correlated with consumption, including the following:

- *Demographic characteristics:* sex, age, marital status, household size, number of children, number of adults, and number of the elderly in the household
- *Education:* educational attainment of the household head and the highest

educational attainment achieved by any household member

- *Occupation*: employment status, occupation, and sector of employment.
- *Housing characteristics*: type of housing unit, age of the building, the presence of an elevator, the presence of a toilet, the source of water, the number of rooms, the size of the dwelling, dwelling ownership, and occupancy status.
- *Durable goods and productive assets*: possession of a furnace, refrigerator, freezer, television, television decoder, washing machine, dishwasher, microwave, fixed telephone, mobile telephone, computer, Internet access, solar panels, air conditioner, automobile, and agricultural land and livestock.

Furthermore, the 2012 LSMS and the 2011 census were conducted at approximately the same time (within a single year), thereby limiting the possible shifts in the variables because of changes over time. The full list of questions from each data source—the LSMS and the census—demonstrates the degree of comparability.

Some variations in the questionnaires used for the LSMS and the census may produce variations in the distribution of the variables. A difference in questionnaire design in terms of length and complexity may also drive variations in reported values even if the questions are similar (Kilic and Sohnesen 2015). (The 2012 LSMS questionnaire was longer and more complex than the 2011 census questionnaire.) Other characteristics of a survey or census, such as the training of enumerators, the characteristics of field implementation, and so on, may also have an impact on the data collected.

Variables were considered for inclusion in the final models for the mapping exercise only if their distribution, domain by domain, was found to be similar in the survey and the census. (Annex C, table C.1 shows the survey and census mean for the variables included in the models.)

The stability and accuracy of the consumption models

A good predictive model needs to balance several objectives. It should reveal a high correlation between consumption and household characteristics. This can be gauged through the adjusted R squared of the consumption regression. However, maximizing the R squared can easily generate weaknesses. One potential weakness is overreliance on the specific survey sample. To avoid this and other weaknesses, the mapping models have been designed not to be too specific to the selected LSMS sample. This has been accomplished by testing different models and comparing final predictions and by excluding variables with skewed distributions, that is, variations relying on relatively few observations. Furthermore, the variables found to have the greatest importance in random forest predictions are considered the

first set of explanatory variables.²

The predictions of poverty derived from the models are compared with the results on poverty produced by the LSMS at a level at which the LSMS is representative. Table 1 reports the levels of poverty revealed by the LSMS, the 95 percent confidence interval (the range within which we can say with great certainty that the true poverty headcount—the poverty rate—lies), and the poverty rate predicted using census data. The poverty rate predicted using the census is within the 95 percent confidence interval of the LSMS survey in the central, coastal, and Tirana regions or domains. In the mountain domain, the census estimate is notably higher than the LSMS result. Nonetheless, the ranking of the mountain region—less well off—is consistent with the lower mean and median per capita consumption revealed through the LSMS in the mountain region relative to the other regions. A similar ranking, with the mountain areas showing lower means, is also revealed in the consumption data of the 2014 Household Budget Survey and in the gross domestic product per capita series.³

Table 1: Poverty Rates Measured in the LSMS and Estimated in the Census, by Domain, 2011–12 (percent)

Domain	LSMS	LSMS 95 percent confidence interval		Census estimate
Central	12.6	10.1	15.0	13.1
Coastal	17.7	14.7	20.8	15.5
Mountain	15.1	10.9	19.4	20.6
Tirana	12.1	6.7	17.5	11.7
National	14.3	12.5	16.1	14.3

Standard errors and the level of aggregation

Since June 2015, because of territorial reform, the country has been divided into 12 counties (*prefecture*, the first-level local administrative units), 61 municipalities (municipality, the second-level local administrative units), 72 cities and 2,980 villages/towns (villages, towns, the third-level local administrative units).

Spatially, at the time of the data collected used for the mapping exercises of 2002 and 2012, Albania was divided into 12 prefectures (first-level local administrative units), 373 municipalities (second-level local administrative units), and cities, villages (together,

2. Random forest is a prediction algorithm that selects variables and predicts consumption. The method is known to produce more robust predictions. In our application, the method relies on 500 different models, and the variables that are consistently included are considered more robust predictors. See Sohnesen, Stender, and Hill (2016) for an evaluation of the method for poverty prediction.

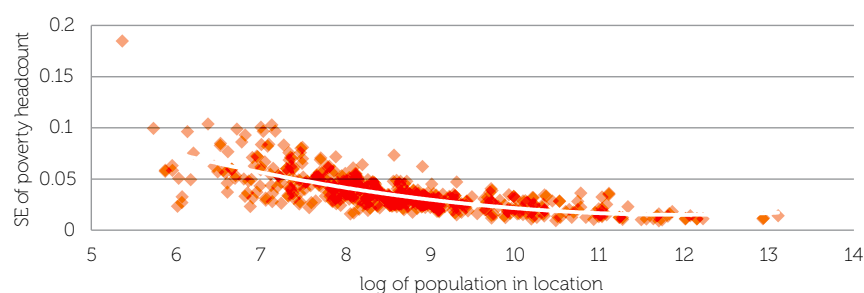
3. A region or domain can easily show low mean per capita consumption and a low poverty rate if the levels of inequality are low. In other words, the sampled inhabitants in the region show low, but similar consumption levels even if this does not put many of them below the poverty line. This seems to be the case in the LSMS. The result is driven especially by Diber Prefecture, which has a poverty rate that is lower than expected, which is explained by low inequality (annex C, figures C.1 and C.2). The poverty maps, in which the predictions are based on census data, do not replicate these low levels of poverty and inequality in Diber Prefecture and estimate higher poverty rates in the mountain region or domain relative to the LSMS observations.

the third-level local administrative units). The municipalities were of two types, either urban or rural. The rural municipalities were also known as communes. Because the 2001 census and the 2011 census were both carried out based around the older system, including the 36 districts that were a second-level local administrative unit before 2000, the core results of the poverty mapping exercises for 2002 and 2012 reflect this system. Nevertheless, to produce results that are more relevant for policymaking today, mapping results for the 61 reformed second-level municipalities have also been derived by aggregating the old 373 municipalities.⁴

In general, poverty can be estimated for each of the spatial levels in the 2011 census. However, the census estimates are associated with uncertainties. These are captured in standard errors. As highlighted by Tarozzi and Deaton (2008), the estimated standard errors are only correct if there is a minimal amount of spatial correlation above the cluster level. In all four (regional or domain) consumption models, the variation at the cluster level is minimal (see annex C, table C.2).

Nonetheless, because poverty estimates become more specific in smaller local areas, the standard errors increase as the population of the estimate area decreases. This is illustrated in figure 1, where the standard errors in the poverty estimates are shown to decline as the number of households in the area increases. The average standard errors in the poverty estimates for municipalities and communes are 0.04. In comparison, the LSMS domain (regional) standard errors are in the 0.01 to 0.03 range. As expected, the municipal poverty estimates are thus associated with greater standard errors relative to the domain estimates based on the LSMS data, particularly in those areas with fewer than 3,000 inhabitants (log 8 in figure 1). Among the old municipalities, 130 have fewer than 3,000 inhabitants each, while only one of the new municipalities and none of the old districts have fewer than 3,000 inhabitants. Substantial standard errors are therefore associated with the poverty estimates for a number of communes and municipalities.

Figure 1: Standard Errors, Municipality and Commune Estimates



Note: The figure is based on calculations of standard errors in the poverty rates for communes and municipalities. The figure shows results for both old and new municipalities.

4. The aggregation may not correspond precisely to the current administrative divisions because the old second-level districts are now defunct, and the former rural municipalities or communes have been abolished and are now counted as third-level units, that is, neighborhoods (lagje) or villages (fshat), within the new municipalities. These new results may nonetheless be more relevant for policy making today because they more closely mirror the administrative units on which policy making and poverty initiatives will become focused henceforward. Subsection 4.2 provides some of these new results.

CHAPTER 3

Results

This section summarizes the main results of the poverty mapping exercise in Albania. It presents the main maps produced on the poverty rate (headcount), the number of the poor individuals, the average monthly per capita consumption, and the Gini coefficient (inequality). The maps on poverty in the prefectures, along with descriptive material on the results are presented in the Main Annex (available online).

3.1 General analysis of the results of the mapping exercise

Prefectures

The poverty rate (headcount) in Albania was estimated at 14.3 percent in 2012, the same to the national poverty rate estimated through the LSMS 2012. The highest poverty rate was in Kukës Prefecture (around 22.0 percent), and the lowest rate was in Gjirokaštër Prefecture (around 8.0 percent).

There were 398,131 poor individuals in the country. The number was higher in the central region (153,968 poor individuals), and the lowest number was in the mountain region (53,337 poor individuals). Tirana Prefecture had the highest number of poor people (94,101), Gjirokaštër Prefecture had the lowest number (5,988).

Average per capita monthly consumption in the country in 2012 was 8,477 ALL. Prefectures with the highest level of consumption were Gjirokaštër (10,190 ALL), Korçë (9,260 ALL), and Berat (8,785 ALL), while the prefectures with the lowest level of consumption were Kukës (7,126 ALL), Dibër (7,551 ALL) and Elbasan (8,192 ALL).

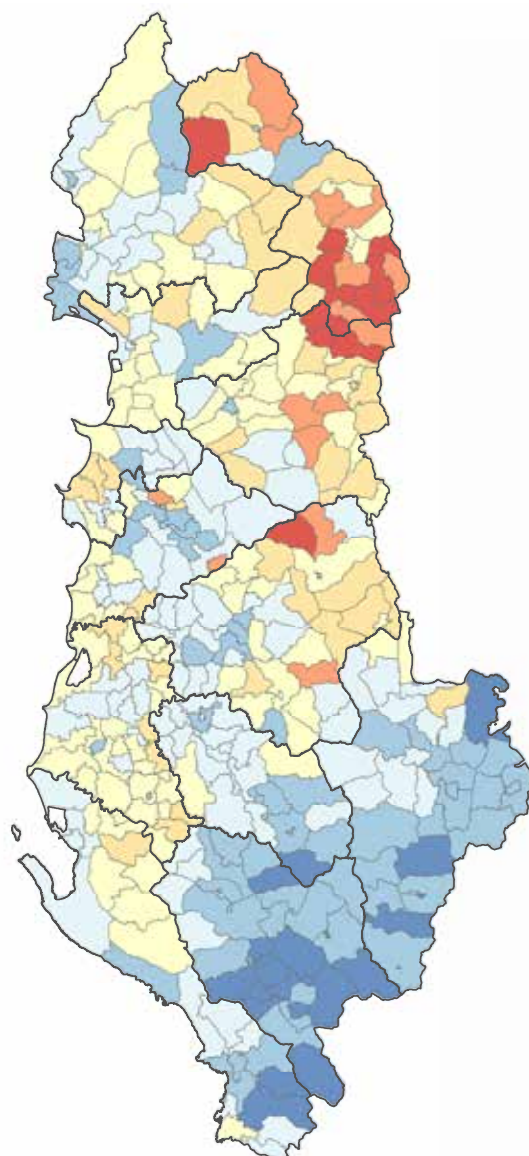
Municipalities and communes

Poverty rates varied across communes, from 2.6 percent in the commune of Zagori in Gjirokaštër Prefecture to 38.5 percent in the commune of Kalis in Kukës Prefecture (map 2). The highest poverty rates were in the communes and districts in the northeast of the country, where the darker red color is more expansive in map 2. In the south and southeast of the country, poverty rates were substantially lower. The poverty rates were higher in the communes and districts of the mountain region (20.6 percent), and the lowest rates were in the Tirana region (11.7 percent).

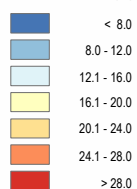
The prefectures of Durrës, Kukës, and Tirana showed **large differences in the poverty rates across municipalities and communes**. In the prefecture of Durrës,

Map 2: Poverty Maps, Communes and Districts, Albania, 2012

a. Poverty rates (headcount), communes



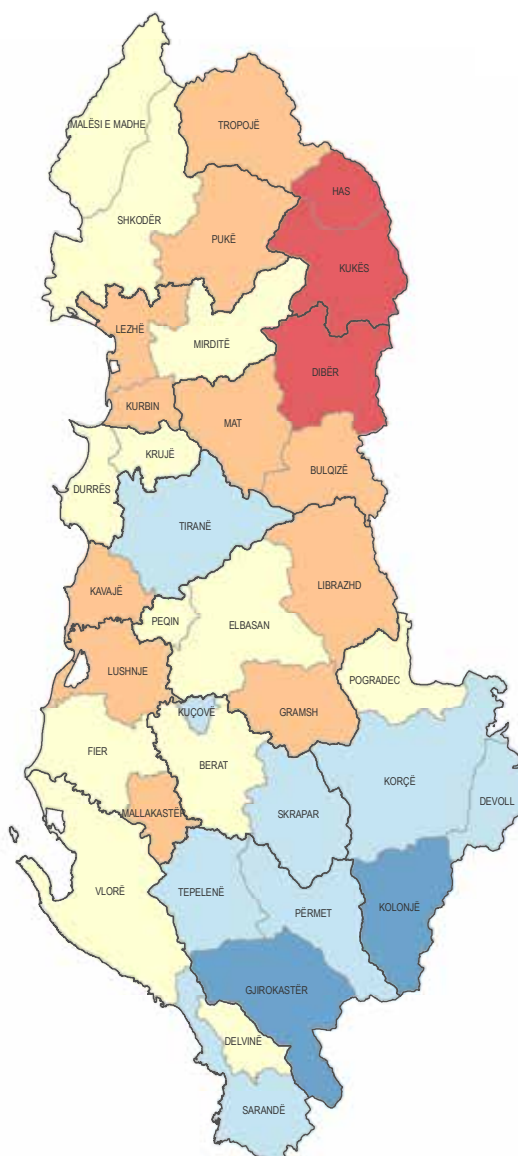
Head Count ratio (%).



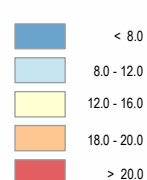
Prefecture Boundary

Commune/Municipality Boundary

b. Poverty rates (headcount), districts



Head Count ratio (%)



Prefecture Boundary

District Boundary

Source: Population and Housing Census 2011
Living Standard Measurement Survey – LSMS 2012

The boundaries of communes and municipalities have been designed for statistical purpose and may not reflect exactly the territory of the local unit

poverty rates ranged from 9.0 percent in the commune of Bubq to 21.0 percent in the municipality of Sukth. In the prefecture of Kukës, the lowest poverty rate was in Bajram Curri Municipality (10.0 percent), and the highest rate was in Kalis Commune (38.5 percent), which is also the poorest commune in the country. In the prefecture of Tirana, poverty rates varied from 9.2 percent in the municipality of Tirana to 25.2 percent in the municipality of Kamëz.

The prefectures with **the largest gap between the lowest and highest poverty rates** were Dibër, Elbasan, and Kukës. In the prefecture of Kukës, the lowest poverty rate was in Bajram Curri Municipality (10.0 percent), and the highest rate was in Kalis Commune (38.5 percent), the poorest commune in the country. The lowest poverty rate in Elbasan Prefecture was in Librazhd Municipality (8.7 percent), and the highest was in Orenjë Commune (30.4 percent). In Dibër Prefecture, the lowest poverty rate was in the municipality of Burrel (11.2 percent), and the highest rate was in Sllovë Commune (29.4 percent).

The prefectures of Berat, Fier, and Gjirokastrë exhibited **the narrowest gaps** between the lowest and the highest poverty rates, less than 12 percentage points. In Gjirokastrë Prefecture, the poverty rates ranged from 2.6 percent in Zagori Commune to 14.3 percent in the commune of Krahës. In Fier Prefecture, the lowest poverty rate occurred in the municipality of Fier (11.0 percent), and the highest rate was in Selitë Commune (22.1 percent).

Durrës, Elbasan, Kamëz, and Tirana were among the municipalities with the higher number of poor people, as well as larger shares of the country's population so that, relative to the country average, the **number of poor individuals was higher** in these municipalities. The number of the poor was low in the communes of Odrie, Pogon and Zagori in Gjirokastrë Prefecture.

The **lowest monthly per capita consumption** in 2012 was in the communes of Kalis (5,839 ALL), Ujmisht (5,983 ALL), and Surroj (6,124 ALL) in Kukës Prefecture. The highest values were in the communes of Zagori (13,216 ALL), Pogon (11,936 ALL) and Odrie (11,839 ALL) in Gjirokastrë Prefecture.

The **level of inequality measured using the Gini coefficient** ranged from 19.7 percent in the commune of Kalis, which is also the poorest commune in the country, to 30.0 percent in the commune of Farkë. The communes of Grykë-Çajë, Kala e Dodës, and Ujmisht recorded the lowest Gini coefficients, around 20 percent. The commune of Dajt and the municipalities of Durrës, Lezhë, Sarandë, and Tirana had the highest Gini coefficients in the country, around 28 percent.

CHAPTER 4

Using poverty maps in policy making

Understanding which areas have higher poverty rates can potentially allow the more accurate and efficient targeting of resources for poverty reduction. For this purpose, it is important to understand why these areas are relatively poorer and address the associated issues. The reasons are likely to vary from place to place and may include inadequate infrastructure, lack of economic activity, and an insufficiently skilled workforce.

The results on poverty shown in the poverty maps can be easily mapped and overlaid, for example, with spatial data on roads and topographical elevations, health and educational facilities, population density, and so on to help reveal links between poverty and welfare indicators. Likewise, the maps may force more thinking in subnational and national decision making and policy making on how best to balance the targeting of poor areas and poor people to combat poverty and social exclusion, but also improve standards of living and help guide the allocation of government expenditures in other areas of development.

Led by cutting-edge research and widespread empirical application of the poverty mapping methodology, more than 60 countries have, since the late 1990s, gained experience in the small area estimation of poverty illustrated by poverty maps. Spotlight 1 presents examples of applications in other countries to illustrate innovative ways to use the information provided by the maps in policy making.

The next paragraphs provide initial insights into using the poverty maps for policy making in Albania, but hopefully this is only the beginning as the findings of this report are actively employed in policy making in Albania.

4.1 The poverty maps for policy in Albania

We illustrate how the results of the poverty mapping exercise in Albania can be useful for policy making in two ways. First, we present the poverty maps revised according to the new local administrative units established through the territorial reform launched in June 2015 to demonstrate that poverty maps can be adapted and made useful within an altered geographical area administrative structure. Second, we showcase how census or survey data on other areas of policy interest (education coverage, road infrastructure, public welfare expenditure, and so on) may be overlaid on the maps to help perform a triage among small geographical areas according to particular characteristics to target benefits, implement antipoverty programs, support appropriate infrastructure development, and so on.

Poverty maps of the new local administrative units

The new territorial division of Albania divide the country into 61 municipalities. The highest level of poverty is in the municipality Kamëz (about 24 percent), followed by municipality of Has (23.3 percent) and the municipality of Kukës (23.2 percent). The lowest level of poverty is recorded in the municipalities of Pustec (5 percent), Libohovë (6.7 percent) and Gjirokastra (6.8 percent).

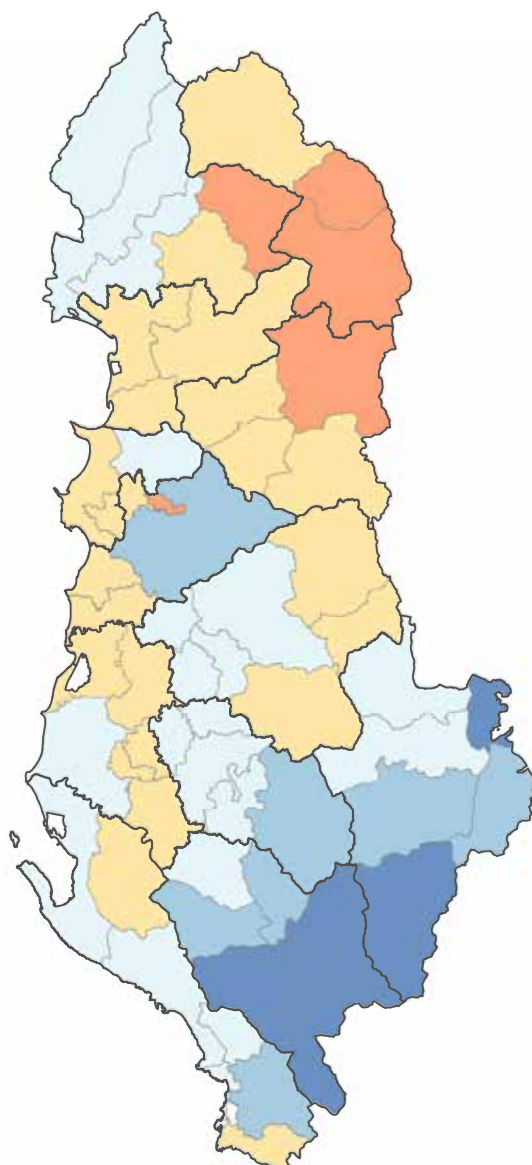
Municipalities with the largest number of poor are municipalities of Kamëz (24,695), Durrës (27,773) and the municipality of Tirana (55,561). The lowest number of poor recorded in municipalities of Pustec (158), Libohovë (246) and Dropull (273).

The lowest level of the average monthly per capita consumption were in municipalities of Kukës (7,067 ALL), Has (7,192 ALL) and Dibër (7,232 ALL). While the highest monthly per capita consumption were in the municipalities of Libohovë (10,895 ALL), Pustec (11,213 ALL) and Gjirokastrë (11,215 ALL).

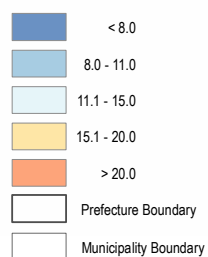
The municipalities with the lowest level of inequality (Gini coefficient) were Bulqizë, Kukës and Dibra, lower than 8 percent, and the highest level in the municipalities of Vlorë, Durrës and Sarandë, around 27 percent.

Map 3: Poverty Rate and Inequality, New Municipalities, 2012

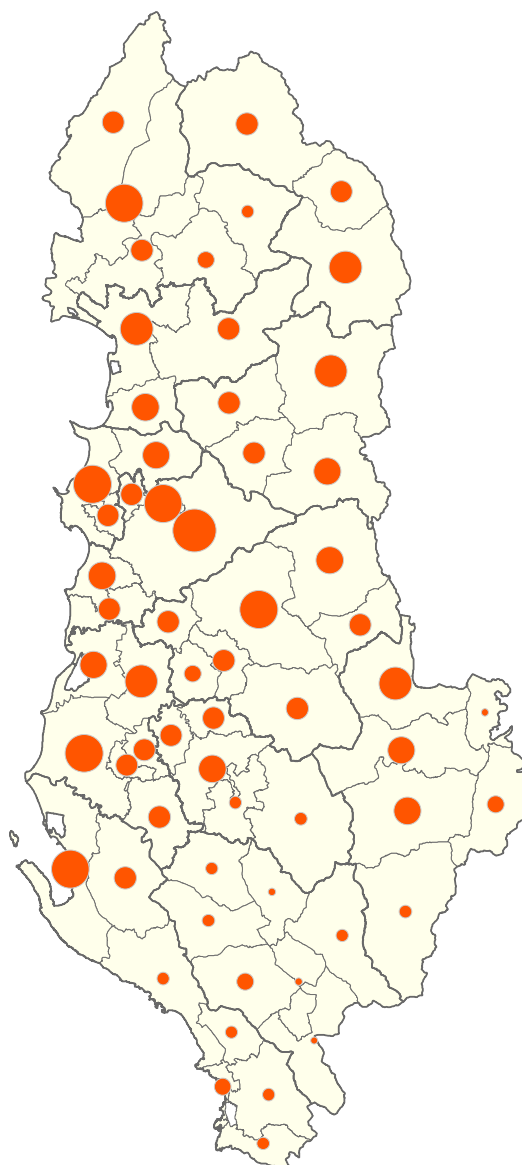
b. Number of the poor



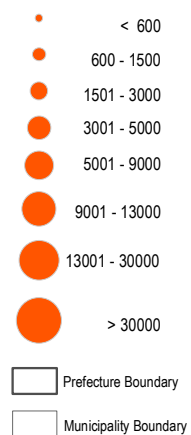
Head Count ratio (%).



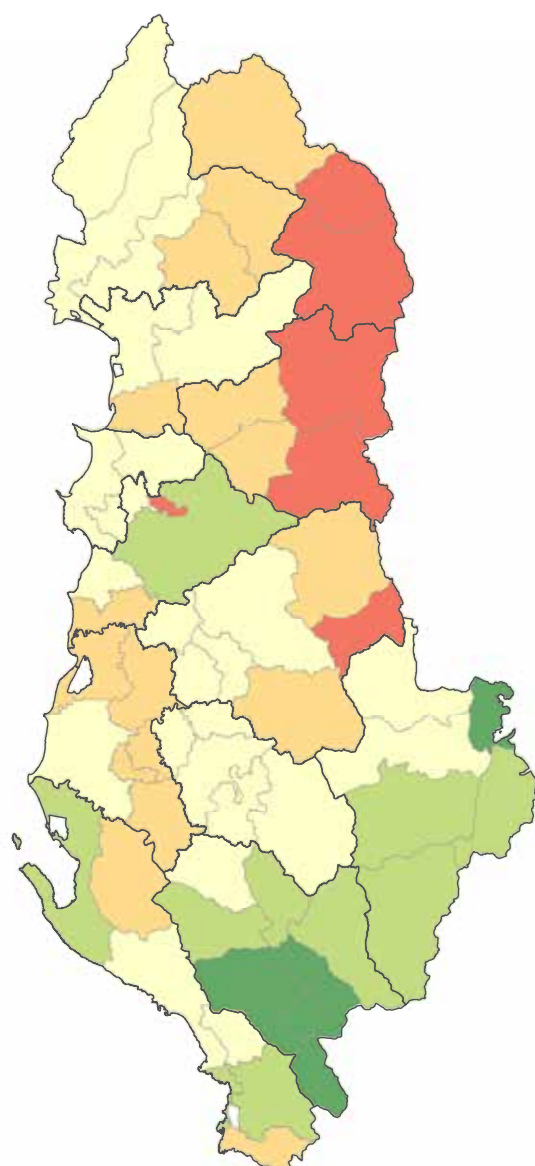
a. Poverty rate (headcount)



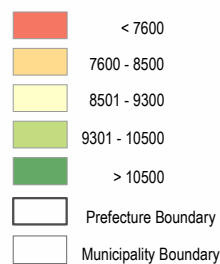
Persons



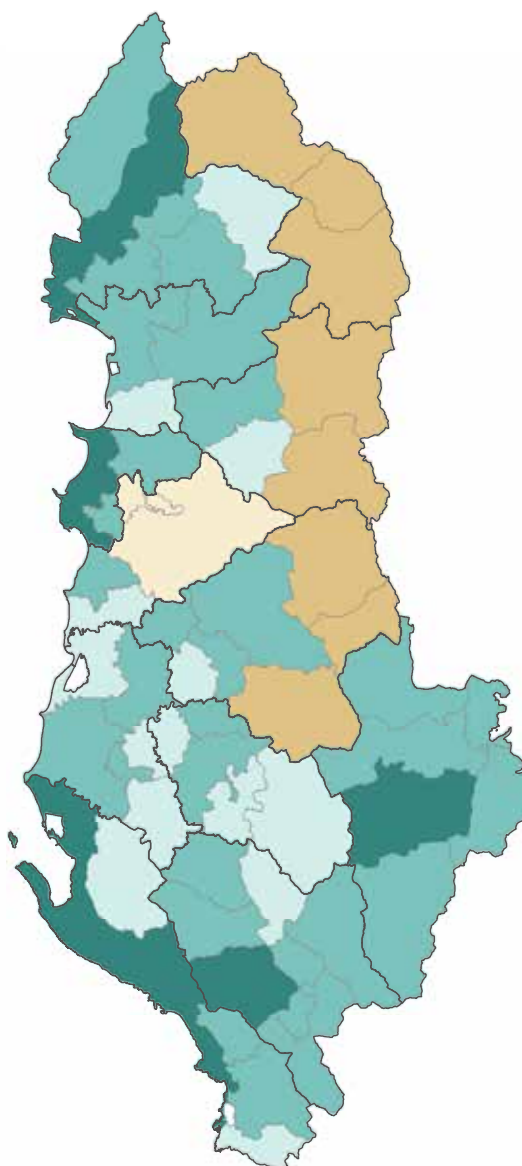
c. The average monthly per capita consumption



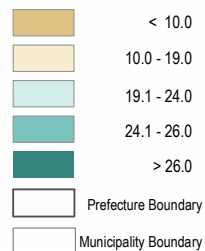
Per capita consumption (ALL/month)



d. Gini coefficient (inequality)



Gini index (%)



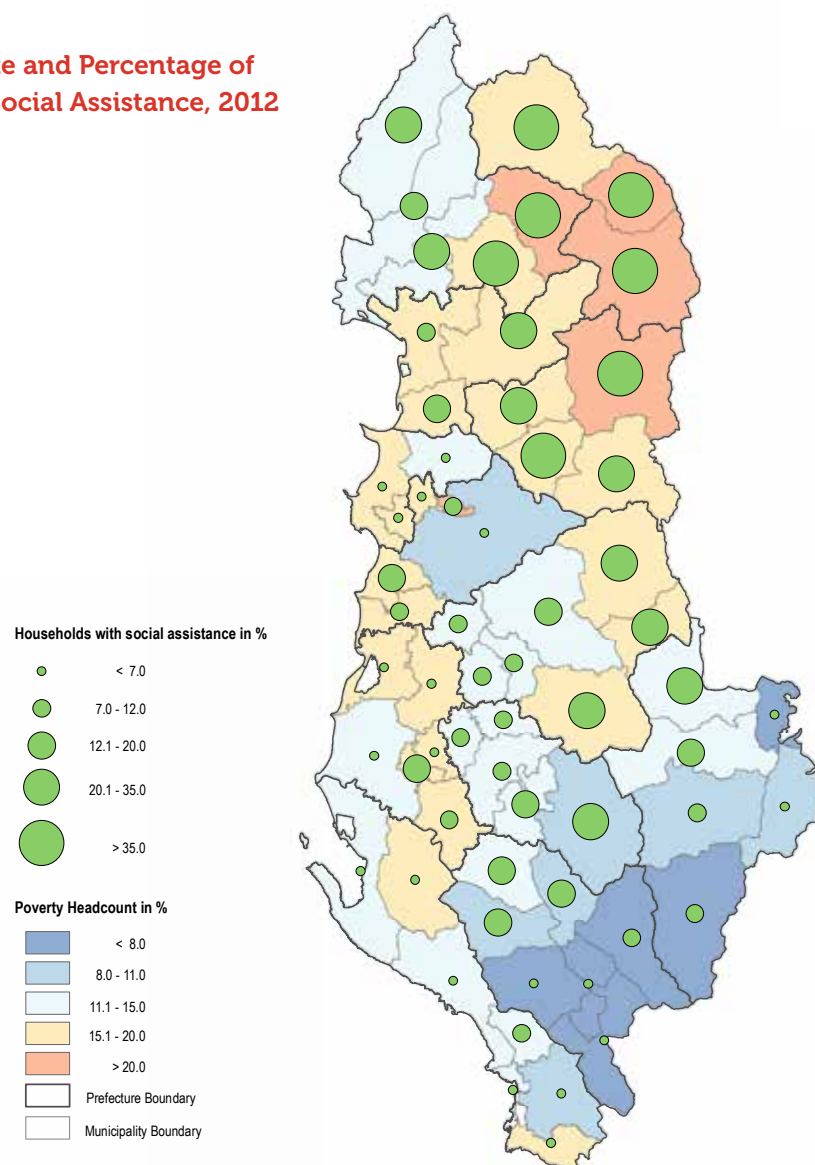
Source: Population and Housing Census 2011
Living Standard Measurement Survey – LSMS 2012

The boundaries of communes and municipalities have been designed for statistical purpose and may not reflect exactly the territory of the local unit

Overlaying poverty maps with other data of policy interest

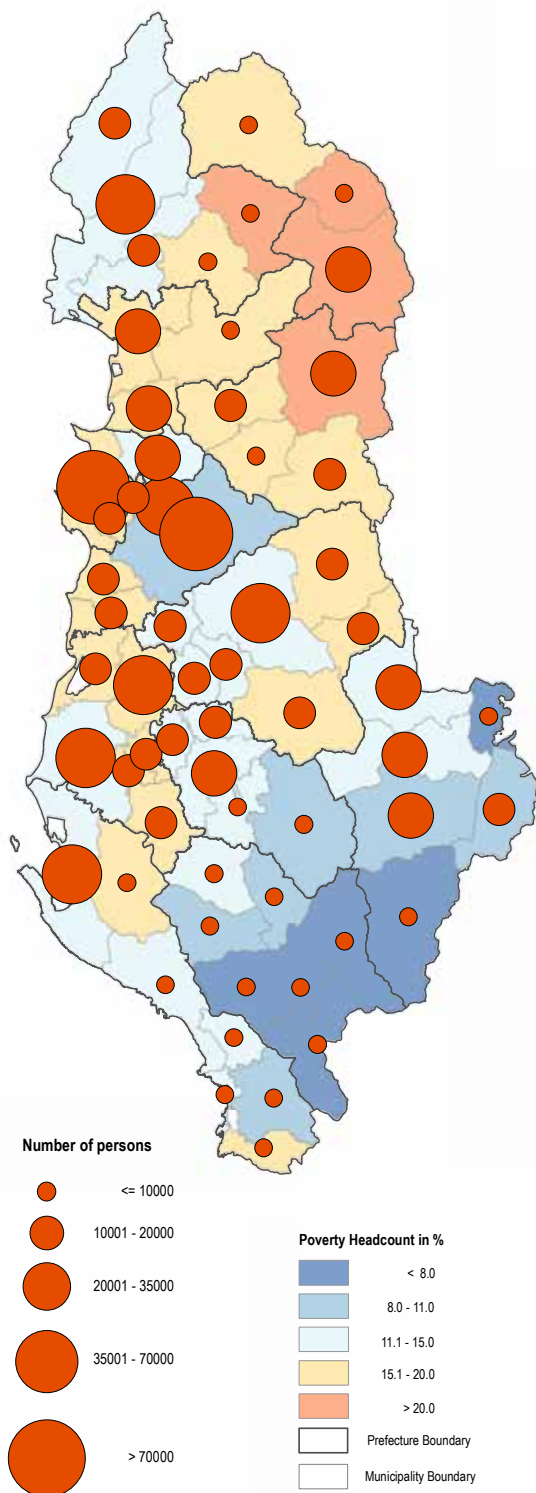
The final maps presented in this section illustrate how data from other sources and on other topics of interest may be placed on top of the maps to enrich policymakers' evidence base on policy relevant challenges to reduce poverty and inequality. Map 4, for instance, combines poverty headcount data with Census information on the percentage of households that receive social assistance in each geographical area. It shows that the percentage of households with social assistance as a source of income is higher in poorer areas. Map 5 combines information on poverty headcounts and number of people with low educational attainment⁵, while Map 6 shows that there is not a unique pattern across Albania in terms of poverty and sector of employment concentration of the population.

Map 4: Poverty Rate and Percentage of Households with Social Assistance, 2012

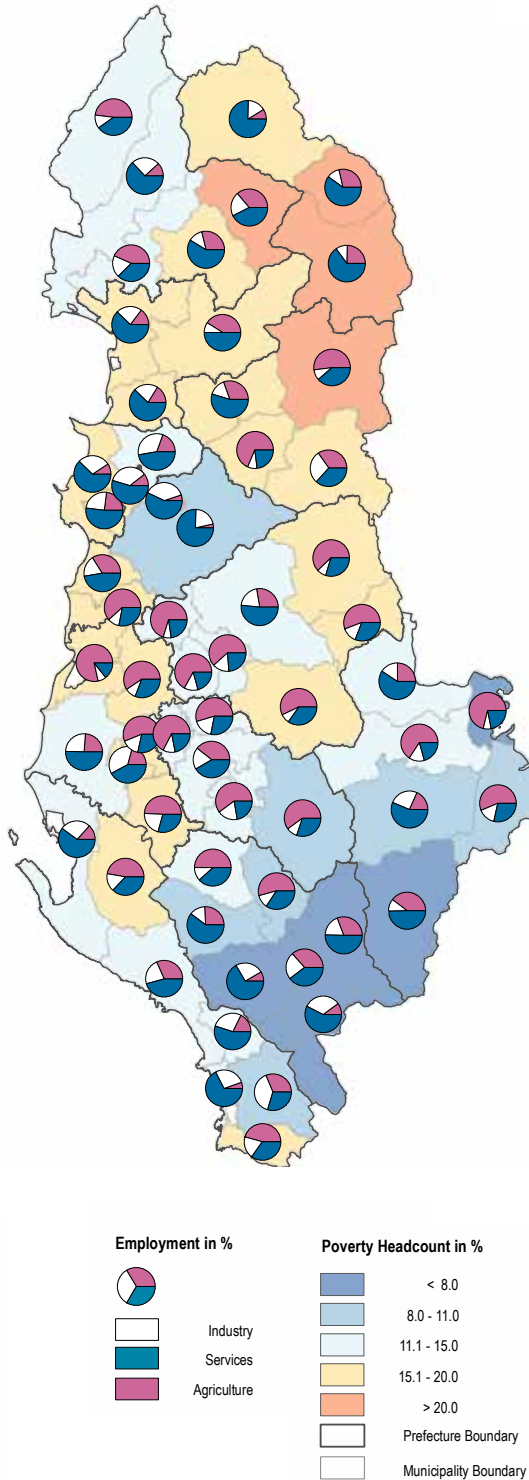


5. For the education map, results must be interpreted with caution as the level of education is used as part of the model generating the poverty head counts, hence, by construction these two levels would be correlated.

Map 5: Poverty Rate and Number of People with Primary and Lower Secondary Education, 2012



Map 6: Poverty Rate and Share of People Employed by Economic Sector, 2012



Source: Population and Housing Census 2011
Living Standard Measurement Survey – LSMS 2012

The boundaries of communes and municipalities have been designed for statistical purpose and may not reflect exactly the territory of the local unit

SPOTLIGHT 1. Poverty maps and policy making around the world

Morocco

The Moroccan government requested the support of the World Bank in 2002 to learn how to use poverty mapping techniques and produce a detailed, disaggregated map of poverty throughout the country.⁶ At the time, the Bank was scheduled to undertake a poverty report on the country. This enabled the emergence of an active dialogue on how to improve targeting in social spending. When the first poverty map and other analyses were completed, key policy makers had already been sensitized to the significance of poverty maps.

The need for finer geographical targeting of the poor was intensified because of two factors. First, because of the threat of terrorism, renewed attention was being focused on the vulnerability of the urban poor and the phenomenon of rural-urban migration. More information was needed on pockets of poverty and vulnerability. Second, because of a growing budget deficit, there was strong pressure to make public expenditures more effective. The desire to minimize benefit leakage to the nonpoor had gained strength.

The poverty mapping program proceeded for almost a year on technical and policy levels. The technical focus permitted a transfer of the capacity to construct poverty maps to local experts, and the policy focus stimulated interest in the potential utility of the maps for policy purposes; if the maps were to have an impact on policy, they had to appeal to decision makers who would be able to apply them to realize the country's policy goals.

The World Bank published a poverty report two months after the government's poverty map report (Morocco, Planning Commission 2004; World Bank 2004). Both publications provided analysis of the spatial aspects of poverty and inequality, but also other issues. Eventually, the government constructed a second, updated poverty map.

That poverty varied greatly not only among provinces, but also within provinces was an eye-opener for policy makers and led to a reappraisal of targeting strategies. Whereas the major poor-area development project . . . had relied on province-level targeting, the new information on poor communes provided the government with fresh insights into the possible design of a more finely targeted program, the National Initiative for Human Development. (Litvack 2007, 216)

The National Initiative for Human Development was launched in May 2005. The government announced that \$1 billion would be allocated to the program, half of which would go to efforts to target extra resources to the poorest 360 rural communes and poorest 250 urban neighborhoods. The maps were to be used for targeting purposes.

The maps also began to play an interesting role in promoting local governance. Several governors had been surprised by some of the poverty map data and had undertaken site visits to confirm the data. The poverty maps thus contributed to a much broader agenda of transparency and good governance.

6. This brief case study on Morocco owes much to World Bank (2015).

European Union, 2012–2014

In 2012–14, the World Bank assisted in the creation of poverty maps of Estonia, Hungary, Latvia, Poland, Romania, the Slovak Republic, and Slovenia as part of an ongoing European Commission effort to produce poverty maps of all countries in the European Union. The maps portray subnational geographical areas, such as municipalities, counties, and districts, and highlight the small areas most likely to exhibit the highest risk of poverty in each of these member states. The new maps complement other information on the correlates of poverty that enhances regional policy and program design. They have effectively guided decision making and policy making at the subnational and national levels in member states of the European Union and have assisted the European Commission in allocating national and regional development and financing program funds



Map: Poverty Mapping in the European Union
Source: Simler and van der Weide 2015.

efficiently to areas with the greatest need. As the national partners of the project, government authorities, mainly experts at national statistical institutes and ministries, have benefited from substantial knowledge and skill spillovers about poverty mapping through the project. The spillovers have gained prominence through academic research by catalyzing greater communication and collaboration.

Other examples

The following is an alphabetical list of selected countries in which poverty mapping has been used to achieve a representative policy end. The name of the country is followed by the year of the map and a brief description of the policy applications.

Bolivia, 2002–2003

In Bolivia, the method was used to create consumption poverty maps at the level of municipalities (Arias and Robles 2007). The purpose was to generate local indicators of monetary poverty and consumption inequality for the measurement of municipal disparities. On-site interviews with potential map users in 2006 revealed that the maps were being used in planning. Thus, national and international institutions were using the maps to plan strategies, activities, and programs. The latter included the Swiss Agency for Development and Cooperation and the United Nations Development Programme. The maps were also being used to target public productive and social investments and regional development resources, including a community investment program funded by the Inter-American Development Bank.

Bulgaria, 2003, 2005

The first poverty and inequality maps on Bulgaria measured and illustrated mean per capita consumption by municipality, the poverty headcount index, and the poverty depth index (Gotcheva 2007). Among the many initiatives that relied on the maps were targeted antipoverty interventions for the poorest municipalities, and the mainstreaming of antipoverty policies directed at the municipalities identified as the poorest into national strategic documents aimed at the reduction of poverty, the promotion of employment, and the elimination of social exclusion. A targeted training and employment program created well over 1,000 jobs in poor municipalities.

Cambodia, 2002

The primary objective of the poverty mapping exercise in Cambodia was, from the outset, to develop a

tool for policy making and, especially, for the allocation of resources (Fujii 2007). Interviews conducted among potential users in 2006 revealed that, among the many applications, the maps were being used by the World Food Programme to create overlay maps on infrastructure, flood and draught vulnerability, and education to link poverty and these issues that highlighted small geographical areas with particular needs. The resulting nutrition maps and other sorts of maps, along with field observations, became a fundamental tool of the World Food Programme in the identification of areas for program intervention.

Yunnan Province, China, 2002–2003

Poverty mapping was undertaken in Yunnan Province—selected because of its ethnic diversity and relatively high poverty incidence—to test whether the methodology might produce reliable poverty incidence estimates down to the township level in rural areas and down to the district level in urban areas (Ahmad and Goh 2007a). The National Development and Reform Commission used the map to review the county-level allocation of project funding, as well as the incidence of poverty in all counties. The World Bank and the U.K. Department for International Development have used the poverty maps to help select beneficiary areas for a community development project. The data issues uncovered during the exercise were particularly valuable in improving data collection at the National Bureau of Statistics.

Ecuador, 1990, 2001

A central goal in constructing the 2001 poverty maps was to enable users to track changes in small area estimates of poverty since the creation of the maps in 1990 (Araujo 2007). In addition, Ecuador independently produced poverty maps on unmet basic needs and poverty maps on poverty, health, education, employment, and the environment. The maps were applied on a small scale to determine the appropriate location for projects in employment, microfinance, and small- and medium-enterprise development; urban reconstruction projects in historic neighborhoods; the construction of maps on food security and food vulnerability; geographical targeting and donor projects; targeting the allocation of educational inputs; determining the location of early childhood development interventions; internal planning and targeting investments at ministries; and targeting emergency social investments.

Indonesia, 2002–2004

The national poverty maps have been used in various applications by government agencies, donors, and nongovernmental organizations (Ahmad and Goh 2007b). These applications include facilitating budget estimates of unconditional cash transfers to the poor, the selection of program beneficiary areas, cross-checking and referencing government poverty data, the production of follow-up nutrition maps, identifying poor districts for local development planning, and guiding policy advice to the government in donor projects.

Sri Lanka, 2005

The poverty maps produced in Sri Lanka have not only enhanced public awareness of the significant regional inequalities in the country, but also encouraged policy makers to take appropriate steps to address the severe deprivation that still prevails in rural and remote areas (Vishwanath and Yoshida 2007). They are having an effect on policies, lending strategies, and research. In particular, the poverty maps are influencing road projects, helping revive the government's initiative to improve targeting in benefit transfer programs, and identifying the poorest areas to raise benefits there.

Vietnam, 1997, 1999, 2003, 2005

Interviews were conducted in 2006 to determine impacts of the various poverty mapping exercises in Vietnam (Swinkels and Turk 2007). These impacts included improvements in understanding the nature of poverty in the country, better targeting of resources, and facilitating reviews of poverty measurement techniques.

CHAPTER 5

Conclusions

This report presents results for the new poverty maps in Albania using 2012 LSMS and 2011 census data and incorporating improvements to the poverty mapping technique. A poverty map is a geographical profile that shows where poverty is concentrated in a country by providing information on lower geographic levels, in the case of Albania, in the municipalities and communes. The analysis of maps is done based on four main indicators: poverty rate, number of poor people, average monthly per capita consumption and inequality measured by the Gini coefficient. These four indicators are presented on country, region, 12 prefectures level and for each municipality / commune.

Poverty maps may be applied in policy making in three key ways: (1) as a benchmark against existing resource allocation criteria, for example, whether the allocation of social-assistance block grants according to previously established criteria correlate with an appropriate allocation based on current poverty rates; (2) as a tool in targeting public spending; and (3) for the provision of data to monitor the progress toward achieving particular government welfare goals. Nongovernmental organizations and international bilateral and multilateral institutions can also rely on poverty maps in supplying advisory services to local governments and donor agencies and in designing joint intervention strategies.

Summary of main results

In Albania, 14.3 percent (2012) of population lived in poverty. The highest level of poverty was concentrated in the northeast of the country, while in the south and southeast this indicator is much lower. The level of poverty was highest in Mountain region (20.6 percent) and the lowest level was in Tirana region (11.7 percent).

The highest level of poverty was in the prefecture of Kukës (around 22 percent) and the lowest level was recorded in the prefecture of Gjirokastrë (around 8 percent). Poverty level varied from 2.6 percent, in the commune of Zagori in the prefecture of Gjirokastrë, to 38.5 percent in the commune of Kalis in the prefecture of Kukës.

Looking to the fluctuations of poverty level inside each prefecture it was noted that prefectures of Kukës, Tiranë and Durrës had big differences of poverty level between municipalities/communes.

According to 2012 data, the number of poor people in the country was 398.131 individuals. The number of poor people was higher in the Central region (153.968 poor individuals) and the lowest number was in the Mountain region (53.337 poor individuals). The prefecture with the highest number of poor people was Tirana

(94.101 poor individuals) while the prefecture of Gjirokaštër had the lowest number of the poor people (5.988 poor individuals). The number of poor people was generally concentrated on those municipalities/ communes where the population density was higher. The highest number of poor people was in the prefecture of Tirana, in the municipality of Tirana with 37.672 poor individuals and with a level of poverty 9.2 percent, followed by municipalities of Kamëz and Durrës with more than 15.000 poor individuals. The number of poor people was lower in communes Zagori, Pogon and Odrie, part of Gjirokaštër prefecture.

According to 2012 data, the average monthly per capita consumption in the country was 8.477 ALL. The average per capita consumption level seemed higher in the south of the country compared with other areas. The highest value of the average per capita consumption was in the Central region (8.991 ALL) while the lowest value was recorded in the Mountain region (7.368 ALL).

Prefectures with the highest level of per capita consumption were Gjirokaštër (10.190 ALL), Korça (9.260 ALL) and Berat (8.785 ALL), while the prefectures with the minimum level of per capita consumption were those of Kukës (7.126 ALL), Diber (7.551 ALL) and Elbasan (7.979 ALL).

The lowest values of per capita consumption were recorded in the communes of Kalis (5.839 ALL), Ujmisht (5.983 ALL) and Surroj (6.124 ALL) of Kukës prefecture. The highest values were recorded in the communes of Zagoria (13.216 ALL), Pogon (11.936 ALL) and Odrie (11.839 ALL) of Gjirokaštër prefecture.

The level of inequality measured by Gini coefficient was around 24 percent. The highest level of inequality was in the Tirana region (25.7 percent) and the lowest level was in the Mountain region (22.7 percent). The highest level of inequality was recorded in the prefecture of Shkodër (25.1 percent) and the lowest level in the prefecture of Kukës (22.4 percent).

The level of inequality ranged from 19.7 percent in the commune of Kalis, which was also the poorest commune of the country, to 30 percent in the commune of Farka.

The communes of Gryke Caj, Ujemisht and Kala e Dodës also recorded lowest level of Gini Coefficient, around 20 percent. After commune of Farka, Municipalities of Lezha, Durrës, Saranda, Tirana and the commune of Dajti had the highest levels of inequality in the country, around 28 percent.

Inequality is in the same direction with per capita consumption and in the opposite direction with the level of poverty. However, if we take into consideration a detailed level of geographical disaggregation we note that this condition is not always fulfilled.

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ANNEXES

Results of the 2012 Poverty Maps

District	Commune	Population	Poverty-Headcount	s.e.	Gini	s.e.	Poor population	Mean percapita consumption	s.e.
BERAT	BERAT	36,374	0.124	0.01	0.259	0.003	9,406.61	9,269.28	211.65
BERAT	KUTALLI	9,643	0.145	0.02	0.240	0.006	2,314.62	8,443.02	311.52
BERAT	LUMAS	3,975	0.154	0.04	0.239	0.008	949.50	8,309.24	416.36
BERAT	VELABISHT	8,469	0.135	0.02	0.235	0.005	1,992.95	8,495.93	312.29
BERAT	OTLLAK	9,203	0.121	0.02	0.245	0.005	2,250.88	8,926.60	338.23
BERAT	POSHNJË	7,366	0.123	0.02	0.240	0.005	1,767.89	8,809.21	326.61
BERAT	ROSHNIK	2,513	0.123	0.04	0.238	0.009	597.89	8,786.14	595.11
BERAT	SINJË	3,365	0.178	0.04	0.233	0.008	783.75	7,872.54	406.04
BERAT	TERPAN	1,699	0.160	0.04	0.224	0.009	380.86	7,900.38	467.67
BERAT	URA VAJGURORE	7,232	0.126	0.03	0.245	0.006	1,774.81	8,908.28	404.98
BERAT	VERTOP	4,914	0.124	0.03	0.238	0.006	1,167.30	8,707.51	419.57
BERAT	CUKALAT	3,045	0.151	0.03	0.227	0.008	690.21	8,139.50	442.85
BULQIZË	BULQIZË	8,171	0.136	0.03	0.226	0.006	1,847.12	8,204.99	379.96
BULQIZË	FUSHË-BULQIZË	3,342	0.244	0.02	0.231	0.005	770.35	7,110.53	320.65
BULQIZË	GJORICË	4,213	0.185	0.02	0.226	0.004	953.48	7,567.87	326.03
BULQIZË	TREBISHT	993	0.179	0.04	0.233	0.010	231.11	7,752.53	721.70
BULQIZË	OSTREN	3,034	0.202	0.04	0.242	0.008	733.17	7,636.99	637.82
BULQIZË	SHUPENZË	5,499	0.195	0.03	0.229	0.006	1,257.73	7,538.49	552.88
BULQIZË	ZERQAN	4,111	0.239	0.05	0.232	0.011	952.50	7,154.24	689.88
BULQIZË	MARTANESH	1,827	0.144	0.08	0.247	0.018	451.03	8,478.82	982.58
DELVINË	DELVINË	5,754	0.130	0.02	0.255	0.005	1,467.59	9,060.40	454.50
DELVINË	FINIQ	1,333	0.120	0.05	0.248	0.010	330.78	9,055.23	814.25
DELVINË	MESOPOTAM	2,786	0.119	0.03	0.247	0.007	688.13	9,059.55	485.26
DELVINË	VERGO	1,844	0.152	0.05	0.259	0.011	478.33	8,772.81	693.48
DEVOLL	BILISHT	6,250	0.085	0.06	0.265	0.014	1,655.37	10,510.27	682.51
DEVOLL	QENDËR BILISHT	5,440	0.107	0.07	0.255	0.017	1,387.33	9,505.65	723.17
DEVOLL	MIRAS	6,577	0.096	0.06	0.248	0.015	1,632.94	9,549.12	631.64
DEVOLL	HOÇISHT	4,465	0.107	0.05	0.253	0.013	1,131.13	9,436.70	462.01
DEVOLL	PROGËR	3,988	0.094	0.03	0.251	0.007	1,001.63	9,717.08	384.48
DIBËR	ARRAS	3,055	0.233	0.04	0.218	0.010	666.40	7,000.51	472.05
DIBËR	FUSHË-ÇIDHËN	2,909	0.190	0.04	0.218	0.010	633.94	7,381.44	480.09
DIBËR	KALAEODËS	2,252	0.250	0.06	0.204	0.015	458.49	6,721.67	577.87
DIBËR	KASTRIOT	6,201	0.208	0.02	0.226	0.005	1,401.04	7,338.83	400.23
DIBËR	LURË	1,096	0.197	0.05	0.242	0.011	265.45	7,671.74	459.02
DIBËR	MAQELLARË	10,666	0.240	0.05	0.225	0.011	2,400.35	7,051.03	516.77
DIBËR	MELAN	3,649	0.216	0.05	0.212	0.012	775.32	7,088.48	688.29
DIBËR	FUSHË-MUHUR	2,780	0.192	0.07	0.228	0.018	635.05	7,554.82	623.59
DIBËR	PESHKOPI	13,251	0.207	0.02	0.234	0.004	3,102.99	7,524.95	486.32
DIBËR	QENDËR TOMIN	7,591	0.195	0.05	0.222	0.012	1,684.63	7,406.90	609.35
DIBËR	SELISHTË	1,605	0.264	0.02	0.217	0.005	348.49	6,765.42	320.28
DIBËR	SLLOVË	2,405	0.294	0.02	0.224	0.005	537.88	6,640.84	308.91
DIBËR	ZALL DARDHË	1,045	0.289	0.02	0.252	0.006	263.00	6,954.80	370.42
DIBËR	ZALLREÇ	681	0.284	0.03	0.218	0.007	148.28	6,659.97	367.84
DIBËR	LUZNI	2,433	0.259	0.02	0.216	0.004	526.53	6,781.79	384.30
DURRËS	DURRËS	112,957	0.141	0.04	0.279	0.009	31,532.36	9,350.70	383.86
DURRËS	GJEPALAJ	3,449	0.197	0.03	0.236	0.007	815.11	7,658.84	404.03
DURRËS	ISHËM	5,001	0.170	0.01	0.243	0.003	1,215.02	8,073.33	186.36
DURRËS	KATUND I RI	10,161	0.202	0.05	0.238	0.012	2,422.19	7,606.73	743.86

District	Commune	Population	Poverty-Headcount	s.e.	Gini	s.e.	Poor population	Mean percapita consumption	s.e.
DURRËS	MAMINAS	4,458	0.134	0.05	0.250	0.012	1,115.93	8,777.43	591.58
DURRËS	MANËZ	6,652	0.209	0.02	0.251	0.005	1,670.59	7,787.06	382.27
DURRËS	RRASHBULL	23,952	0.167	0.04	0.247	0.010	5,911.82	8,167.22	509.30
DURRËS	SHIJAK	7,573	0.125	0.02	0.266	0.005	2,011.28	9,381.52	344.01
DURRËS	SUKTH	15,966	0.211	0.06	0.238	0.015	3,803.94	7,514.20	682.01
DURRËS	XHAZOTAJ	12,381	0.160	0.03	0.249	0.008	3,079.83	8,325.25	517.96
ELBASAN	BELSH	8,781	0.092	0.03	0.243	0.006	2,132.61	9,481.24	442.46
ELBASAN	BRADASHESH	10,700	0.173	0.03	0.239	0.007	2,560.68	8,024.96	432.87
ELBASAN	CËRRIK	6,695	0.147	0.04	0.257	0.009	1,721.89	8,805.69	394.97
ELBASAN	ELBASAN	78,467	0.127	0.07	0.263	0.018	20,638.38	9,323.16	597.56
ELBASAN	FIERZË	2,065	0.129	0.04	0.246	0.009	509.01	8,956.70	408.28
ELBASAN	FUNARË	2,122	0.175	0.03	0.233	0.008	493.47	7,900.93	483.71
ELBASAN	GJERGJAN	5,126	0.116	0.05	0.240	0.012	1,232.14	8,914.58	601.57
ELBASAN	GJINAR	3,233	0.153	0.03	0.244	0.007	787.97	8,384.91	446.98
ELBASAN	GOSTIMË	8,116	0.119	0.02	0.248	0.005	2,009.75	9,043.50	363.93
ELBASAN	GRACEN	2,192	0.173	0.03	0.241	0.008	529.20	8,152.79	380.41
ELBASAN	GREKAN	3,138	0.130	0.04	0.244	0.010	764.93	8,734.89	440.66
ELBASAN	KAJAN	3,925	0.123	0.06	0.239	0.015	937.52	8,766.91	755.72
ELBASAN	KLOS	3,262	0.133	0.03	0.236	0.007	769.54	8,526.69	381.20
ELBASAN	LABINOT-FUSHË	7,058	0.180	0.05	0.234	0.012	1,649.48	7,838.76	684.11
ELBASAN	LABINOT-MAL	5,291	0.232	0.03	0.222	0.006	1,174.89	7,133.00	390.75
ELBASAN	MOLLAS	5,530	0.179	0.03	0.237	0.009	1,309.16	7,913.17	474.26
ELBASAN	PAPËR	6,348	0.133	0.03	0.235	0.007	1,490.23	8,523.49	489.17
ELBASAN	RRASË	1,594	0.146	0.03	0.230	0.008	366.89	8,234.83	445.28
ELBASAN	SHALËS	3,842	0.132	0.03	0.247	0.007	950.63	8,857.88	1,181.04
ELBASAN	SHIRGJAN	7,307	0.116	0.03	0.247	0.005	1,808.13	9,101.66	683.18
ELBASAN	SHUSHICË	8,722	0.156	0.03	0.234	0.006	2,043.71	8,142.32	640.93
ELBASAN	TREGAN	3,036	0.166	0.02	0.232	0.005	703.00	7,967.98	593.76
ELBASAN	ZAVALIN	1,622	0.162	0.01	0.246	0.003	399.68	8,394.10	386.01
FIER	CAKRAN	11,722	0.194	0.03	0.237	0.007	2,774.67	7,659.54	944.36
FIER	DERMENAS	7,788	0.188	0.03	0.237	0.006	1,845.73	7,748.79	979.97
FIER	FIER	55,752	0.110	0.02	0.271	0.004	15,093.48	9,826.79	736.23
FIER	FRAKULL	6,820	0.161	0.03	0.234	0.007	1,593.22	8,011.48	1,378.06
FIER	RUZHDIË	2,328	0.179	0.04	0.220	0.008	512.60	7,597.36	739.66
FIER	KUMAN	5,611	0.194	0.03	0.235	0.005	1,319.16	7,660.11	1,437.85
FIER	KURJAN	3,618	0.204	0.04	0.228	0.007	825.37	7,436.27	956.02
FIER	LEVAN	8,159	0.162	0.02	0.246	0.005	2,011.01	8,269.19	1,207.65
FIER	LIBOFSHË	6,149	0.151	0.04	0.245	0.008	1,505.68	8,418.25	776.19
FIER	MBROSTAR	7,460	0.193	0.03	0.241	0.007	1,794.37	7,753.67	757.50
FIER	PATOS	15,397	0.144	0.06	0.246	0.013	3,792.67	8,556.48	840.06
FIER	PORTËZ	8,259	0.164	0.03	0.235	0.007	1,940.90	7,992.24	701.85
FIER	QENDËR	4,207	0.168	0.02	0.241	0.004	1,014.89	8,103.62	510.13
FIER	ROSKOVEC	4,975	0.150	0.03	0.245	0.006	1,219.48	8,443.80	623.15
FIER	STRUM	7,538	0.208	0.03	0.222	0.006	1,676.02	7,286.74	704.58
FIER	TOPOJË	4,246	0.157	0.03	0.247	0.007	1,047.42	8,385.20	571.36
FIER	ZHARRËS	5,247	0.166	0.03	0.245	0.007	1,283.03	8,167.52	615.37
GRAMSH	GRAMSH	8,440	0.123	0.05	0.240	0.010	2,028.71	8,750.16	683.07
GRAMSH	KODOVJAT	2,355	0.173	0.04	0.226	0.008	531.12	7,691.24	706.28
GRAMSH	KUSHOVË	659	0.118	0.04	0.224	0.010	147.56	8,424.68	439.94
GRAMSH	LENIE	779	0.157	0.06	0.216	0.013	168.54	7,748.44	756.97
GRAMSH	PISHAJ	4,906	0.200	0.06	0.233	0.014	1,145.49	7,552.86	827.59
GRAMSH	POROÇAN	1,269	0.268	0.04	0.229	0.008	290.28	6,868.46	702.41

District	Commune	Population	Poverty-Headcount	s.e.	Gini	s.e.	Poor population	Mean percapita consumption	s.e.
GRAMSH	SKËNDERBEGAS	1,239	0.175	0.03	0.249	0.008	308.80	8,101.17	479.74
GRAMSH	KUKUR	2,560	0.123	0.03	0.239	0.007	612.85	8,564.93	541.14
GRAMSH	SULT	631	0.202	0.05	0.218	0.012	137.38	7,338.24	691.66
GRAMSH	TUNJË	1,393	0.193	0.02	0.230	0.005	320.52	7,593.94	597.05
GJIROKASTËR	ANTIGONE	998	0.053	0.02	0.260	0.005	259.23	11,649.14	566.55
GJIROKASTËR	CEPO	1,727	0.070	0.02	0.255	0.005	440.22	10,567.58	536.86
GJIROKASTËR	DROPULL I POSHTËM	2,095	0.096	0.02	0.254	0.004	532.83	9,932.79	339.50
GJIROKASTËR	DROPULL I SIPËRM	969	0.061	0.02	0.261	0.005	252.82	11,536.34	366.34
GJIROKASTËR	GJIROKASTËR	19,708	0.069	0.02	0.272	0.005	5,352.86	11,295.29	405.05
GJIROKASTËR	LAZARAT	2,801	0.070	0.05	0.268	0.011	750.90	11,195.05	1,096.89
GJIROKASTËR	LIBOHOVË	1,992	0.064	0.06	0.249	0.013	496.55	10,736.00	800.93
GJIROKASTËR	LUNXHËRI	1,941	0.052	0.03	0.252	0.005	488.20	11,227.19	734.71
GJIROKASTËR	ODRIE	433	0.039	0.04	0.242	0.009	104.66	11,838.65	825.41
GJIROKASTËR	PICAR	937	0.088	0.05	0.252	0.011	236.52	10,040.16	1,202.51
GJIROKASTËR	POGON	432	0.031	0.03	0.228	0.006	98.54	11,935.76	809.77
GJIROKASTËR	QENDËR LIBOHOVË	1,264	0.085	0.06	0.257	0.013	324.67	10,401.89	938.23
GJIROKASTËR	ZAGORI	411	0.026	0.03	0.240	0.005	98.67	13,215.98	504.54
HAS	FAJZA	3,476	0.258	0.02	0.229	0.005	794.51	6,954.45	440.03
HAS	GOLAJ	6,187	0.231	0.04	0.237	0.009	1,469.39	7,311.64	593.26
HAS	GJINAJ	1,106	0.257	0.01	0.213	0.003	236.09	6,806.49	276.92
HAS	KRUMË	6,006	0.167	0.06	0.235	0.014	1,412.20	7,990.25	772.38
KAVAJË	GOLEM	6,833	0.171	0.02	0.253	0.004	1,729.25	8,247.80	352.45
KAVAJË	GOSË	4,120	0.164	0.02	0.246	0.003	1,011.95	8,224.78	555.14
KAVAJË	HELMËS	3,139	0.198	0.04	0.234	0.009	733.36	7,596.85	539.60
KAVAJË	KAVAJË	20,144	0.151	0.05	0.264	0.011	5,321.64	8,897.86	728.36
KAVAJË	KRYEVIDH	4,662	0.174	0.03	0.242	0.006	1,129.33	8,050.43	481.88
KAVAJË	LEKAJ	5,116	0.160	0.02	0.240	0.005	1,225.28	8,165.05	295.39
KAVAJË	LUZIVOGEL	4,735	0.136	0.02	0.246	0.004	1,163.58	8,656.10	309.03
KAVAJË	RROGOZHINË	6,650	0.209	0.02	0.251	0.004	1,666.04	7,769.04	392.02
KAVAJË	SINABALLAJ	1,191	0.220	0.03	0.215	0.008	256.45	7,152.35	578.22
KAVAJË	SYNEJ	4,995	0.165	0.03	0.252	0.007	1,258.43	8,385.83	444.64
KOLONJË	BARMASH	480	0.077	0.07	0.235	0.017	112.86	9,994.94	1,057.55
KOLONJË	ÇLIRIM	355	0.113	0.03	0.226	0.006	80.24	8,769.87	367.16
KOLONJË	ERSEKË	3,746	0.071	0.02	0.246	0.005	921.10	10,266.23	249.81
KOLONJË	LESKOVIK	1,525	0.089	0.04	0.238	0.011	362.81	9,667.71	347.69
KOLONJË	LESKOVIK	416	0.087	0.04	0.231	0.010	96.12	9,786.44	554.13
KOLONJË	MOLLAS	1,520	0.073	0.02	0.246	0.004	373.99	10,195.94	282.86
KOLONJË	NOVOSELË	355	0.087	0.03	0.233	0.008	82.80	9,490.57	375.55
KOLONJË	QENDËR	2,673	0.083	0.03	0.255	0.008	682.88	10,151.93	390.91
KORÇË	DRENOVË	5,199	0.100	0.05	0.259	0.011	1,344.94	9,752.06	529.57
KORÇË	GORË	1,565	0.119	0.04	0.247	0.010	386.03	9,075.09	557.84
KORÇË	KORÇË	50,847	0.096	0.06	0.270	0.014	13,727.29	10,393.99	444.98
KORÇË	LEKAS	386	0.143	0.06	0.245	0.015	94.60	8,626.25	677.32
KORÇË	LIBONIK	8,922	0.116	0.05	0.247	0.012	2,204.61	9,101.16	503.79
KORÇË	LIQENAS	3,154	0.051	0.05	0.249	0.012	786.32	11,140.89	575.27
KORÇË	MALIQ	4,290	0.122	0.02	0.242	0.005	1,040.17	8,902.12	418.94
KORÇË	MOGLICË	951	0.123	0.04	0.237	0.009	225.15	8,845.02	508.40
KORÇË	MOLLAJ	3,438	0.113	0.08	0.249	0.018	854.55	9,226.25	736.11
KORÇË	PIRG	7,652	0.138	0.03	0.241	0.007	1,845.00	8,551.97	331.51
KORÇË	POJAN	10,864	0.115	0.03	0.253	0.006	2,747.14	9,300.05	382.16
KORÇË	QENDËR	9,022	0.103	0.05	0.250	0.011	2,257.93	9,451.12	486.20
KORÇË	VITHKUQ	1,510	0.110	0.03	0.248	0.007	374.83	9,312.07	730.47

District	Commune	Population	Poverty-Headcount	s.e.	Gini	s.e.	Poor population	Mean percapita consumption	s.e.
KORÇË	VOSKOP	3,832	0.130	0.03	0.251	0.007	963.29	8,941.19	585.97
KORÇË	VOSKOPOJË	1,058	0.130	0.04	0.270	0.009	285.87	9,560.73	456.59
KORÇË	VRESHTAS	7,641	0.126	0.09	0.237	0.024	1,807.66	8,629.27	780.31
KRUJË	BUBQ	5,874	0.090	0.10	0.252	0.026	1,480.02	9,788.12	759.77
KRUJË	CUDHI	1,812	0.160	0.06	0.238	0.015	432.08	8,218.37	644.12
KRUJË	FUSHË-KRUJË	18,102	0.146	0.05	0.250	0.013	4,518.06	8,618.52	596.91
KRUJË	KODËR-THUMANË	12,334	0.141	0.10	0.253	0.024	3,119.99	8,728.76	953.74
KRUJË	KRUJË	11,654	0.134	0.04	0.254	0.009	2,965.58	8,974.38	621.36
KRUJË	NIKËL	9,518	0.139	0.08	0.249	0.020	2,371.77	8,732.18	653.47
KUÇOVË	KOZARE	5,622	0.125	0.06	0.241	0.015	1,353.48	8,768.89	570.63
KUÇOVË	KUÇOVË	12,650	0.122	0.07	0.253	0.018	3,194.31	9,211.03	665.96
KUÇOVË	PERONDI	9,011	0.108	0.05	0.245	0.013	2,204.54	9,175.43	656.67
KUKËS	ARRËN	462	0.227	0.04	0.215	0.009	99.19	7,118.79	593.17
KUKËS	BICAJ	5,631	0.256	0.04	0.219	0.009	1,233.41	6,856.62	543.23
KUKËS	BUSHTRICË	1,486	0.255	0.02	0.216	0.004	321.59	6,884.21	270.90
KUKËS	KOLSH	1,250	0.328	0.02	0.220	0.004	274.56	6,422.92	405.26
KUKËS	KUKËS	16,697	0.170	0.03	0.230	0.007	3,846.84	7,824.08	373.47
KUKËS	MALZI	3,072	0.240	0.04	0.220	0.010	675.67	6,980.26	454.51
KUKËS	ZAPOD	2,217	0.293	0.03	0.218	0.007	483.16	6,583.69	386.25
KUKËS	SHISHTAVEC	3,835	0.265	0.03	0.235	0.008	902.38	6,974.33	447.37
KUKËS	SHTIQËN	3,438	0.175	0.08	0.225	0.018	774.65	7,729.87	1,031.27
KUKËS	SURROJ	1,099	0.356	0.02	0.209	0.005	229.40	6,123.54	219.94
KUKËS	TËRTHORE	2,959	0.164	0.07	0.217	0.016	642.77	7,683.22	1,513.54
KUKËS	TOPOJAN	1,753	0.337	0.01	0.208	0.003	365.20	6,200.18	222.57
KUKËS	UJËMISHT	1,797	0.365	0.08	0.202	0.019	362.72	5,982.50	1,090.47
KUKËS	GRYKËÇAJË	1,440	0.300	0.10	0.199	0.021	286.80	6,337.24	1,659.11
KUKËS	KALIS	827	0.385	0.02	0.197	0.005	162.84	5,838.82	424.52
KURBIN	FUSHË-KUQE	5,450	0.200	0.06	0.245	0.015	1,336.63	7,759.97	655.51
KURBIN	LAÇ	17,067	0.188	0.07	0.249	0.017	4,247.06	7,939.04	918.19
KURBIN	MAMURRAS	15,280	0.198	0.03	0.236	0.008	3,601.49	7,591.08	465.40
KURBIN	MILOT	8,452	0.191	0.03	0.239	0.007	2,017.21	7,725.84	417.56
LEZHË	BALLDRENIRI	6,138	0.201	0.03	0.242	0.008	1,485.98	7,694.39	495.51
LEZHË	BLINISHT	3,348	0.163	0.02	0.244	0.005	815.51	8,171.05	317.24
LEZHË	DAJÇ	3,826	0.154	0.01	0.250	0.003	957.72	8,474.26	248.02
LEZHË	KALLMET	4,101	0.157	0.02	0.235	0.006	962.20	8,092.07	447.49
LEZHË	KOLÇ	4,225	0.168	0.03	0.248	0.008	1,049.89	8,199.39	280.69
LEZHË	LEZHË	15,496	0.130	0.03	0.287	0.006	4,451.21	9,811.57	564.48
LEZHË	SHËNGJIN	8,087	0.138	0.03	0.268	0.008	2,169.05	9,128.28	439.02
LEZHË	SHËNKOLL	12,474	0.192	0.03	0.241	0.007	3,000.97	7,734.43	604.78
LEZHË	UNGREJ	1,587	0.202	0.02	0.221	0.004	350.97	7,368.76	388.84
LEZHË	ZEJMEN	5,656	0.174	0.05	0.241	0.010	1,362.84	7,984.80	607.43
LIBRAZHD	HOTOLISHT	5,700	0.220	0.03	0.215	0.008	1,227.35	7,082.10	397.87
LIBRAZHD	LIBRAZHD	6,937	0.087	0.05	0.233	0.012	1,619.48	9,268.62	744.31
LIBRAZHD	LUNIK	2,621	0.245	0.04	0.244	0.009	639.22	7,252.61	373.11
LIBRAZHD	ORENJË	3,883	0.304	0.03	0.225	0.006	872.11	6,562.22	333.54
LIBRAZHD	PËRRENNJAS	5,846	0.162	0.06	0.240	0.014	1,404.01	8,125.88	422.15
LIBRAZHD	POLIS	3,385	0.205	0.04	0.235	0.009	796.14	7,525.33	337.34
LIBRAZHD	QENDËR	8,557	0.195	0.07	0.232	0.015	1,982.73	7,512.78	677.06
LIBRAZHD	QUKËS	8,211	0.215	0.04	0.228	0.010	1,868.49	7,296.68	427.84
LIBRAZHD	STËBLEVË	809	0.122	0.04	0.237	0.010	192.10	8,665.03	364.54
LIBRAZHD	STRAVAJ	2,427	0.206	0.05	0.239	0.012	580.05	7,563.11	386.26
LIBRAZHD	RRAJCË	8,421	0.224	0.05	0.229	0.010	1,925.70	7,227.01	539.32

District	Commune	Population	Poverty-Headcount	s.e.	Gini	s.e.	Poor population	Mean percapita consumption	s.e.
LUSHNJE	ALLKAJ	4,319	0.169	0.04	0.236	0.011	1,019.59	7,978.10	321.30
LUSHNJE	BALLAGAT	2,461	0.192	0.05	0.223	0.010	547.58	7,515.81	421.36
LUSHNJE	BUBULLIMË	5,548	0.144	0.06	0.238	0.014	1,321.26	8,343.01	373.93
LUSHNJE	DIVJAKË	8,453	0.169	0.04	0.249	0.009	2,101.49	8,233.48	298.35
LUSHNJE	DUSHK	7,872	0.199	0.06	0.229	0.014	1,801.46	7,499.75	552.99
LUSHNJE	FIER-SHEGAN	7,023	0.172	0.03	0.229	0.008	1,608.99	7,792.52	191.84
LUSHNJE	GOLEM	5,240	0.197	0.04	0.233	0.010	1,220.32	7,608.24	332.18
LUSHNJE	GRABIAN	3,638	0.201	0.04	0.222	0.010	807.25	7,417.91	379.35
LUSHNJE	GRADISHTË	7,521	0.149	0.03	0.242	0.008	1,818.90	8,336.68	300.83
LUSHNJE	HYSGJOKAJ	2,603	0.191	0.03	0.220	0.008	573.21	7,474.75	279.41
LUSHNJE	KARBUNARË	4,193	0.203	0.06	0.231	0.015	969.68	7,507.21	407.59
LUSHNJE	KOLONJË	5,728	0.136	0.06	0.256	0.017	1,463.67	8,846.57	379.46
LUSHNJE	KRUTJE	7,564	0.148	0.07	0.234	0.019	1,767.97	8,182.93	479.83
LUSHNJE	LUSHNJE	31,093	0.125	0.08	0.265	0.022	8,240.47	9,343.56	539.67
LUSHNJE	RREMAS	4,449	0.189	0.06	0.229	0.015	1,018.63	7,613.55	400.62
LUSHNJE	TËRBUF	10,201	0.216	0.02	0.233	0.005	2,377.36	7,390.08	344.04
MALËSI E MADHE	GRUEMIRË	8,887	0.163	0.03	0.255	0.007	2,263.65	8,444.37	332.35
MALËSI E MADHE	KASTRAT	6,877	0.148	0.06	0.263	0.011	1,810.97	8,877.81	683.45
MALËSI E MADHE	KELMEND	3,056	0.170	0.06	0.250	0.012	764.37	8,297.15	547.41
MALËSI E MADHE	KOPLIK	3,734	0.093	0.03	0.264	0.008	987.22	10,134.42	347.66
MALËSI E MADHE	QENDËR	4,740	0.123	0.06	0.254	0.015	1,205.64	9,154.78	411.08
MALËSI E MADHE	SHKREL	3,520	0.181	0.04	0.258	0.010	908.30	8,283.57	507.53
MALLAKASTËR	ARANITAS	2,709	0.196	0.03	0.223	0.006	605.17	7,458.58	459.33
MALLAKASTËR	BALLSH	7,657	0.114	0.06	0.254	0.014	1,946.21	9,251.07	509.53
MALLAKASTËR	FRATAR	3,435	0.201	0.05	0.232	0.010	797.68	7,519.99	407.66
MALLAKASTËR	GRESHICË	1,152	0.173	0.05	0.230	0.011	265.51	7,841.83	365.17
MALLAKASTËR	HEKAL	2,623	0.172	0.02	0.237	0.004	620.78	7,971.02	414.87
MALLAKASTËR	KUTË	1,977	0.165	0.04	0.236	0.011	466.64	8,008.70	348.26
MALLAKASTËR	NGRAÇAN	588	0.188	0.05	0.208	0.013	122.09	7,468.07	314.08
MALLAKASTËR	QENDËR	6,253	0.178	0.03	0.233	0.007	1,455.17	7,784.03	349.95
MALLAKASTËR	SELITË	877	0.221	0.04	0.233	0.010	204.24	7,426.92	399.23
MAT	BAZ	2,228	0.187	0.03	0.235	0.007	523.88	7,838.82	283.15
MAT	DERJAN	1,098	0.180	0.03	0.231	0.006	253.74	7,791.28	239.81
MAT	GURRË	3,369	0.232	0.05	0.232	0.011	782.08	7,253.27	746.34
MAT	KLOS	7,873	0.159	0.04	0.242	0.010	1,908.92	8,246.97	414.34
MAT	KOMSI	4,283	0.177	0.03	0.244	0.007	1,044.01	8,070.33	237.43
MAT	LIS	3,824	0.168	0.05	0.248	0.012	947.11	8,238.40	334.48
MAT	MACUKULL	1,565	0.194	0.04	0.231	0.010	362.15	7,644.82	292.45
MAT	BURREL	10,664	0.112	0.08	0.243	0.021	2,596.25	9,101.31	540.79
MAT	RUKAJ	2,511	0.186	0.04	0.236	0.009	592.08	7,794.22	447.16
MAT	SUÇ	2,716	0.173	0.10	0.241	0.022	655.04	8,066.61	710.86
MAT	ULËZ	1,229	0.152	0.05	0.250	0.011	307.75	8,602.79	309.19
MAT	XIBËR	2,660	0.204	0.06	0.238	0.016	633.68	7,659.66	480.41
MIRDITË	FAN	2,974	0.238	0.10	0.236	0.031	703.30	7,268.04	580.12
MIRDITË	KAÇINAR	1,016	0.180	0.03	0.246	0.006	250.34	8,109.76	282.02
MIRDITË	KTHJELLË	2,206	0.181	0.05	0.243	0.012	535.66	7,962.58	346.28
MIRDITË	OROSH	1,899	0.155	0.07	0.247	0.017	469.68	8,435.14	437.85
MIRDITË	RRËSHEN	8,796	0.112	0.04	0.248	0.011	2,185.17	9,179.91	285.90
MIRDITË	RUBIK	4,452	0.158	0.05	0.249	0.011	1,107.54	8,432.30	504.61
MIRDITË	SELITË	745	0.189	0.10	0.242	0.028	180.61	7,913.32	516.02
PEQIN	GJOCAJ	5,207	0.149	0.04	0.235	0.009	1,223.27	8,268.61	411.18
PEQIN	KARINË	1,350	0.144	0.08	0.234	0.022	315.29	8,370.13	401.20

District	Commune	Population	Poverty-Headcount	s.e.	Gini	s.e.	Poor population	Mean percapita consumption	s.e.
PEQIN	PAJOVË	6,626	0.137	0.08	0.244	0.025	1,613.89	8,605.66	428.39
PEQIN	PEQIN	5,616	0.148	0.08	0.264	0.022	1,484.53	8,993.70	469.67
PEQIN	PËRPARIM	3,423	0.125	0.10	0.240	0.030	820.31	8,794.67	484.75
PEQIN	SHEZË	3,177	0.134	0.02	0.245	0.005	778.94	8,730.98	496.63
PËRMET	BALLABAN	1,047	0.093	0.04	0.245	0.010	256.04	9,598.28	404.71
PËRMET	ÇARÇOVË	910	0.067	0.04	0.247	0.008	224.66	10,640.84	568.53
PËRMET	FRASHËR	387	0.116	0.05	0.243	0.011	93.88	9,083.72	476.19
PËRMET	KËLCYRË	2,651	0.091	0.08	0.243	0.023	644.20	9,700.74	475.89
PËRMET	PËRMET	5,945	0.070	0.07	0.248	0.016	1,472.49	10,359.98	496.43
PËRMET	QENDËR	1,742	0.081	0.05	0.245	0.012	427.26	9,967.17	460.47
PËRMET	SUKË	1,256	0.075	0.05	0.235	0.012	295.29	9,819.81	318.16
PËRMET	DISHNICË	1,159	0.114	0.01	0.246	0.003	285.10	9,220.09	180.12
PËRMET	PETRA	1,622	0.092	0.05	0.247	0.012	400.99	9,750.14	444.24
POGRADE	BUÇIMAS	15,687	0.156	0.03	0.247	0.008	3,873.35	8,374.72	370.37
POGRADE	ÇËRRAVË	7,009	0.211	0.03	0.236	0.008	1,653.63	7,527.11	303.32
POGRADE	DARDHAS	2,182	0.156	0.03	0.243	0.008	529.30	8,382.61	461.39
POGRADE	POGRADE	20,851	0.108	0.04	0.260	0.011	5,428.39	9,676.43	368.22
POGRADE	PROPTISHT	4,782	0.164	0.02	0.236	0.005	1,126.69	8,067.55	244.02
POGRADE	TREBINJË	2,481	0.147	0.03	0.232	0.006	574.39	8,225.60	436.63
POGRADE	HUDENISHT	5,990	0.170	0.03	0.240	0.008	1,438.58	8,118.53	273.41
POGRADE	VELÇAN	2,546	0.143	0.02	0.236	0.006	602.12	8,388.82	307.24
PUKË	BLERIM	913	0.237	0.03	0.240	0.006	218.95	7,431.05	236.11
PUKË	FIERZË	1,302	0.221	0.03	0.233	0.008	303.13	7,424.98	295.80
PUKË	FUSHË-ARRËZ	2,513	0.187	0.01	0.245	0.002	616.10	8,022.87	200.14
PUKË	GJEGJAN	2,846	0.174	0.03	0.242	0.007	687.34	8,040.62	318.38
PUKË	IBALLË	1,129	0.184	0.05	0.239	0.011	269.52	7,974.87	484.03
PUKË	PUKË	3,603	0.126	0.04	0.249	0.009	895.75	8,976.58	320.28
PUKË	QELËZ	1,761	0.221	0.04	0.226	0.010	398.41	7,286.73	342.08
PUKË	QERRET	1,486	0.195	0.03	0.243	0.006	361.55	7,853.75	303.88
PUKË	QAFË MALI	1,534	0.212	0.03	0.247	0.006	379.59	7,690.50	327.01
PUKË	RRAPË	1,357	0.154	0.03	0.244	0.009	331.20	8,386.03	314.48
SARANDË	DHIVËR	1,396	0.068	0.02	0.236	0.005	330.00	10,502.49	290.50
SARANDË	KONISPOL	2,123	0.152	0.03	0.261	0.007	554.72	8,818.00	297.01
SARANDË	LIVADHJA	1,165	0.059	0.04	0.239	0.009	278.21	10,843.44	451.19
SARANDË	LUKOVË	2,916	0.128	0.03	0.265	0.008	773.17	9,416.50	456.87
SARANDË	SARANDË	17,161	0.107	0.03	0.278	0.008	4,766.52	10,133.88	271.47
SARANDË	XARRË	4,254	0.162	0.03	0.227	0.008	964.22	7,880.78	420.08
SARANDË	ALIKO	3,849	0.109	0.03	0.264	0.007	1,017.41	9,766.03	329.80
SARANDË	MARKAT	1,859	0.136	0.04	0.241	0.008	447.31	8,663.92	364.50
SARANDË	KSAMIL	3,003	0.139	0.06	0.247	0.014	741.52	8,641.61	568.64
SKRAPAR	BOGOVË	1,088	0.110	0.03	0.241	0.007	261.70	9,189.55	374.53
SKRAPAR	ÇEPAN	740	0.078	0.03	0.240	0.007	177.61	9,823.77	347.59
SKRAPAR	ÇOROVODË	4,051	0.099	0.04	0.242	0.009	982.30	9,447.71	336.13
SKRAPAR	GJERBËS	813	0.116	0.03	0.234	0.007	190.19	8,833.49	327.58
SKRAPAR	LESHNJË	496	0.131	0.05	0.232	0.011	115.13	8,636.08	485.26
SKRAPAR	POLIÇAN	4,309	0.100	0.06	0.234	0.015	1,008.38	9,149.34	609.78
SKRAPAR	POTOM	897	0.096	0.03	0.222	0.006	199.02	8,931.75	311.52
SKRAPAR	QENDËR	2,545	0.105	0.06	0.239	0.014	607.06	9,158.69	529.30
SKRAPAR	VENDRESHË	984	0.131	0.05	0.234	0.011	230.26	8,625.20	424.16
SKRAPAR	ZHEPË	779	0.169	0.03	0.240	0.006	187.12	8,111.39	369.25
SHKODËR	ANAEMALIT	3,858	0.106	0.03	0.260	0.006	1,002.52	9,741.27	301.48
SHKODËR	BËRDICË	5,775	0.148	0.01	0.252	0.003	1,457.39	8,690.74	225.91

District	Commune	Population	Poverty-Headcount	s.e.	Gini	s.e.	Poor population	Mean percapita consumption	s.e.
SHKODËR	BUSHAT	14,102	0.121	0.04	0.265	0.009	3,739.39	9,436.11	333.35
SHKODËR	DAJÇ	3,880	0.091	0.03	0.266	0.008	1,030.91	10,269.55	267.83
SHKODËR	GURIZI	8,067	0.142	0.05	0.251	0.012	2,028.16	8,754.40	447.60
SHKODËR	HAJMEL	4,415	0.189	0.03	0.255	0.006	1,123.69	8,128.08	436.75
SHKODËR	VAU I DEJËS	8,114	0.146	0.05	0.254	0.010	2,057.86	8,715.98	383.46
SHKODËR	POSTRIBË	7,059	0.159	0.07	0.251	0.015	1,772.67	8,426.24	645.61
SHKODËR	PULT	1,529	0.164	0.04	0.248	0.009	378.54	8,465.82	426.07
SHKODËR	RRETHINAT	21,133	0.170	0.04	0.258	0.010	5,454.11	8,384.77	454.09
SHKODËR	SHALË	1,795	0.087	0.10	0.259	0.026	465.40	10,316.30	954.63
SHKODËR	SHKODËR	75,649	0.122	0.03	0.269	0.007	20,354.73	9,621.64	304.15
SHKODËR	SHLLAK	680	0.135	0.09	0.247	0.021	168.25	8,878.07	694.89
SHKODËR	SHOSH	309	0.102	0.05	0.250	0.012	77.35	9,684.60	462.15
SHKODËR	VELIPOJË	5,015	0.115	0.03	0.263	0.006	1,318.07	9,473.51	265.42
SHKODËR	VIG-MNELË	1,509	0.190	0.03	0.246	0.007	370.62	7,996.32	276.45
SHKODËR	TEMAL	1,559	0.142	0.04	0.244	0.008	380.42	8,653.39	351.92
TEPELENË	BUZ	737	0.106	0.05	0.243	0.012	178.73	9,299.69	443.18
TEPELENË	FSHAT MEMALIAJ	1,606	0.093	0.04	0.241	0.009	387.66	9,518.99	414.77
TEPELENË	KRAHËS	2,444	0.143	0.03	0.250	0.007	610.74	8,751.06	413.46
TEPELENË	KURVELESH	705	0.129	0.04	0.255	0.008	179.88	9,148.02	431.93
TEPELENË	LOPËS	723	0.133	0.04	0.236	0.009	170.84	8,760.87	434.45
TEPELENË	LUFTINJË	1,734	0.106	0.02	0.245	0.005	425.64	9,401.37	348.44
TEPELENË	MEMALIAJ	2,647	0.120	0.03	0.243	0.006	643.77	9,019.06	424.98
TEPELENË	QENDËR	3,119	0.116	0.03	0.250	0.007	780.11	9,224.39	269.60
TEPELENË	QESARAT	1,379	0.136	0.07	0.253	0.017	349.12	8,967.59	585.41
TEPELENË	TEPELENË	4,342	0.081	0.03	0.255	0.008	1,105.77	10,278.72	355.50
TIRANË	BALDUSHK	4,576	0.132	0.03	0.234	0.007	1,071.69	8,511.35	340.08
TIRANË	BËRXULLË	11,030	0.145	0.03	0.248	0.008	2,740.77	8,631.82	428.55
TIRANË	BËRZHITË	4,973	0.139	0.05	0.243	0.011	1,208.45	8,610.84	410.64
TIRANË	DAJT	20,139	0.126	0.02	0.280	0.005	5,638.56	9,732.73	267.31
TIRANË	KAMËZ	66,832	0.252	0.03	0.253	0.008	16,903.52	7,339.52	313.26
TIRANË	KASHAR	43,058	0.112	0.03	0.269	0.007	11,584.31	9,791.84	363.78
TIRANË	NDROQ	5,035	0.112	0.03	0.251	0.007	1,265.77	9,264.34	412.60
TIRANË	PASKUQAN	37,305	0.209	0.04	0.243	0.010	9,058.32	7,645.58	370.72
TIRANË	PETRELË	5,542	0.102	0.08	0.251	0.019	1,393.10	9,492.32	654.57
TIRANË	PEZË	6,272	0.138	0.03	0.244	0.008	1,532.12	8,650.64	366.86
TIRANË	PREZË	4,727	0.103	0.03	0.265	0.006	1,251.91	9,966.06	413.62
TIRANË	FARKË	22,614	0.098	0.04	0.300	0.010	6,776.34	11,001.49	566.13
TIRANË	SHËNGJERGJ	2,186	0.146	0.03	0.235	0.007	514.32	8,323.45	539.41
TIRANË	TIRANË	410,813	0.092	0.04	0.277	0.009	113,752.32	10,647.36	540.19
TIRANË	VAQARR	8,922	0.149	0.03	0.249	0.005	2,224.76	8,557.52	658.85
TIRANË	VORË	10,873	0.186	0.05	0.256	0.013	2,785.26	8,157.85	753.00
TIRANË	ZALLBASTAR	3,380	0.147	0.03	0.232	0.006	784.42	8,271.41	750.09
TIRANË	ZALLHERR	9,389	0.172	0.03	0.235	0.007	2,209.42	7,969.64	521.21
TIRANË	KËRRABË	3,264	0.249	0.02	0.242	0.004	790.64	7,236.50	342.26
TROPOJË	BAJRAM CURRI	5,337	0.100	0.04	0.249	0.010	1,327.76	9,405.96	503.45
TROPOJË	BUJAN	2,550	0.208	0.03	0.244	0.006	622.51	7,639.10	437.75
TROPOJË	BYTYÇ	1,563	0.116	0.05	0.243	0.011	379.62	8,757.64	650.84
TROPOJË	FIERZË	1,607	0.159	0.04	0.250	0.009	401.53	8,306.66	531.21
TROPOJË	LEKBIBAJ	1,205	0.341	0.04	0.217	0.009	262.00	6,301.62	404.98
TROPOJË	LLUGAJ	1,787	0.254	0.02	0.236	0.006	421.67	7,119.03	418.34
TROPOJË	MARGEGAJ	2,346	0.225	0.04	0.239	0.010	559.86	7,390.66	458.77
TROPOJË	TROPOJË	4,117	0.272	0.03	0.231	0.006	952.07	6,875.83	326.83

District	Commune	Population	Poverty-Headcount	s.e.	Gini	s.e.	Poor population	Mean percapita consumption	s.e.
VLORË	BRATAJ	2,835	0.184	0.02	0.243	0.005	688.53	7,928.65	385.09
VLORË	HIMARË	2,815	0.116	0.03	0.272	0.006	765.57	9,933.81	336.68
VLORË	KOTE	3,522	0.170	0.04	0.240	0.011	844.82	8,021.08	484.83
VLORË	NOVOSELË	8,209	0.139	0.05	0.252	0.011	2,070.90	8,751.49	516.21
VLORË	ORIKUM	5,457	0.121	0.03	0.259	0.008	1,415.44	9,301.19	361.78
VLORË	QENDËR	7,644	0.141	0.05	0.247	0.014	1,889.47	8,608.09	424.54
VLORË	SELENICË	2,235	0.178	0.01	0.257	0.003	573.77	8,349.75	186.89
VLORË	SEVASTER	1,720	0.177	0.05	0.230	0.013	394.83	7,821.99	556.30
VLORË	SHUSHICË	3,981	0.177	0.05	0.248	0.011	986.12	8,108.42	466.42
VLORË	VLLAHINË	3,111	0.230	0.03	0.238	0.011	741.19	7,381.93	289.43
VLORË	VLORË	78,507	0.124	0.01	0.274	0.003	21,521.72	9,620.53	222.01
VLORË	VRANISHT	2,080	0.183	0.03	0.250	0.009	520.32	8,136.27	371.23
VLORË	ARMEN	2,965	0.175	0.06	0.238	0.018	706.96	7,970.33	563.34

Results of the 2012 Poverty Maps - New Municipalities

Municipality	Total population	Poverty headcount	s.e.	Gini	s.e.	Number of poor	Mean per capita consumption	s.e.
BERAT	59,924	0.129	0.01	0.253	0.01	7,735	9,008	222
URA VAJGURORRE	27,286	0.136	0.02	0.241	0.01	3,700	8,608	345
KUÇOVË	31,258	0.124	0.02	0.247	0.01	3,873	8,983	312
SKRAPAR	12,393	0.109	0.03	0.241	0.01	1,345	9,133	491
POLIÇAN	10,922	0.122	0.02	0.237	0.01	1,335	8,752	371
DIBËR	61,619	0.205	0.03	0.076	0.01	12,650	7,232	240
BULQIZË	31,190	0.190	0.03	0.079	0.01	5,926	7,438	291
MAT	27,402	0.153	0.03	0.246	0.01	4,194	8,434	403
KLOS	16,618	0.187	0.04	0.242	0.01	3,112	7,889	412
DURRËS	174,689	0.159	0.01	0.272	0.01	27,773	8,819	174
SHIJAK	27,861	0.152	0.02	0.256	0.01	4,230	8,602	319
KRUJË	59,294	0.135	0.02	0.252	0.01	7,994	8,849	319
ELBASAN	141,224	0.143	0.02	0.257	0.01	20,192	8,818	227
CËRRIK	27,445	0.141	0.03	0.248	0.01	3,881	8,666	370
BELSH	19,503	0.113	0.02	0.245	0.01	2,201	9,077	380
PEQIN	25,399	0.141	0.03	0.247	0.01	3,585	8,637	390
GRAMSH	24,231	0.157	0.03	0.085	0.01	3,815	7,944	292
LIBRAZHD	31,892	0.190	0.03	0.087	0.01	6,060	7,620	277
PRRENJAS	24,905	0.194	0.03	0.081	0.01	4,825	7,437	237
FIER	120,562	0.145	0.02	0.262	0.01	17,475	8,837	193
LUSHNJE	83,644	0.154	0.02	0.253	0.01	12,888	8,470	256
PATOS	22,972	0.154	0.02	0.245	0.01	3,537	8,360	271
ROSKOVEC	21,742	0.192	0.03	0.235	0.01	4,174	7,668	332
DIVJAKË	34,262	0.187	0.03	0.24	0.01	6,418	7,816	288
MALLAKASTËR	27,271	0.166	0.03	0.245	0.01	4,528	8,143	351
GJIROKASTËR	28,545	0.068	0.01	0.27	0.01	1,933	11,215	435
LIBOHOVË	3,667	0.067	0.03	0.255	0.02	246	10,895	888
PËRMET	10,606	0.076	0.02	0.25	0.01	804	10,242	481
KËLCYRË	6,113	0.092	0.03	0.244	0.01	565	9,620	582
TEPELENË	8,889	0.103	0.03	0.256	0.01	917	9,710	526
MEMALIAJ	10,547	0.123	..	..	..	1,297	9,095	..
DROPULL	3,496	0.078	0.02	0.26	0.01	273	10,670	521
KORÇË	75,292	0.102	0.01	0.267	0.01	7,649	10,061	259
POGRADEC	61,528	0.150	0.02	0.254	0.01	9,222	8,634	274
MALIQ	41,885	0.124	0.02	0.246	0.01	5,185	8,911	310
PUSTEC	3,154	0.050	0.02	0.249	0.01	158	11,213	560
KOLONJË	11,070	0.080	0.02	0.247	0.01	882	10,020	559
DEVOLL	26,720	0.095	0.02	0.257	0.01	2,546	9,821	370
KUKËS	47,963	0.232	0.04	0.079	0.01	11,127	7,067	254
TROPOJË	20,512	0.184	0.03	0.097	0.01	3,769	7,941	356
HAS	16,775	0.233	0.04	0.085	0.01	3,905	7,192	305
LEZHË	64,938	0.162	0.03	0.263	0.01	10,544	8,543	299
MIRDITË	22,088	0.153	0.03	0.251	0.01	3,382	8,503	401
KURBIN	46,249	0.193	0.03	0.243	0.01	8,926	7,770	279
SHKODËR	134,069	0.133	0.01	0.267	0.01	17,850	9,270	210
VAU I DEJËS	30,379	0.143	0.02	0.261	0.01	4,346	8,906	310

Municipality	Total population	Poverty headcount	s.e.	Gini	s.e.	Number of poor	Mean per capita consumption	s.e.
MALËSI E MADHË	30,814	0.149	0.03	0.261	0.01	4,596	8,817	368
PUKË	11,053	0.168	0.05	0.247	0.01	1,858	8,232	562
FUSHË-ARRËZ	7,391	0.201	0.06	0.245	0.01	1,487	7,791	640
TIRANË	550,163	0.101	..	..	..	55,561	10,328	..
KAMËZ	104,137	0.237	..	..	..	24,695	7,454	..
VORË	26,630	0.154	..	..	..	4,091	8,685	..
KAVAJË	39,846	0.160	0.02	0.259	0.01	6,364	8,580	226
RROGOZHINË	21,739	0.182	0.03	0.245	0.01	3,961	7,975	351
VLORË	103,798	0.129	0.01	0.271	0.01	13,364	9,407	181
HIMARË	7,811	0.140	0.03	0.269	0.01	1,091	9,266	405
SARANDE	20,164	0.112	0.02	0.275	0.01	2,267	9,886	318
KONISPOL	8,236	0.155	0.04	0.242	0.01	1,280	8,299	558
DELVINË	7,598	0.138	0.03	0.256	0.01	1,045	8,937	388
FINIQ	10,529	0.093	0.02	0.249	0.01	978	9,859	570
SELENICË	16,388	0.186	0.04	0.243	0.01	3,045	7,917	405

Note: The indicators for four new municipalities that resulted from merging fractions of former municipalities, as opposed to combinations of former municipalities, were calculated as population weighted averages of the indicators of the former municipalities, and the standard errors cannot be estimated. Moreover, the Gini index cannot be calculated as a weighted average so it is not available for these municipalities.

Annex C: Explanation of the Variables and Relevant Data Tables

Table C.1 Log Consumption Regression Models with the Mean of the Survey and Census Variables

a. Central domain

VARIABLE	COEFFICIENT	p VALUE	MEAN, CENSUS 2011	MEAN, LSMS 2012
INTERCEPT	8.56	0.00		
NUMBER OF CHILDREN 0 TO 5 YEARS	0.08	0.00	0.78	0.79
NUMBER OF CHILDREN 6 TO 14 YEARS	0.09	0.00	0.65	0.65
HH HAS COMPUTER	0.18	0.00	0.16	0.18
HH HAS DECODER/TV	0.15	0.00	0.15	0.13
HOUSEHOLD SIZE = 1	1.07	0.00	0.06	0.10
HOUSEHOLD SIZE = 2	0.71	0.00	0.18	0.19
HOUSEHOLD SIZE = 3	0.55	0.00	0.18	0.20
HOUSEHOLD SIZE = 4	0.38	0.00	0.24	0.28
HOUSEHOLD SIZE = 5	0.24	0.00	0.17	0.14
HOUSEHOLD SIZE = 6	0.12	0.01	0.10	0.06
HOUSEHOLD HEAD HAS PRIMARY EDUCATION AS HIGHEST LEVEL	0.16	0.00	0.09	0.10
HH HAS MICROWAVE	0.11	0.00	0.13	0.13
HH DO NOT HAVE CENTRAL HEATING	-0.28	0.00	0.03	0.04
PSU MEANS				
OWNS LIVESTOCK OR BEES	0.24	0.00	0.51	0.49
HH HAS CAR	0.21	0.00	0.22	0.22
HIGHEST EDUCATION LEVEL IN HH IS LOW	-0.30	0.00	0.58	0.58
HOUSEHOLD HEAD IS FEMALE	-0.38	0.00	0.13	0.13
OBSERVATIONS		2757		
R ²		0.46		
ADJUSTED R ²		0.46		
R ² ALPHA MODEL		0.00		

b. Coastal domain

VARIABLE	COEFFICIENT	p VALUE	MEAN, CENSUS 2011	MEAN, LSMS 2012
INTERCEPT_	8.43	0.00		
NUMBER CHILDREN UNDER AGE 5=0	0.09	0.00	0.80	0.83
NUMBER CHILDREN AGED 6-14=0	0.08	0.00	0.66	0.68
HH HAS COMPUTER	0.26	0.00	0.15	0.17
HOUSEHOLD SIZE = 1	0.96	0.00	0.06	0.07
HOUSEHOLD SIZE = 2	0.58	0	0.21	0.21
HOUSEHOLD SIZE = 3	0.34	0.00	0.18	0.20
HOUSEHOLD SIZE = 4	0.16	0.00	0.24	0.23
HOUSEHOLD HEAD HAS HIGH EDUCATION	0.08	0.01	0.09	0.09
HOUSEHOLD HEAD HAS LOW EDUCATION	-0.09	0.00	0.57	0.59
HH HAS MICROWAVE	0.22	0.00	0.15	0.16
SPOUSE HAS EMPLOYMENT	0.14	0.00	0.10	0.11
PSU MEANS				
HH HAS CAR	0.52	0.00	0.26	0.26
HH HAS MICROWAVE OVEN	-0.29	0.00	0.15	0.15
HH HAS REFRIGIATOR	-0.53	0.00	0.94	0.93
MSP_AGE	0.01	0.00	40.34	40.38
HH HAS TV	0.28	0.01	0.92	0.92
OBSERVATIONS		1837		
R ²		0.47		
ADJUSTED R ²		0.46		
R ² ALPHA MODEL		0.01		

c. Mountain domain

VARIABLE	COEFFICIENT	p VALUE	MEAN, CENSUS 2011	MEAN, LSMS 2012
INTERCEPT_	9.58	0.00		
HH HAS CAR	0.22	0.00	0.15	0.13
NUMBER CHILDREN UNDER AGE 5=0	0.09	0.00	0.71	0.77
NUMBER CHILDREN AGED 6-14=0	0.09	0.00	0.53	0.55
HOUSEHOLD SIZE = 1	1.21	0.00	0.03	0.02
HOUSEHOLD SIZE = 2	0.77	0.00	0.10	0.11
HOUSEHOLD SIZE = 3	0.55	0.00	0.13	0.12
HOUSEHOLD SIZE = 4	0.33	0.00	0.21	0.21
HOUSEHOLD SIZE = 5	0.20	0.00	0.22	0.24
HOUSEHOLD SIZE = 6	0.09	0.07	0.16	0.18
HOUSEHOLD HEAD HAS MEDIUM EDUCATION	0.05	0.03	0.29	0.29
HOUSEHOLD HEAD IS AN EMPLOYEE	0.09	0.00	0.16	0.19
HH HAS INTERNET	0.18	0.00	0.05	0.07
PSU MEANS				
HH HAS FIXED TELEPHONE LINE	-0.18	0.00	0.14	0.15
HOUSEHOLD HEAD IS MARRIED	-1.00	0.00	0.90	0.90
HOUSEHOLD HEAD IS SELF-EMPLOYED	0.19	0.00	0.19	0.19
HIGHEST EDUCATION IN HH IS UPPER PRIMARY	1.07	0.02	0.04	0.03
HH OWN HOUSE	-0.18	0.00	0.85	0.81
ROOMS PER CAPITA	-0.29	0.00	0.78	0.79
OBSERVATIONS		1128		
R ²		0.56		
ADJUSTED R ²		0.56		

d. Tirana domain

VARIABLE	COEFFICIENT	p VALUE	MEAN, CENSUS 2011	MEAN, LSMS 2012
INTERCEPT_	10.69	0.00		
NUMBER CHILDREN AGED 6-14=0	-0.07	0.07	0.70	0.68
HOUSE IS SEME-DETACHED HOUSE	-0.15	0.00	0.11	0.10
HOUSEHOLD SIZE	-0.41	0.00	3.62	3.79
HOUSEHOLD SIZE SQUARED	0.02	0.00	15.68	17.15
HIGHEST EDUCATION IN HH IS HIGH	0.18	0.00	0.45	0.44
HIGHEST EDUCATION IN HH IS LOW	-0.13	0.00	0.16	0.15
HH HAS 1 ROOM	-0.27	0.00	0.04	0.03
HH HAS 2 ROOM	-0.27	0.00	0.32	0.34
HH HAS 3 ROOM	-0.14	0.00	0.44	0.47
SPOUSE HAS EMPLOYMENT	0.14	0.00	0.23	0.22
BUILDING BUILT BETWEEN 1945 AND 1960	-0.19	0.01	0.05	0.04
PSU MEANS				
DEATTACHED HOUSE	-0.33	0.00	0.66	0.66
BUILDING BUILT BETWEEN 1961 AND 1980	0.31	0.00	0.17	0.17
OBSERVATIONS		648		
R ²		0.57		
ADJUSTED R ²		0.56		
R ² ALPHA MODEL		0.03		

Table C.2 Intracluster Errors as a Share of Total Errors

	COASTAL	CENTRAL	MOUNTAIN	TIRANA
$\hat{S}_h^2$	0.040	0.043	0.022	0.030
$\text{var}(e_{c.})$	5.930	5.153	5.559	5.013
$E[\hat{u}_{c.}^2]$	5.970	5.195	5.581	5.043
$r_I^2(Y X)$	0.007	0.008	0.004	0.006

Source: The 2012 Living Standard Measurement Study using calculations following Betti, Neri, and Ballini 2003.

Figure C.1 Mean Consumption and Poverty, by Prefecture

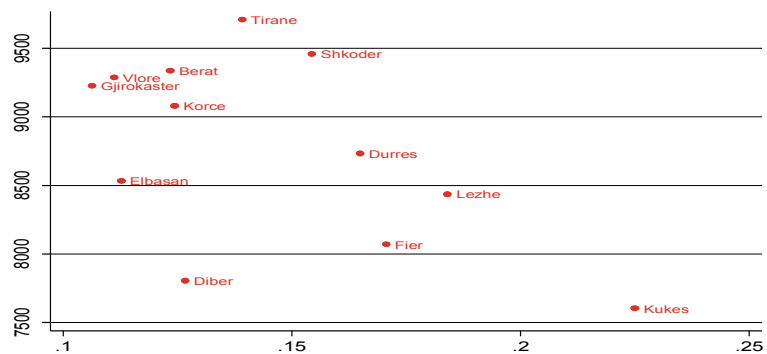


Figure C.2 Inequality measured by Gini, by prefecture

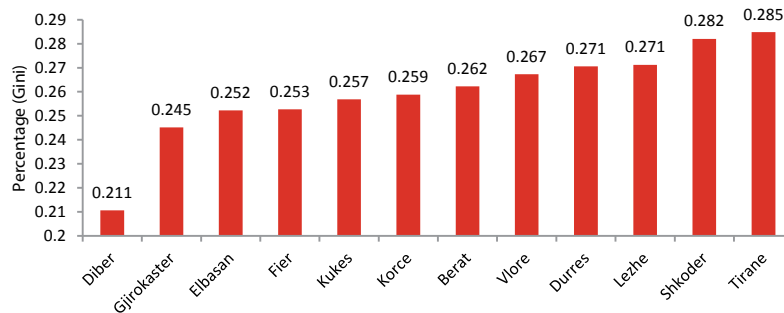


Figure C.3 Poverty Headcounts and 95 Confidence Intervals, by Prefecture

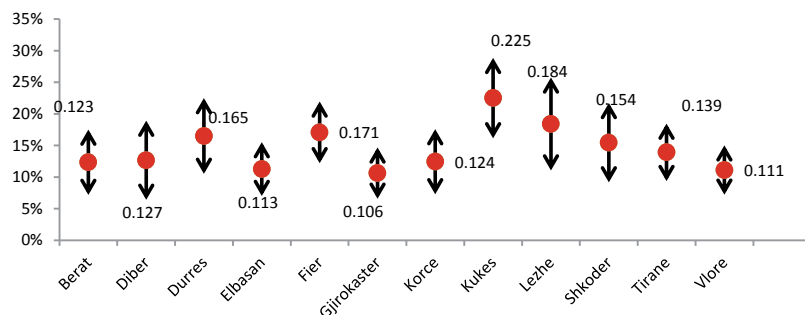


Table C.3 Distribution of Districts, by Region

COASTAL	CENTRAL	MOUNTAIN	TIRANA
LEZHË	DEVOLL	KUKËS	TIRANA URBAN
KURBIN	KOLONJË	HAS	TIRANA, OTHER URBAN
KAVAJË	POGRADEÇ	TROPOJË	
MALLAKASTËR	MIRDITË	BULQIZË	
LUSHNJË	PUKË	DIBËR	
DELVINË	MALËSI E MADHE	GRAMSH	
SARANDË	MAT	LIBRAZHID	
DURRËS	KUÇOVË		
FIER	SKRAPAR		
VLORË	KRUJË		
	PEQIN		
	GJIROKASTËR		
	PËRMET		
	TEPELENË		
	SHKODËR		
	ELBASAN		
	BERAT		
	KORÇË		
	TIRANA RURAL		

Main Annex: A closer look - Results by prefecture

Berat Prefecture

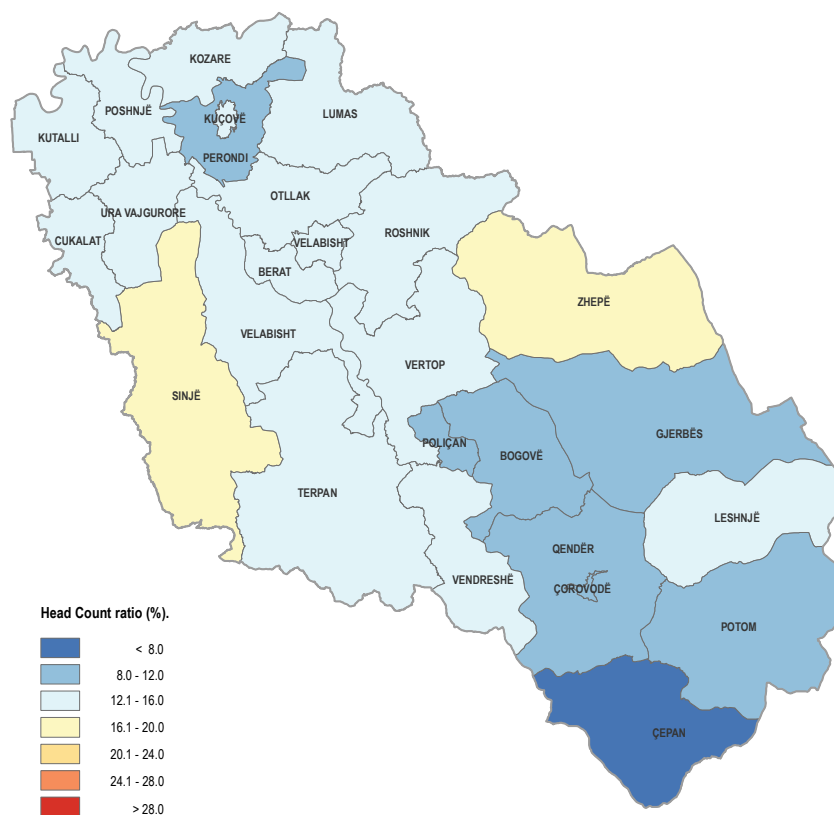
The prefecture of Berat is located in the central region. It was divided until recently into 20 communes and 5 municipalities. The surface area of the prefecture is 1,798 square kilometers, and the population is 141,783. The prefecture is bounded by Elbasan Prefecture to the north, Fier Prefecture to the west, Gjirokastrë Prefecture to the south, and

Korçë Prefecture to the east.

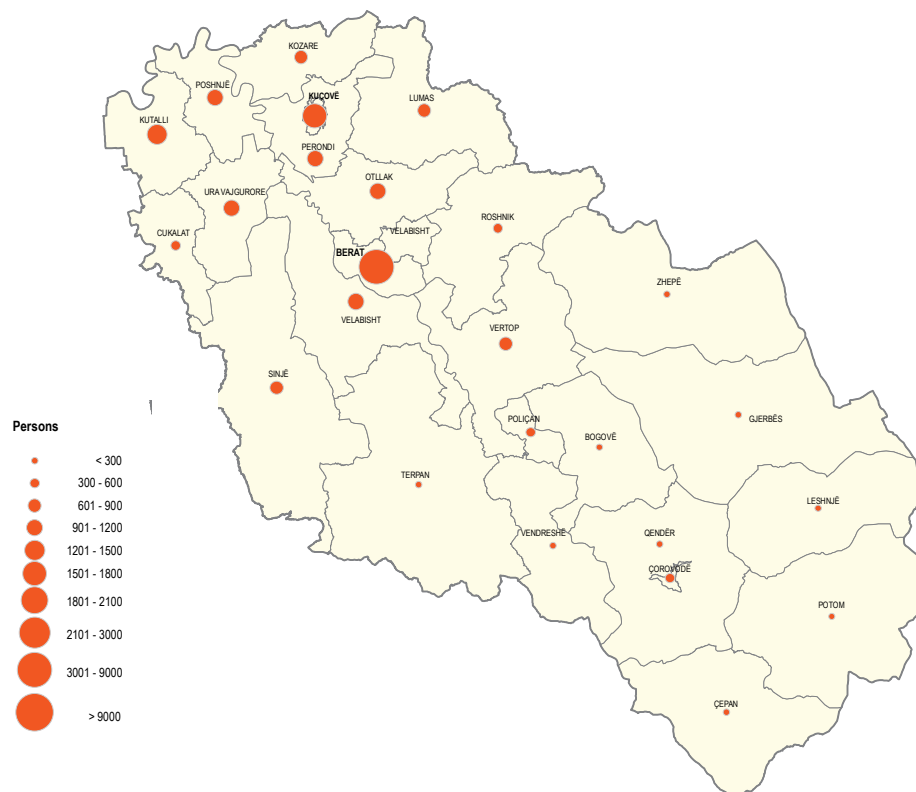
The poverty rate in the prefecture was 12.6 percent in 2012. The highest poverty rates were in the communes of Sinjë (17.8 percent) and Zhepë (16.9 percent) (map A1). The lowest poverty rate occurred in the commune of Çepan (less than 8.0 percent).

Map A1: Poverty Rate and Inequality, Berat Prefecture and communes, 2012

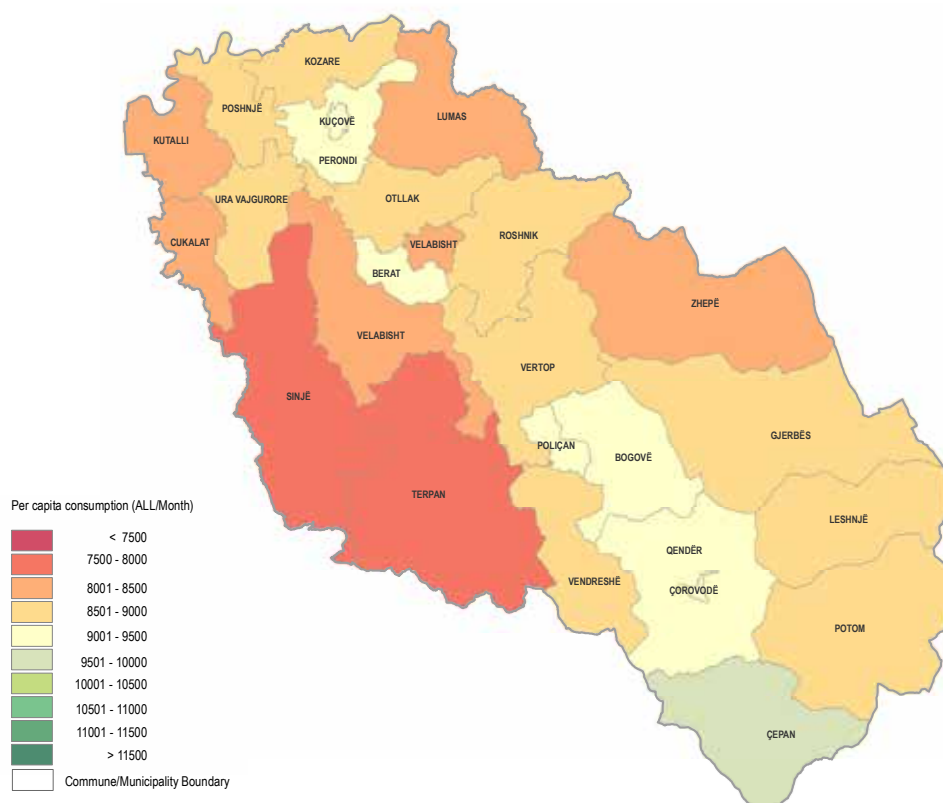
a. Poverty rate (headcount)



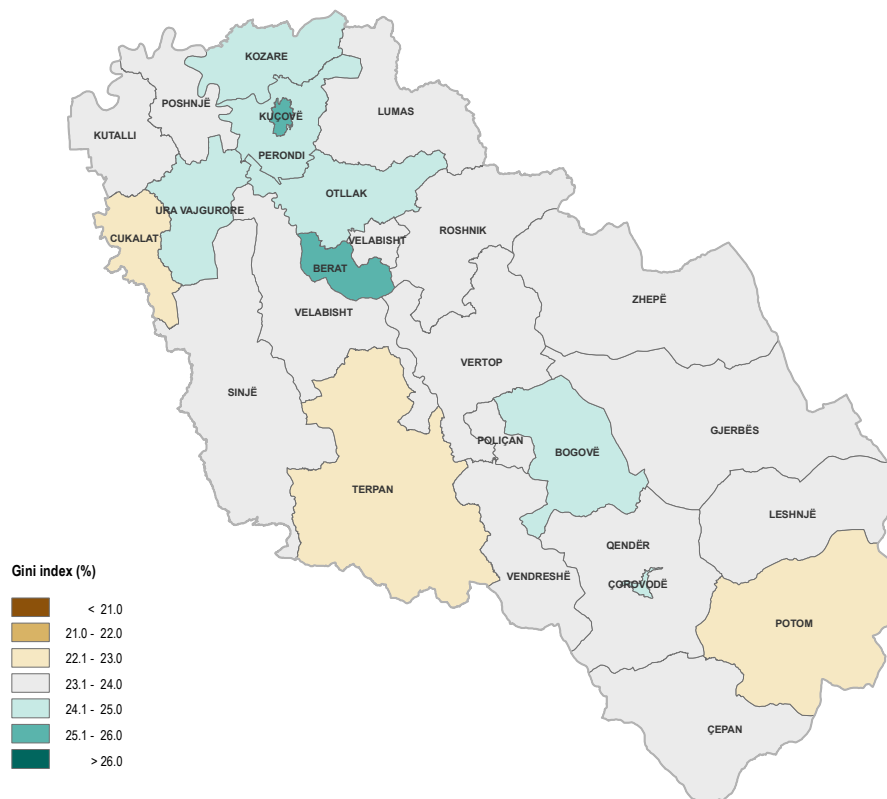
b. Number of the poor



c. The average monthly per capita consumption



d. Gini coefficient (inequality)



Source: Population and Housing Census 2011
Living Standard Measurement Survey – LSMS 2012

The boundaries of communes and municipalities have been designed for statistical purpose and may not reflect exactly the territory of the local unit

The number of the poor in this prefecture was 17,870 in 2012. The poor were concentrated in the municipality of Berat (4,523 people), followed by the municipality of Kuçovë (1,547) and the commune of Kutalli (1,396), while the communes with the lowest number of the poor were Çepan (58), Leshnjë (65), and Potom (86).

The average monthly per capita consumption in the prefecture was 8,785 ALL. The communes of Sinjë and Tërpan showed

the lowest level of per capita consumption, less than 7,500 ALL. The highest level of per capita consumption was in the commune of Çepan (9,854 ALL).

The Gini coefficient in the prefecture was 23.8 percent. It appeared to be highest in the municipalities of Berat (25.9 percent) and Kuçovë (25.2 percent), and lowest in the communes of Cukalat (22.7 percent), Potom (22.2 percent) and Tërpan (22.4 percent).

Dibër Prefecture

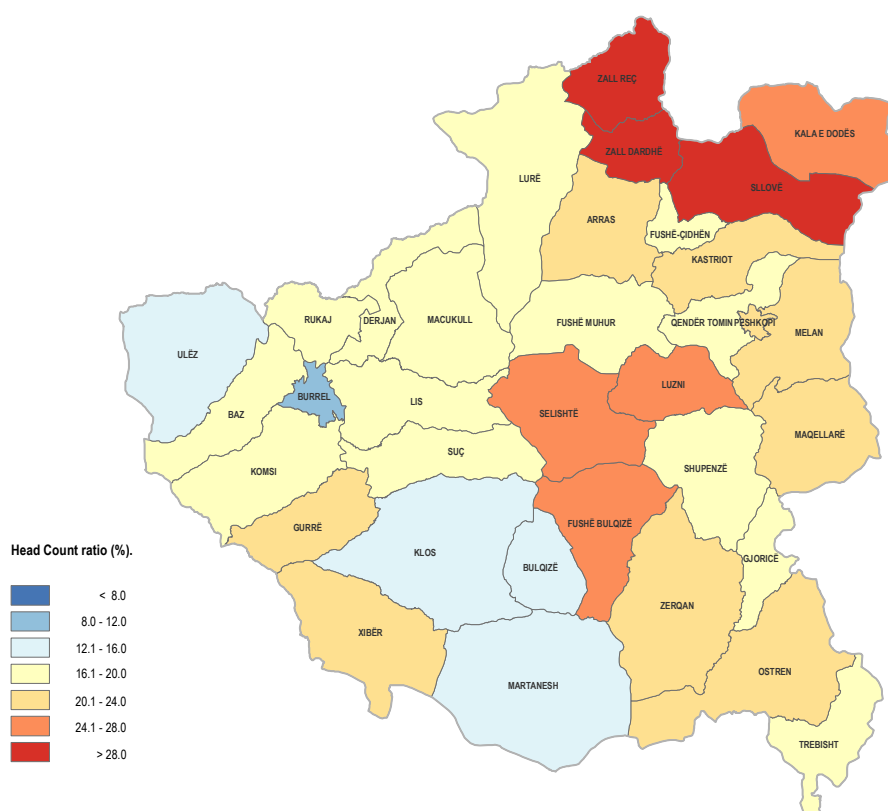
The prefecture of Dibër is located in the mountain region. It is divided into 4 municipalities and 31 communes. The surface area of the prefecture is 2,586 square kilometers, and the population is 136,829. The prefecture is bounded in the north by Kukës Prefecture, in the west by the prefectures of Durrës and Tirana, in the northwest by the prefecture of Lezhë, in the south by Elbasan Prefecture and in the east by

the Republic of Macedonia.

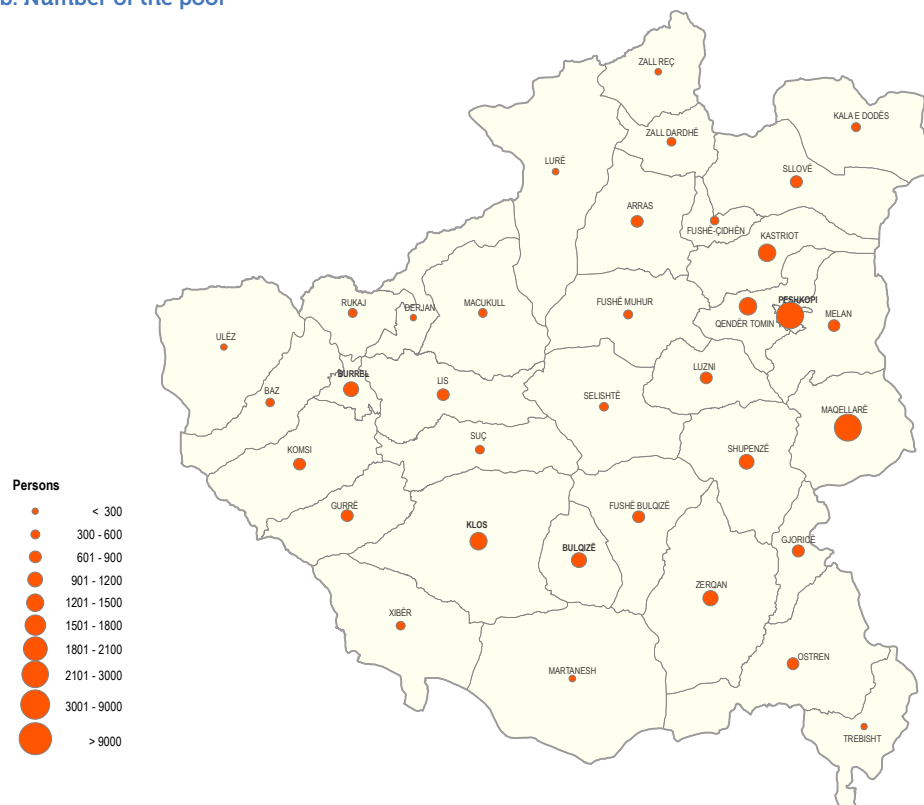
The poverty rate in the prefecture was 19.5 percent in 2012. The highest poverty rate occurred in the communes of Sllovë (29.4 percent), Zall-Dardhë (28.9 percent), and Zall-Reç (28.4 percent) (map A2). The lowest poverty rate was in the municipality of Burrel (11.2 percent).

Map A2: Poverty Rate and Inequality, Dibër Prefecture and communes, 2012

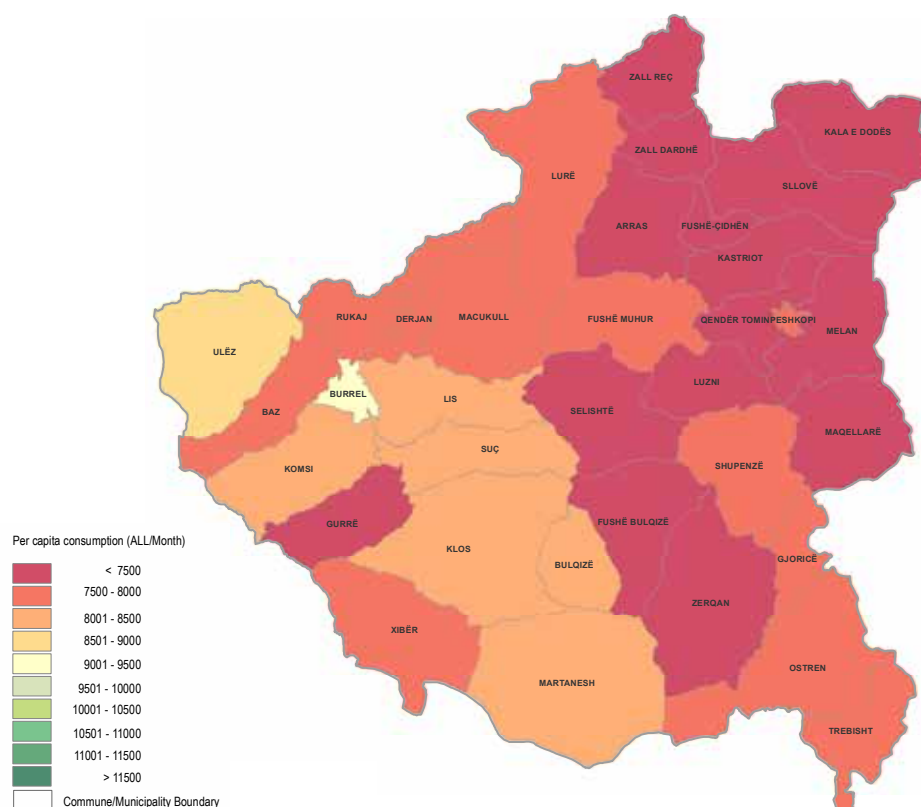
a. Poverty rate (headcount)



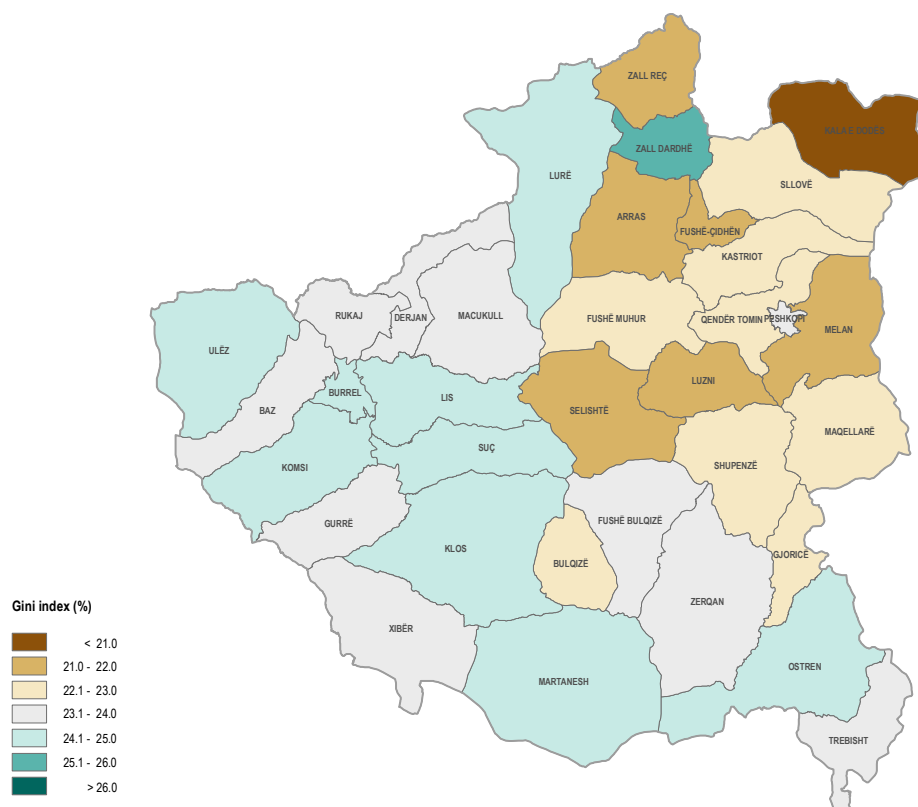
b. Number of the poor



c. The average monthly per capita consumption



d. Gini coefficient (inequality)



Source: Population and Housing Census 2011
Living Standard Measurement Survey – LSMS 2012

The boundaries of communes and municipalities have been designed for statistical purpose and may not reflect exactly the territory of the local unit

The number of the poor in the prefecture was estimated at 26,731. The largest number of poor was in the municipality of Peshkopi (2,745 poor people) and the commune of Maqellarë (2,561). The average monthly per capita consumption in this prefecture was 7,551 ALL, which is below the national average. The highest per capita consumption was in the municipality of Burrel

(9,101 ALL). The communes of Kala e Dodës, Luzni, Selishtë, Sllovë, Zall-Dardhë and Zall-Reç had the lowest per capita consumption, less than 7,000 ALL. The inequality measure in the prefecture was 23.1 percent. The highest level of inequality was in the commune of Zall-Dardhë (25.2 percent) and the lowest level of inequality in commune of Kala e Dodes (20.4 percent)

Durrës Prefecture

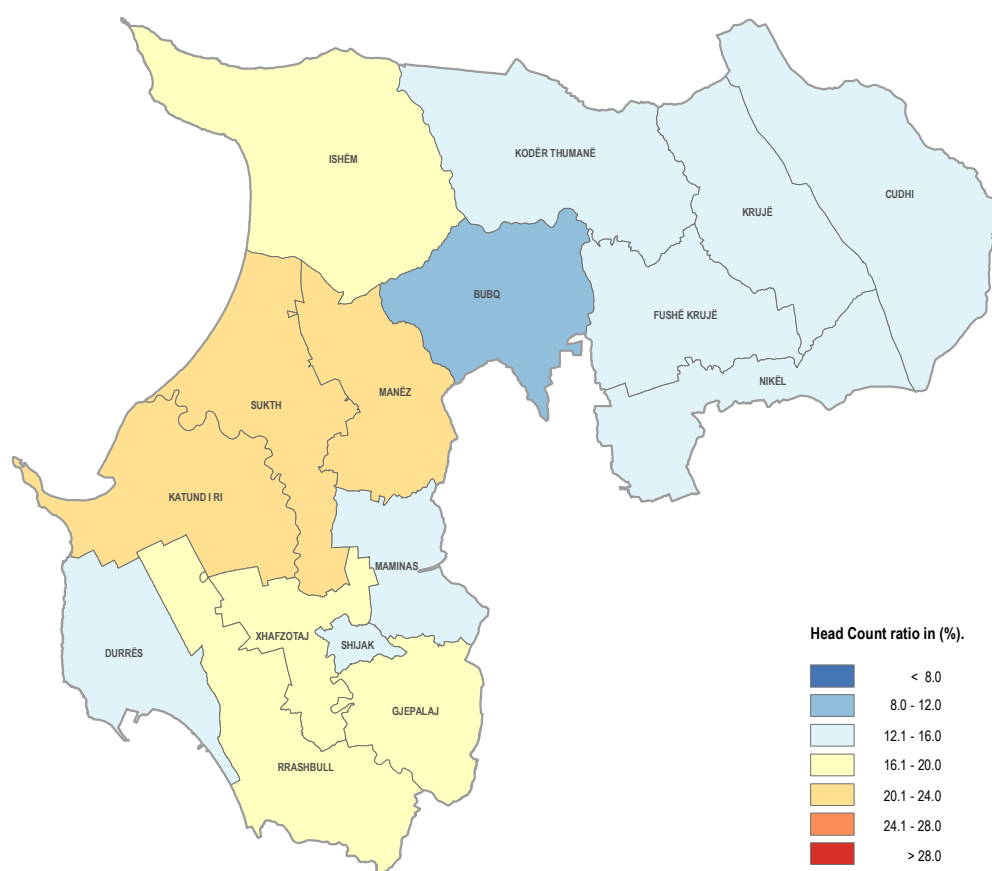
The prefecture of Durrës is located in the coastal region. It is divided into 6 municipalities and 10 communes. The surface area of the prefecture is 766 square kilometers and the population is 261,844. The prefecture is bounded on the east by the prefecture of Dibër, on the north by the prefecture of Lezhë, on the west by the Adriatic Sea, and on the south by the

prefecture of Tirana.

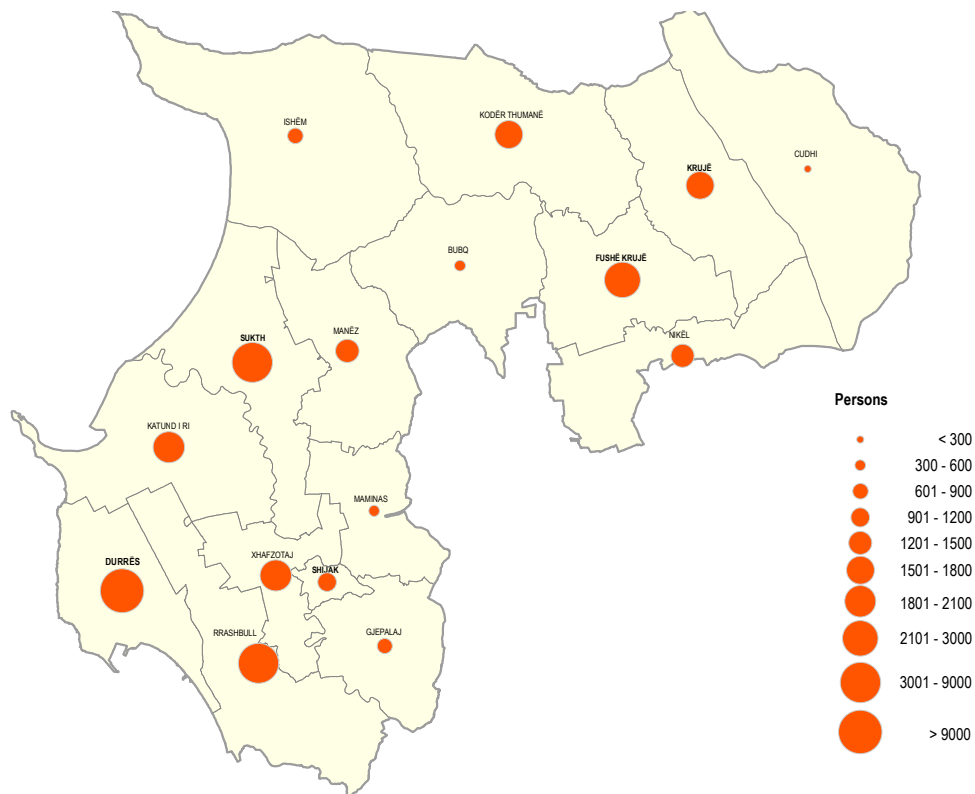
The poverty rate in the prefecture was 15.3 percent in 2012. The highest poverty rate was in the municipalities of Sukth (21.1 percent) and Manëz (20.9 percent), followed by the commune of Katund i Ri (20.2 percent) (map A3). The lowest poverty rate occurred in the commune of Bubq (9.0 percent).

Map A3: Poverty Rate and Inequality, Durrës Prefecture and communes, 2012

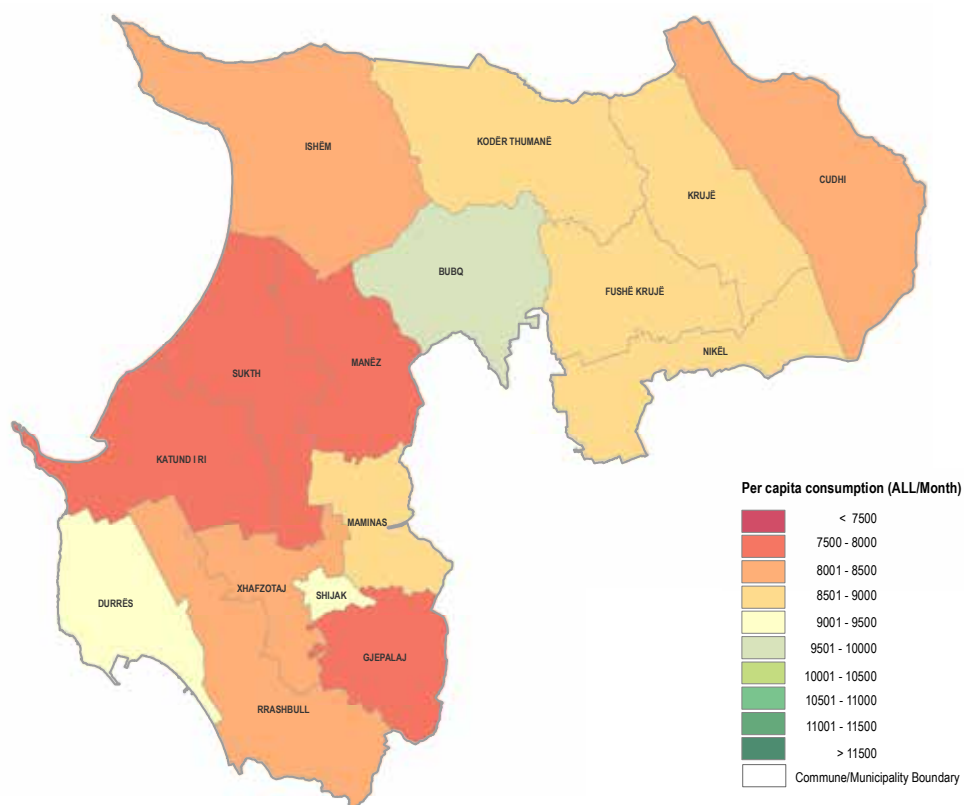
a. Poverty rate (headcount)



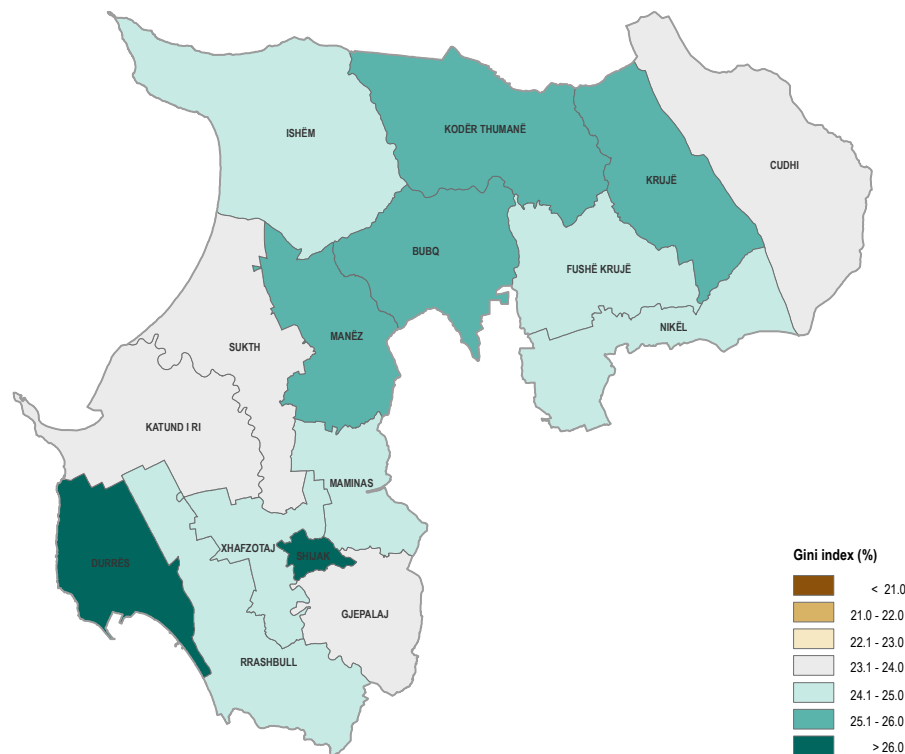
b. Number of the poor



c. The average monthly per capita consumption



d. Gini coefficient (inequality)



Source: Population and Housing Census 2011
Living Standard Measurement Survey – LSMS 2012

The boundaries of communes and municipalities have been designed for statistical purpose and may not reflect exactly the territory of the local unit

The number of poor in the prefecture was 39,940 in 2012. The highest number of poor was in the municipality of Durrës, around 16,000 individuals, with a poverty rate of 14.1 percent.

The average monthly per capita consumption in the prefecture was almost the same as the average per capita consumption in the country, 8,481 ALL. The highest per capita consumption was in the commune of Bubq (9,788 ALL) and in the municipalities of Shijak (9,382 ALL)

and Durrës (9,351 ALL). The lowest level of consumption was in the municipalities of Sukth (7,514 ALL), Katund i Ri (7,607 ALL), GjePALAJ (7,659 ALL) and Manëz (7,787 ALL).

The level of inequality in the prefecture was 24.9 percent. The highest level of inequality was in the municipalities of Durrës (27.9 percent) and Shijak (26.6 percent). The lowest poverty rate occurred in the commune of GjePALAJ (23.6 percent).

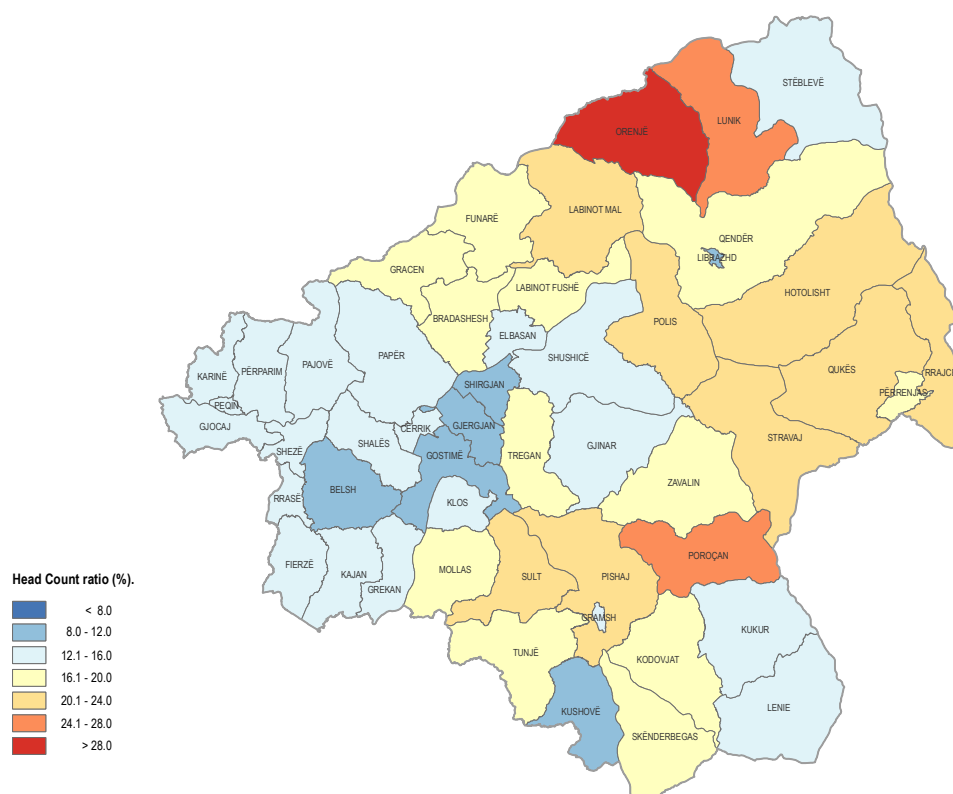
Elbasan Prefecture

The prefecture of Elbasan is located partly in the mountain region and partly in the central region. It is divided into 7 municipalities and 43 communes. The surface area of the prefecture is 3,278 square kilometers, and the population is 294,599. The prefecture is bounded on the north by the prefecture of Dibër, on the northwest by the prefecture of Tirana, in the west by the prefecture of Fier, in the south by the prefecture of Berat, in the southeast by the prefecture of Korçë, and in the east by Republic of Macedonia.

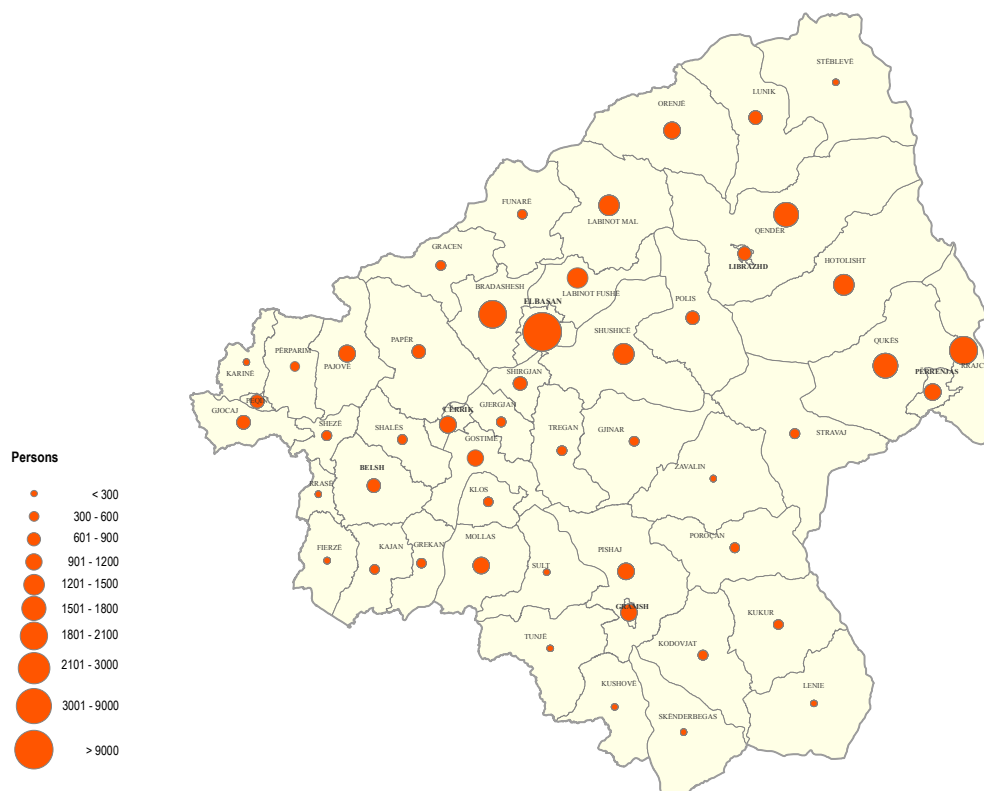
The prefecture of Elbasan had a poverty rate of 15.2 percent in 2012. Communes that are in the mountain region had a higher poverty rate compared with the other communes in the prefecture. The highest poverty rates were in the communes of Orenjë (30.4 percent), Poroçan (26.8 percent) and Lunik (24.5 percent) (map A4). The lowest poverty rates were in the municipality of Librazhd and the communes of Belsh, Gjergjan, Gostimë, Kushovë, and Shirgjan, where the rates fell below 12.0 percent.

Map A4: Poverty Rate and Inequality, Elbasan Prefecture and communes, 2012

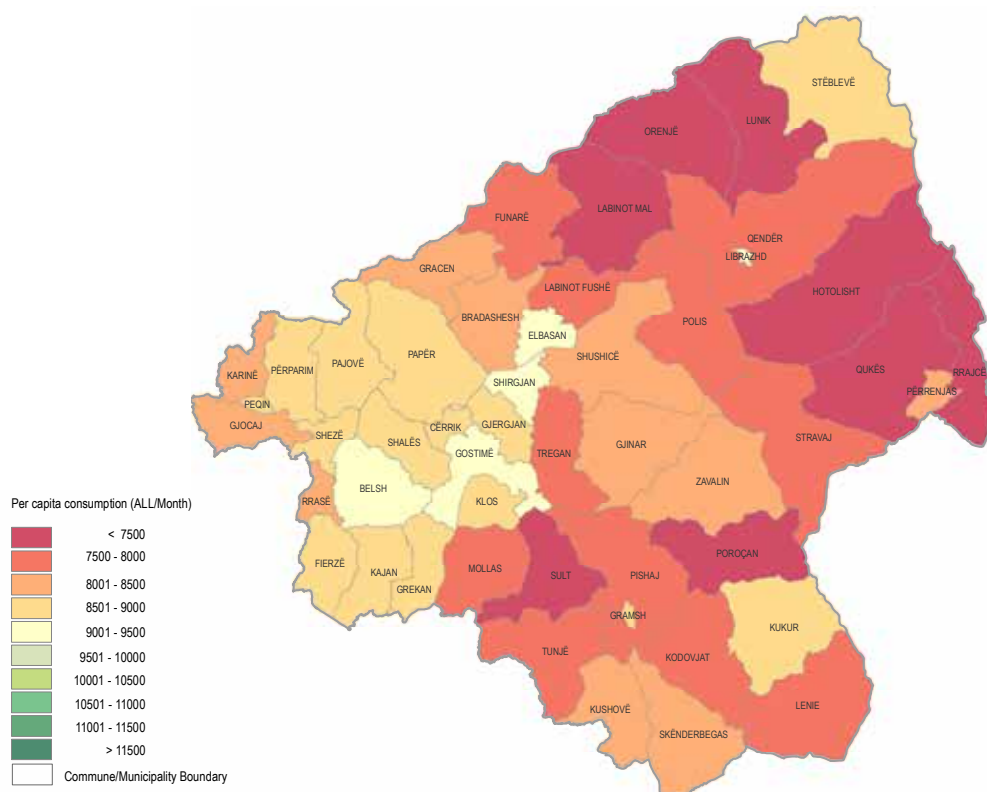
a. Poverty rate (headcount)



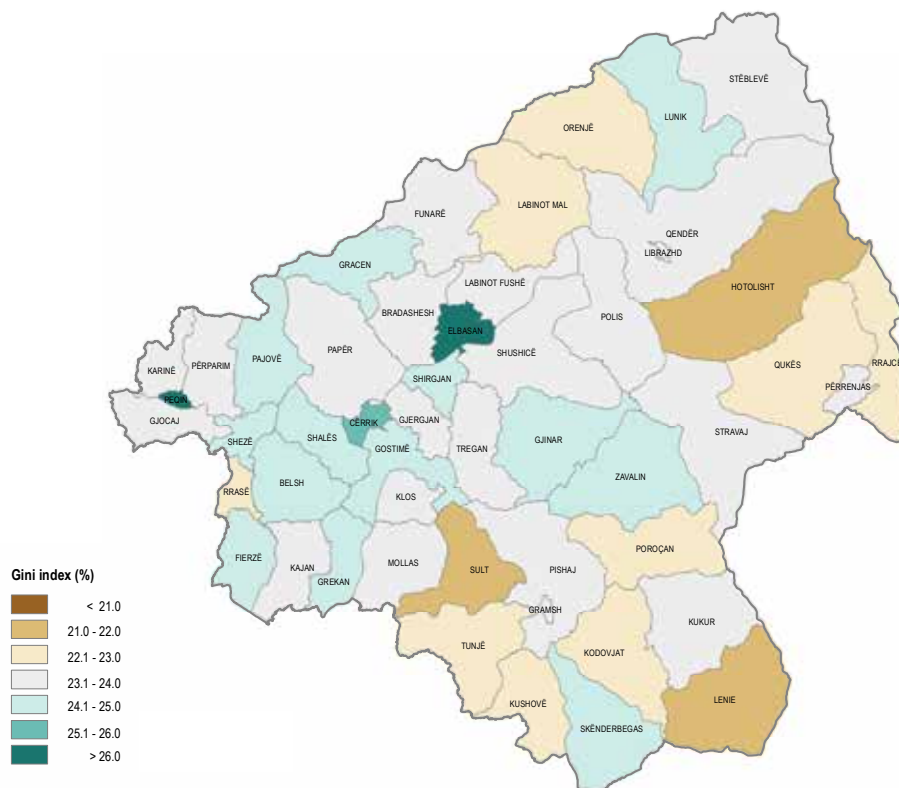
b. Number of the poor



c. The average monthly per capita consumption



d. Gini coefficient (inequality)



Source: Population and Housing Census 2011
Living Standard Measurement Survey – LSMS 2012

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The number of the poor in the prefecture was 44,727 in 2012. About 22.0 percent of the poor in the prefecture were living in the municipality of Elbasan, which had the highest density of poor compared with other municipalities and communes. The areas with the lowest number of poor were the communes of Kushovë and Stëblevë.

The average monthly per capita consumption in the prefecture was 8,192 ALL. The poorest commune, Orenjë, also exhibited the lowest consumption level (6,562 ALL), followed by

the commune of Poroçan (6,868 ALL). The municipalities of Belsh, Elbasan, and Librazhd and the communes of Gostimë and Shirgjan had consumption levels above 9,000 ALL, significantly above the average across the prefecture.

The measure of inequality in the prefecture was 23.7 percent. The highest Gini coefficient was in the municipalities of Elbasan and Peqin (above 26 percent). The lowest level of inequality were in commune of Hotolisht, Lenie and Sult (less than 22 percent).

Fier Prefecture

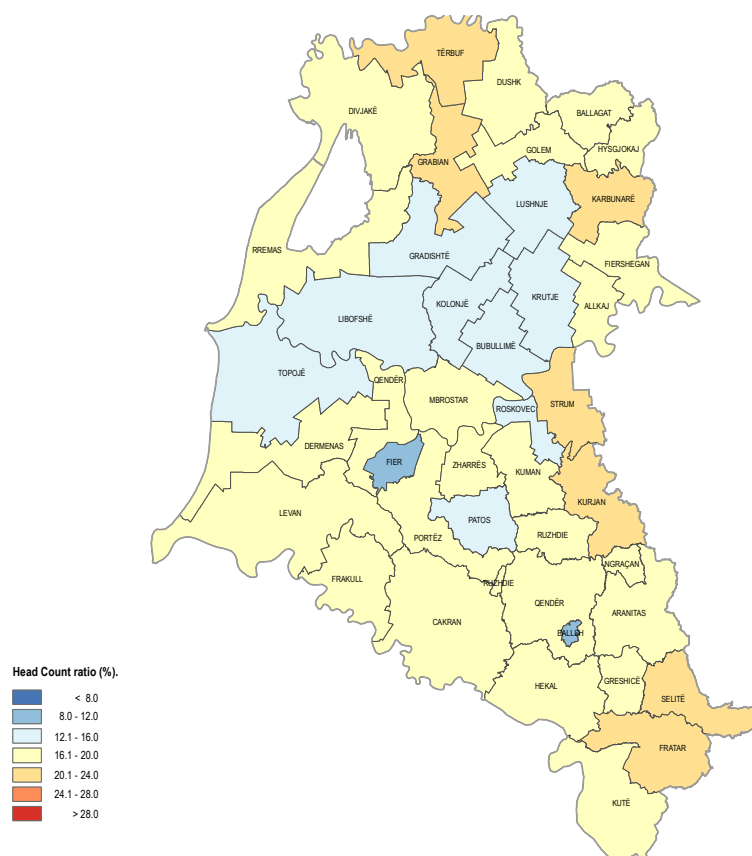
The prefecture of Fier is located in the coastal region. It is divided into 6 municipalities and 36 communes. The surface area of the prefecture is 1,887 square kilometers, and the population is 310,453. The prefecture is bounded on the north by the prefecture of Durrës, on the northwest by the Adriatic Sea, on the northeast by the prefecture of Elbasan, on the east by the prefecture of Berat and on the south by the

prefecture of Vlorë.

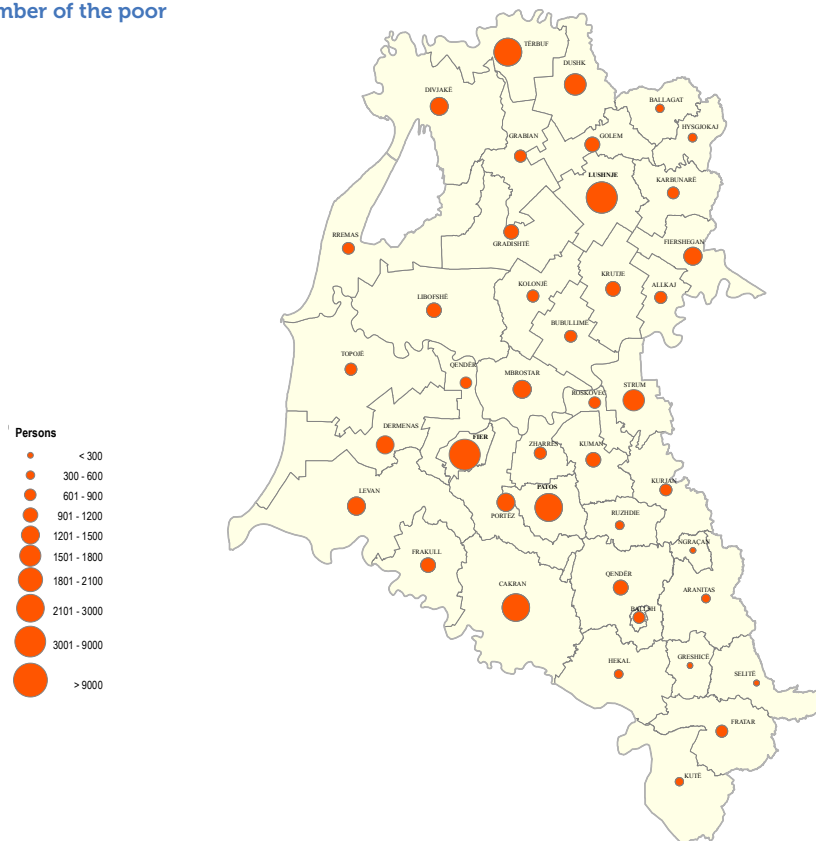
The prefecture of Fier had a poverty rate of 15.7 percent in 2012. The lowest poverty rate was in the municipalities of Fier and Ballsh, respectively, 11.0 percent and 11.4 percent (map A5). The highest poverty rates were in the communes of Selitë (22.1 percent) and Tërbuf (21.6 percent).

Map A5: Poverty Rate and Inequality, Fier Prefecture and communes, 2012

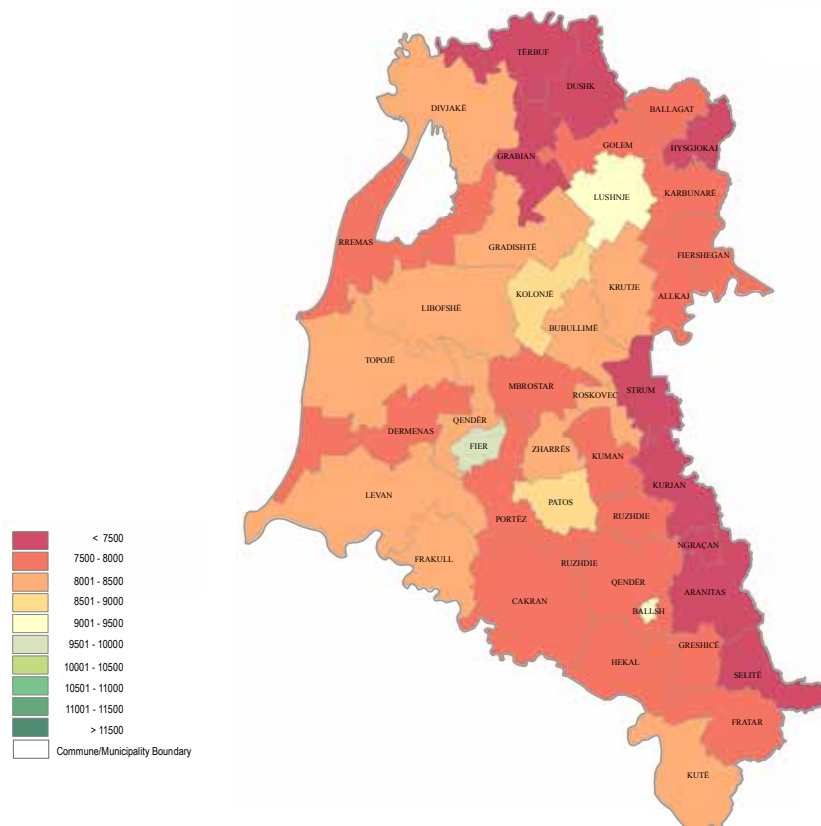
a. Poverty rate (headcount)



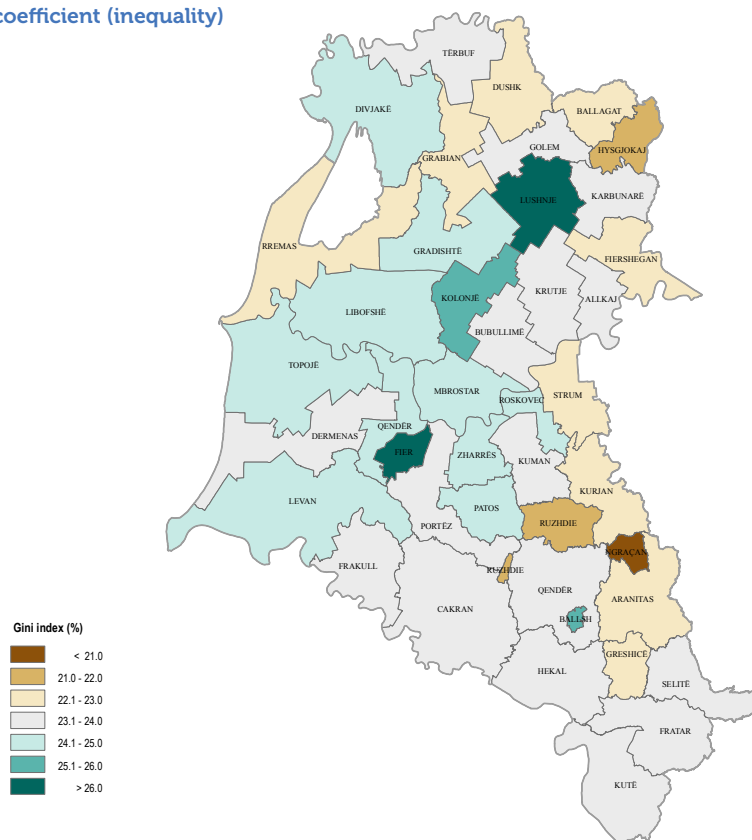
b. Number of the poor



c. The average monthly per capita consumption



d. Gini coefficient (inequality)



Source: Population and Housing Census 2011
Living Standard Measurement Survey – LSMS 2012

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About 12.5 percent of the poor in the prefecture of Fier were living in the municipality of Fier, followed by about 8.0 percent in the municipality of Lushnjë. The commune of Selitë had one of the lowest numbers of poor individuals and the highest poverty rates in the prefecture.

The average monthly per capita consumption in the prefecture was 7,979 ALL. The highest level of consumption was in the municipalities of Ballsh, Fier, and Lushnjë, where the level

was above 9,000 ALL. The communes of Strum and Tërbuf had the lowest levels of average consumption per capita in the prefecture, respectively, 7,287 ALL and 7,390 ALL.

The level of inequality in the prefecture is below the average of the country, 23.6 percent. The highest inequality measure was in the municipality of Fier (27.1 percent), followed by the municipality of Lushnjë (26.5 percent). The lowest level of inequality is in commune of Ngraçan (20.7 percent).

Gjirokastër Prefecture

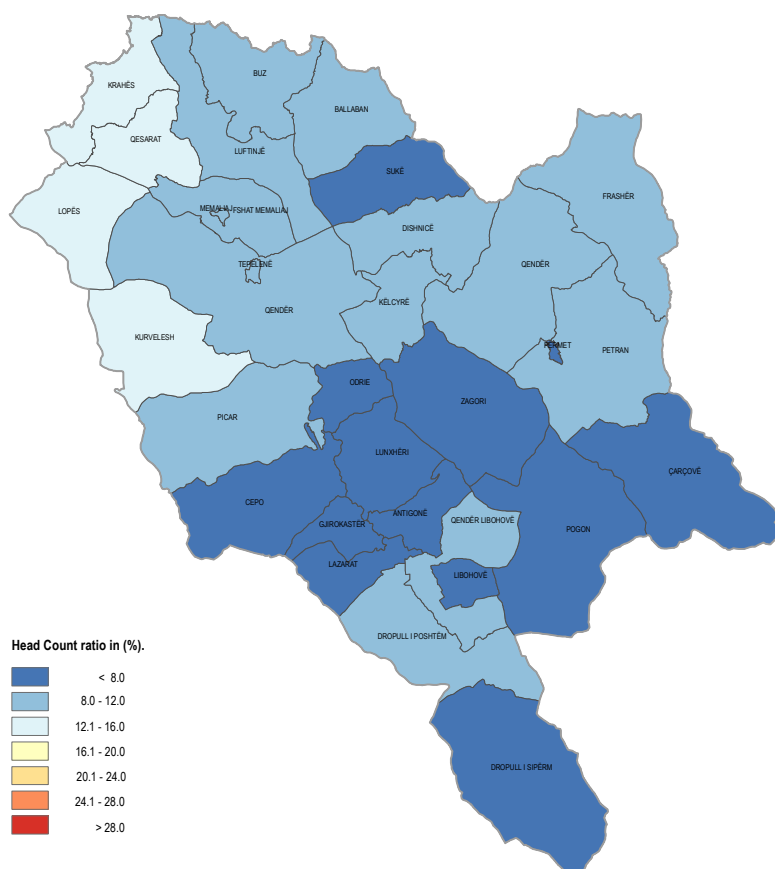
The prefecture of Gjirokaštër is located in the central region. It is divided into 6 municipalities and 26 communes. The surface area is 2,884 square kilometers, and the population is 71,863. The prefecture is bounded on the north by the prefecture of Berat, on the northwest by the prefecture of Fier, on the south and west by the prefecture of Vlorë, on the southeast by Greece, and on the east by the prefecture of Korçë.

The prefecture had the lowest poverty rate in

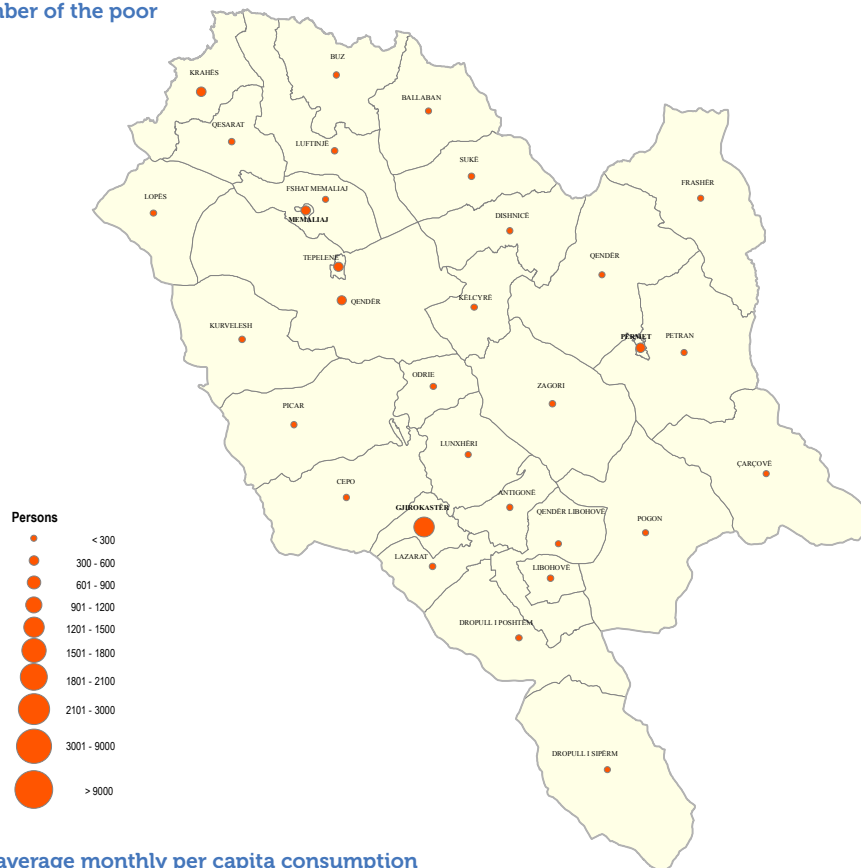
Albania in 2012 relative to the other prefectures and to the national average (8.3 percent). The highest poverty rates were in the municipalities of Krahës (14.3 percent), Qesarat (13.6 percent), Lopës (13.3 percent), and Kurvelesh (12.9 percent) (map A6). The communes with the lowest poverty rates were Zagori, Pogon, and Odrie at, respectively, with 2.6 percent, 3.1 percent, and 3.9 percent.

Map A6: Poverty Rate and Inequality, Gjirokastrë Prefecture and communes, 2012

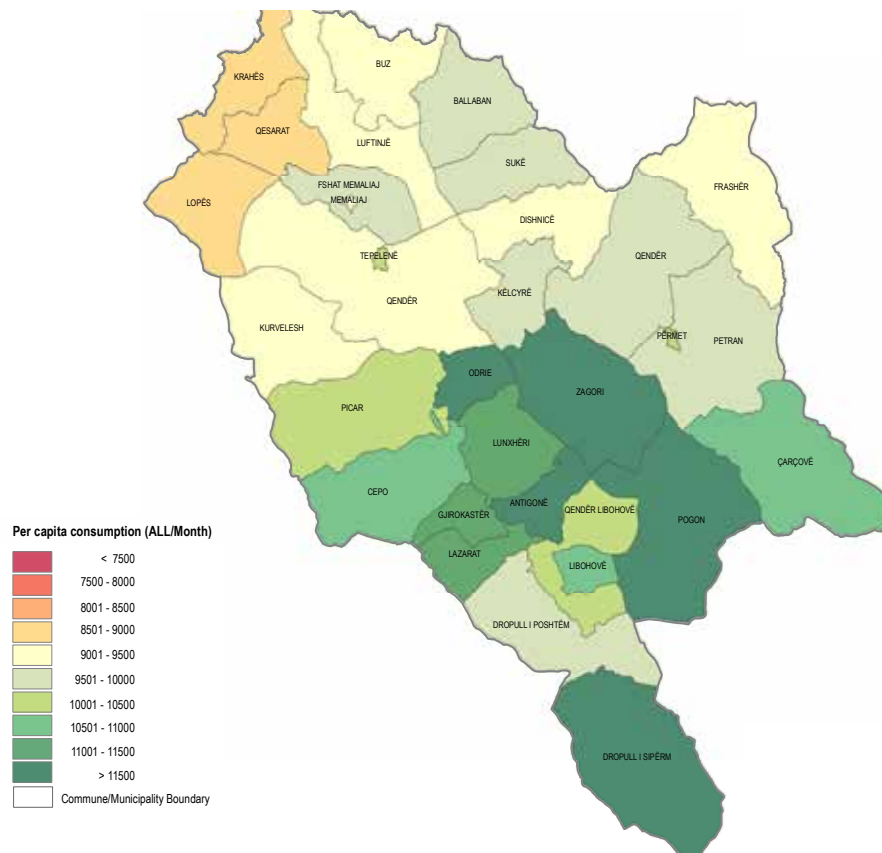
a. Poverty rate (headcount)



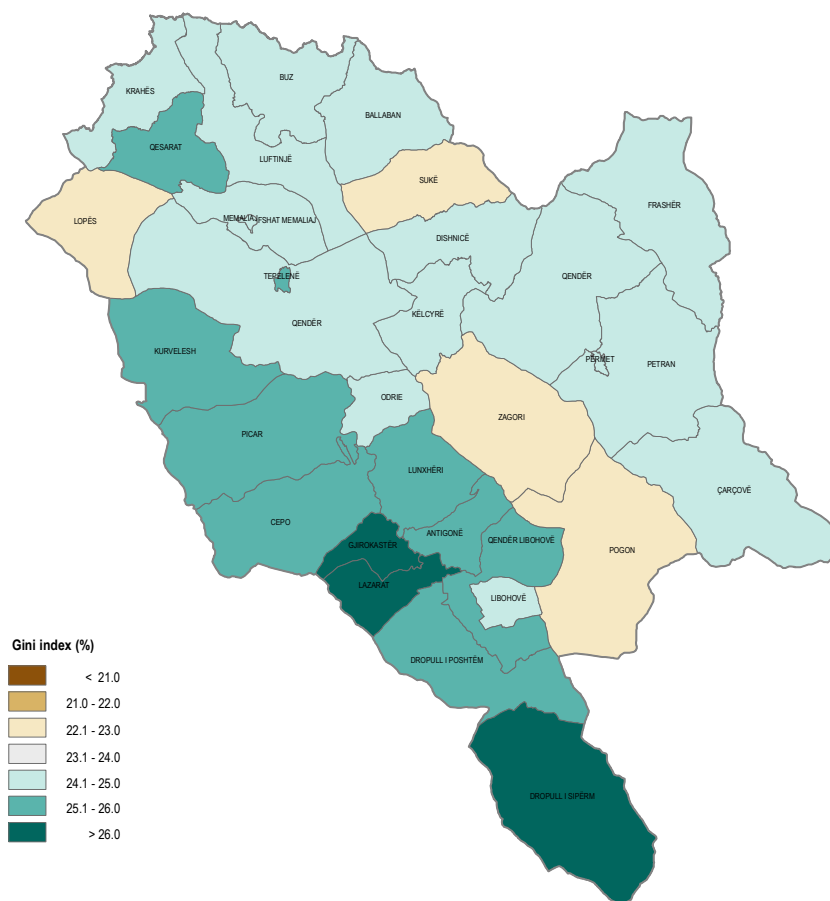
b. Number of the poor



c. The average monthly per capita consumption



d. Gini coefficient (inequality)



Source: Population and Housing Census 2011
Living Standard Measurement Survey – LSMS 2012

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The prefecture counted 5,988 poor individuals in 2012. The biggest concentrations of the poor were in the municipalities of Gjirokaštër (1,350 poor individuals) and Përmet (418) and the commune of Qendër (363), and the lowest concentrations were in the communes of Odrie, Pogon, and Zagori, where the number of poor in each was fewer than 20.

The average monthly per capita consumption in the prefecture was 10,190 ALL in 2012, which was higher than the national average and higher than the average in the other prefectures. The consumption level was highest in the communes of Zagori (13,216 ALL), Pogon (11,936 ALL),

and Odrie (11,839 ALL), which also showed the lowest poverty rates in the prefecture, while the lowest level of consumption was in the municipalities of Krahës (8,751 ALL), Lopës (8,761 ALL), and Qesarat (8,968 ALL).

The inequality measure in the prefecture was 24.9 percent. The municipality of Gjirokaštër showed the highest Gini coefficient, at 27.1 percent, followed by the communes of Lazarat (26.8 percent) and Dropull i Sipërm (25.9 percent), and the lowest coefficient of inequality was exhibited by the communes of Pogon (22.8 percent), Sukë (23.5 percent) and Lopës (23.6 percent).

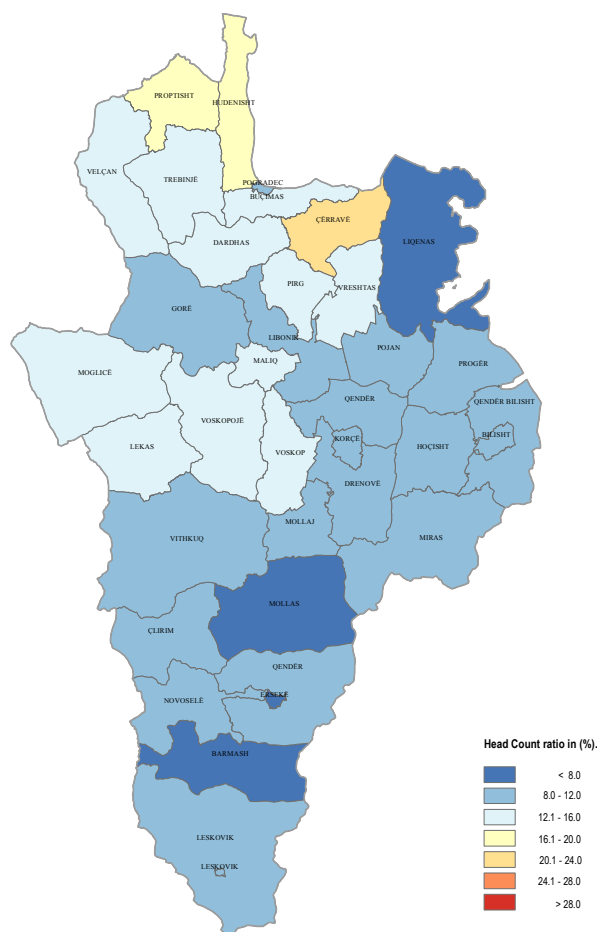
Korçë Prefecture

The prefecture of Korçë is located in the central region. It is divided into 6 municipalities and 31 communes. The surface area of the prefecture is 3,711 square kilometers, and the population is 219,649. The prefecture is bounded on the northeast and east by Republic of Macedonia, on the south by Greece, on the southwest by the prefecture of Gjirokastër, on the west by the prefecture of Berat, and on the northwest by the prefecture of Elbasan.

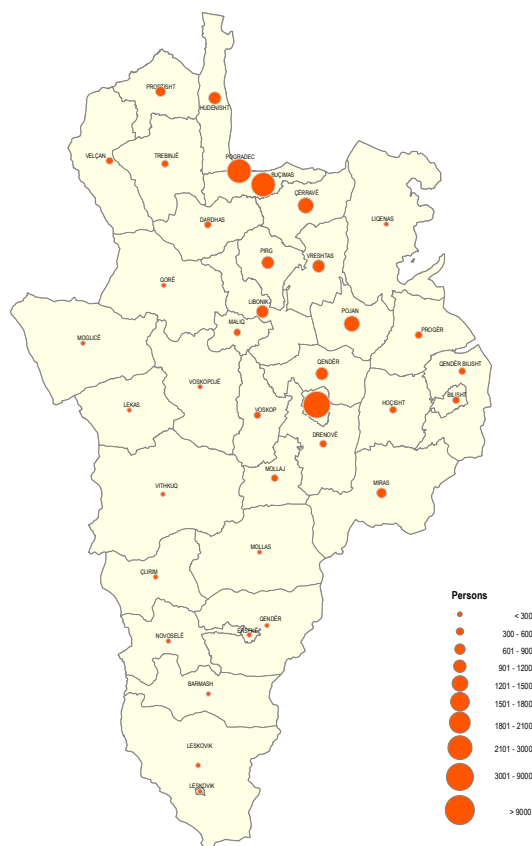
The poverty rate in the prefecture was 11.6 percent in 2012, which was below the national average. The majority of communes had a poverty rate between 8.0 percent and 16.0 percent (map A7). The communes of Barmash, Liqenas, and Mollas and the municipality of Ersekë had rates at less than 8.0 percent. The highest poverty rate in the prefecture belonged to the commune of Çërravë (21.1 percent).

Map A7: Poverty Rate and Inequality, Korçë Prefecture and communes, 2012

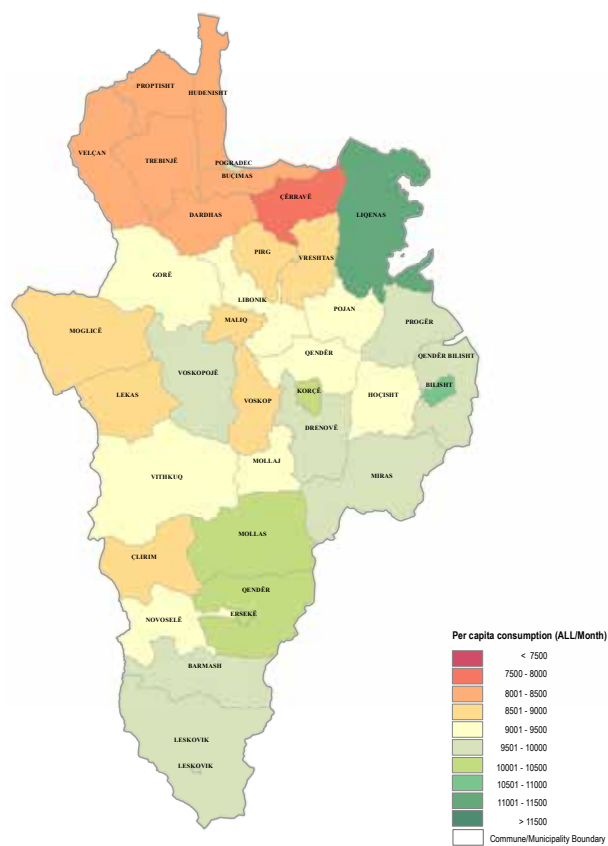
a. Poverty rate (headcount)



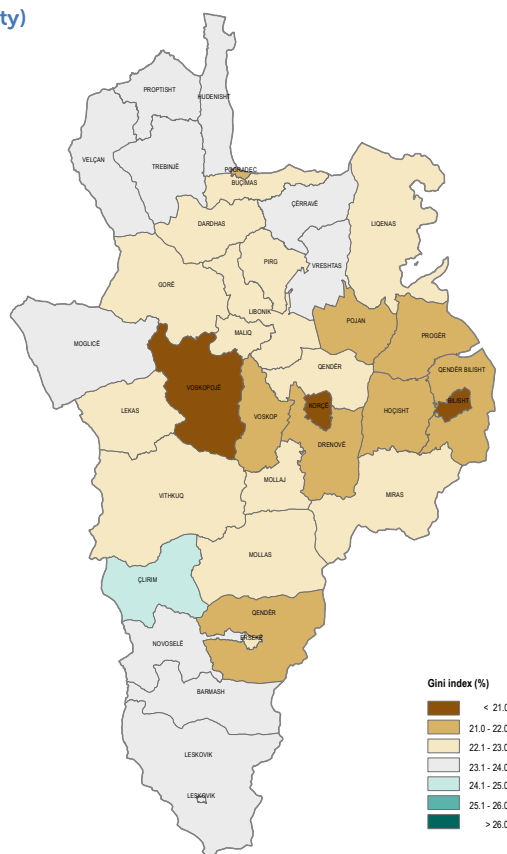
b. Number of the poor



c. The average monthly per capita consumption



d. Gini coefficient (inequality)



Source: Population and Housing Census 2011
Living Standard Measurement Survey – LSMS 2012

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The largest concentrations of the poor in the prefecture were in Korçë and Pogradec municipalities and in Buçimas commune.

The average monthly per capita consumption in the prefecture was 9,260 ALL. The communes of Liqenas, Mollas, and Qendër (Kolonjë) and the municipalities of Ersekë, Bilisht and Korçë showed the highest levels of consumption, more than 10,000 ALL. The communes of Çërravë (7,527 ALL), followed by the communes of Proptisht (8,068

ALL) and Hudenisht (8,119 ALL), had the lowest level of per capita consumption.

The inequality level in the prefecture was 24.6 percent. The highest levels, over 26 percent, were in the municipalities of Bilisht and Korçë and the commune of Voskopojë, and the lowest level of inequality was exhibited in the commune of Çilrim, at 22.6 percent.

The prefecture of Kukës is located in the mountain region. It is divided into 3 municipalities

Kukës Prefecture

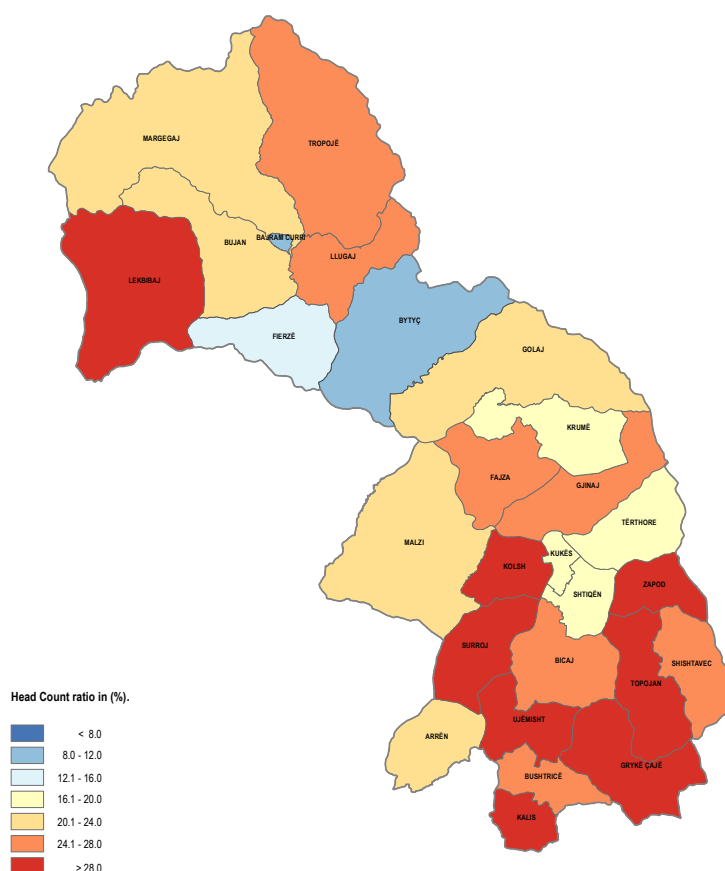
and 24 communes. The surface area is 2,373 square kilometers, and the population is 85,250. The prefecture is bounded to the northeast and to the east by Kosovo, to the south by the prefecture of Dibër, to the southwest by the prefecture of Lezhë, to the west by the prefecture of Shkodër, and to the northwest by Montenegro.

The prefecture of Kukës had the highest

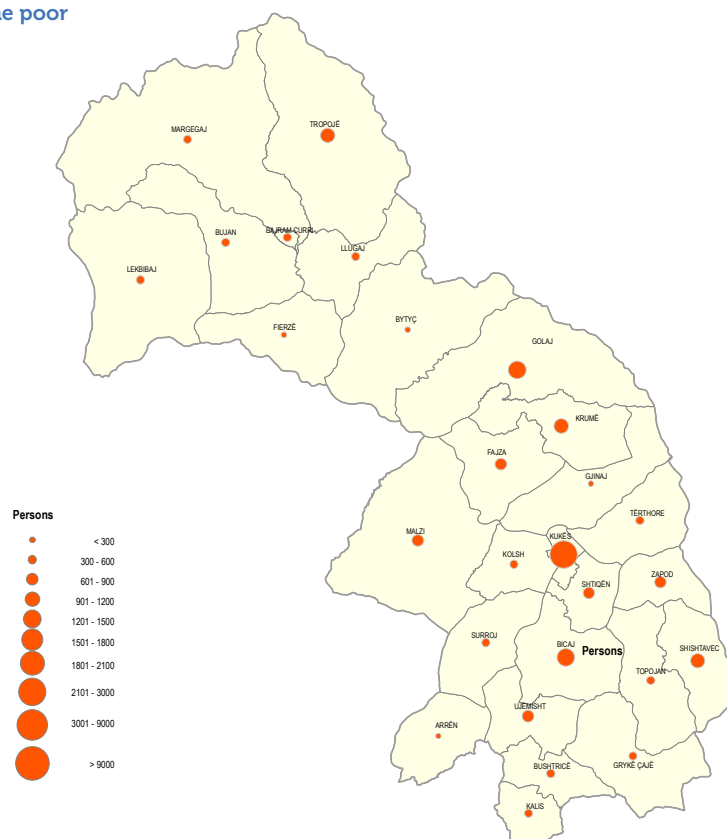
poverty rate in the country, around 22.0 percent, in 2012. The communes of Grykë-Çajë, Kalis, Kolsh, Lekbibaj, Surroj, Topojan, Ujmisht, and Zapod exhibited poverty rates above 28.0 percent (map A8). The municipality of Bajram Curri and the commune of Bytyç had the lowest poverty rates, respectively, 10.0 percent and 11.6 percent.

Map A8: Poverty Rate and Inequality, Kukës Prefecture and communes, 2012

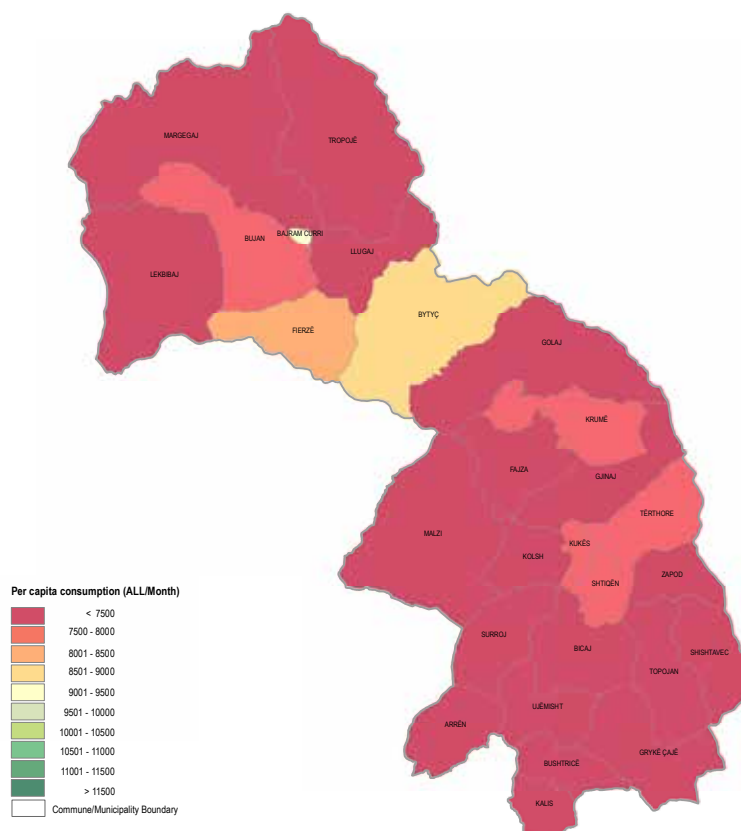
a. Poverty rate (headcount)



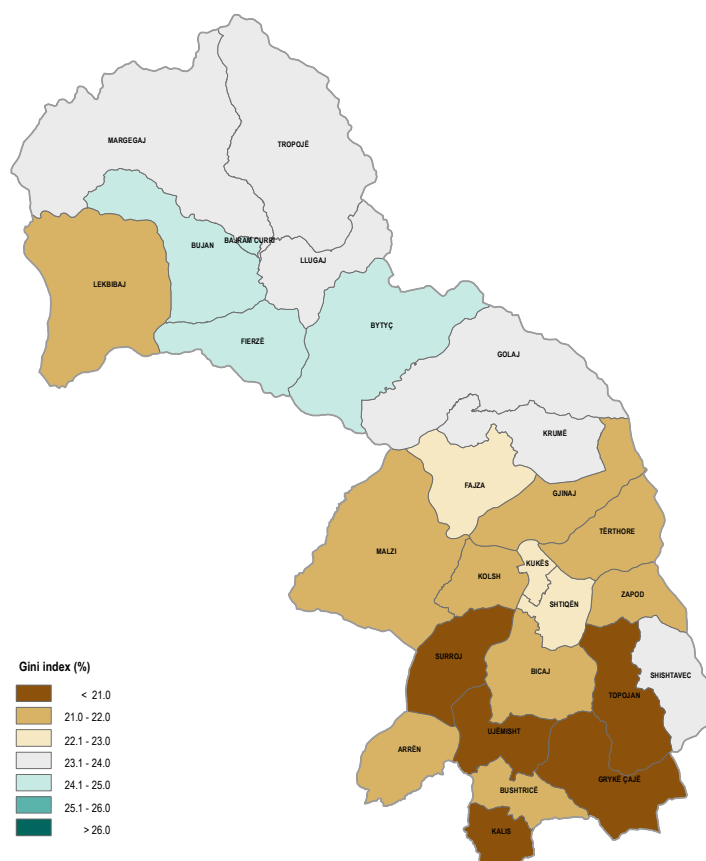
b. Number of the poor



c. The average monthly per capita consumption



d. Gini coefficient (inequality)



Source: Population and Housing Census 2011
Living Standard Measurement Survey – LSMS 2012

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The largest concentration of the poor was in Kukës Municipality, the largest municipality in the area.

Kukës was also the prefecture with the lowest monthly per capita consumption in the country, 7,126 ALL. The majority of the prefecture showed a consumption level below 7,500 ALL. The commune of Kalis had the lowest level of consumption, 5,839 ALL. The commune of Bytyç and the municipality

of Bajram Curri had the highest level of consumption in the prefecture, above 8,700 ALL.

The level of inequality in the prefecture was below the national average, at 22.4 percent. The lowest Gini coefficient was in Kalis Commune (19.7 percent), and the highest value belonged to Fierzë Commune (25.0 percent).

Lezhë Prefecture

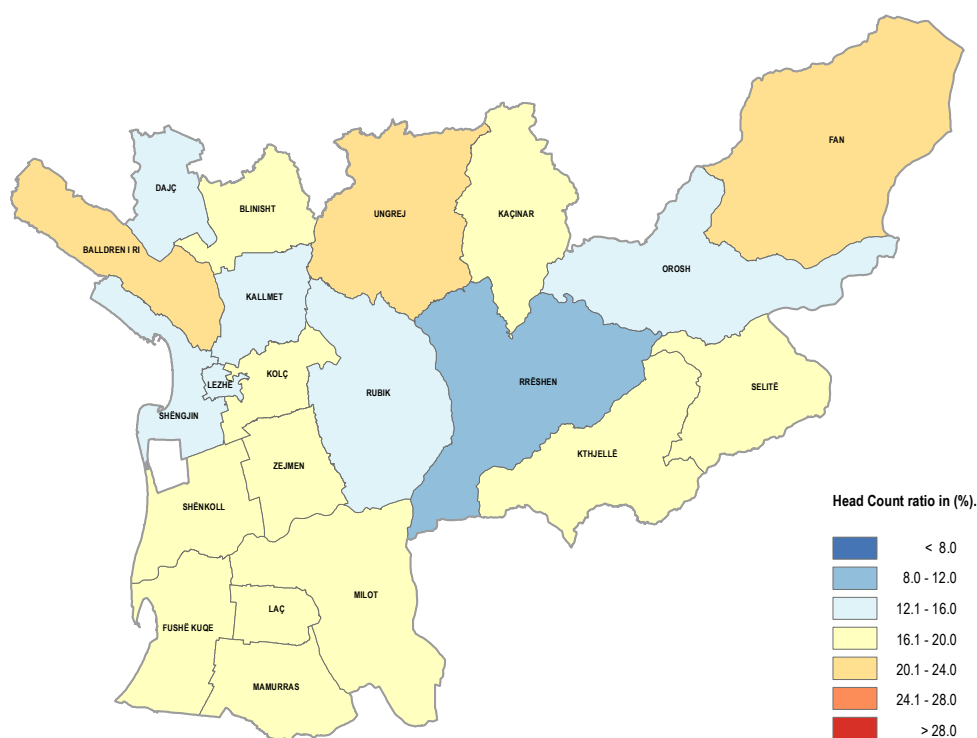
The prefecture of Lezhë is located partly in the coastal region and partly in the central region. It is divided into 5 municipalities and 16 communes. The surface area is 1,588 square kilometers, and the population is 133,275. The prefecture is bounded on the north by the prefecture of Shkodër, on the northwest by the prefecture of Kukës, on the east by the prefecture

of Dibër, on the south by the prefecture of Durrës, and on the west by the Adriatic Sea.

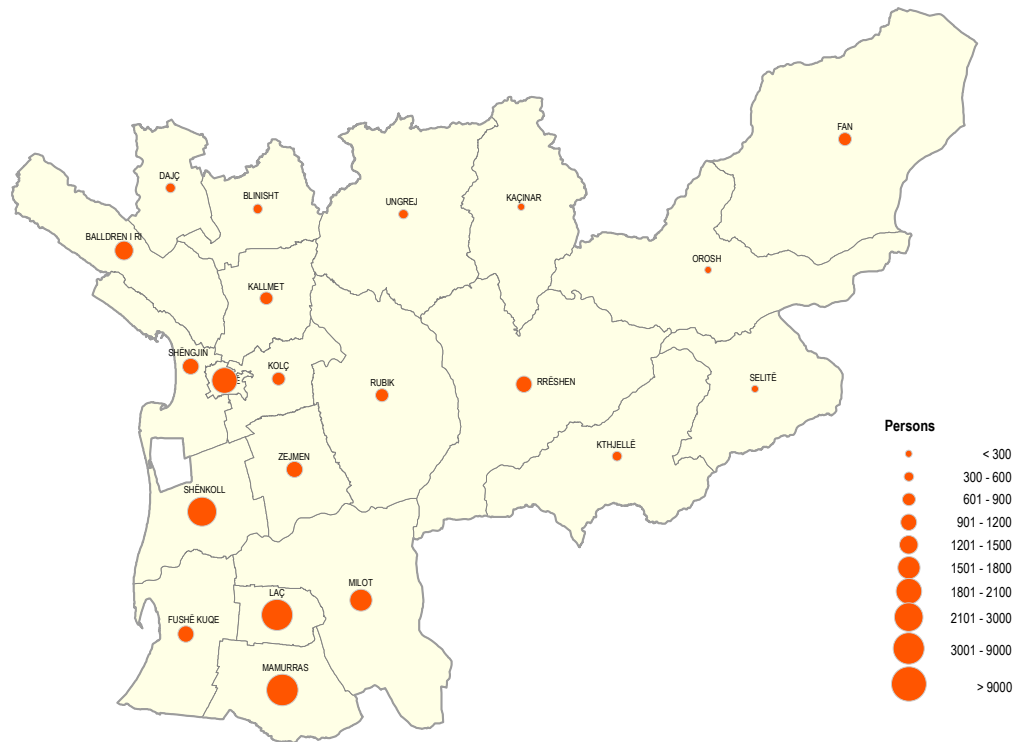
The poverty rate in the prefecture was 17.2 percent in 2012. The communes of Balldren i Ri, Fan, and Ungrej had the highest poverty rates in the prefecture, at more than 20.0 percent (map A9). The municipality of Rrëshen had the lowest poverty rate, at 11.2 percent.

Map A9: Poverty Rate and Inequality, Lezhë Prefecture and communes, 2012

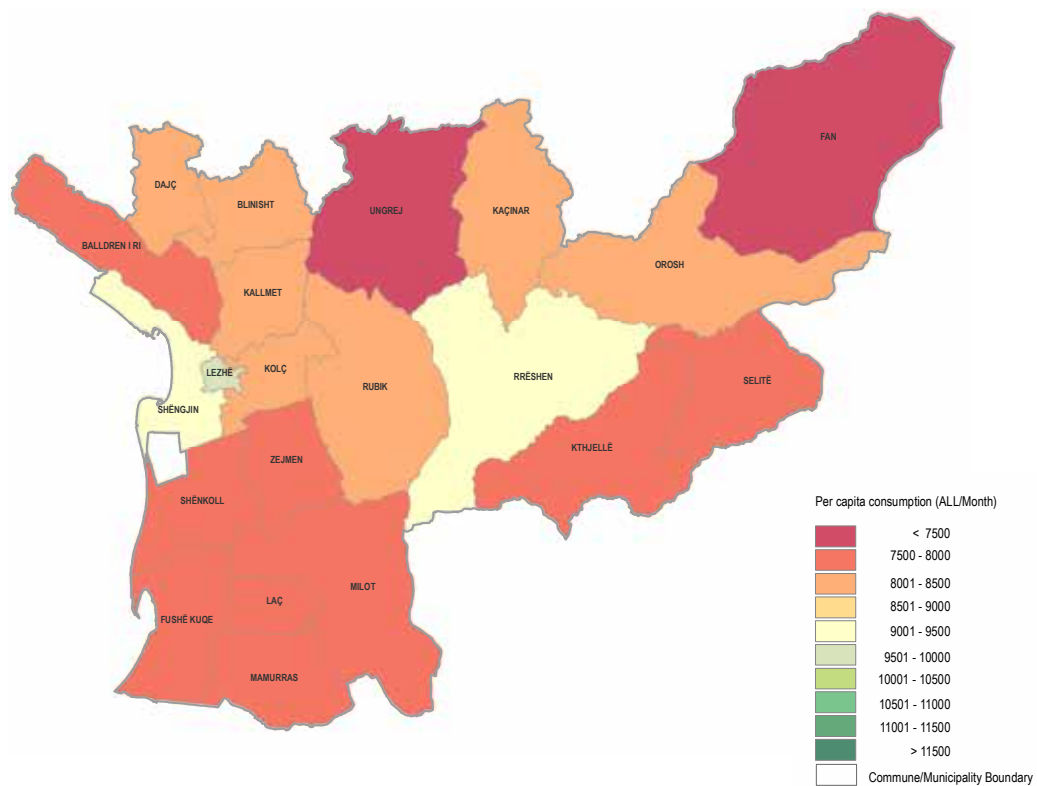
a. Poverty rate (headcount)



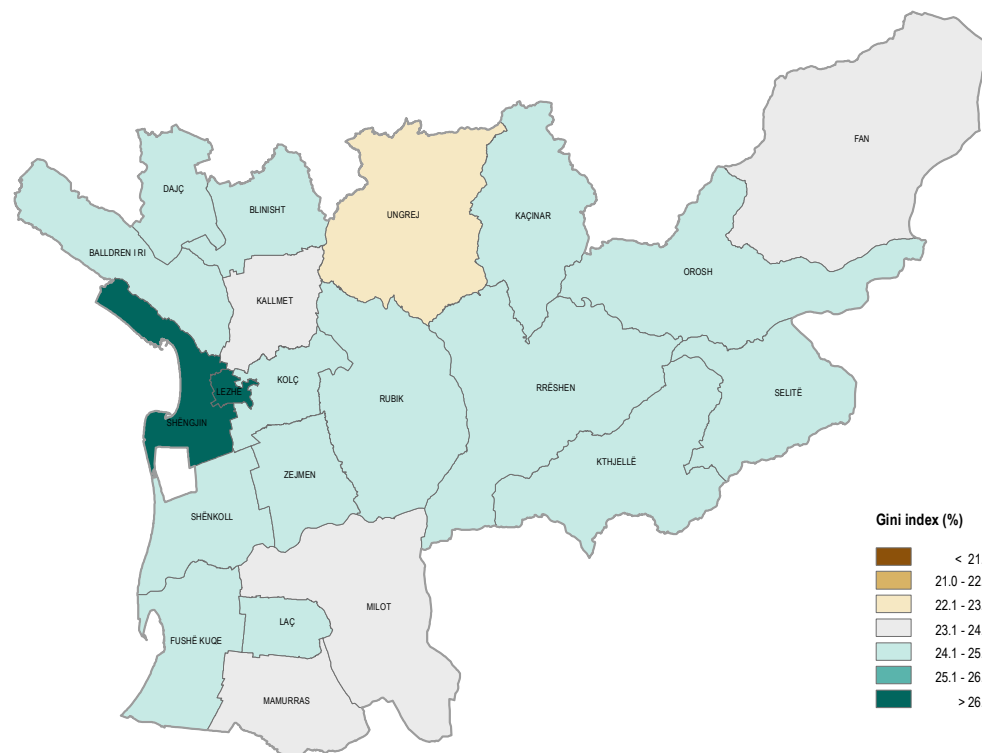
b. Number of the poor



c. The average monthly per capita consumption



d. Gini coefficient (inequality)



Source: Population and Housing Census 2011
Living Standard Measurement Survey – LSMS 2012

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The number of the poor in the prefecture was 22,926 in 2012. The municipalities of Laç and Mamurras and the commune of Shënkoll had the largest concentrations of poor within the prefecture. Kaçinar, Orosh, and Selitë are the communes with the smallest concentrations of the poor.

The average monthly per capita consumption in the prefecture was 8,142 ALL. The communes of Fan and Ungrej had the lowest average per

capita consumption. The municipality of Lezhë had the highest level of consumption (9,812 ALL), followed by the municipality of Rrëshen (9,180 ALL) and the commune of Shëngjin (9,128 ALL).

The level of inequality in the prefecture was 24.6 percent. The municipality of Lezhë and the commune of Shëngjin had levels of inequality above 26 percent. The lowest level of inequality was in the commune of Ungrej, at 22.1 percent.

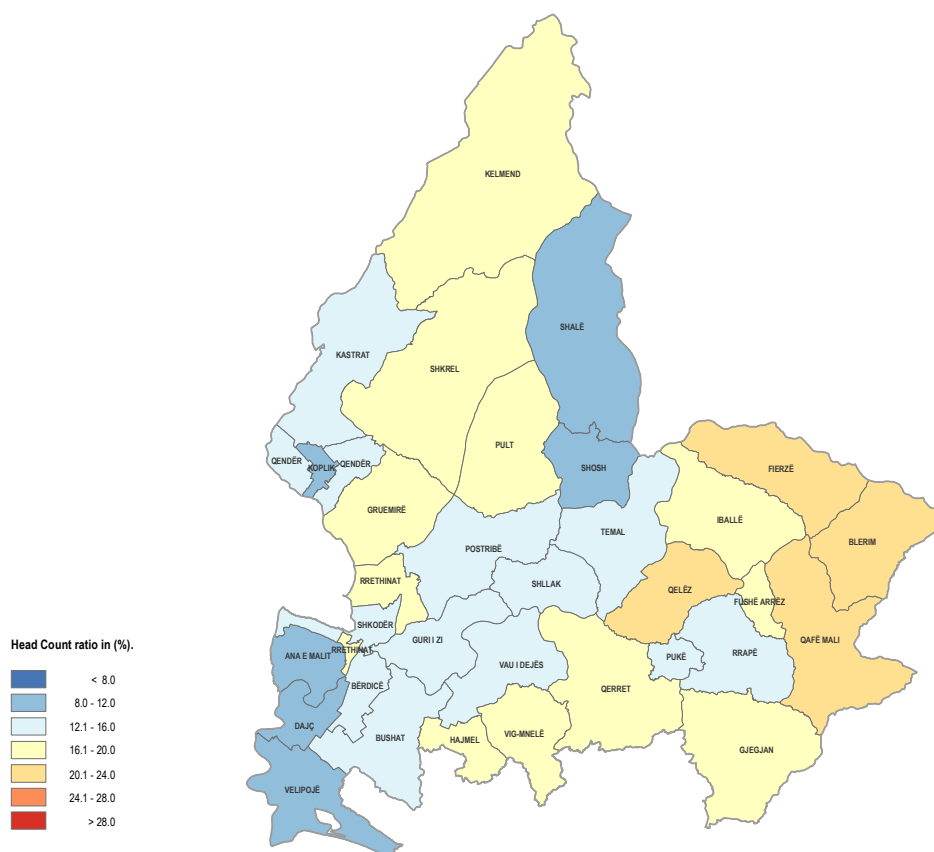
Shkodër Prefecture

The prefecture of Shkodër is located in the northwest of Albania in the central region. It is divided into 5 municipalities and 28 communes. The surface area of the prefecture is 1,588 square kilometers, with a population of 213,706 inhabitants. The prefecture is bounded on the north by Montenegro, on the east by the prefecture of Kukës, on the south by the prefecture of Lezhë, and on the west by the Adriatic Sea.

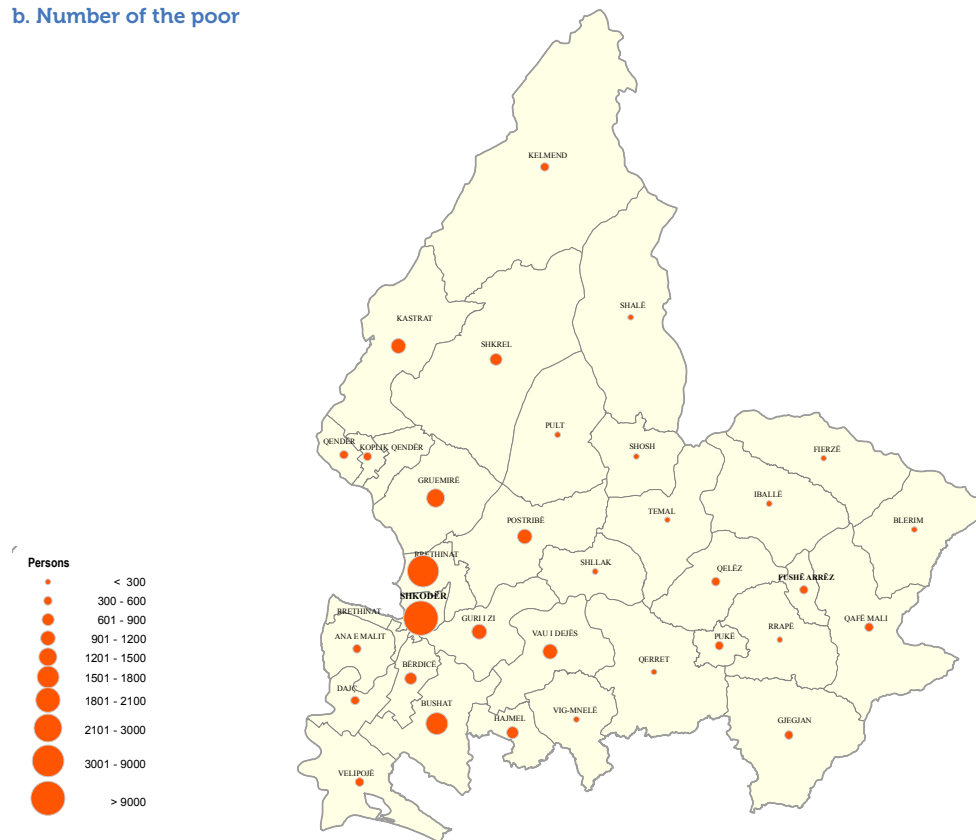
The poverty rate in the prefecture was 14.0 percent in 2012. The highest poverty rate in the prefecture was recorded in the commune of Blerim (23.7 percent), followed by the communes of Qelëz (22.1 percent), Fierzë (22.1 percent), and Qafë-Mali (21.2 percent) (map A10). The lowest poverty rate in the prefecture was in the commune of Shalë (8.7 percent), followed by the commune of Dajç (9.1 percent) and the municipality of Koplik (9.3 percent).

Map A10: Poverty Rate and Inequality, Shkodër Prefecture and communes, 2012

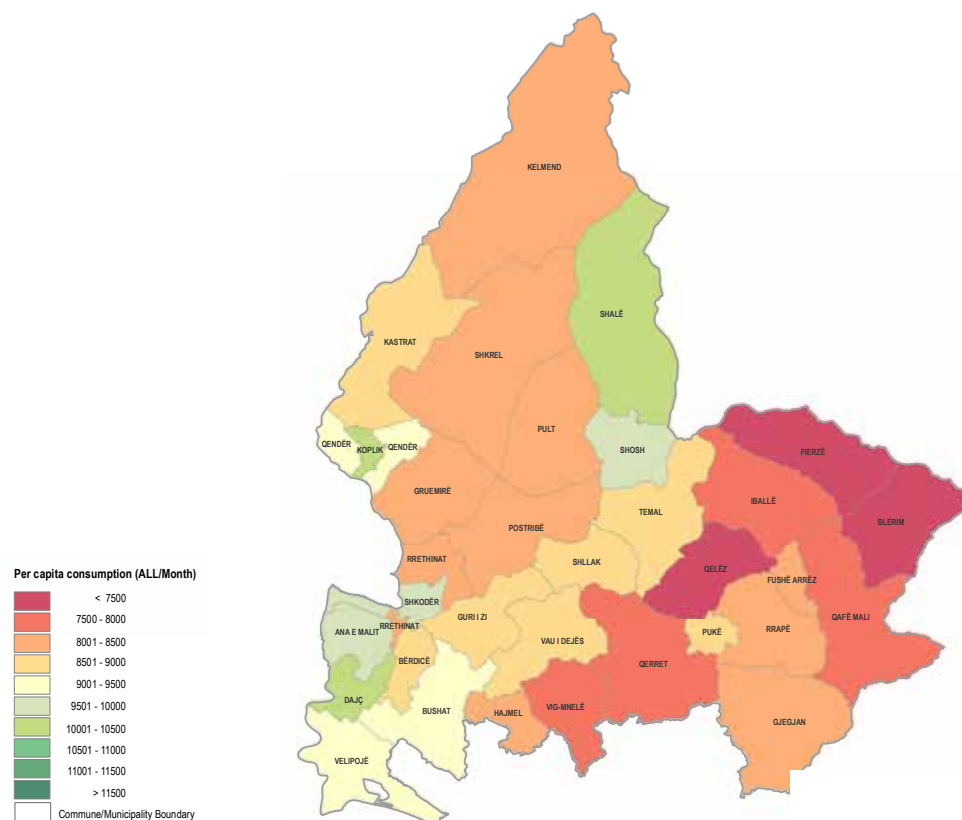
a. Poverty rate (headcount)



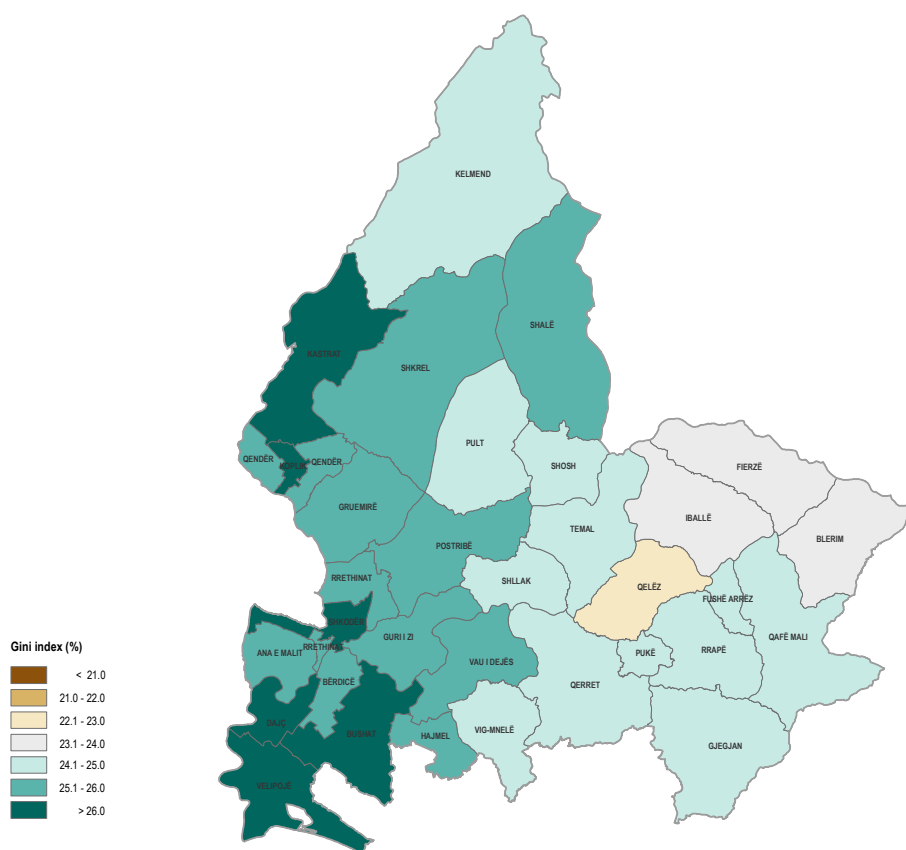
b. Number of the poor



c. The average monthly per capita consumption



d. Gini coefficient (inequality)



Source: Population and Housing Census 2011
Living Standard Measurement Survey – LSMS 2012

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The prefecture counted 29,912 poor individuals in 2012. The municipality of Shkodër and the commune of Rrethinat had the highest number of poor in the prefecture, respectively, 9,199 poor and 3,590 poor.

The average monthly per capita consumption in the prefecture was 8,664 ALL. The highest level of consumption was in the communes of Dajç and Shalë and the municipality of Koplik, where the level of consumption averaged over

10,000 ALL. The lowest level of consumption was in the communes of Blerim, Fierzë, and Qelëz, less than 7,500 ALL.

The level of inequality in the prefecture was 25.1 percent. The highest level of inequality, over 26 percent, was in the communes of Bushat, Dajç, Kastriot, Velipojë and in the municipalities of Koplik and Shkodër. The lowest level of inequality was in the commune of Qelëz (22.6 percent).

Tirana Prefecture

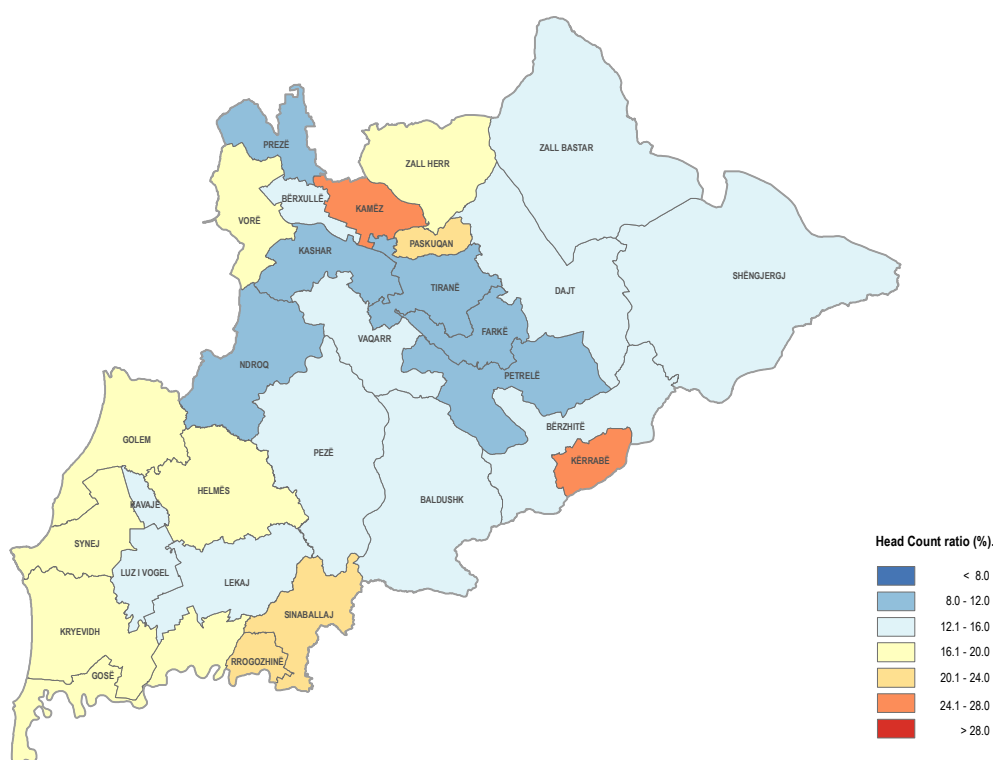
The prefecture of Tirana is located in the central, coastal, and Tirana regions. It is divided into 5 municipalities and 24 communes. The surface area of the prefecture is 1,586 square kilometers, and the population is 742,515, around one-fifth of the population of Albania. The prefecture is bounded in the north by the prefecture of Durrës, in the northeast by the prefecture of Dibër, in the southeast by the prefecture of Elbasan, in the south by the prefecture of Fier, and in the west by the Adriatic Sea. Tirana, the capital of Albania,

remains attractive because of the opportunities in employment, education, and so on. However, migrants often face difficulty in becoming assimilated (INSTAT and IOM 2014).

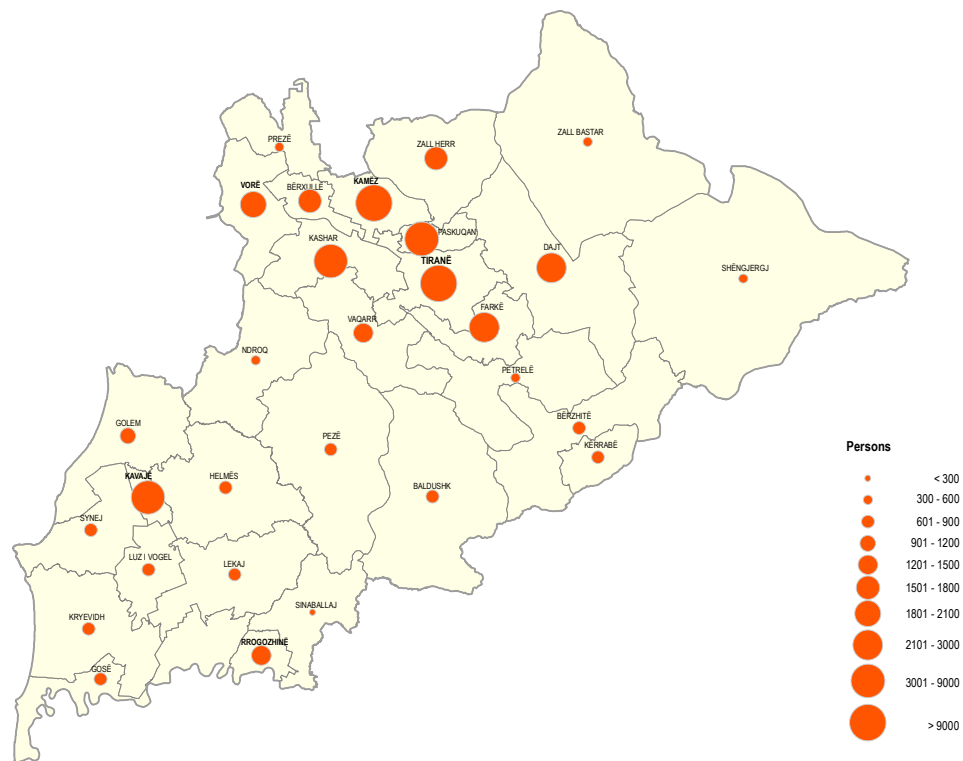
The poverty rate in the prefecture was 12.7 percent in 2012. The highest poverty rate was in the municipality of Kamëz (25.2 percent) and the commune of Krrabë (24.9 percent) (map A11). The lowest poverty rate was in the municipalities of Farkë and Tirana, at less than 10.0 percent.

Map A11: Poverty Rate and Inequality, Tirana Prefecture and communes, 2012

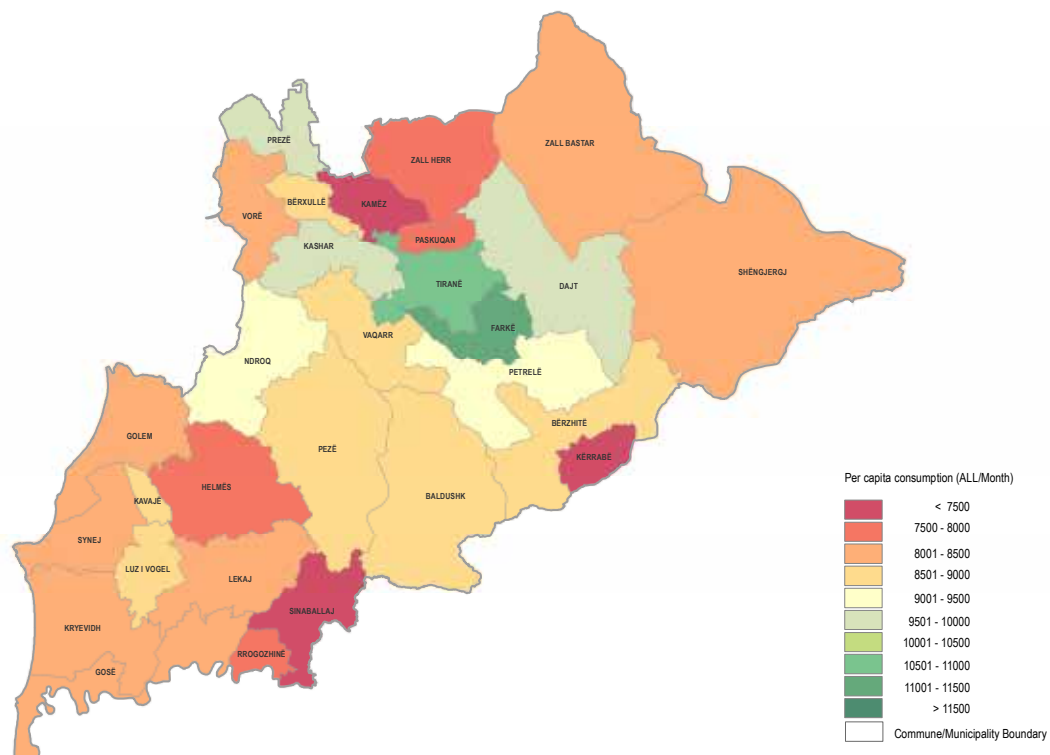
a. Poverty rate (headcount)



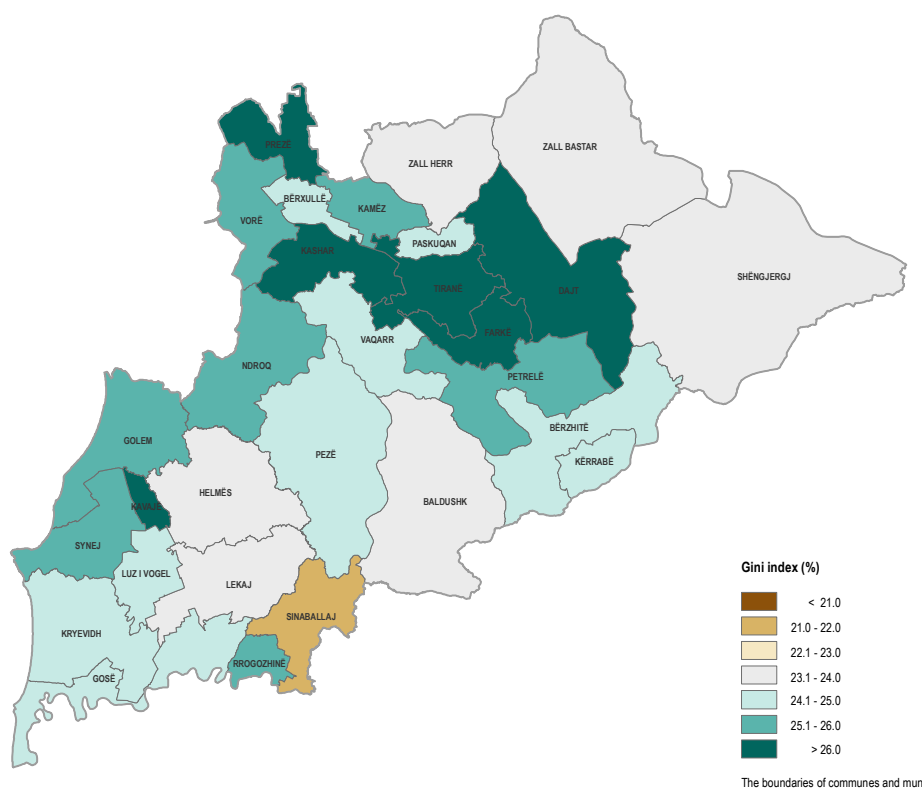
b. Number of the poor



c. The average monthly per capita consumption



d. Gini coefficient (inequality)



Source: Population and Housing Census 2011
Living Standard Measurement Survey – LSMS 2012

The boundaries of communes and municipalities have been designed for statistical purpose and may not reflect exactly the territory of the local unit

The number of the poor in the prefecture was 83,845 in 2012. The municipalities of Kamëz and Tirana and the commune of Paskuqan had the largest concentrations of poor. An area that is less poor in terms of the poverty rate may be poorer in terms of the number of the poor. This was the case, for example, of Tirana Municipality.

The average monthly per capita consumption in the prefecture of Tirana was lek 8,584 in 2012. The highest levels of monthly per capita

consumption were in the municipalities of Farkë (11,001 ALL) and Tirana (10,647 ALL). The lowest consumption levels were in the communes of Kamëz, Krrabë and Sinaballaj, at less than 7,500 ALL.

The level of inequality in the prefecture was 25.0 percent. The areas with the highest level of inequality in the prefecture, at over 26 percent, were Dajt, Farkë, Kashar, Kavajë, Prezë and Tirana.

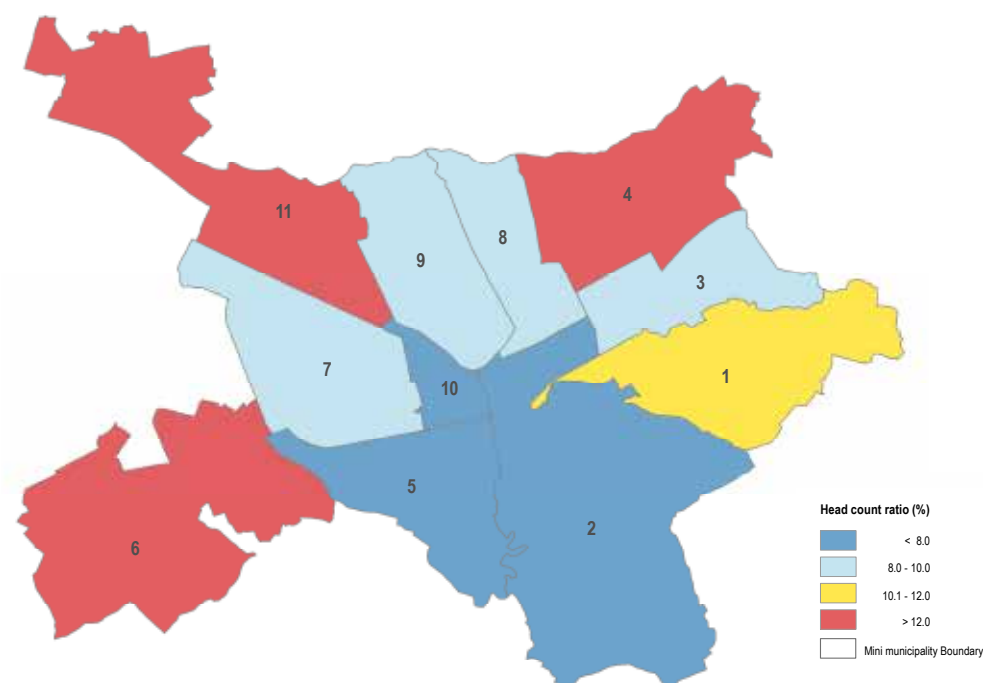
Minimunicipalities of Tirana

The municipality of Tirana is divided into 11 neighborhoods or minimunicipalities. The poverty rate in the municipality was 9.2 percent in 2012. The highest poverty rates, at more than 12.0 percent, were in Allias and Kinostudio

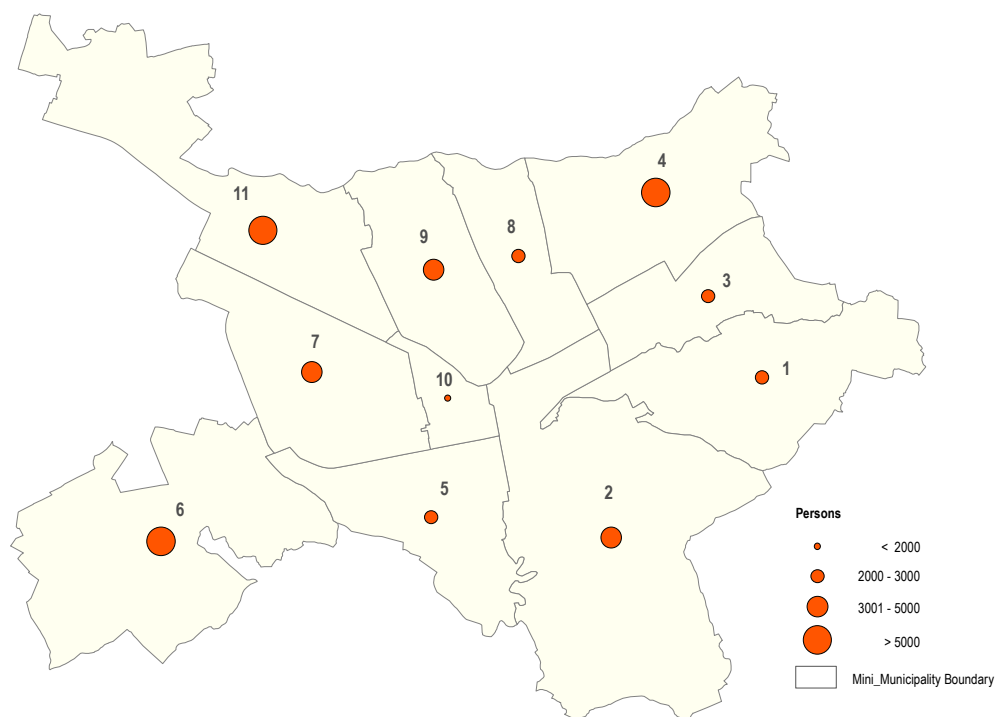
(Tirana 4), Kombinati (6), and Laprakë (11) (map A12). The lowest poverty rate, below 8.0 percent, was in Qyteti Studenti (Tirana 2), Tirana e Re (5), and City Center (10).

Map A12: Poverty Rate and Inequality, minimunicipalities of Tirana, 2012

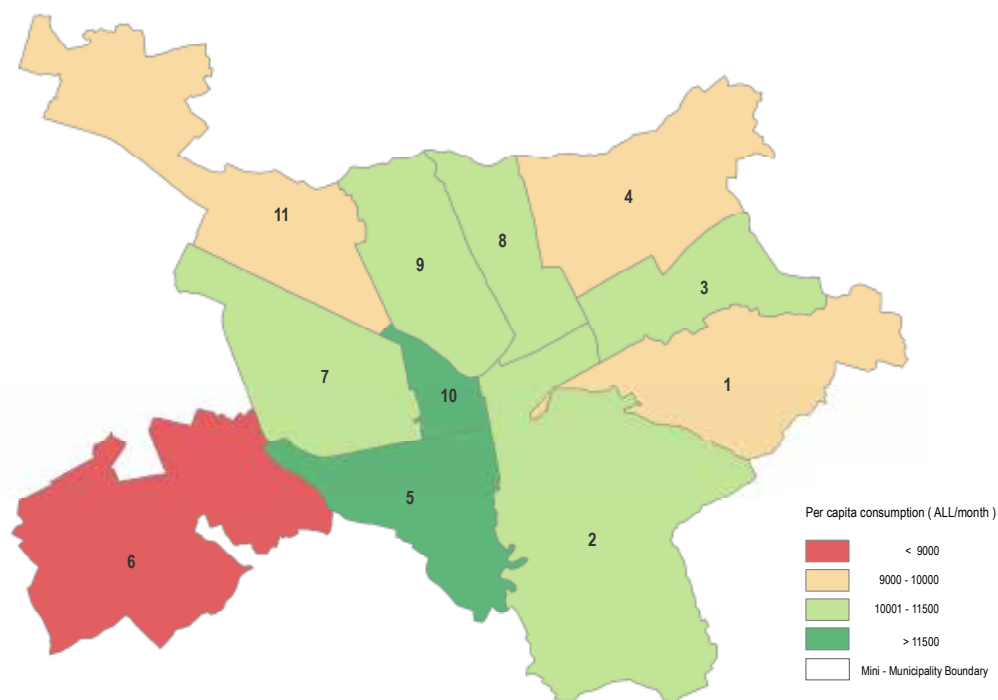
a. Poverty rate (headcount)



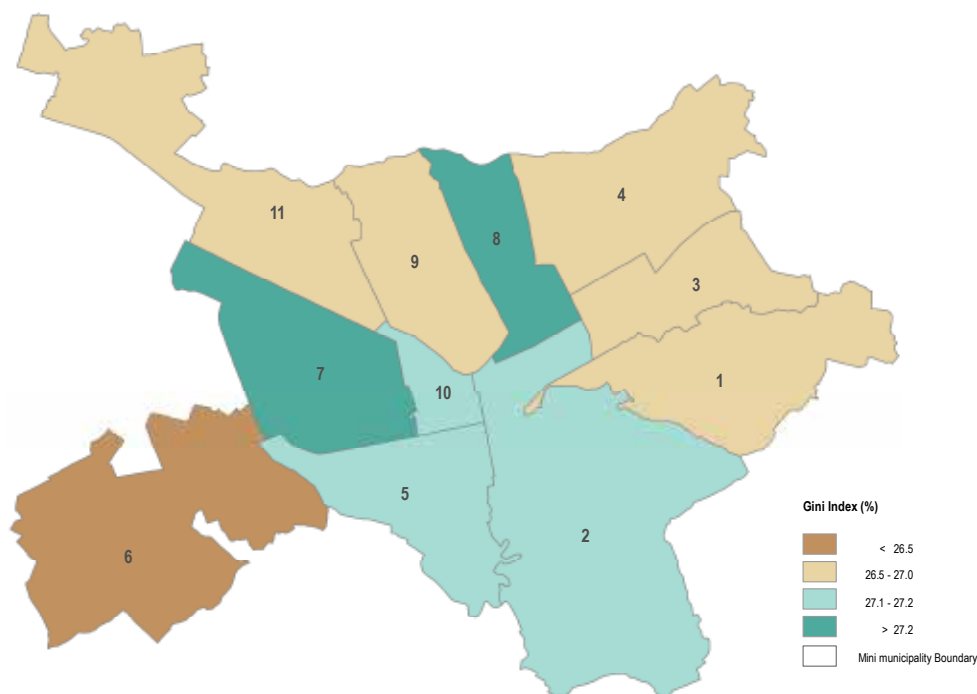
b. Number of the poor



c. The average monthly per capita consumption



d. Gini coefficient (inequality)



Source: Population and Housing Census 2011
Living Standard Measurement Survey – LSMS 2012

The boundaries of communes and municipalities have been designed for statistical purpose and may not reflect exactly the territory of the local unit

The relatively smallest number of poor were living in the City Center (Tirana 10).

The average monthly per capita consumption in the municipality of Tirana was 10,647 ALL in 2012. The highest levels of monthly per capita consumption, more than 11,500 ALL, were in Tirana e Re (Tirana 5) and City Center (Tirana

10). The lowest level of consumption was in Kombinati (Tirana 6). The level of inequality in the municipality of Tirana was 27.7 percent. The highest level of inequality, over 27 percent, was in 21-Dhjetori (Tirana 7), Medreseja and Selvia (Tirana 8). The lowest level of inequality was in Kombinati (Tirana 6).

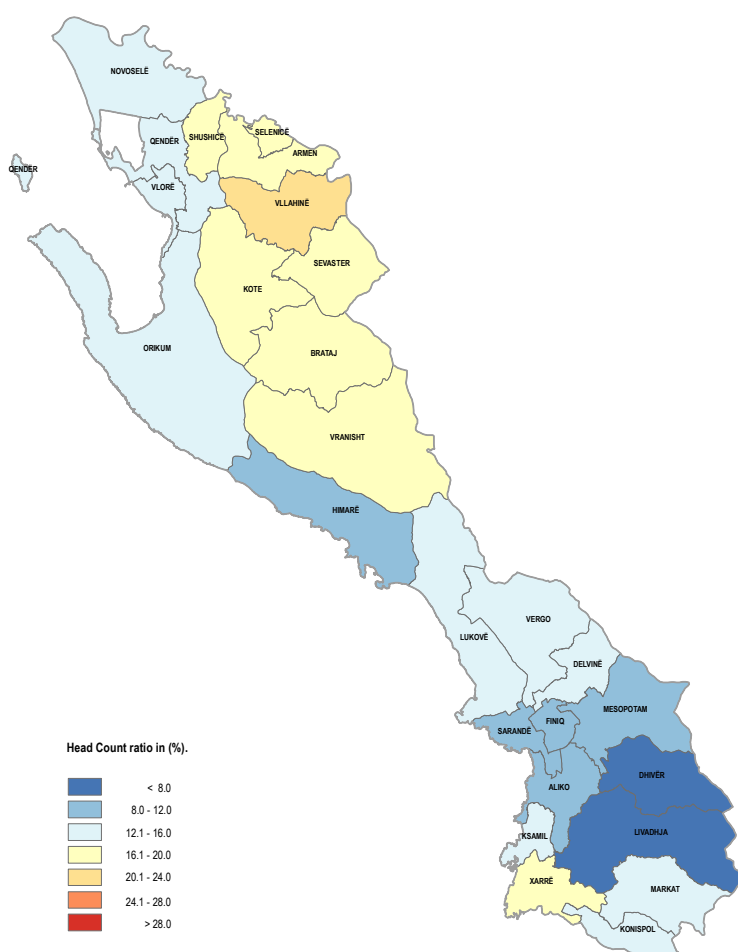
Vlorë Prefecture

The prefecture of Vlorë is located in the coastal region. It is divided into 7 municipalities and 19 communes. The surface area of the prefecture is 2,706 square kilometers, and the population is 174,524. The prefecture is bounded on the north by the prefecture of Fier, on the east by the prefecture of Gjirokastrë, on the south by Greece, and on the southwest and the west by

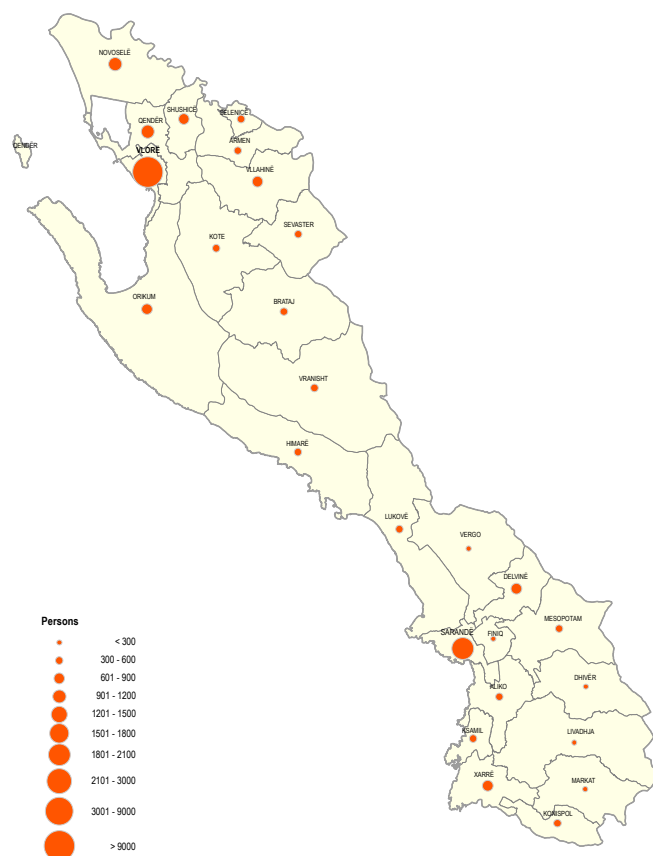
the Ionian Sea and the Adriatic Sea. The poverty rate in the prefecture was 13.2 percent in 2012. The commune of Vllahinë is the poorest area in the prefecture, with a poverty rate of 23.0 percent (map A13). The lowest poverty rates were in the communes of Dhivër and Livadhja, at less than 7.0 percent.

Map A13: Poverty Rate and Inequality, Vlorë Prefecture and communes, 2012

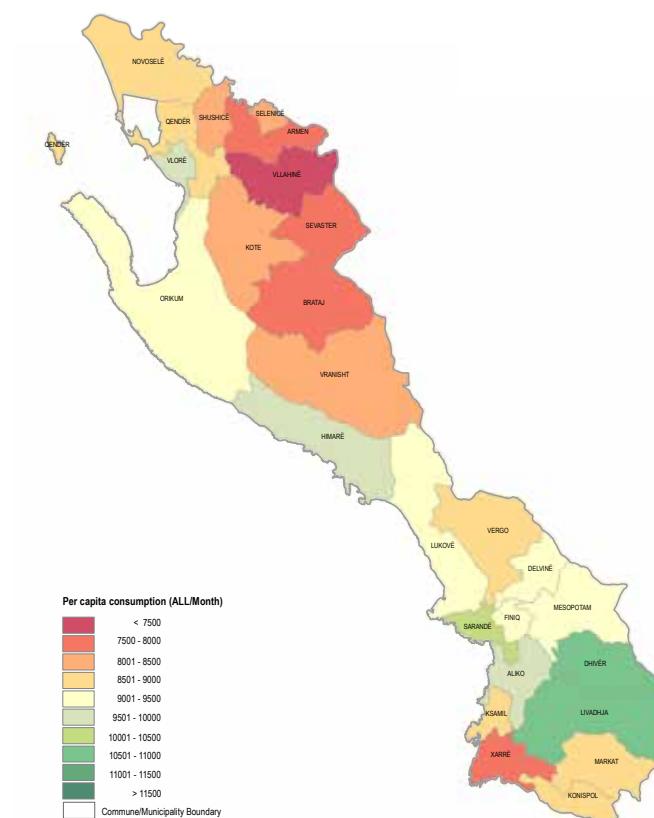
a. Poverty rate (headcount)



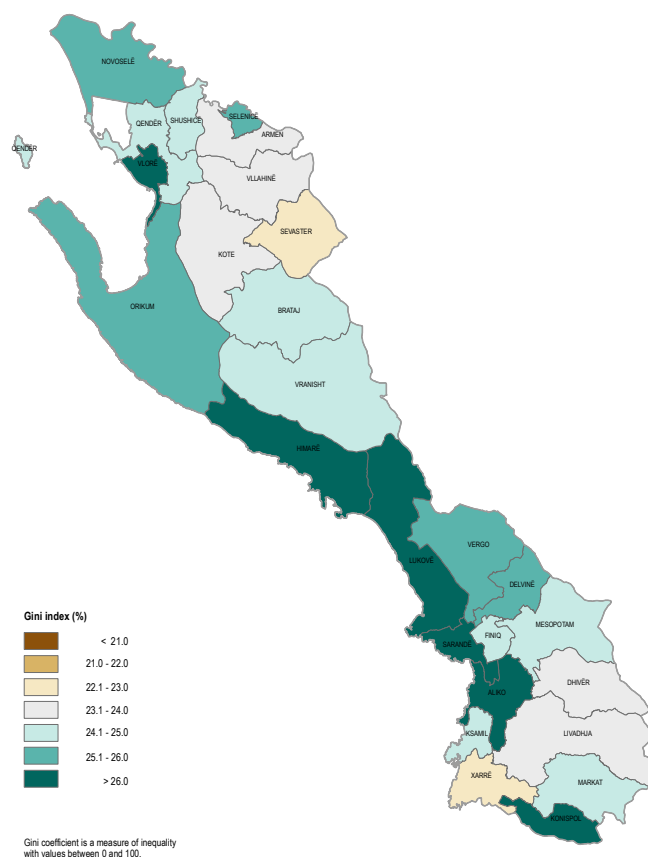
b. Number of the poor



c. The average monthly per capita consumption



d. Gini coefficient (inequality)



Source: Population and Housing Census 2011
Living Standard Measurement Survey – LSMS 2012

The boundaries of communes and municipalities have been designed for statistical purpose and may not reflect exactly the territory of the local unit

The prefecture counted 23,092 poor individuals in 2012. The municipality of Vlorë had the largest number of the poor in the prefecture, at 9,699.

The average monthly per capita consumption in the prefecture of Vlorë was 8,867 ALL. The highest levels of monthly per capita consumption were found in the communes of Livadhja (10,843 ALL) and Dhivër (10,502 ALL) and the municipality of Sarandë

(10,134 ALL). The lowest level of consumption was in the commune of Vllahinë, less than 7,500 ALL.

The level of inequality in the prefecture was 25.1 percent. The highest level of inequality, over 27 percent, was in the municipalities of Himarë, Sarandë, and Vlorë. The lowest level of inequality was in the communes of Sevaster and Xarrë, at less than 23 percent.

Annex A: Updates to the First Albania Poverty Maps, 2001–2010

The analyses of poverty and inequality maps during the initial mapping exercise in Albania was carried out by Betti, Neri, and Ballini (2003), based on the methodology fully described in Elbers, Lanjouw, and Lanjouw (2003). This methodology (the ELL) combined data of the 2001 census and the 2002 LSMS to produce detailed disaggregated maps that described the spatial distribution of poverty and inequality in the country.

Dabalen and Ferrè (2008) updated the first poverty mapping by means of the 2001 census and the new round of the LSMS, the Albania 2005 LSMS. The contribution of this work relied on a reweighting scheme. Specifically, the method, which followed the research of Lemieux (2002), involved the construction of a counterfactual consumption distribution for the old household survey, in our case the Albania LSMS 2002, using the information contained in the latest survey, the Albania LSMS 2005. The method projected how the consumption distribution for the 2002 LSMS (which was conducted about the time the 2001 census was done) would look if the parameters (the coefficients of a consumption model) and the distribution of the characteristics of the sample and, therefore, population were as reported in the 2005 survey. The derived counterfactual distribution, together with the 2001 census, were then used to obtain an updated poverty map of the country using the ELL methodology as applied in the original poverty and inequality mapping by Betti, Neri, and Ballini (2003).

Later, Betti et al. (2010) updated the poverty mapping in Albania by using the procedure proposed by Dabalen and Ferrè (2008). They constructed a counterfactual distribution of the monetary variable for the LSMS 2002 using information from the latest survey, the Albania LSMS 2008, and the 2001 census. They then applied the original ELL method on the basis of the counterfactual distribution, which led to a monetary distribution in the 2001 census data related to the 2008 LSMS.

Annex B: The ELL Methodology: Innovations and Criticisms

ELL has been used to produce more than 100 poverty maps worldwide. Its wide popularity partly derives from the development of the PovMap software by the World Bank that has made the implementation of the technique more tractable.⁷

Box 1: The Small Area Estimation Method Developed by ELL (2003)

The method proposed by ELL has three stages. First, a set of variables deemed to have similar distributions in the survey and the census are identified.

Second, a model of log per capita consumption expenditure ($h y_{dh}$) is estimated in the survey data based on the identified variables:

$$h y_{dh} = X_{dh}' \mathbf{b} + Z' \mathbf{g} + u_{dh} \quad (1)$$

where X_{dh}' is the vector of explanatory variables for household h in cluster c , $\mathbf{b}$ is the vector of regression coefficients, Z' is the vector of location specific variables, $\mathbf{g}$ is the vector of coefficients, and u_{dh} is the error term due to the discrepancy between the predicted household consumption and the actual value. X_{dh}' is household level variables that have similar distributions in both survey and census, while Z' include location specific averages of variables found in census, and potentially other external variables available at local levels for the entire country, as for instance GIS based variables.

This error term is decomposed into two independent components: $u_{dh} = h_c + e_{dh}$ where h_c is cluster-specific effect and e_{dh} a household-specific effect. This error structure allows for both a location effect – common to all households in the same area—and heteroskedasticity in the household-specific errors. The location effect can be any level.

In the third part of the analysis, poverty estimates and their standard errors are computed. There are two sources of errors involved in the estimation process: errors in the estimated regression coefficients ($\hat{\mathbf{b}}, \hat{\mathbf{g}}$) and the disturbance terms, both of which affect poverty estimates and the level of their accuracy. ELL propose a way to properly calculate poverty estimates as well as their standard errors while taking into account these sources of bias. A simulated value of expenditure for each census household is calculated with predicted log expenditure $X_{dh}' \hat{\mathbf{b}} + Z' \hat{\mathbf{g}}$ and random draws from the estimated distributions of the disturbance terms, h_c and e_{dh} . In the case of Albania, these simulations are repeated 200 times. For any given location (such as a district or a commune), the mean across the 200 simulations of a poverty statistic provides a point estimate of the statistic, and the standard deviation provides an estimate of the standard error. A so-called Alpha model (see Elbers et al., 2003) is also used in these models.

7. PovMap is a freeware available at Software for Poverty Mapping (database), World Bank, Washington, DC, <http://go.worldbank.org/QG9L6V7P20>. In addition to the software, the site also includes links to the large literature on the topic. This includes examples of applications around the globe. See also Zhao and Lanjouw (2009).

Box 1 recaps the methodology and the stepwise approach.

There have been several recent methodological developments within the literature on small area estimation that have been included in the new version of the PovMap software, PovMap2. The methodological improvements include estimations via the empirical best method, an estimation method proposed in Molina and Rao (2010) that utilizes existing information in the household survey more efficiently and has a particular advantage if surveys cover a large number of PSUs. Further improvements also include the options of utilizing the empirical best method based on an approximated empirical distribution (the normal mixtures approach) instead of an assumed distribution (Elbers and van der Weide 2014). These recent methodological contributions are used in the Albanian poverty map.

A major advantage of the ELL-based approach is that, in addition to estimating key indicators such as poverty rates, the depth of poverty, and a range of inequality measures, it also estimates the standard errors associated with these indicators. The importance of standard errors becomes a critical aspect in gauging how much trust to have in the predictions. A prediction that, say, 15 percent of an area is poor is not so valuable if it comes with a 95 percent confidence interval of, say, 0 percent to 30 percent. As illustration of standard errors that are more useful, the 95 percent confidence interval for the national poverty estimate of the LSMS survey is 12.5 percent to 16.1 percent poor.

A number of factors influence the standard errors of our poverty estimates. This includes sampling and measurement errors in the survey, which are beyond the control of the process for the construction of the poverty maps. Other aspects that we do have some control over are the precision of the consumption model, the spatial level at which cluster effects are estimated, and the number of households in each spatial area for which we estimate poverty. In this application 200 iterations were made to simulate standard errors.

Tarozzi and Deaton (2008) highlight some concerns with the ELL methodology. Notably, they show that, under certain circumstances, the ELL method can result in an overly optimistic assessment of the standard errors of the local poverty estimates. The specific concerns raised by Tarozzi and Deaton (2008) can be summarized as follows. First, differences in consumption patterns not captured in the model can bias the poverty estimates and the standard errors. The ELL method estimates a consumption model that is assumed to apply to all households within each model. The implicit assumption is that the relationship between household expenditures and their correlates are the same for all households and that all remaining differences arise because of nonstructural factors. This is not a minor assumption and is explicitly acknowledged as such in Elbers, Lanjouw, and Lanjouw (2003). However, Elbers, Lanjouw, and Lanjouw (2003) provide evidence that the concern does not have large practical implications.

Second, Tarozzi and Deaton (2008) caution that the misspecification in the error structure can lead to underestimation of standard errors. They show that, under some conditions, ignoring the spatial correlation can cause a bias in the standard errors of the poverty estimates.

Annex D: Differences and Similarities: 2002 and 2012 Maps

This appendix makes a comparison of the poverty maps of 2002 and the new poverty maps. The comparison has two purposes: (1) to document the technical differences and similarities in the estimations and (2) to provide insights on the degree of comparability between the two sets of maps.

The estimations in both years rely on the same methodology, with several variations in implementation, including some that may impact the results. Nonetheless, the two sets of maps should reflect reasonably unbiased estimates of poverty at two points in time, which should be comparable. However, we do not have any evidence or experience on how much the variations may impact the estimated results. For this reason, any analysis based on the estimates should be careful and systematic, and any comparison of individual municipalities is not recommended. This is particularly true in the case of the communes because many communes have small populations, and the estimates are therefore associated with a larger degree of uncertainty.

Data

Both mapping exercises were able to rely on a survey and a census close in time: the 2002 mapping process depended on the 2001 census, while the 2012 mapping process depended on the 2011 census.

Estimation methodology and implementation

Both sets of maps rely on the ELL estimation method. A standard implementation of the ELL includes the following stages:

Stage 0: Comparability of survey and census

Stage 1: Regression modeling

Stage 2: Simulation and estimation

Below, the maps are compared at each stage.

Stage 0: Comparability of survey and census

During stage 0, the basic explanatory variables are identified through a detailed comparison of the questionnaires and the distributions of the variables in each data source. Normally, only variables found to be similar in both data sources are utilized in the regression models. In 2002, only a few variables were found to have similar distributions in the survey and the census, and stage 0 was not undertaken. Variations in the distributions could have two causes:

Changes in the economy between the census and the survey

Differences in the survey instruments or in the survey implementation

If the variations arose because of changes in the economy, this would mean that the estimated levels of poverty reflect the situation in the year of the census (2001) instead of the year of the survey (2002). With just one year between the two data sources, it seems unlikely that most variables underwent massive changes.

If the variations arose because of differences in the instruments or the implementation, this means the estimates may be biased. Imagine, for instance, that use of the Internet is an explanatory variable and that this variable has a mean of 40 percent in the survey and a mean of 25 percent in the census. If this variation derives from differences in the survey instrument or in the implementation (say, one source included Internet use in public locations, but the other did not), then the inclusion of such a variable would lead to a bias in the estimated levels of poverty. If the variation is associated with sampling, this would be less of a concern. However, there is a trade-off between the low R^2 in the models and the bias because of nonmatching distributions.

In 2012, stage 0 was implemented according to the standard procedure, with only variables similarly defined and with similar distributions included in the regressions. Perhaps because of the stage 0 restrictions, the R^2 levels in 2012 were lower than those in 2002 for a similar number of variables. The R^2 levels in 2002 were in the range of 0.56–0.65, while the range was 0.46–0.57 in 2012 for a similar number of explanatory variables. The lower levels of R^2 in 2012 will lead to larger standard errors in the estimated poverty levels; however, the estimated results will pertain to the year of the survey, and there is no doubt about the potential bias in variables with diverging means. Also, in 2002, to produce a complete dataset, a few variables with missing data were imputed based on a model. This was not an issue in 2012.

Stage 1: Estimation models

In 2002, six models were established based on the stratification used for sampling in the 2002 household survey (central urban, central rural, mountain, Tirana, coastal urban, and coastal rural) (Betti, Neri, and Ballini 2003). In 2012, only four models were established because the urban and rural strata were combined in the coastal and central areas. Some municipalities and communes have both urban and rural observations, and, for these areas, the estimated headcounts rely on two separate prediction models. In this case, the estimated standard errors of the Foster-Greer-Thorbecke (1984) family of poverty measures and inequality measures are only correct under the assumption that the two estimation models are uncorrelated. This assumption does not seem likely to be true; so, joint models were preferred over split models. Using a combined model could lead to a bias if a single model cannot embed both rural and urban patterns. This does not seem to be a problem because there are no systematic differences between the relative size of the location effect between the 2002 and 2012 maps. If a joint model were not able to capture both rural and urban patterns, one should expect a larger location effect in the joint model, compared with each of the urban and rural models. This is not the case.

In 2002, household weights were only applied to the model in stratum 3, but not to other strata. In 2012, household weights were applied to all models. In both years, the models were relatively parsimonious with 10–15 household-level variables and 2–10 enumeration area-level variables.

Stage 2: Simulation stage

At the simulation stage, both sets of maps utilize the ELL approach in simulating the beta coefficients from the main model. The maps vary slightly in the simulation of the cluster and household error terms because the 2002 maps bootstrap from the actual error terms in the estimation model in the survey. The 2012 maps use the normal mixtures approach, an alternative method not developed until 2014, whereby the error terms from the survey models were used to approximate a nonparametric distribution, which was then used in the bootstrapping.

Boundaries over time

There was only a limited change in the administrative boundaries between the 2001 and 2011 census. Only a single commune was merged.

Estimated commune poverty levels

It is key that any interpretation of the trends in poverty between 2001 and 2012 at the commune level should only be carried out based on an in-depth analysis of all the data. Such an analysis is beyond the scope of this report, but a few observations and illustrations highlight one aspect. Figure E.1 illustrates the changes in poverty across communes in each prefecture. It shows that there is notable variation in the levels of poverty reduction, mostly within prefectures. An analysis of these changes should take into account that communes are small units for the estimation of poverty. Most poverty maps use areas with larger populations in each area, and, as a reflection of the small populations, the estimates are also associated with notable standard errors. This is illustrated in figure E.2, which shows larger changes in poverty in communes with smaller populations. Hence, much of the large shifts observed in poverty may merely be variations within the standard errors and not necessarily significant changes in poverty.

Figure E.1 Change in Commune Poverty Rates over Time, by Prefecture

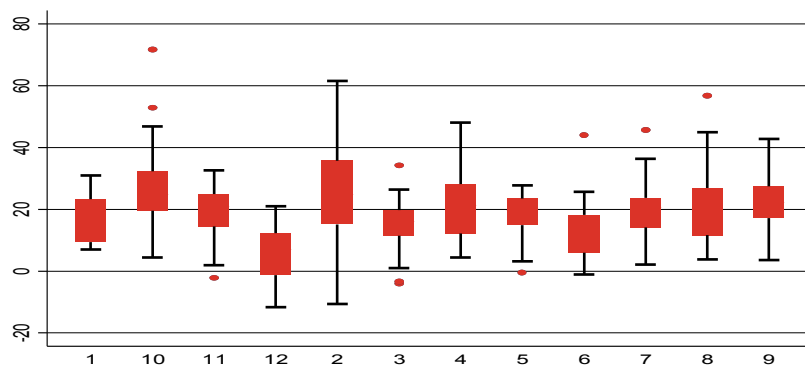


Figure E.2 Absolute Change in Poverty over Time and Log Number of Households, Communes

