Proposal

on the

Designation of the Development Regions of Albania

DRAFT

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[1] NOTE: This is an independent proposal of Co-PLAN, Institute for Habitat Development. The Polycentricity and Accessibility Analyses are prepared by Dritan Shutina, as part of his empirical research for his PhD thesis on territorial typologies and polycentricity, carried out under the International Doctorate for Architecture and Urban Planning (IDAUP), a program of the University of Ferrara, Italy and POLIS University, Albania.

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I. The context for designating Development Regions in Albania

The territorial dimension is gaining more and more space in the formulation and implementation of the European policies. Regional development and cohesion policies are the most direct reflection of the territorial approach in policy making, aiming at bringing the horizontal (territorial) perspective as coordination means between sectorial (vertical) instruments and decision-making. The reason behind is rooted in the need for reducing social-economic disparities among regions/territories as another key index of the development, next to sectorial achievements and overall increase of the national GDP.

Regional Development (RD) is not a new concept to Europe. However the approach towards RD has progressed and is transformed from a merely state subsidies policy, to a policy that aims at encouraging regions (territories) to produce development, making use of their endogenous resource and by competing among each-other. This approach requested for new development objectives and (policy and financial) instruments, and also raised strongly the necessity of linking spatial/territorial planning with development and governance.

The RD objectives that have been identified since at least late 90`s (and are still valid) consist on the reduction of regional disparities while increasing regional cohesion, and strengthening of the competitiveness between regions to boost social-economic and territorial development. Regional Development and Cohesion Policies are key components of the policy-making in the European Union and constitute a target for both, the member countries and those aspiring integration (regardless of the integration stage). EU policy and financial instruments have also set steps that aspiring countries (for instance Albania as a candidate country) are advised to follow for ensuring the merge of domestic policies/instruments for regional development with the EU ones.

The experience of the Government of Albania (since at least 2007) with regional development policy-making processes is currently approaching a climax, where there is political and institutional understanding and agreement that there should be a merge between the Albanian RD domestic policy/intentions and the EU cohesion/RD policy requirements and obligations. The Government has set the appropriate context for this merge to happen gradually, through the implementation of the Regional Management Mechanisms. The Government is implementing a plan of actions on this regard, and one of the actions consist of establishing development regions (geographical designation) for the implementation of the RD policy. This proposal provides options on the possible demarcation of the boundaries of these **development regions**.

II. The Methodology for designating Development Regions in Albania

The team delivering this proposal faced two major challenges: (i) limitations on data for all of the selected indicators. Sometime the data was available but not at the appropriate geographical scale; (i) the very short time for compiling an extensive scientific analysis. Being aware of the limitations, the team followed two major principles:

- Make use as much as possible of previous studies and proposals related to territorial evidence analysis and regionalization of Albania;
- Make use of existing methodologies, by simplifying them to a degree where results would be still carefully reflecting the reality. The involvement of a local team, with good knowledge of the territorial development and governance issues was a support factor in this regard.

As a result, the methodology for designating Development Regions in Albania was set to comprise the following components:

1. Definition of the purpose that the designated regions should fulfill, i.e. of the expected role and functions of the regions. This is set through the objectives and the respective territorial indicators of achievement.
2. A quick analysis of the methodologies, databases, data, and studies that national institutions (mainly INSTAT) have developed so far and that provide valuable input to the regions' designation process.
3. Borrowing from methodologies and studies' results developed by local organizations and think tanks, with a special focus on the proposal of Co-PLAN for the regionalization of Albania.
4. Contextualizing to the possible extent (given the limitations) the relevant methodologies developed in the ESPON studies. The latter constitute a valuable scientific and practical resource for the achievement of the aim of this proposal.

Each component is explained in the following sections.

2.1 Definition of the purpose and respective territorial indicators

The Government of Albania is aiming at boosting economic development over the territory, and has prepared a concept for a Regional Management Mechanism (RMM) on this regard. The latter consists broadly of the following:

- Undertake gradual steps towards the merging of the domestic regional development policy with the EU regional development and cohesion policies;
- Establish a national Agency responsible on implementing the RMM nationally, and a number of regional Agencies, responsible on implementing the RMM regionally and in accordance with national policies and institutions.
- Designate development regions, as the territories where each regional agency will operate.
- Create strategic and legal instruments for the functioning of the RMM.

As it is stated above, these regions are (territorial) development ones, thus nor administrative, neither governance regions. This implies that the regions should fit with at least three key criteria: (i) should be flexible and changeable (through a decision of

Council of Ministers), if it is necessary for efficiency purposes, after the designation and the implementation of the RMM within their boundaries; (ii) should be outlined in such a way as to fit with the development and cohesion aims and objectives, but not necessarily with the administrative and governance objectives. At a functional level, the regional agencies will carry out only the regional development and management function, without focusing on any governance function; (iii) the regions should not represent sectors or sectorial priorities, otherwise their delineation would go against the regional/territorial development approach, and thus against the following government's objectives.

Based on the above criteria, the development regions will be the areas where the following objectives (at least and in line with EU) should be achieved:

- Social-economic and territorial **cohesion**;
- Strengthening of the regional **competitiveness** for sustainable development and economic resilience.

In its concept proposal for regional management and development, the Government of Albania (GoA) suggests that regional management shall encompass 5 (territorial development) programs, which embrace the sectorial policies of the line ministries in a crosscutting modus, as proposed in the following table. These programs do reflect the cohesion and competitiveness objectives, providing however a more detailed perspective on the GoA objectives.

Table 1. OP1: Transition of sectors to programs

Source: Regional Management in Albania, a Vision on the Reform, GoA, 2015.

Definition of clear objectives is key to the designation of the regions, because the latter should result in optimal boundaries for achieving these objectives. To make sure that there is a optimal match between objectives and geographical boundaries, it is necessary to analyze the current situation of the indicators that shall be used in the near future for measuring the achievement of the objectives. This will not only help in defining boundaries, it will also set the baseline for future regional management and development

monitoring, and if need be, for revising the boundaries. Finally, 4 policy objectives and total of 12 sub-objectives (to be achieved by regional development and management) were set, with the respective indicators to be analyzed on the territory (Table 2). The following table represents an optimal list, and is based on selected ESPON studies (see section 2.4). The list was initially compiled having in mind the potential availability of data, as well as the time limits for accomplishing the assignment. However, after a quick inventory of the data, it was reduced by at least 35% and some indicators were revised in meaning, mainly due to data availability and given time limits for the preparation of the document.

Table 2. An optimum list of indicators for territorial analysis

No	Policy Objective and Sub-Objective	No.	Indicator
1	**Economic Development, Competitiveness and Resilience**		
1.1	Economic Development and Competitiveness	1.1.1	GDP per capita
		1.1.2	GVA per capita by sectors
		1.1.3	Employment rate of population aged 16-64
		1.1.4	Gross expenditure on R&D as % of GDP
		1.1.5	Balance of external trade
		1.1.6	Economic structure
1.2	Economic resilience	1.2.1	GDP per capita change
		1.2.2	GVA per capita per sector change
		1.2.3	Total Employment change
		1.2.4	Total Employment by sector change
		1.2.5	Change of Unemployment
		1.2.6	Resilience and territorial typologies
2	**Cohesion**		
2.1	Economic cohesion	2.1.1	Labor productivity in industry
		2.1.2	Labor productivity in services
		2.1.3	GDP per capita
		2.1.4	Overall unemployment rate
		2.1.5	Age Dependency ratio for 65 and above
2.2	Innovative territories	2.2.1	Population aged 25-64 with tertiary education
		2.2.2	Employment rate 20-64
2.3	Access to services, market and jobs	2.3.1	Access to compulsory school
		2.3.2	Access to hospitals
		2.3.3	Access to university
		2.3.4	Accessibility indicators
2.4	Inclusion and quality of life	2.4.1	Disposable household income
		2.4.2	Life expectancy at birth
		2.4.3	Proportion of early school leavers
		2.4.4	Gender imbalances
		2.4.5	Differences in female-male unemployment rates

		2.4.6	Ageing index
		2.4.7	Population with tertiary education
		2.4.8	Population at risk of poverty
2.5	Attractive regions of high ecological values and strong territorial capital	2.5.1	Potential vulnerability to climate change
		2.5.2	Soil sealing per capita
		2.5.3	Air pollution: Ozone concentrations
		2.5.4	Population at risk of flooding
		2.5.5	Biodiversity
		2.5.6	Renewable energy potential
		2.5.7	Greenhouse gas emissions
2.6	Integrated polycentric territorial development	2.6.1	Population potential within 30 km radius
		2.6.2	Net migration rate
		2.6.3	Cooperation Intensity
		2.6.4	Cooperation degree
		2.6.5	Other
		2.6.6	Demography
		2.6.7	Demographical changes
3	**Environmental sustainability and green economy**		
3.1	Typology of territorial potential for greener economy and sustainability	3.1.1	Public/private support to SMEs for increased resources efficiency and/or production of green products and services
		3.1.2	Environmental protection expenditure / capita
		3.1.3	Wind energy potential
		3.1.4	PV/solar energy potential
		3.1.5	Biomass energy potential
		3.1.6	Geothermal energy potential
		3.1.7	Percentage of NATURA 2000 areas by Qark
		3.1.8	% of persons aged 25-64 with upper secondary education attainment
		3.1.9	% of persons aged 20-24 with upper secondary education attainment
		3.1.10	Accumulated patents in selected environmental technologies
		3.1.11	Environmental taxation
4	**Accessibility of regions**		
4.1	Travel costs	4.1.1	Access time of people to motorway exits
		4.1.2	Access time of freight to freight terminals
		4.1.3	Travel time of people to regional centers by road and public transport
		4.1.4	Travel time of people to the nearest hospital
4.2	Cumulated opportunities	4.2.1	Cities>50,000 residents within 60 minutes by road
		4.2.2	Freight terminals within 2hrs by lorry
		4.2.3	Jobs accessible within 60 minutes by road and public transport
		4.2.4	Number of higher secondary schools within 30 minutes travel time

4.3	Potential	4.3.1	To national population by road
		4.3.2	To national GDP by lorry
		4.3.3	To population by road and public transport
		4.3.4	Potential accessibility to general practice surgeries

Analyzing these indicators (per each objective) suggests that the final proposal for the designation of the regions will be aiming at considering them simultaneously. This is a crucial assumption of the analysis, because the final product should provide development regions and by no means sectorial regions. If the latter were the case, the designation of the regions would simply go against the purpose for which they were created.

The indicators are presented territorially (on maps) at the Qark, municipalities 61 and municipalities/communes level, depending on data availability. The most preferred level is the one of the current 373 local governments, as the analysis at this level provides more details and allows for better understanding of the situation per each indicator. There are also cases in which the territorial unit is either 17 agglomerations and their respective functional urban areas, or 36 urban centers, based on the INSTAT definitions for agglomerations and urban centers, and ESPON and OECD definitions for functional urban areas. Most of the indicators are also presented in tables and/or graphs. Because this is a proposal of territorial delineations (and also because of the reported study limitations), the indicators (with only few exceptions) are not presented in time series; instead they reflect the current situation, or the latest year for which official data are available (between 2012 and 2014).

2.2 National databases and studies

For most of the indicators, the team has made use of INSTAT (Albanian Institute of Statistics) data, by accessing on line the INSTAT database, the Census 2011 data and studies, and the INSTAT web atlas[2]. In all cases, the source of the information is also provided on the map, helping to check accuracy and validity of the information.

Key studies, especially to the polycentrism analysis were the publications of INSTAT on "A new Urban Rural classification of the Albanian population" (2014) and "The typology of communes and municipalities" (2014).

The base map, in all cases, was constructed by making use of the layers provided on line by ASIG (State Authority for Geospatial Information) Geo-portal[3].

For some of the indicators, mainly those related to accessibility and some of the polycentrism analysis, the team has calculated travel times on line, by using Google maps.

[2] www.instat.gov.al and www.instatgis.gov.al
[3] http://geoportal.asig.gov.al/

2.3 Studies conducted locally

The most resourceful studies that have been conducted locally and served as a basis for further interpretation of the indicators, are: (i) Co-PLAN's proposal on the Regionalization scenarios for Albania (2014); (ii) and ISD[4] study on Regional Disparities in Albania (2009).

The contribution of Co-PLAN provides an extensive analysis of the need for administrative and governance regionalization in Albania, together with proposed scenarios for regions' delineation. This study provides good hints and information to the current proposal. The reason for not using the scenarios of this study right form the outset, is that the purpose for their delineation is rather different and broader – governance regionalization, thus including several functions and criteria that are not subject to the current proposal. However, specific analytical maps of this study provide useful arguments to the current proposal.

The publication of ISD on regional disparities provides a very good overview of the distribution of territorial disparities in Albania at Qark and communes/municipalities (373) level, by feeding with territorial evidence the cohesion objective. The information is relatively outdated (time series of 2001-2009); however the study remains relevant and appropriate for use for the following reasons:

- Conclusions wise, the situation has not changed much in Albania. Thus, as defined by this study, the disparities are not so pronounced among Qarks (as territorial units), but remain quite sharp at communes/municipalities level;
- The Coordination unit at the Prime Minister's Office as updated the indicators of the Regional Development Index, to the latest data available.

2.4 Scientific methodologies

The team defined the indicators by making use of ESPON[5] and OECD[6] studies and methodologies on topics that are relevant to the purpose of the current proposal. ESPON, is an EU program that "aims at promoting and fostering a European territorial dimension in development and cooperation by providing evidence, knowledge transfer and policy learning to public authorities and other policy actors at all levels"[7], since 2004. Through its projects, it provides scientific methodologies for analyzing key issues related to the EU policies implementation and monitoring. The team made use of the following studies/projects for the current proposal:

1. KITCASP, Key Indicators for Territorial Cohesion and Spatial Planning, Targeted Analysis 2013/2/20, (Draft) Final Report | Version 31 July 2013, Part D | Appendix F, ESPON.

2. Veneri, P. and V. Ruiz (2013), "Urban-to-Rural Population, Growth Linkages:

[4] Integrated Support for Decentralization, an EU and UNDP program.
[5] European Spatial Planning Observation Network
[6] Organization for Economic Cooperation and Development
[7] http://www.espon.eu/main/Menu_Programme/

Evidence from OECD TL3 Regions", *OECD Regional Development Working Papers*, 2013/03, OECD Publishing. http://dx.doi.org/10.1787/5k49lcrq88g7-en

3. INTERCO, Indicators of territorial cohesion, Scientific Platform and Tools Project 2013/3/2, (Draft) Final Report, ESPON

4. ECR2, Economic Crisis: Resilience of Regions, (Draft) Scientific Report | Version 31/03/2014, Applied Research 2013/124/2012, ESPON

5. SGPTD, Second Tier Cities and Territorial, Development in Europe: Performance, Policies and Prospects, Applied Research 2013/1/11, Scientific Report | Version 30/06/2012, ESPON

6. ESPON 2013 I, TRACC, Transport Accessibility at Regional/Local Scale and Patterns in Europe, Applied Research 2013/1/10, Final Report | Version 06/02/2015, Volume 2 TRACC Scientific Report

7. ESPON 1.1.1, 2005, Potentials for polycentric development in Europe, Project report III. Territorial analysis of the Indicators.

III. Proposal on the designation of development regions for Albania

The proposal on the designation of the development regions for Albania is built over the analysis of the indicators of table 2. This table contains indicators for 4 policy objectives (and sub-objectives) that the future development regions should achieve, namely:

- Strengthening of Economic Development, Competitiveness and Resilience;
  - Economic development and regional competitiveness increased;
  - Regions are more competitive;
  - Regional economic resilience has increased;
- Strengthening of Regional Social-Economic and Territorial Cohesion
  - More economic cohesion;
  - Innovative territories potential disclosed;
  - Access to services, markets and jobs improved;
  - More inclusion and better quality of life;
  - Regions are attractive and with high ecological values and strong territorial capital;
  - Territorial development is integrated and polycentric.
- Achieving Environmental Sustainability and Green Economy
  - The territorial potential for greener economy and sustainability enhanced and used in a sustainable way.
- Improving the Accessibility of Regions
  - Travel costs decrease;
  - Cumulated opportunities increase;
  - Potential Accessibility improves.

3.1 Strengthening of Economic Development, Competitiveness and Resilience

3.1.1 Economic development and regional competitiveness increased;

Increased regional competitiveness is a target in regional development, as competitive regions can attract and maintain successful companies, skilled labor and investments, high living standards, and growth producing economic activities. Because of this, increasing of competitiveness of regions has also become an (policy) objective, rooted in the regional development policy. Any proposal on the designation of development regions in Albania (result of this analysis) will act as guiding tool to the measures that the government has to take to foster growing competitive advantages in the regions. Thus, the government would look at how to support the local/regional businesses for strengthening and becoming more competitive, either through infrastructures and services, or other "soft" means, such as vocational education, etc.

Figure 1: GDP per capita

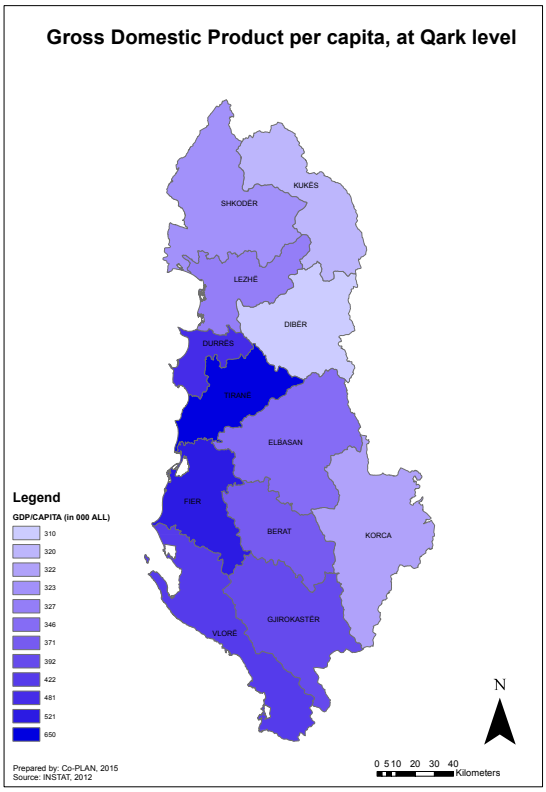
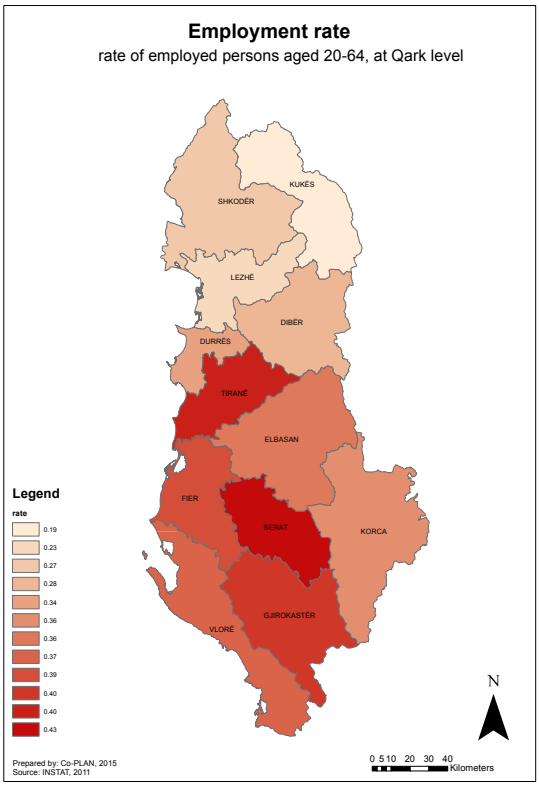
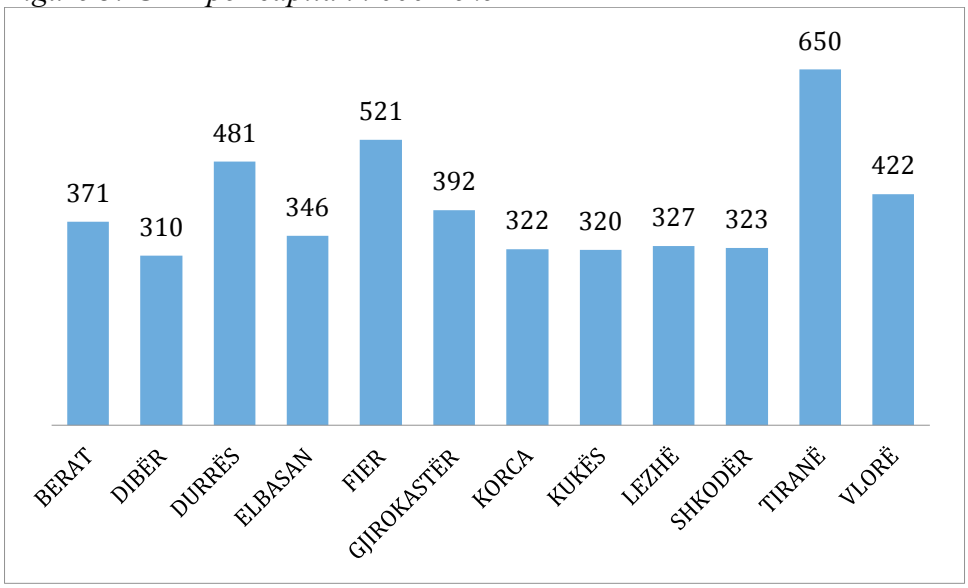


Figure 2: Employment rate of population aged 16-64



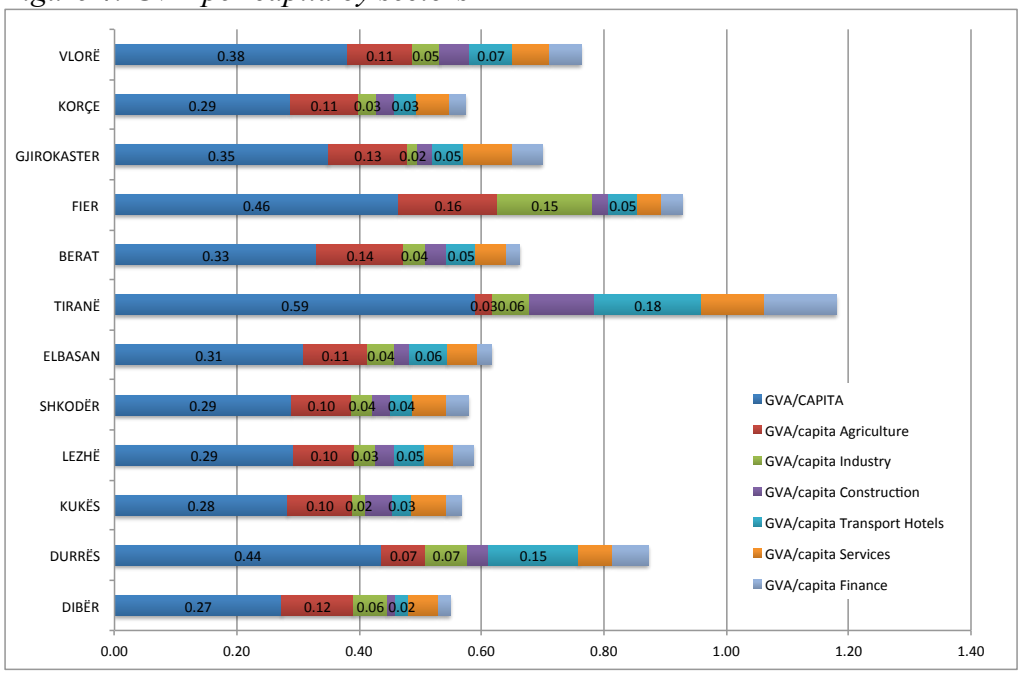
For the purposes of understanding the (current/potential) competiveness of regions, we have captured, from a spatial perspective, the GDP and GVA per capita, on a Qark level, as well as the employment rate for persons aged 20-64. More substantial analysis of the competitiveness is conducted in the ISD study of regional disparities in 2009, where time series were also analyzed to understand the evolution of competitiveness characteristics for Qarks.

Figure 3: GDP per capita in 000 Lekë



Source: INSTAT 2012

Figure 4: GVA per capita by sectors

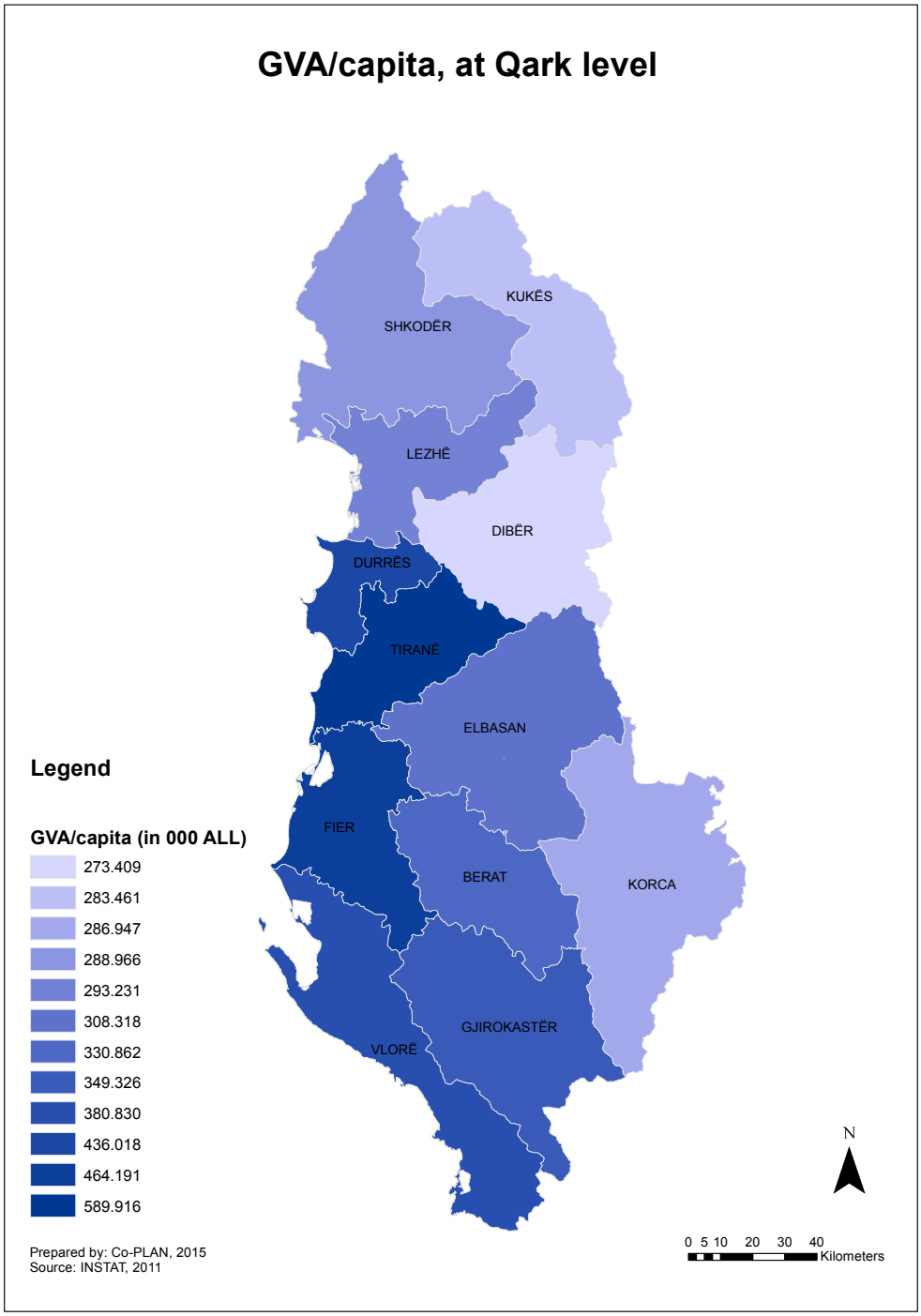


Source: INSTAT 2011 and Own calculations

Tirana, Durrës and Fier are the most competitive in terms of the gross domestic product, while labor force is the highest in Tirana and Elbasan. From a sectorial economic structure point of view, still Tirana and Durrës dominate. However, looking at sectors separately, agriculture seems to dominate the proportions of GVA in several regions, while in Tirana and Durrës the biggest GVA proportion is dedicated to Transport and

Hotel services. In overall, the south-west Qarks are the most advantageous and the competitiveness indicators fall gradually, while moving inland, towards the more mountainous regions.

Figure 5: GVA per capita at Qark level, 2012



3.1.2 Regional economic resilience has increased;

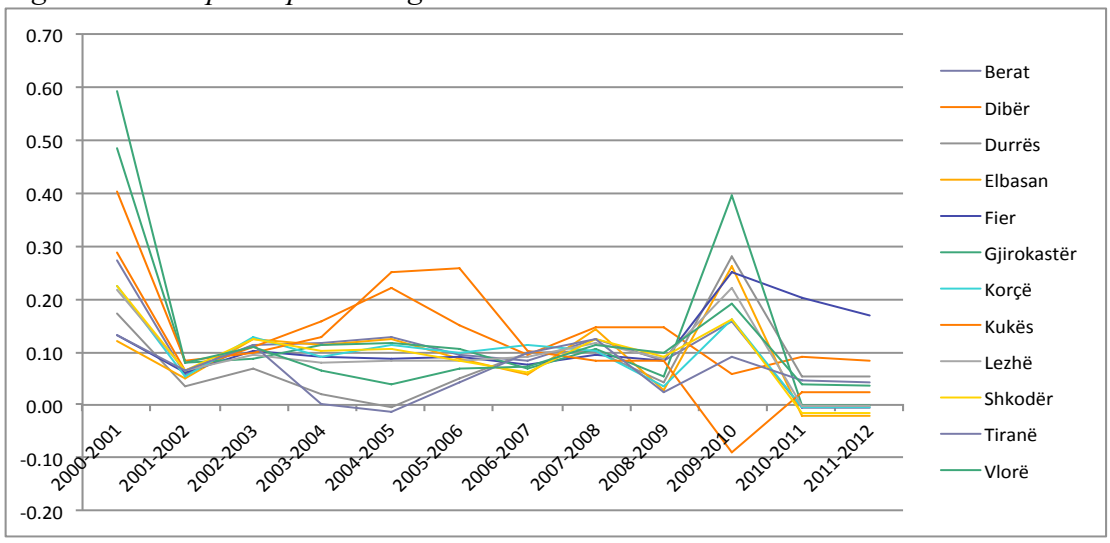
The purpose of this analysis is to observe the behavior of regions during and after the economic crisis, in order to measure their recovering and economic resilience ability. Albania was hit by the world economic crisis only in 2010 and the data for measuring resilience (figures and tables below) are available only till 2012. So we are not able to measure whether at a spatial scale, the regions have responded to the crisis by recovering, or are still in decline. The following indicators are a clear evidence of how strongly Albania is hit by the crisis in 2011-2012 in all Qarks.

Table 3: GDP per capita 2001-2012

Qarku	Years and GDP per capita in 000 lekë												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Berat	119	152	161	178	199	225	246	267	299	324	375	373	371
Dibër	70	90	95	106	123	150	172	188	216	248	262	286	310
Durrës	195	228	236	252	257	255	268	295	326	339	433	457	481
Elbasan	128	144	151	169	188	212	230	244	279	287	362	354	346
Fier	136	154	163	180	196	213	232	250	273	296	370	446	521
Gjirokastër	95	140	151	165	183	205	227	242	267	281	393	393	392
Korçë	113	138	146	165	180	200	219	245	270	279	324	323	322
Kukës	87	122	132	145	164	205	258	285	309	335	305	312	320
Lezhë	113	137	146	160	173	188	204	222	248	270	329	328	327
Shkodër	114	140	149	168	185	204	221	235	264	287	334	329	323
Tiranë	312	353	376	419	419	413	430	473	531	545	595	622	650
Vlorë	112	178	192	213	227	236	252	270	301	330	392	407	422

Source: INSTAT

Figure 6: GDP per capita change



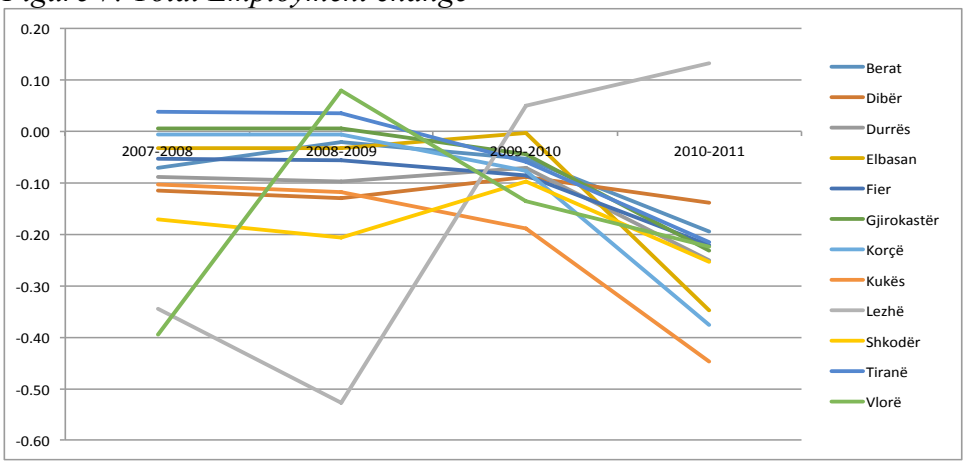
Source: INSTAT

Table 4: Total Employment (rate)

Qarku	Years and Employment rate				
	2007	2008	2009	2010	2011
Berat	62	58	56	53	43
Dibër	47	42	36	33	28
Durrës	59	54	49	45	34
Elbasan	60	58	56	56	36
Fier	62	58	55	50	39
Gjirokastër	54	54	54	52	40
Korçë	63	63	62	57	36
Kukës	53	47	42	34	19
Lezhë	62	40	19	20	23
Shkodër	61	50	40	36	27
Tiranë	51	52	54	51	40
Vlorë	84	51	55	47	37

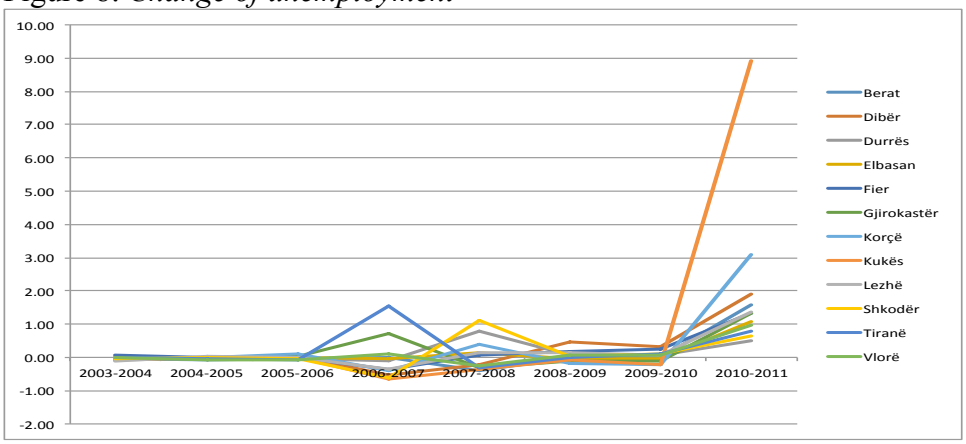
Source INSTAT

Figure 7: Total Employment change



Source: INSTAT and Own calculations

Figure 8: *Change of unemployment*



Source: INSTAT, Indicators by Prefecture, INSTAT GIS Web atlas, Own calculations

3.2 Strengthening of Regional Social-Economic and Territorial Cohesion

3.2.1 More economic cohesion;

Social-economic and territorial cohesion, or reduction of disparities is the other major objective of regional development. The Integrated Support for Decentralization project has provided substantial contribution in measuring regional disparities in Albania for the period 2001-2009. The current analysis will provide simply a snapshot of the regional cohesion situation in Albania for 2011-2012, from a spatial distribution point of view and for a selected number of indicators.

Figure 9: Labor productivity in Industry

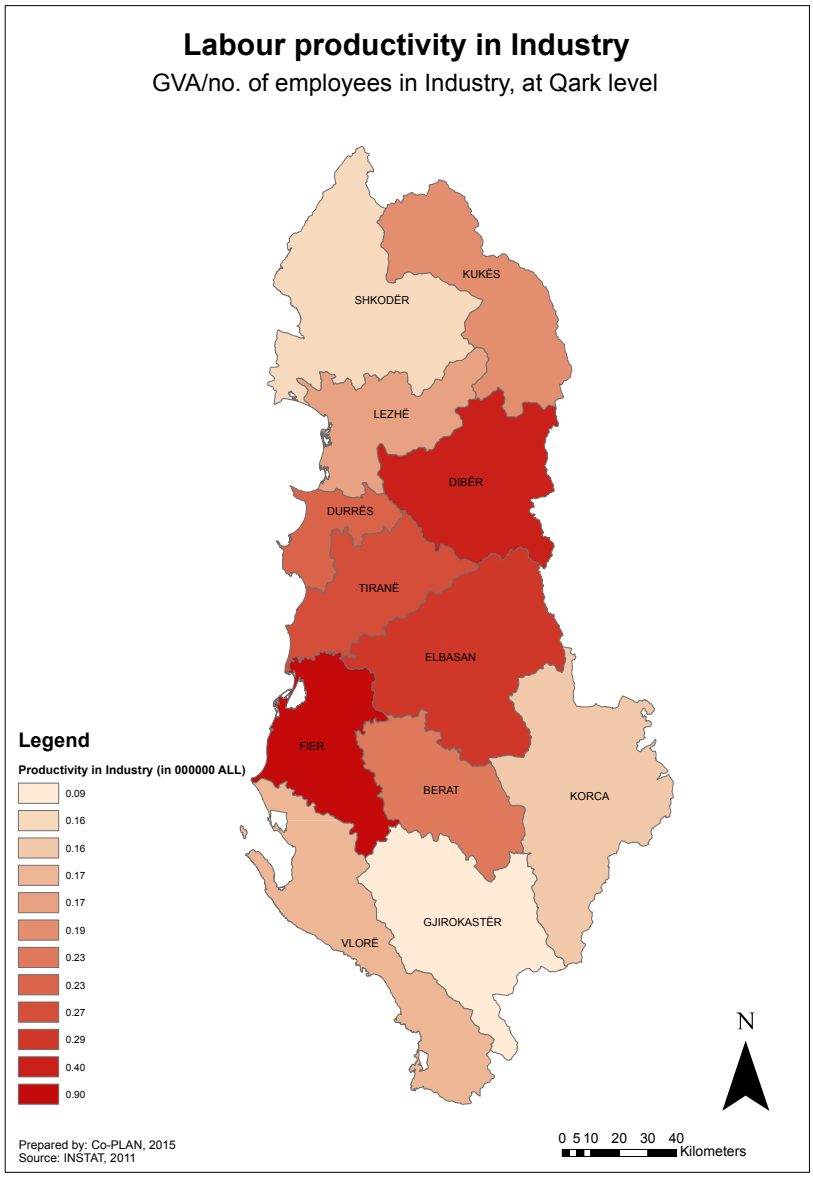
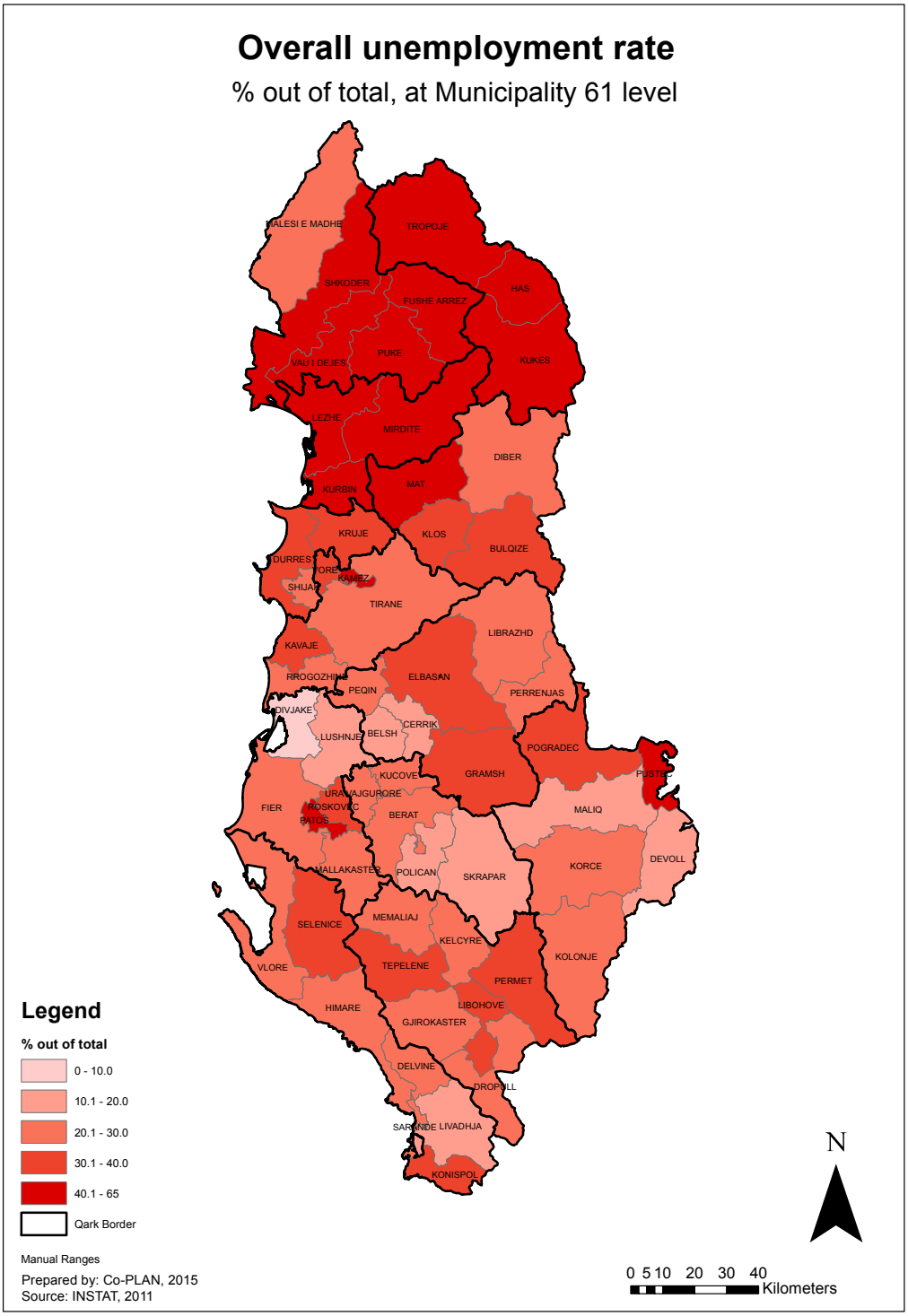
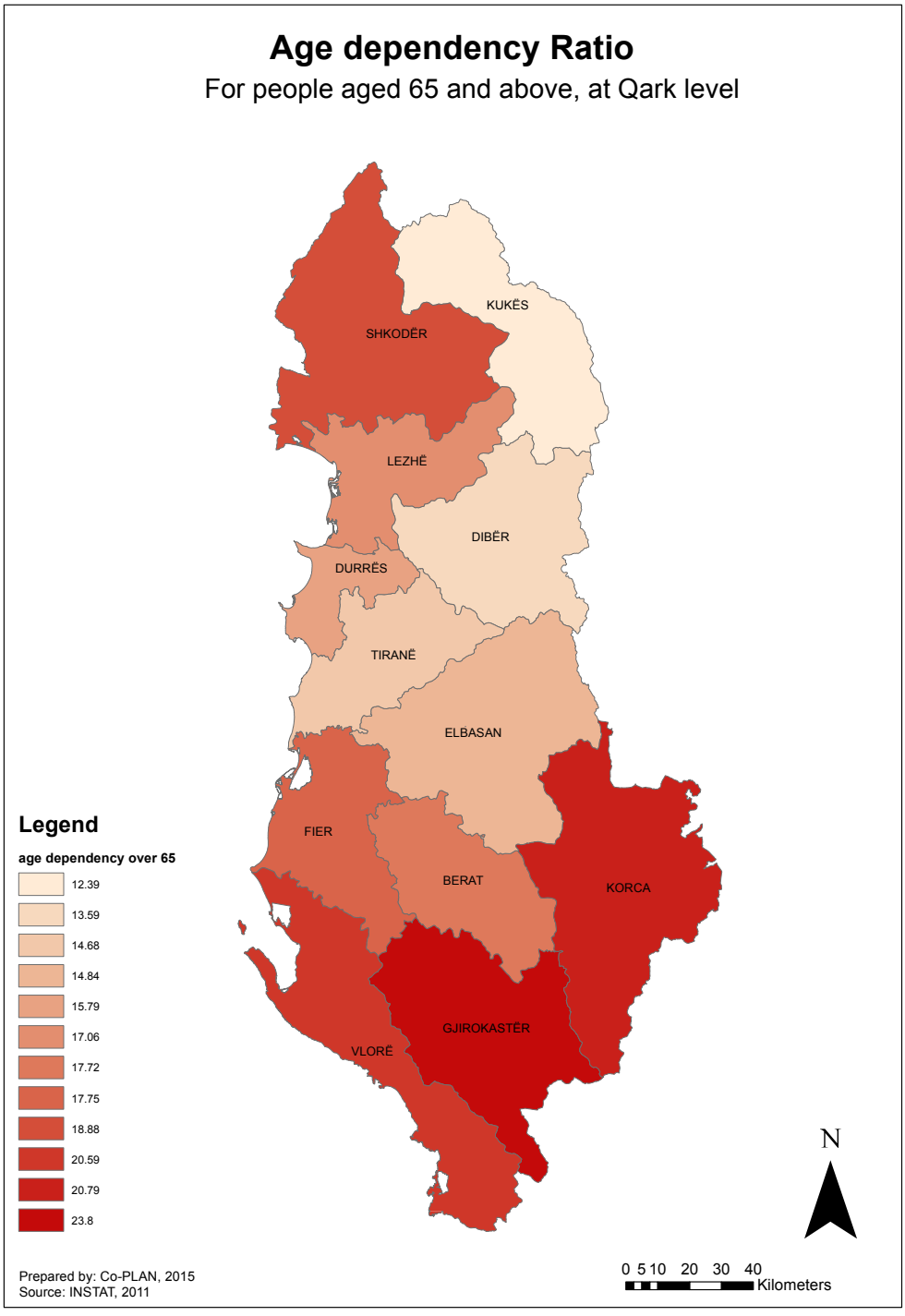


Figure 10: Overall unemployment rate



The indicators of GDP per capita and all employment related indicators show for quite pronounced disparities at Qark level. This has not been so much the case in the figures of the ISD 2009 study. However it can be explained as an effect of the economic crisis.

Figure 11: Age dependency ratio for people aged 65 and above

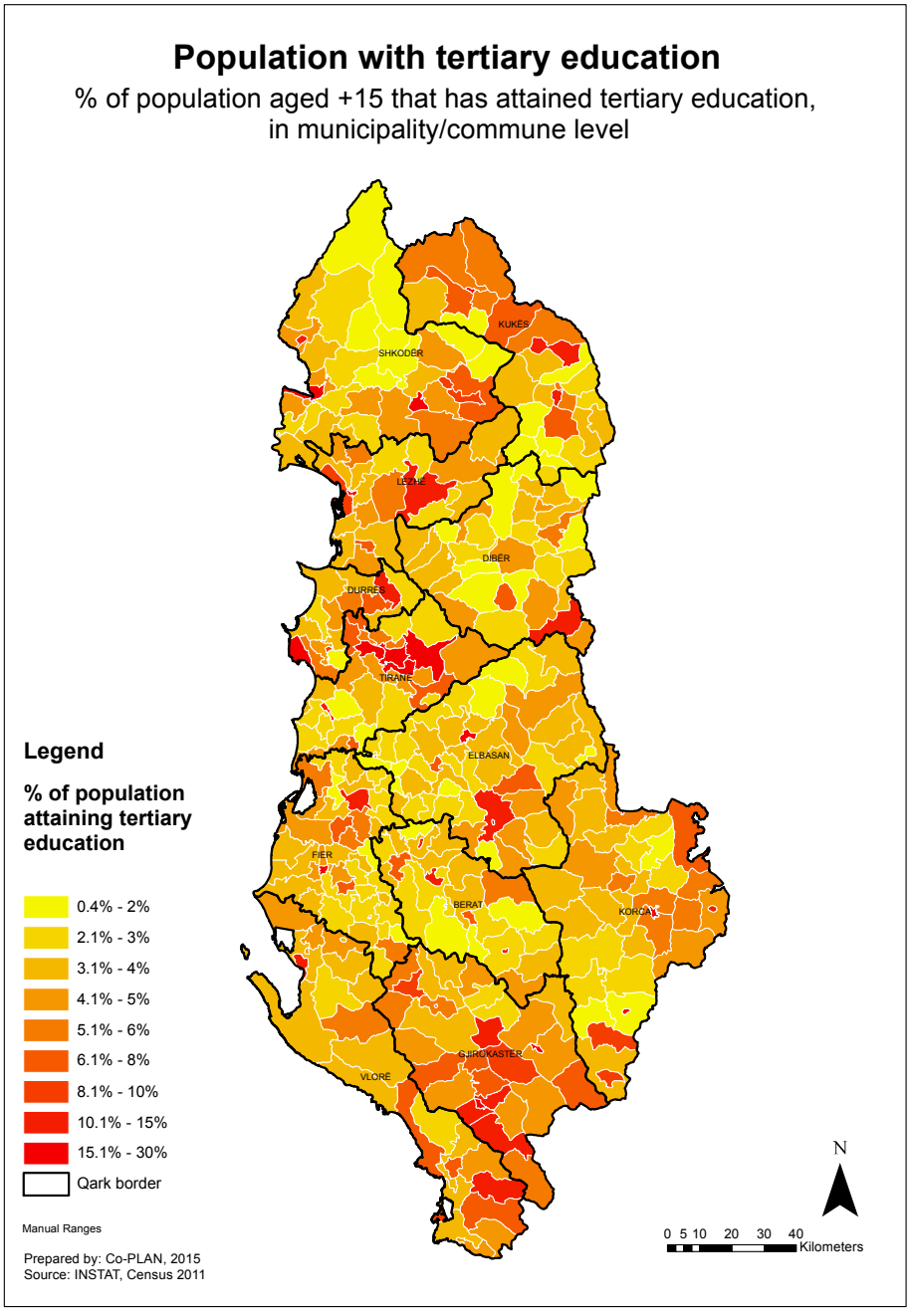


The disparities between Qark related to age dependency show that the population aged above 65 is more dominant in Shkodra and in the south Qarks (Korçë, Gjirokastër and Vlorë) than in the rest of the country. This may be related to the migration patterns of these Qarks as well as to the low population figures of these Qarks. On the other hand, it also shows competitiveness and convergence advantage for Durrës, Tirana and

Elbasan.Kukës and Dibër seem also to be advantageous, but they also have the highest unemployment figures, for both, males and females.

3.2.2 Innovative territories potential disclosed;

Figure 12: Population aged 18-64 with tertiary education

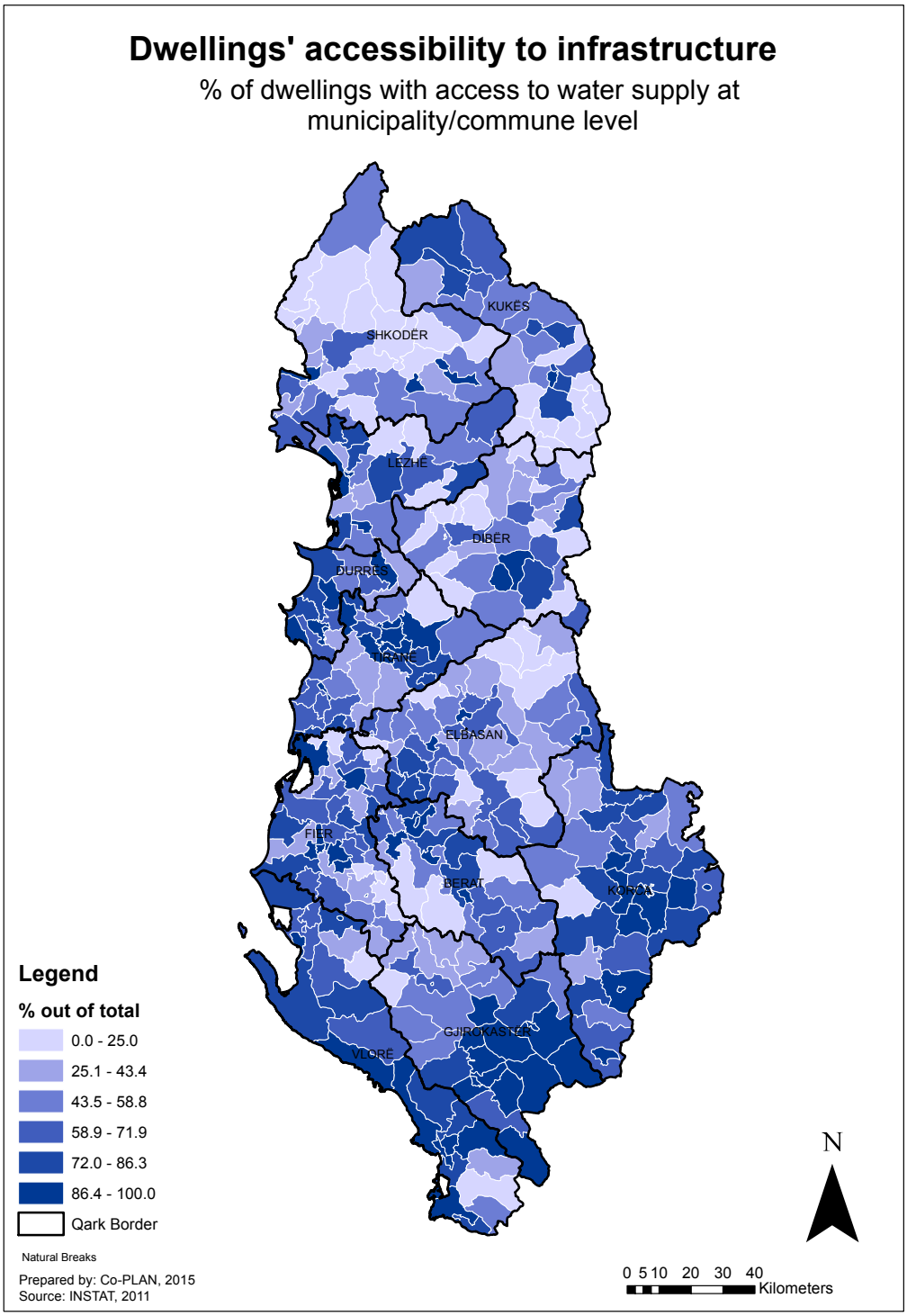


Innovation is related to several factors, such as education, patents, research and development expenditures, etc. The latter figures are either missing or incomplete for Albania. In terms of tertiary education, we see that the highest concentration is in the core

urban centers and it decreases the more we move towards periphery and in areas with low accessibility.

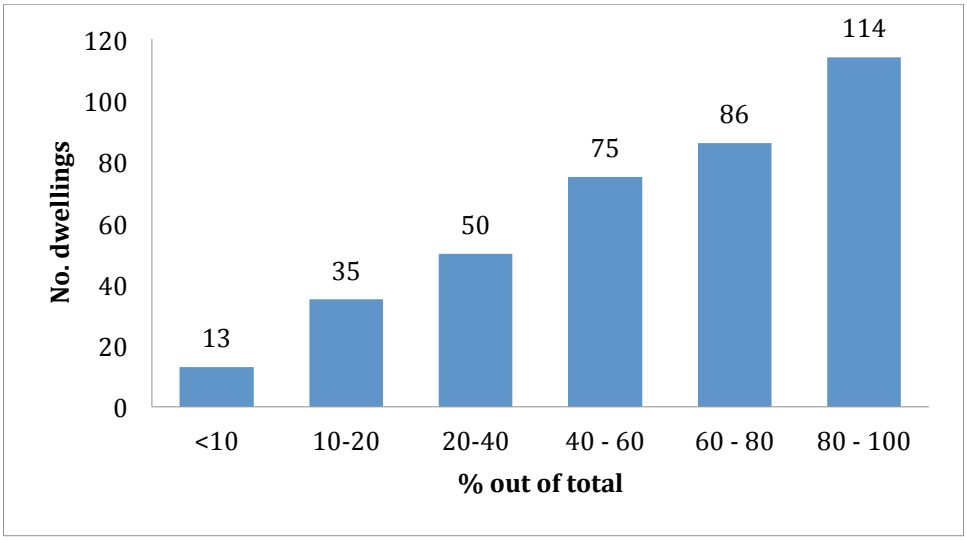
3.2.3 Access to services, markets and jobs improved;

Figure 13: Access to water supply and sewage



Accessibility indicators are discussed in section 4.4. Here we have a presentation of households access to water and sewage services, which represents high disparities among communes and municipalities (373). 26% of the local governments have no more than 40% of their dwellings with access to water and sewage services, while 30% only have 80-100 % of their dwelling with access to these services. The distribution is rather uneven, but disparities are more pronounced in the north.

Figure 14: Accessibility of dwellings to water and sewage services



3.2.4 More inclusion and better quality of life;

The following group of indicators shows mainly for disparities among northern and southern Qarks, with those in the north being in a more disadvantageous position. In the case of the proportion of people aged 10+ and with less than 5 years of education, all of the 4 northern Qark have medium to high figures compared to the center Qarks, with 9.7 to 11% out of the total. In the South, Gjirokastra, Korca and Berat are in the worst position for this indicator, and this could be due to both, the topographic patterns (that suggest lower access to education services), and the migration features (the aging index shows for extreme disparities among south and north, with south municipalities reaching above 100%, and in few cases more than 500%).

Unemployment maps provide also interesting information. The unemployment is much more higher in the north (around 50%) than south municipalities (8-30%). The previous have also almost equal figures of females and males unemployment, with males' unemployment being slightly higher. On the other hand, the females' unemployment is much higher than the males' unemployment in the south (in several cases reaching 9-27% more).

Figure 15: Proportion of people with less than 5 years of education

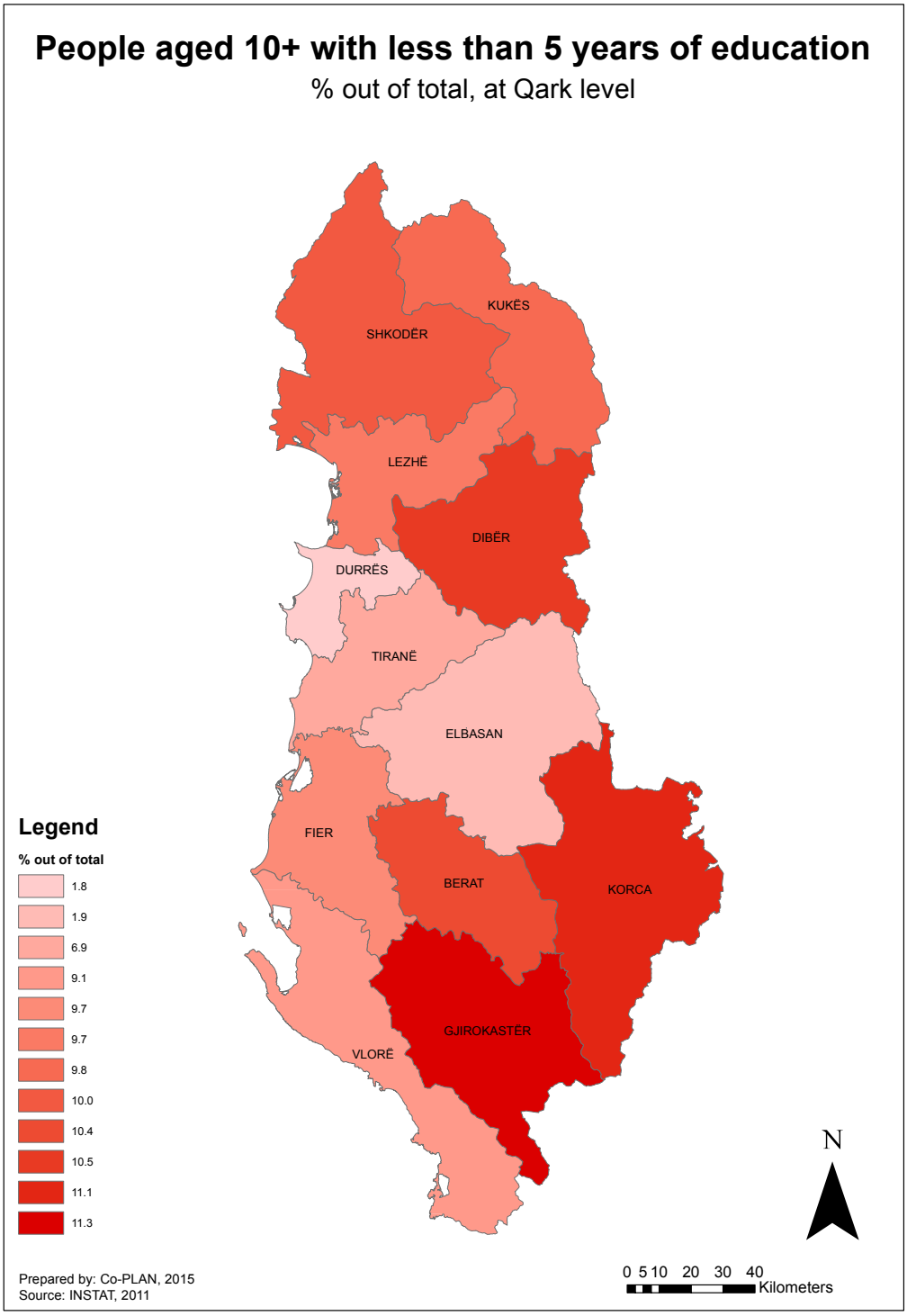


Figure 16: Females unemployment rates

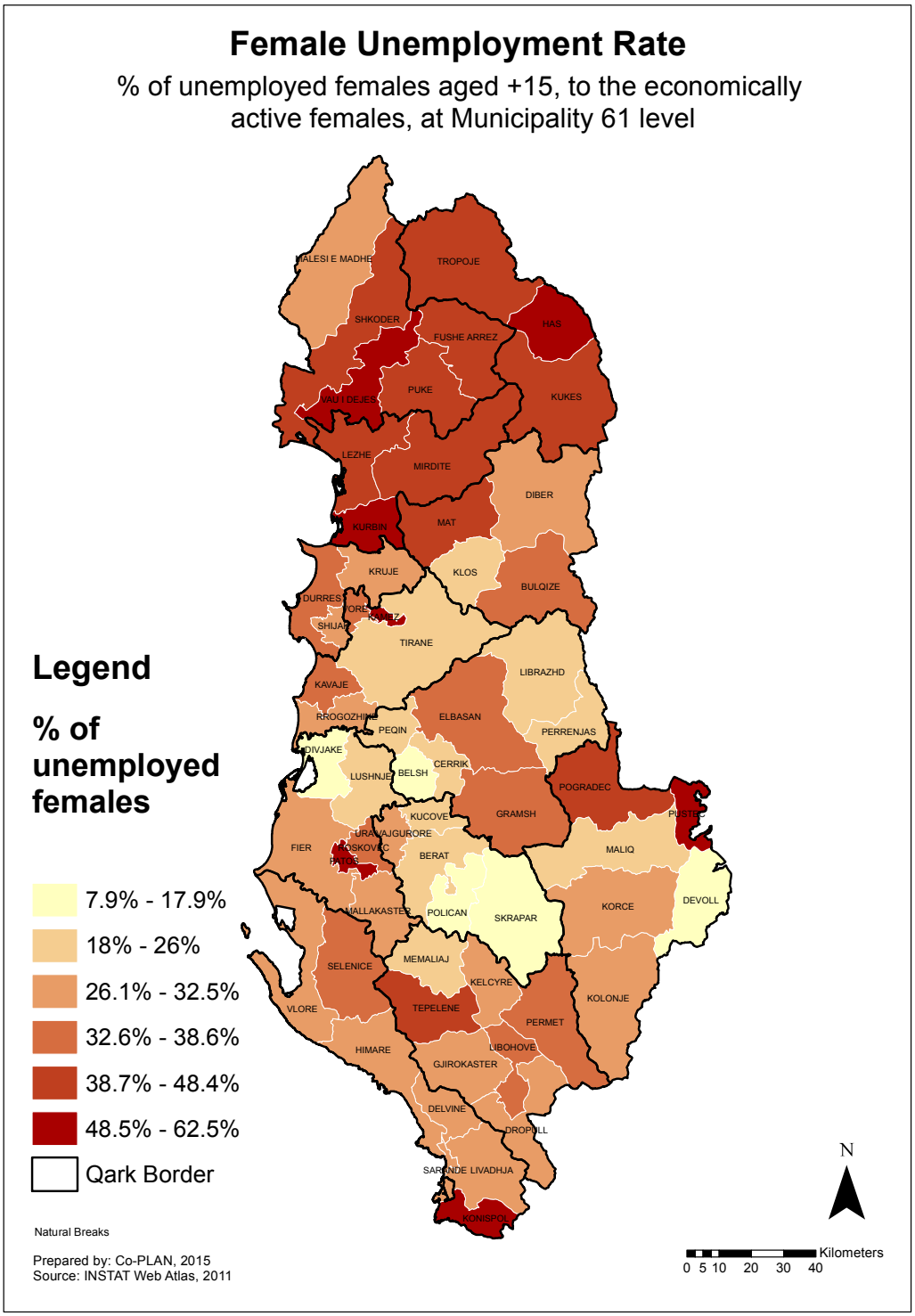


Figure 17: Males unemployment rates

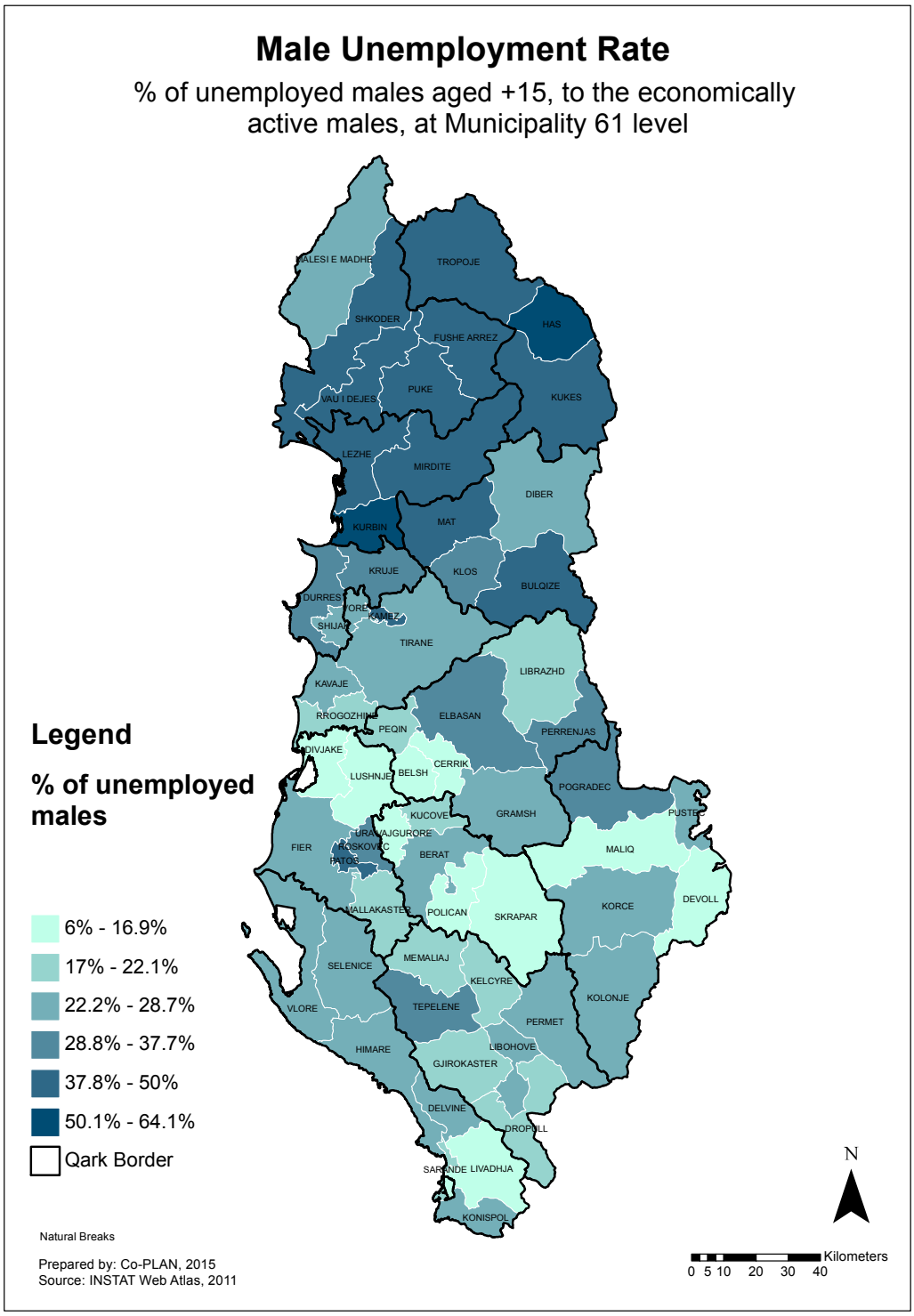


Figure 18: Differences in female-male unemployment rates

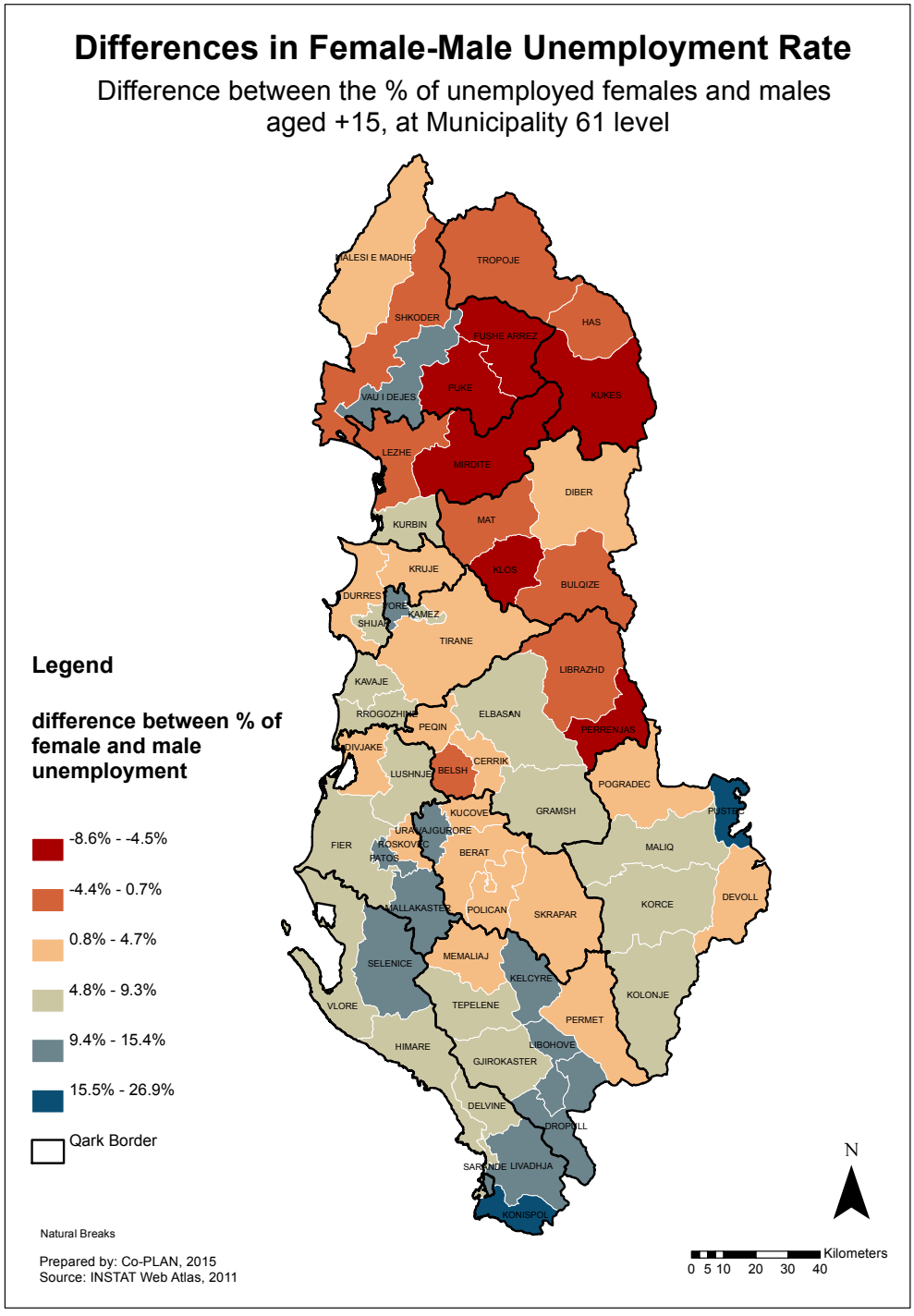


Figure 19: Poverty

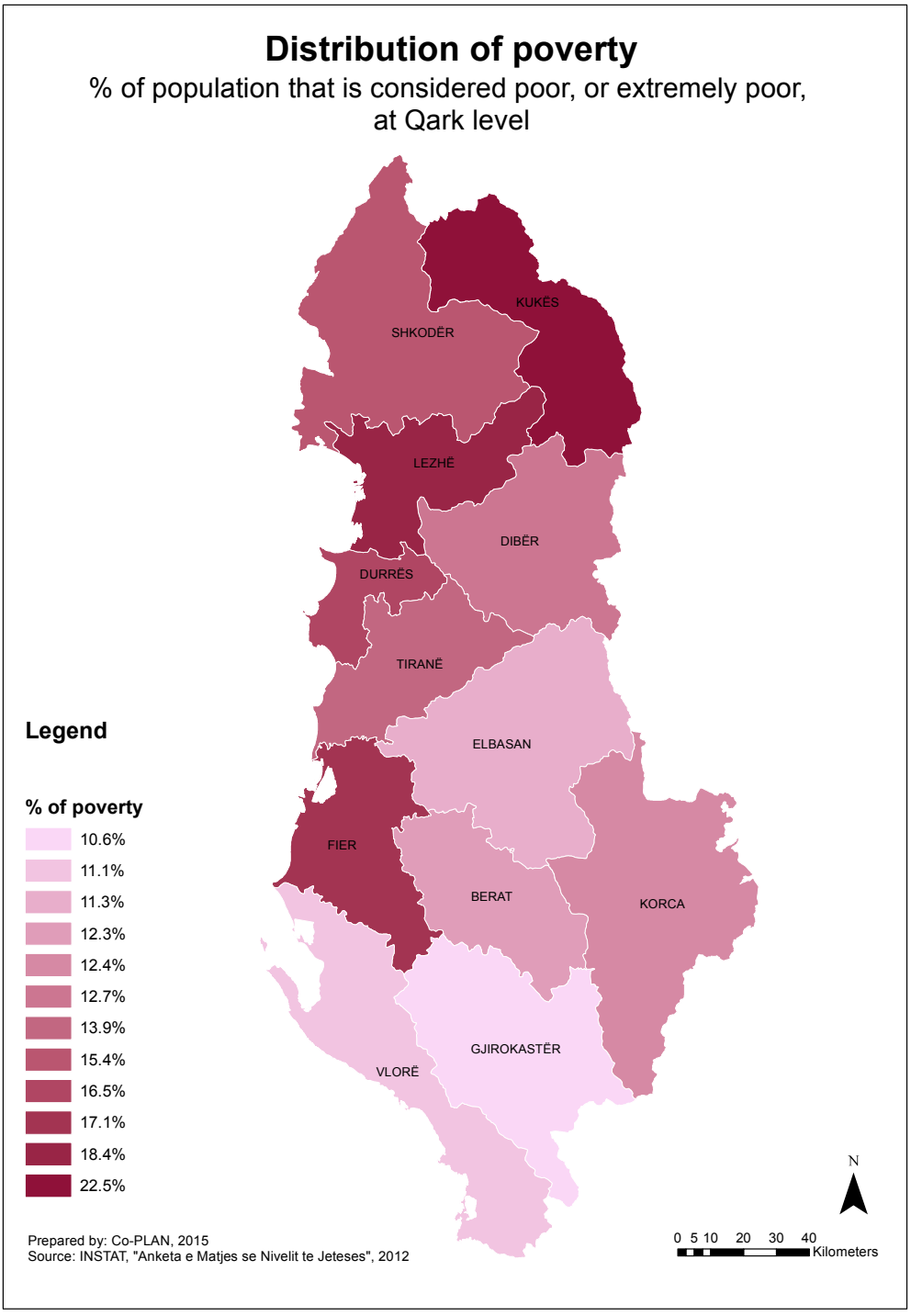
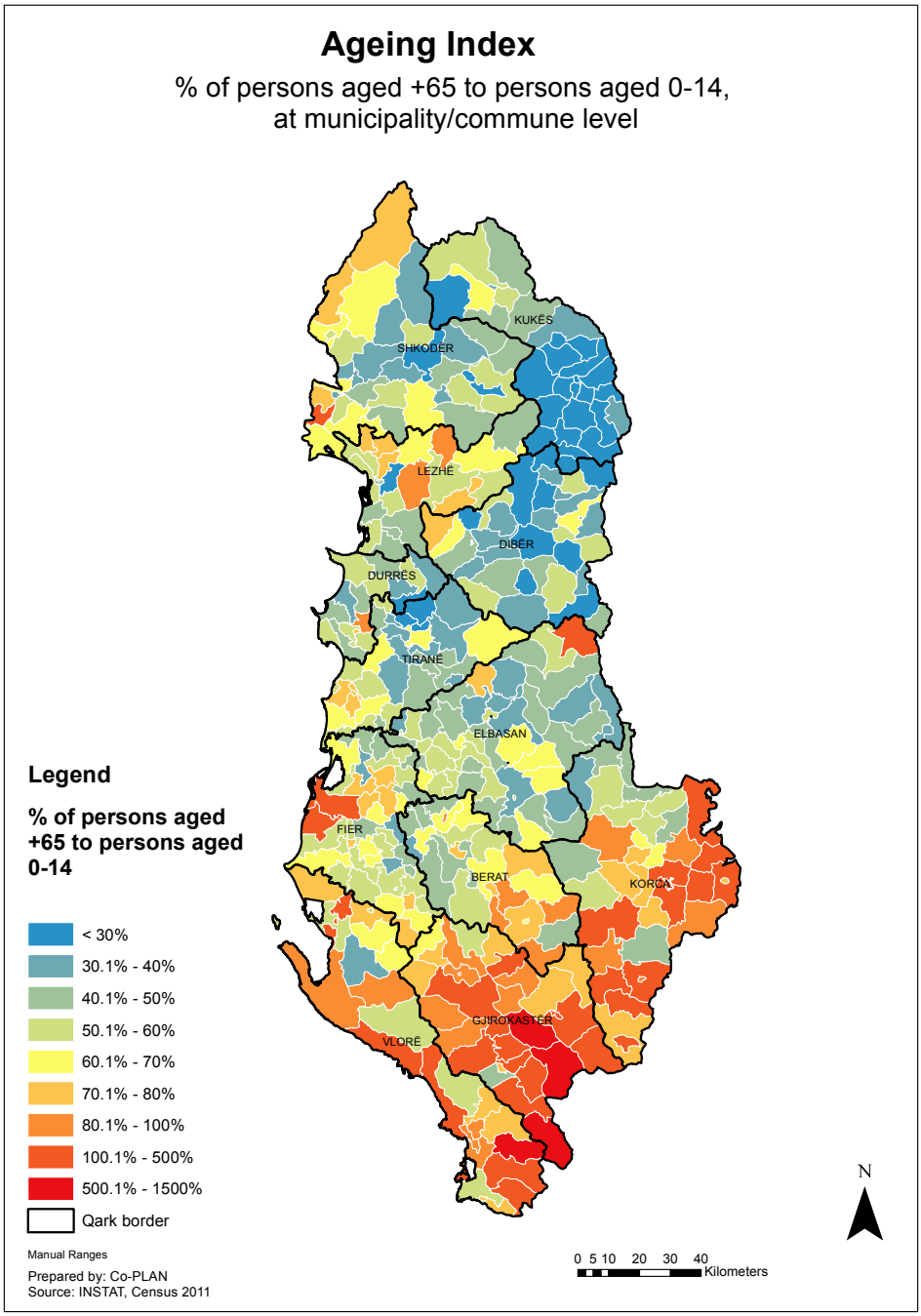


Figure 20: Ageing Index

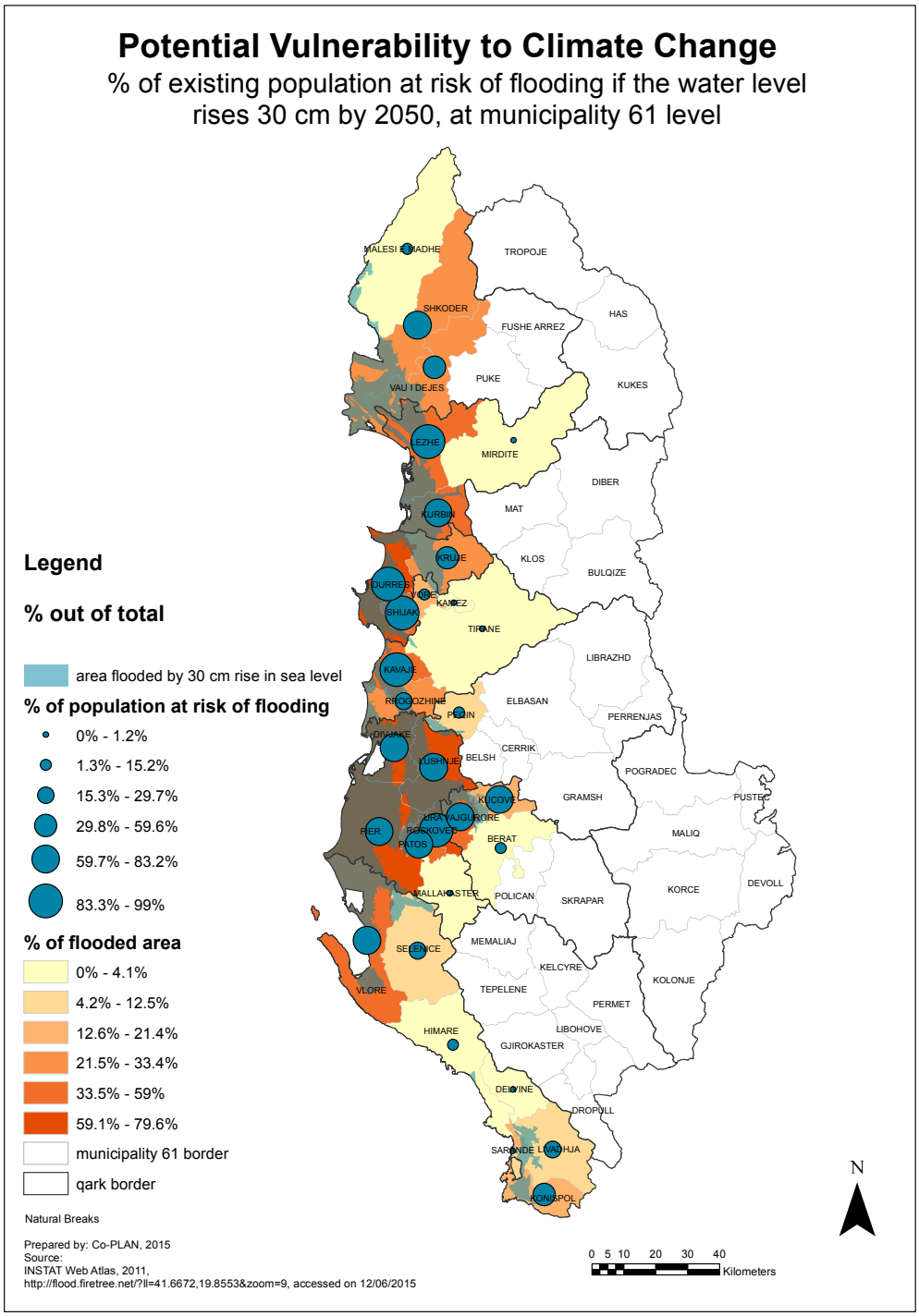


3.2.5 Regions are attractive and with high ecological values and strong territorial capital;

The ecological values and territorial capital of regions is rather diverse among Qarks in Albania. Ecological values are high in all of the territory, as a result of the diverse terrain, climate zones and rich biodiversity. The latter is more pronounced in the mountainous areas (the maps of protected and emerald areas). On the other hand the territorial capital

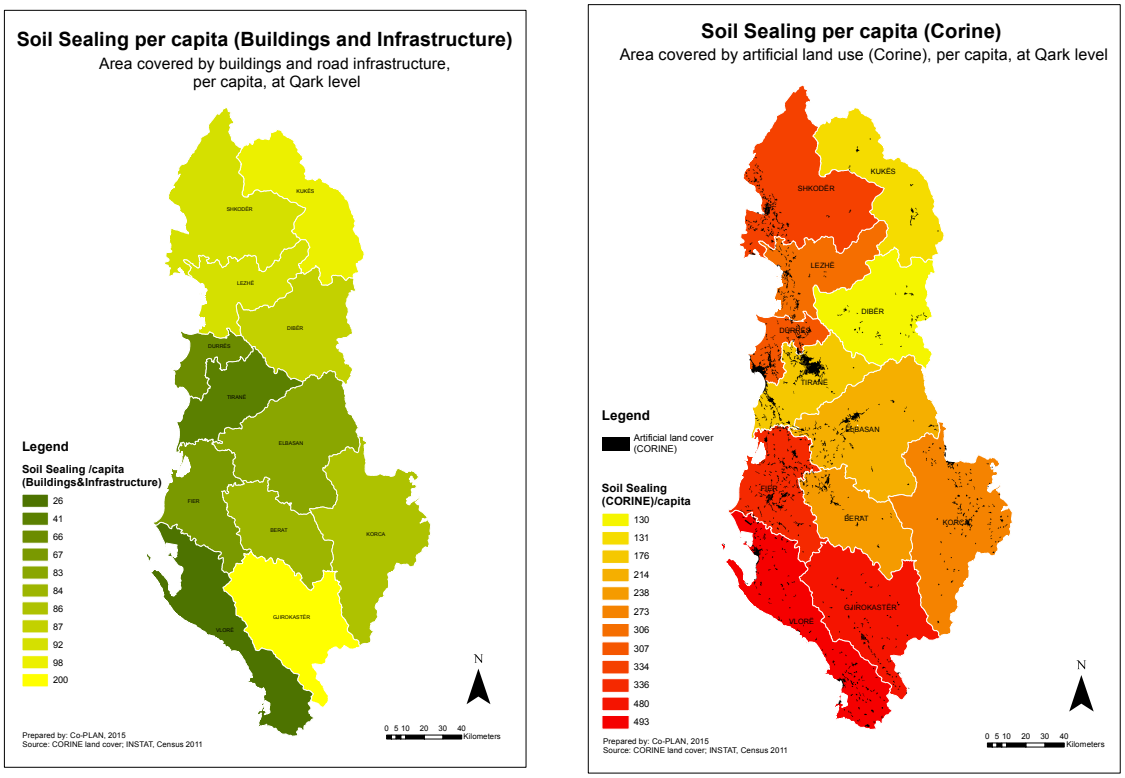
for development is high along the western coast, where the development pressure is the highest. This area is also the most vulnerable one to climate change effects, due to the rising sea levels and the transforming river deltas.

Figure 21: Potential vulnerability to climate change – population and area at risk



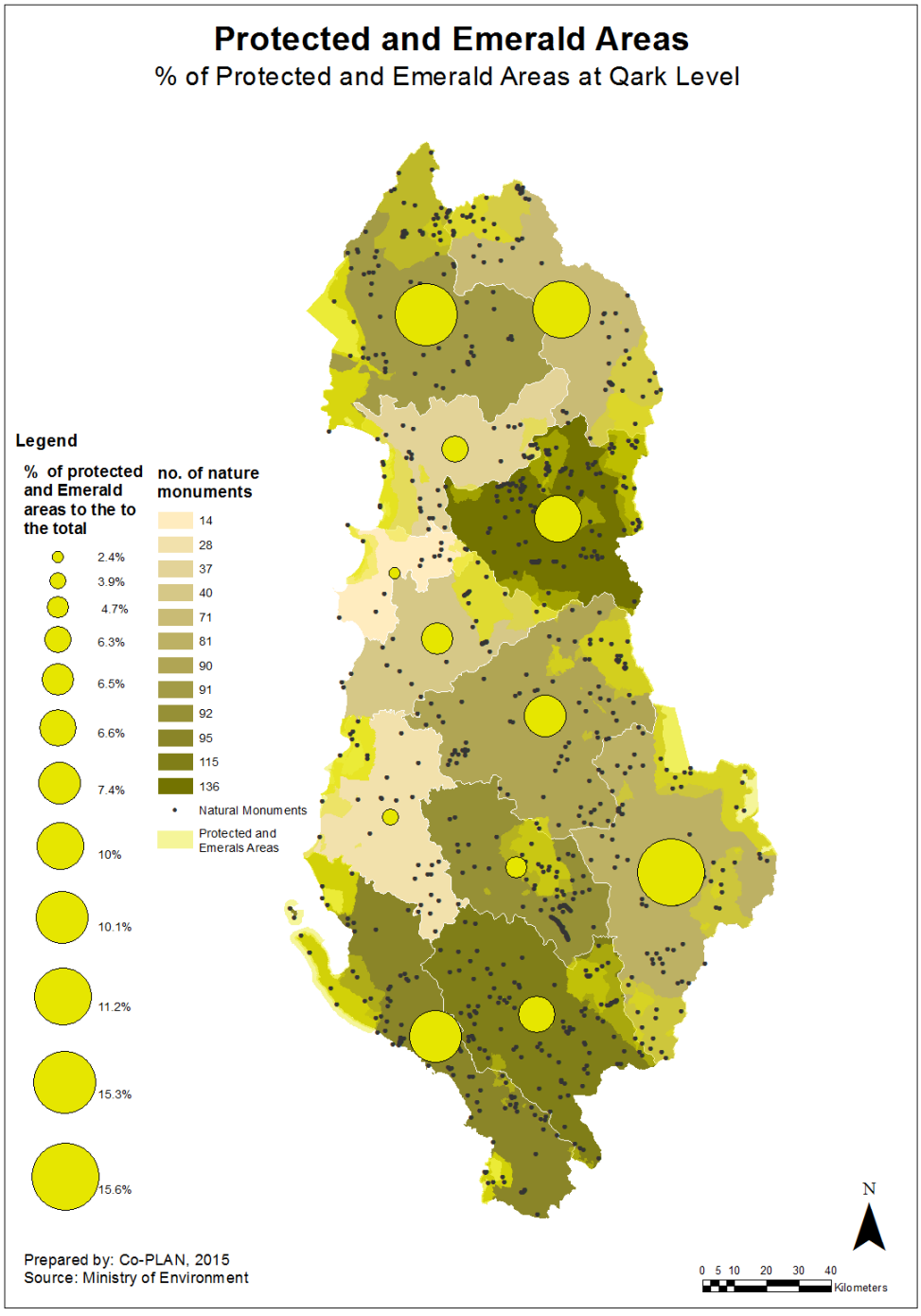
The percentage of population at risk of flooding reaches 30-100% in the western coast Qarks and decreases the more we move inland.

Figure 22: Soil sealing per capita



One of the main features of development in Albania in the last 25 years is the fast urbanization in western coast cities and in the urban cores / administrative urban centers of the 12 Qarks. We have no appropriate figures to calculate the soil sealing in Albania, but we have made an approximation, with two methodologies: one is based on the area covered by buildings (the footprint) and roads; and the other one is calculated based on the artificial land use of Corine. The first method reveals that soil sealing (calculated as m^2 per capita) is higher in the north and in Gjirokastra than it is in the most urbanized Qarks. This can be interpreted as a result of the very low population figures in these Qarks compared to the center ones, and the (still) low investments in infrastructure in the center Qarks compared to the population needs. The second methodology shows that Kukës and Dibër have the lowest figures, while all 5 coastal Qark (excluding Tirana) and Gjirokastra have the highest soil sealing figures. This shows that though (as in the 1st method) the infrastructure investments may be low, the fragmentation of the natural and agriculture land by the settlements is high. The second methodology considers as "sealed" all of the area among buildings, in all settlements, including the rural ones.

Figure 23: Biodiversity – Environmentally Protected and Emerald areas



3.2.6 Territorial development is integrated and polycentric[8].

Polycentrism is an objective of the European Union territorial development and is profoundly rooted in key policy documents that aim at fostering balanced and cohesive development. Polycentrism is initially presented as an objective of the European Spatial Development Perspective (ESDP), assuming that "polycentric urban systems are seen as more efficient, more sustainable and more territorially balanced than both *monocentricity* (all activities concentrated in one center) and *dispersion* (all activities equally distributed over space)". Thus, (according ESPON 1.1.1) a polycentric urban/regional/national system would ensure: (i) **efficiency** – large centers can exploit economies of scale, but suffer negative effects of over-agglomeration, while dispersed centers are too small to support efficiency; (ii) **cohesion** – spatial polarization and dispersal stand as two extremes of a relationship between competitiveness and segregation, in ones side and equality and lack of social mobility opportunities for citizens; (iii) **environment** – the use of energy for services and transport in a highly polarized or dispersed system are bound by advantages and several disadvantages that do not support one, or the other.

The ESDP objective on polycentric development is: "Macro-regional efforts strengthening a *polycentric and more balanced system of metropolitan regions, city clusters and city networks* through closer co-operation between structural policy and the policy on the Trans-European Networks (TEN) and improvement of the links between international/national and regional/local transport networks" (ESDP, 1999). At the national level, polycentric development is mainly about encouraging regional specialization and the division of labor between urban regions, and improving access to urban services across the national territory.

Co-PLAN has undertaken recently an analysis of the polycentrism features and opportunities in Albania, based on the ESPON project 1.1.1 "Potential for a polycentric development in Europe" methodology. Following this methodology, a first step was that of defining the geographical polygons of the analysis, namely the Functional Urban Areas (figure 24), the 45 minutes isochrones (from FUA centers), the Potential Urban Strategic Horizons (PUSH) and the Potential Integration Areas (PIA).

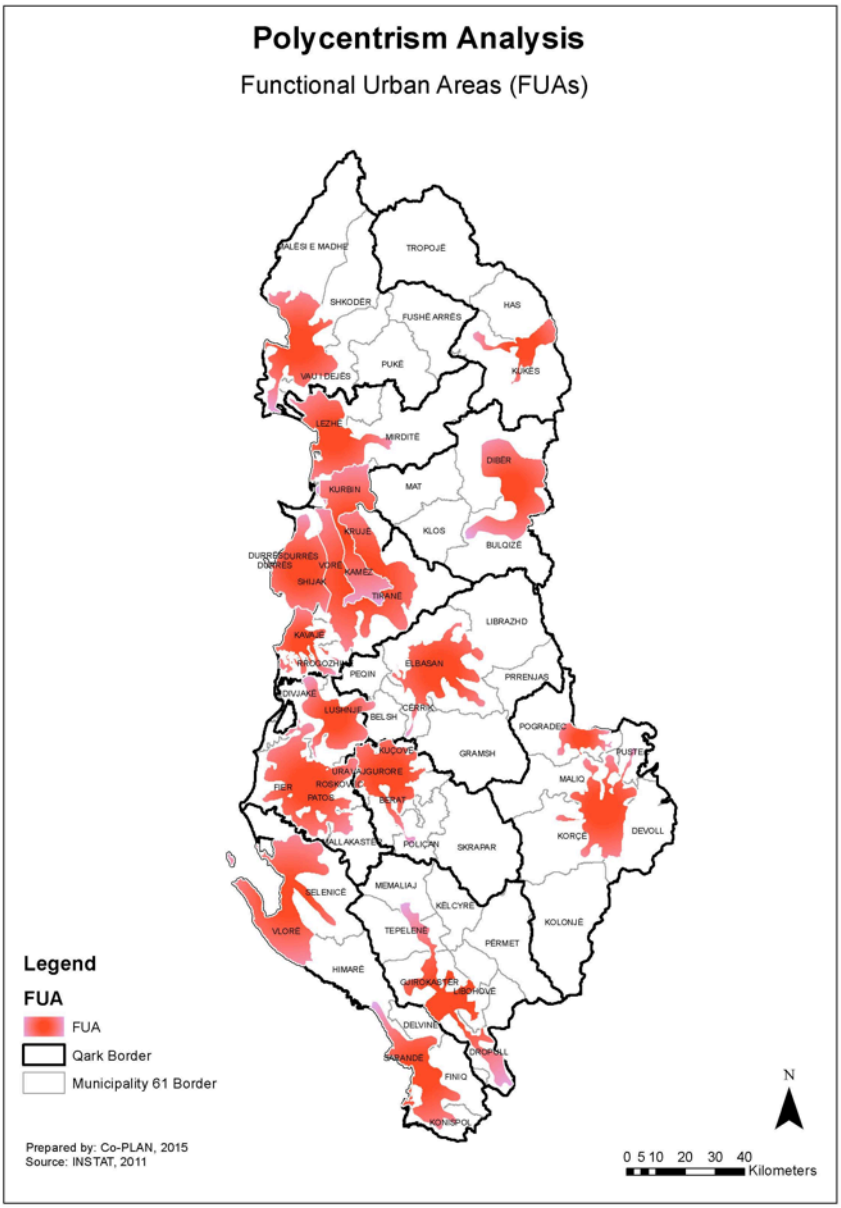
The mapping of FUAs has made use of the INSTAT definitions of the Urban Cores, Urban Agglomerations and commuters catchment areas in Albania, based on the respective data from Census 2011, including the 1km2 grid (raster cells). The (base) maps were accessed through the ASIG platform on line. For the designation of the PUSH areas, the calculation of the 45 minutes (road public transport) isochrones from the FUA center is made through own calculations on the Google map.

As a next step, was that of analyzing morphological and functional polycentrism (seven indicators/indexes for each of them) at national and FUA level. The overall analysis is not fully finalized, however, there several findings and conclusions that can be addressed

[8] This chapter is prepared by Dritan Shutina, as part of his empirical research for his PhD thesis on territorial typologies and polycentricity, carried out under the International Doctorate for Architecture and Urban Planning (IDAUP), a program of the University of Ferrara, Italy and POLIS University, Albania.

by this proposal as input for the designation of the development regions. Thus, so far, a national polycentricity index is constructed to analyze and present the morphological polycentrism, and out of the 7 indicators of the functional/relational polycentrism, 6 are shown in this analysis/proposal (other indicators are still work in progress).

Figure 24: The 17 Functional Urban Areas of Albania



Source: Shutina, 2015

The polycentricity index (table 5) is composed of the size, location and connectivity indexes, each with an equal weight. The size index is built on the prerequisite of polycentricity that there should be a distribution of large and small cities and that a polycentric urban system should not be dominated by one large city. The ideal rank-size distribution in a territory is log-linear and the flatter the rank-size distribution (regression

line) is the more polycentric a region is.

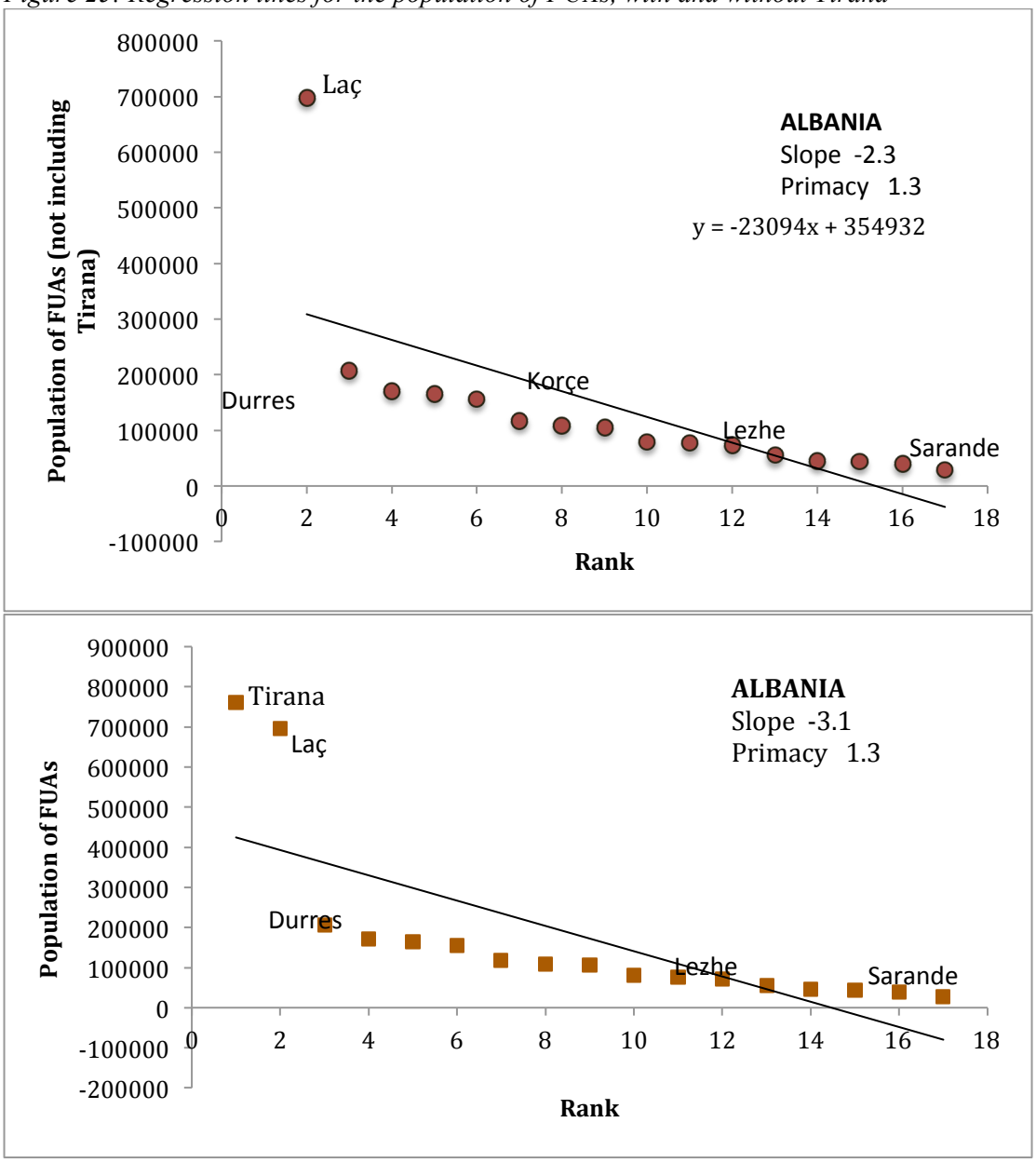
Table 5: The morphological polycentricity indexes in Albania and Europe – 27

Country	No.FUAs	Size Index	Location Index	Connectivity Index	Polycentricity Index
Albania	**17**	**97.0**	**28.0**	**72.2**	**65.1**
Austria	24	63.3	39.3	77.1	57.4
Belgium	21	86.6	60.5	67.1	70.3
Bulgaria	31	77.1	80.2	52.6	68.5
Switzerland	48	82.9	57.9	62.3	66.6
Cyprus	4	75.7	100.0	89.1	87.3
Czech Republic	25	79.2	51.7	63.5	63.6
Germany	186	86.4	56.1	75.2	71.2
Denmark	35	71.6	90.9	59.3	72.5
Estonia	10	64.7	94.8	26.4	54.3
Spain	105	81.6	30.7	62.3	53.6
Finland	35	73.9	32.1	50.6	49.1
France	211	66.4	77.3	60.9	67.6
Greece	45	36.6	95.9	73.6	63.4
Hungary	77	61.6	57.7	50.4	56.1
Ireland	7	63.1	100.0	70.6	76.1
Italy	253	87.5	52.0	65.0	66.3
Lithuania	8	76.5	83.5	18.5	48.9
Latvia	8	35.5	97.0	52.4	56.3
Netherlands	39	86.0	60.2	73.8	72.2
Norway	36	75.1	22.3	52.7	44.4
Poland	48	84.1	83.1	58.7	74.0
Portugal	44	49.0	55.8	73.3	58.3
Romania	59	78.3	80.9	46.6	66.3
Sweden	47	80.4	37.3	69.0	58.9
Slovenia	6	76.0	91.6	72.0	79.1
Slovakia	27	83.5	77.0	41.6	64.2
United Kingdom	146	77.3	55.5	70.6	66.8
ESPON Space	**1588**	**88.5**	**35**	**57.9**	**56.2**

Source: ESPON 1.1.1, 2005 and own calculations for Albania

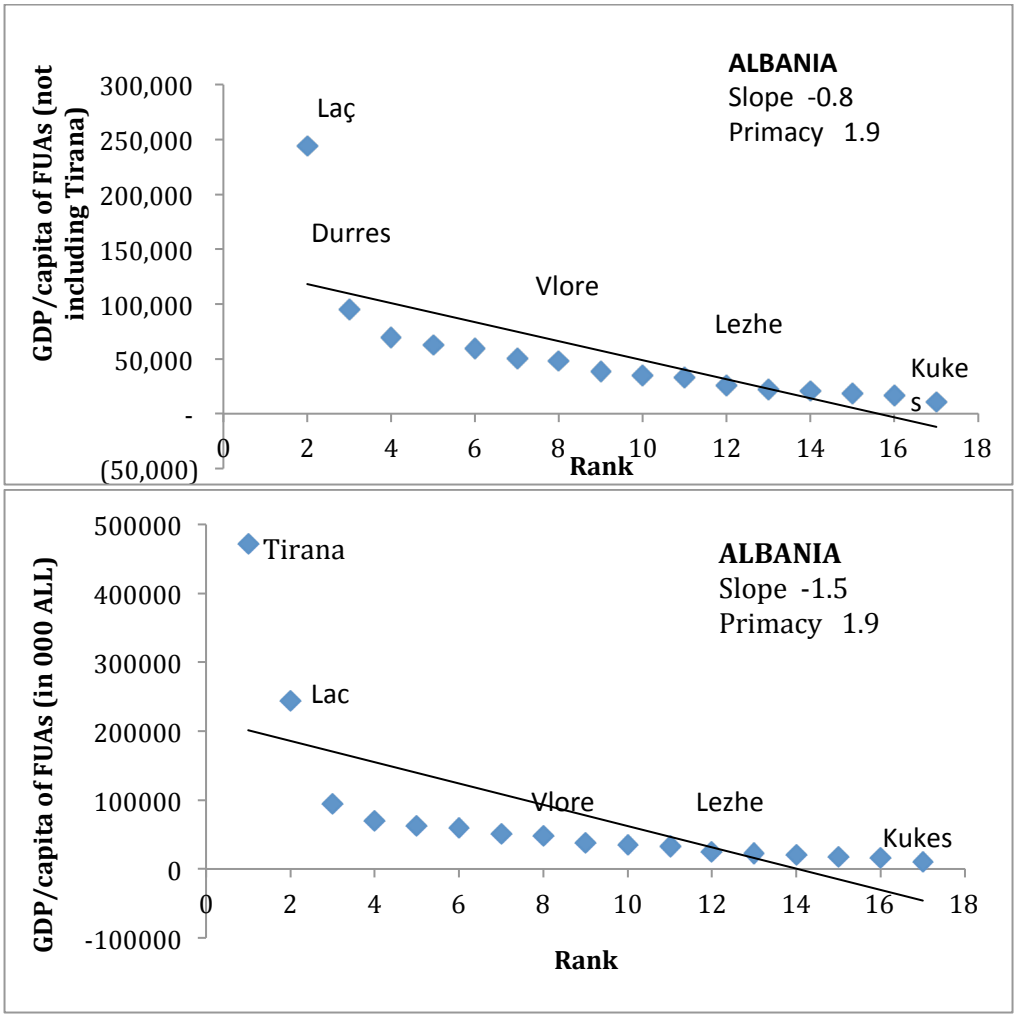
The indicators analyzed are two – GDP per capita and population, and for both we calculate the slope of the regression line and the deviation of the largest city from it. The reason for using two indicators is that the size is measured for both population and economy importance of the regions (FUAs). The analysis of the size index shows that Albania is extremely monocentric, with 26% of the national population and 36% of the country's GDP is concentrated in the Functional Urban Area of Tirana, and respective primacy rates of 1.3 and 1.9.

Figure 25: Regression lines for the population of FUAs, with and without Tirana



Source: INSTAT, Census 2011 and own calculations.

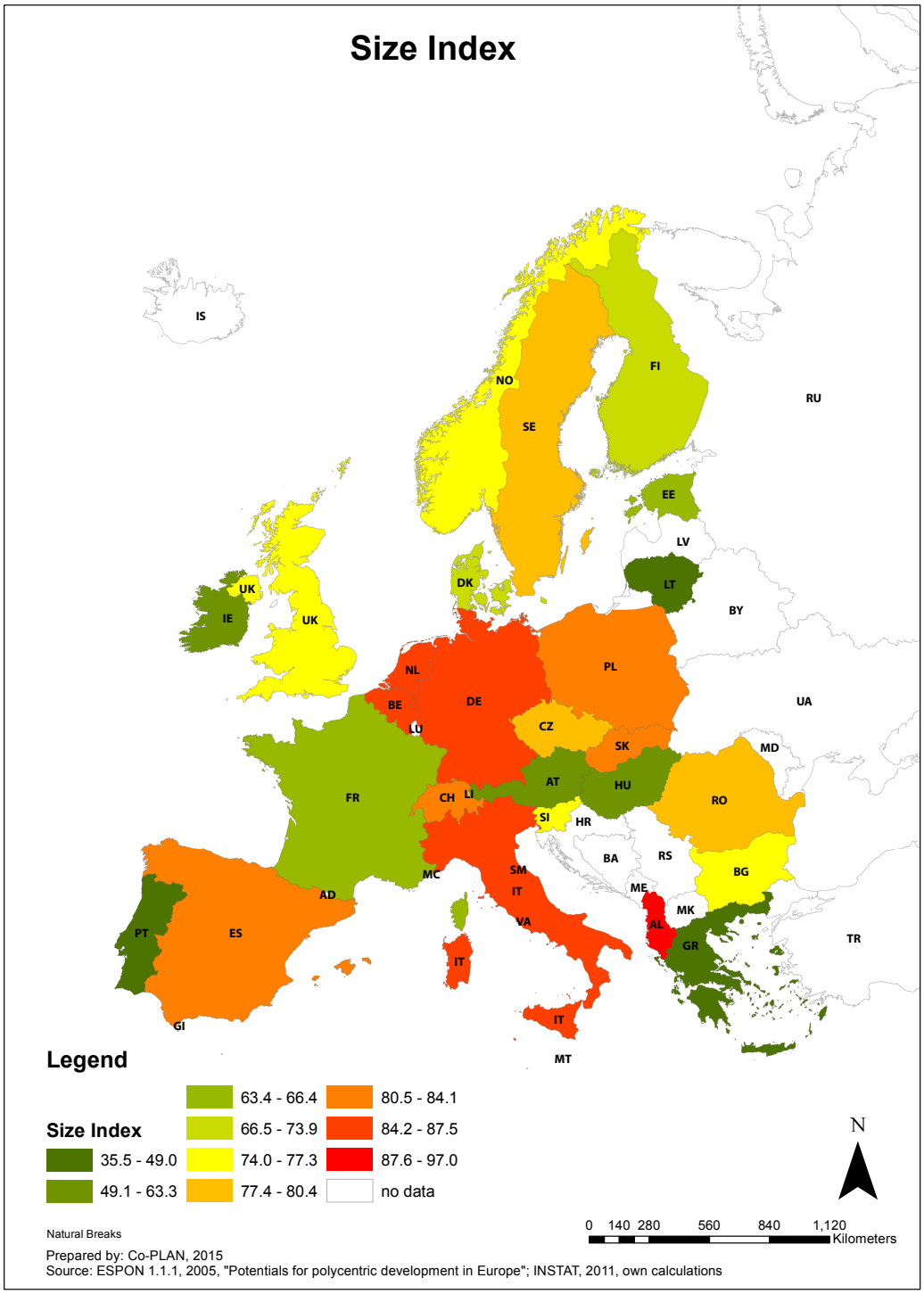
Figure 26: Regression lines of FUAs GDP for 2012, with and without Tirana



Source: INSTAT, Census 2011 and own calculations.

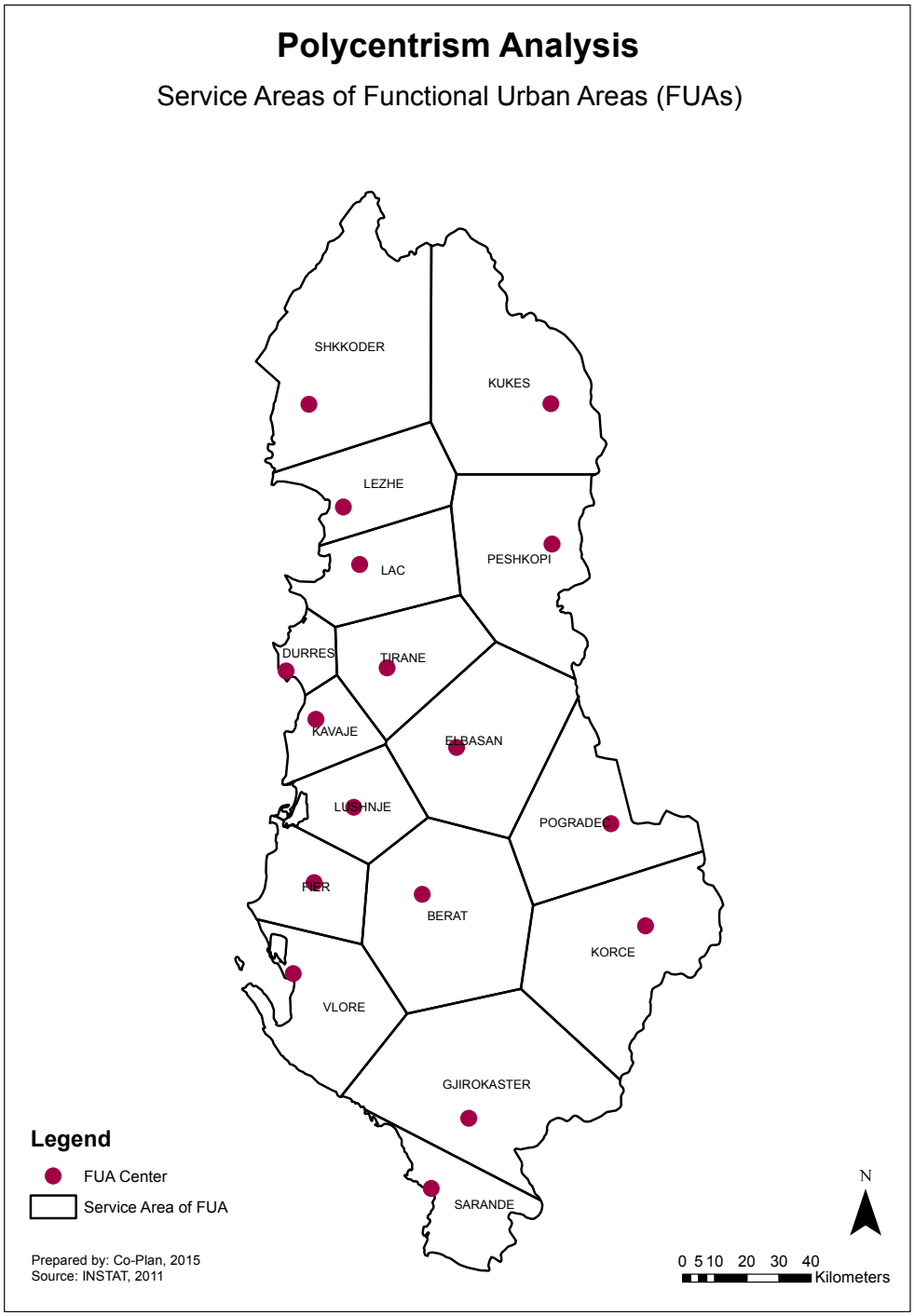
The picture of policentricity is a reversed one with regard to the location index, if compared to size index. The location index assumes that a policentric urban system is one, where the main urban centers are equally spaced from each-other and not clustered in one small part of the country. Because of historical reasons and especially as a result of the national policy for a uniform spatial distribution of the urban centers during 1950s-1980s, the location index of Albania shows for a moderate policentrism. Tecnically speaking, the location index (in this case) is the Gini coefficient of inequality of the size of the thiessen polygons of the 17 FUAs centers. The closer the Gini is to 0, the more equal is the distribution of the sizes of the areas of the 17 FUAs and the more polycentric a region/country is. The map of the thiessen polygons (figure 28) and the Gini coeficient (included in the Lorenz curve of the polygons' sizes values) show that the geographical location of the centers is rather uniform. However, this should not be interpreted as an indicator of polycentrism, but as a good opportunity for Albania to develop in a polycentric manner due to favourable locations of the urban centers. A uniform distribution of cities across a territory is more appropriate for a polycentric urban system than a highly polarized one.

Figure 27: National Size Index of Albania versus EU – 27 countries



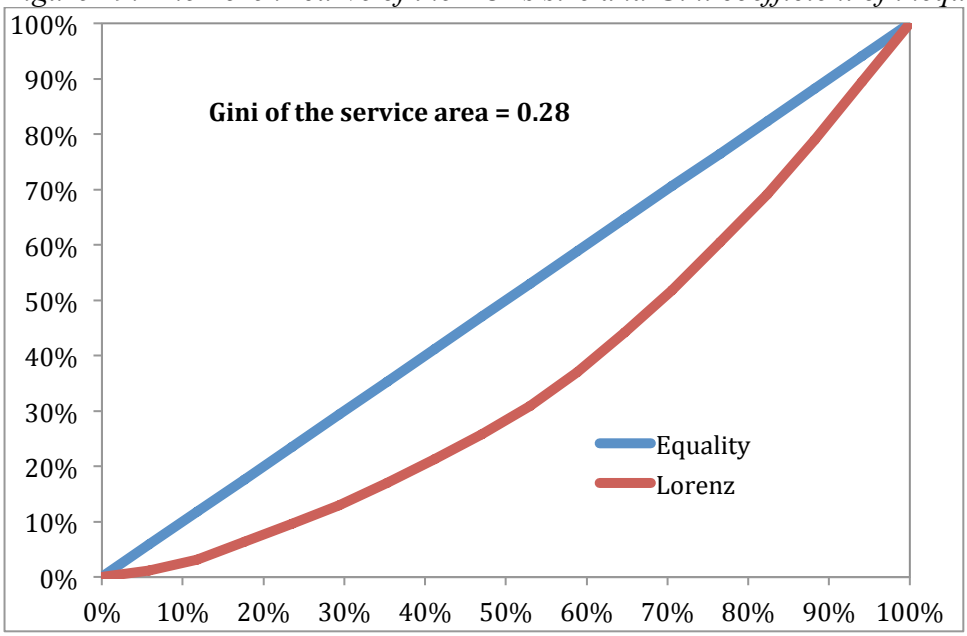
Source: Shutina, 2015

Figure 28: Thiessen polygons of the 17 FUAs



Source: Shutina, 2015

Figure 29: The Lorenz curve of the FUAs size and Gini coefficient of inequality

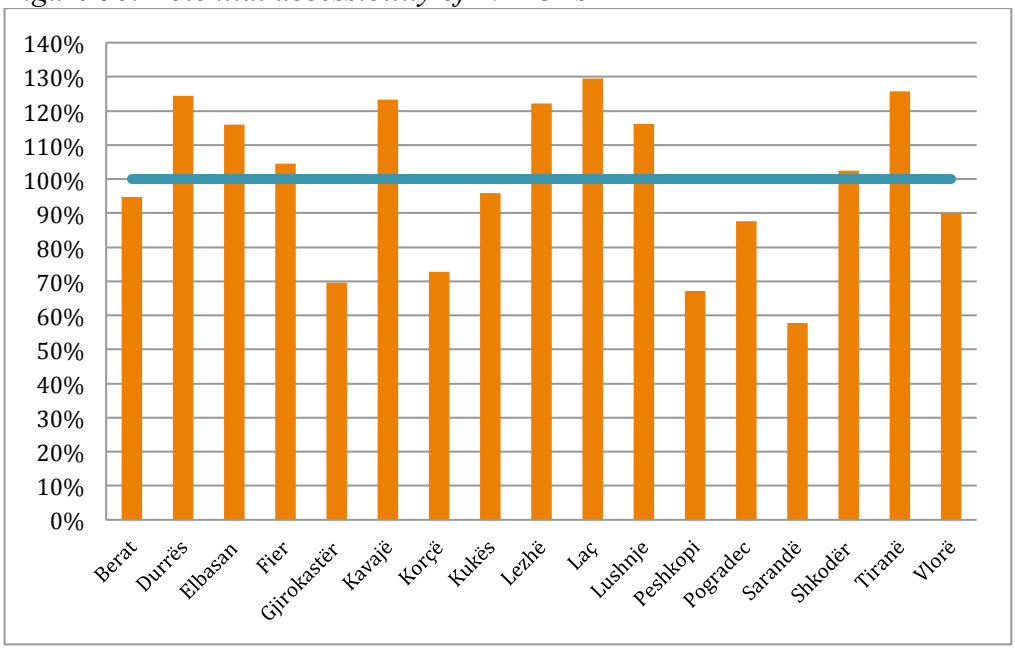


Source: Own calculations

The third index is the connectivity one, which assumes that there should be e functional division of labor between cities. The latter implies that the channels of interaction between urban centers must be short and efficient. To measure the connectivity index, we used the potential accessibility of FUAs (figure 30), i.e. the potential accessibility that each urban core in a FUA has to the rest of the country (all the other FUAs). The potential accessibility of an urban center is higher, the higher the population (or GDP) that it reaches in the other urban centers is and the fastest the reaching routes are (travel time used for travel costs). The slope of the potential accessibility regression line and the Gini coefficient are the two sub-indicators used on this regard.

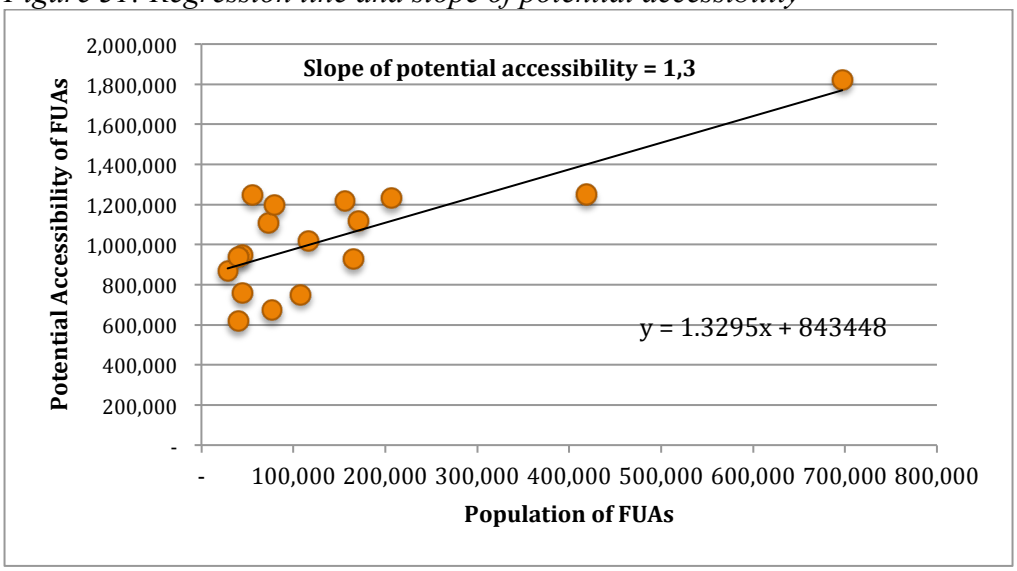
The two sub-indicators (figures 31 and 32) have a similar meaning: the flatter the regression line, the more accessible are lower-level centers compared to the primary city, and the lower the Gini coefficient, the less polarized is the distribution of accessibility. The connectivity index of Albania is 72.2 and shows for week polycentricity patterns. The dominant FUA is (interestingly) that of Laç, which stands around 30% above the average. The FUA of Saranda has the lowest accessibility, more than 40% below the average. Laç is the second largest FUA in terms of population and is better located than Tirana in terms of time connections with the largest FUAs in the country. On the other hand, the accessibility of Laç to Tirana is higher than the other way around, because Tirana has a larger population. This argument reinforces the fact that the Tirana remains dominant and forces the overall system to be polarized rather than polycentric. Last, but not least, the FUAs of Durrës, Tiranë, Laç and Lezhë are the ones to have overlapping areas of influence among each-other and this shows for their higher potential of creating a polycentric system, getting thus polarized more and more from the rest of the country.

Figure 30: Potential accessibility of 17 FUAs



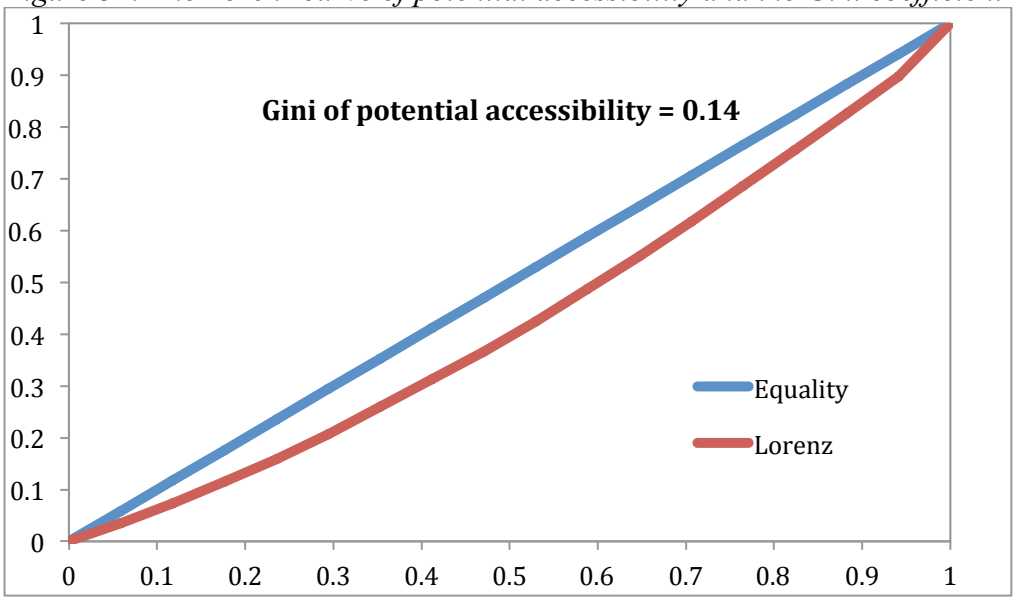
Source: INSTAT Census 2011, own calculations, Google map

Figure 31: Regression line and slope of potential accessibility



Source: INSTAT Census 2011, own calculations, Google map

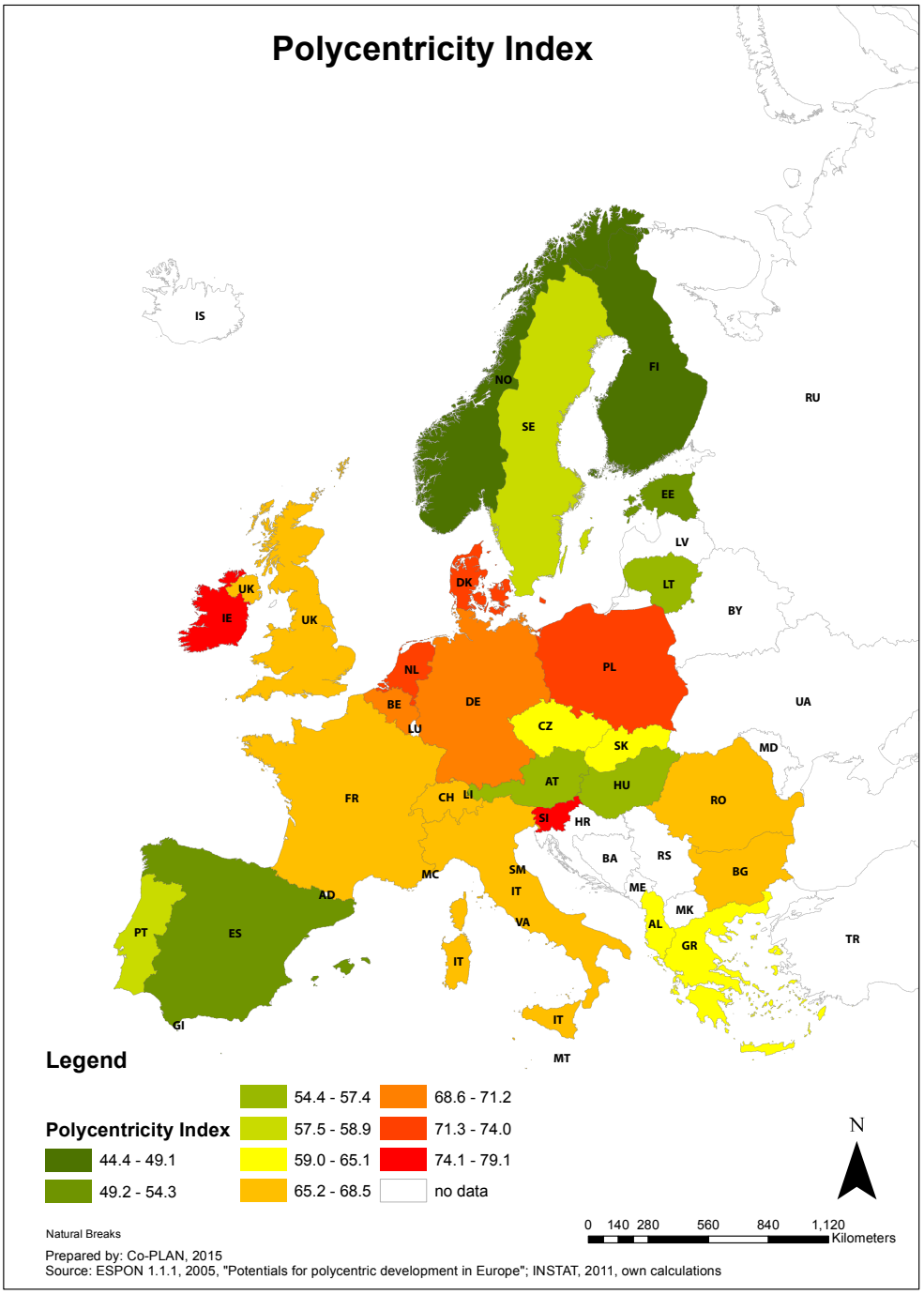
Figure 32: The Lorenz curve of potential accessibility and the Gini coefficient



Source: INSTAT Census 2011, own calculations, Google map

In conclusion to this section of the polycentricity analysis, Albania is a rather polarized country (figure 33) in overall and it is extremely polarized in terms of economic potential. Still, because of the low values of the location index, it has a good potential to become polycentric. However, it will fail to do so, if the economic potential will remain locked in Tirana and in the Durrës – Tirana – Laç triangle. The latter will contribute to further increase of domestic regional disparities and further weakening of the territorial cohesion patterns.

Figure 33: Polycentricity index of Albania versus EU – 27 countries



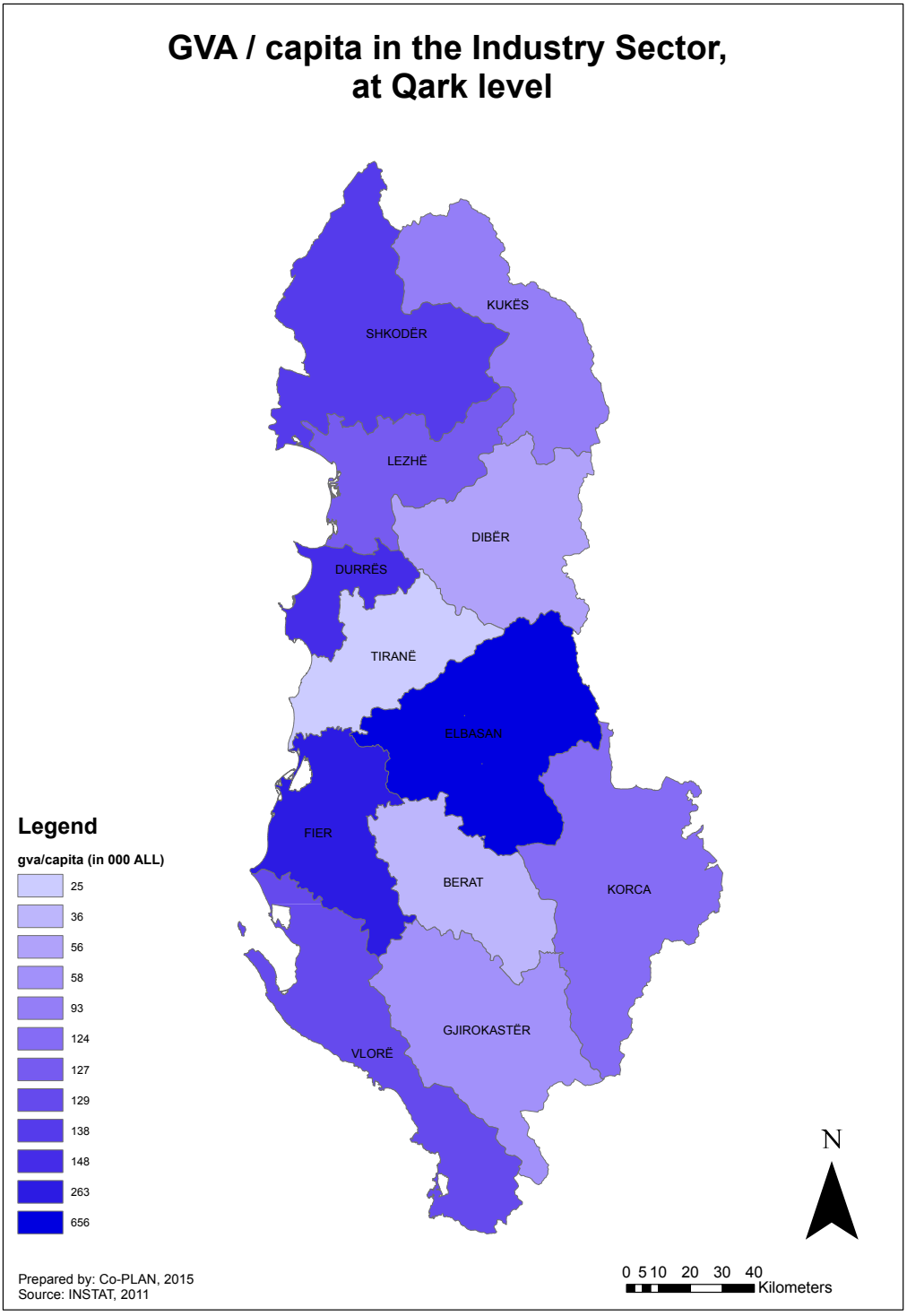
Source: Shutina, 2015

A next step in the polycentric system/potential analysis is the one of the functional specialization (and as a result relations between) of the regions (FUAs). Functional specialization is important as it ensures the diversity among cities, while also making sure that there is integration, synergies and cooperation. The mapping of the functional

specialization of the FUAs in Albania is faced with data limitations. The analysis conducted so far (within the limitations) for the following dimensions reveals that:

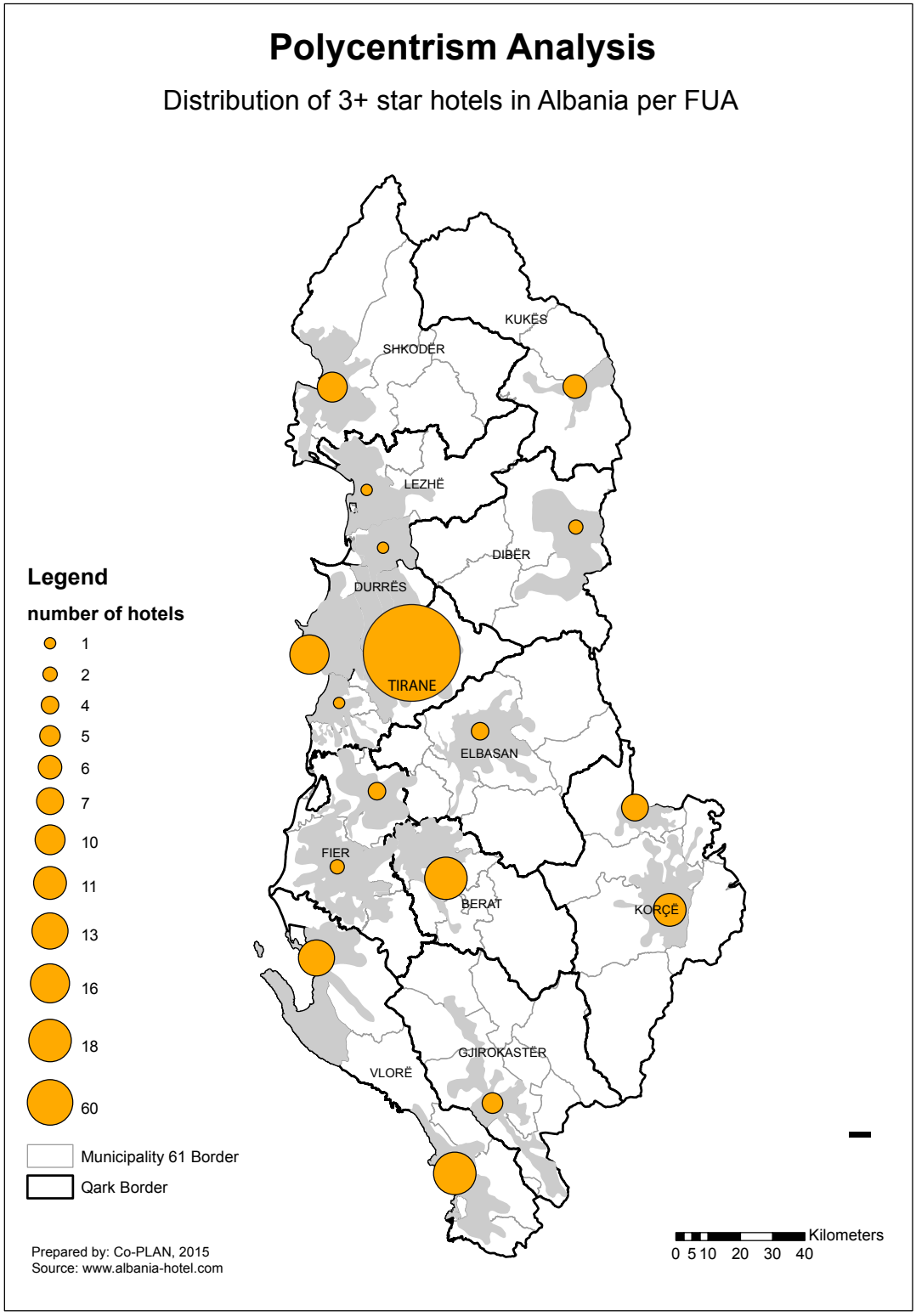
1. **Decision-making in the public sector:** All of the 17 urban cores are municipalities – local governments that function within a decentralization policy and legislation. 12 out of the 17 are Qark centers (the 2nd tier of local governance in Albania); all 17 urban cores used to be district centers (previous units and denominations for local governance); in some of the FUAs there are more than one district center. Because of the last three classifications, within the territory of these FUAs are located several regional branches of the national government / line ministries. So, from a decision-making in public sector point of view, the FUAs do not differ in specialization.
2. **Decision-making in the private sector:** The figures are given on the location of the 50 biggest companies in Albania. 28 out of them are located in Tirana (municipality) and 14 in Durrës (municipality). The large companies do influence the development of an urban system, and the strength of the latter relies also on its current attractiveness to private investors and companies. In the case of Albania, the current location shows that decision-making in the private sector remains highly concentrated in the Tirana-Durrës metropolitan area.
3. **Population:** the number of inhabitants represents the level of economic activities in a region, both for intensity and diversity. In Albania, at least 1/3 of the population is located in the Tirana-Durrës metropolitan area, thus in two overlapping FUAs, and so are most of the services and activities provided to/delivered from the population.
4. **Tourism:** this sector is an indicator for the attractiveness (current or potential) of the regions. Albania has an enormous touristic potential in terms of natural resources to offer. However, the development of infrastructures and accessibility, including the concentration of the private investments in the Tirana-Durrës metropolitan area, are correlated with the location of the hotels. Thus, 42 of the hotels (+3 stars) are located in the metropolitan area. Only 11% of the hotels are located in the North (from Kruja and above). There is also a concentration of hotels along the western coast cities/FUAs with 70% of the hotels. From a geographical point of view, it is clear that there is no correlation between the location of hotels (investments and services) and the touristic attractions (natural sites and leisure activities).
5. **Industry:** The strongest FUAs in terms of the gross value added in the industry sector are Elbasan, Fier, Shkoder and Durrës. This is certainly are linked to the industrial activities located in these Qarks and show for a potential of further urban transformations to take place in these areas.
6. **Knowledge:** For this function we have calculated the number of students attending higher education institutions. The capital/FUA of Tirana is clearly the strongest in terms of knowledge, but there is a relatively uniform distribution in some of the Qark (FUA) centers across the territory. While figures show for some balance, the quality of the institutions is not necessarily uniform, and these figures include only the public universities.

Figure 34: GVA/capita for the industry sector at Qark level



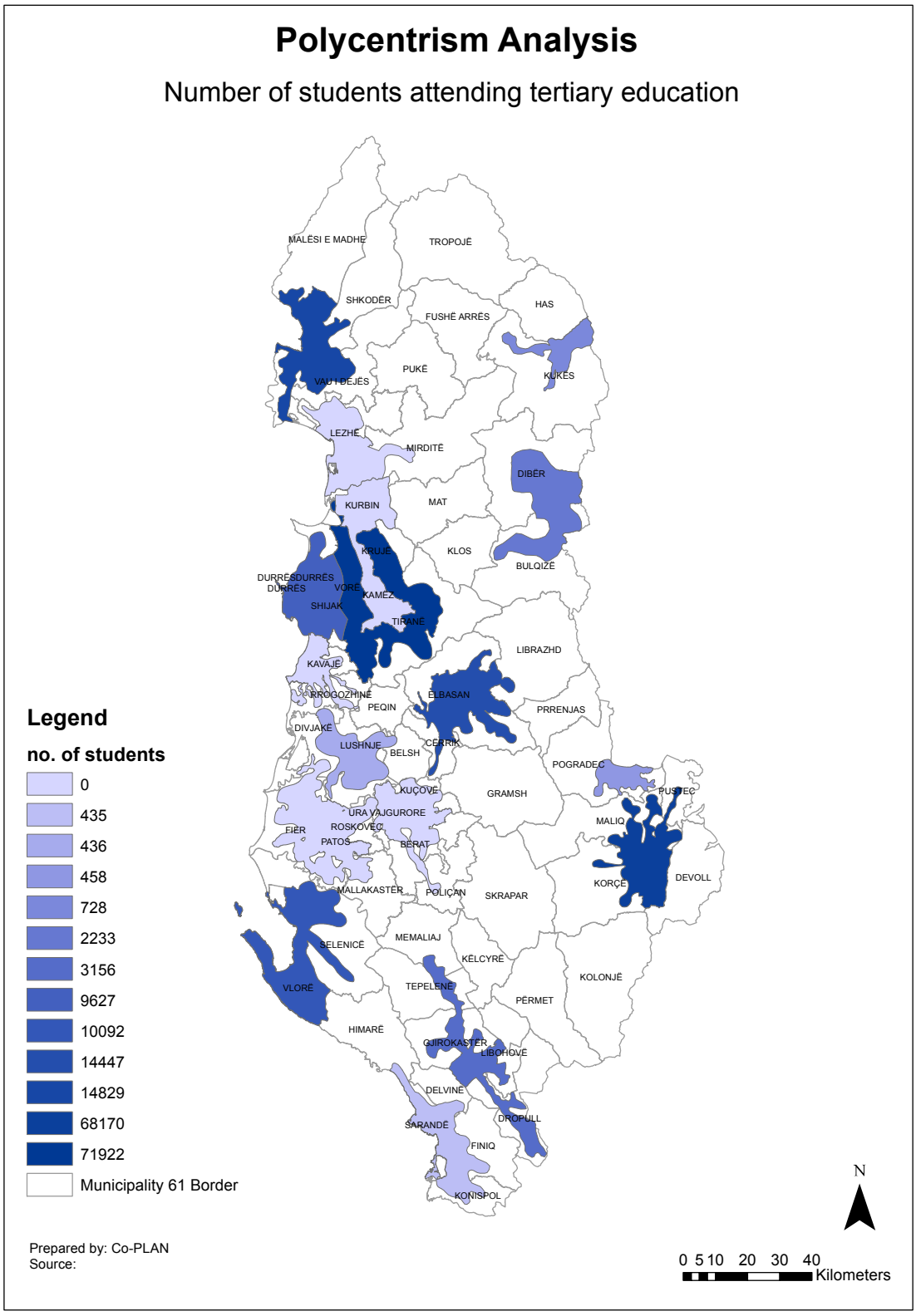
Source: Shutina, 2015

Figure 35: Distribution of hotels per FUA



Source: Shutina, 2015

Figure 36: No. of students per FUA



Source: Shutina, 2015

Figure 37: Population density

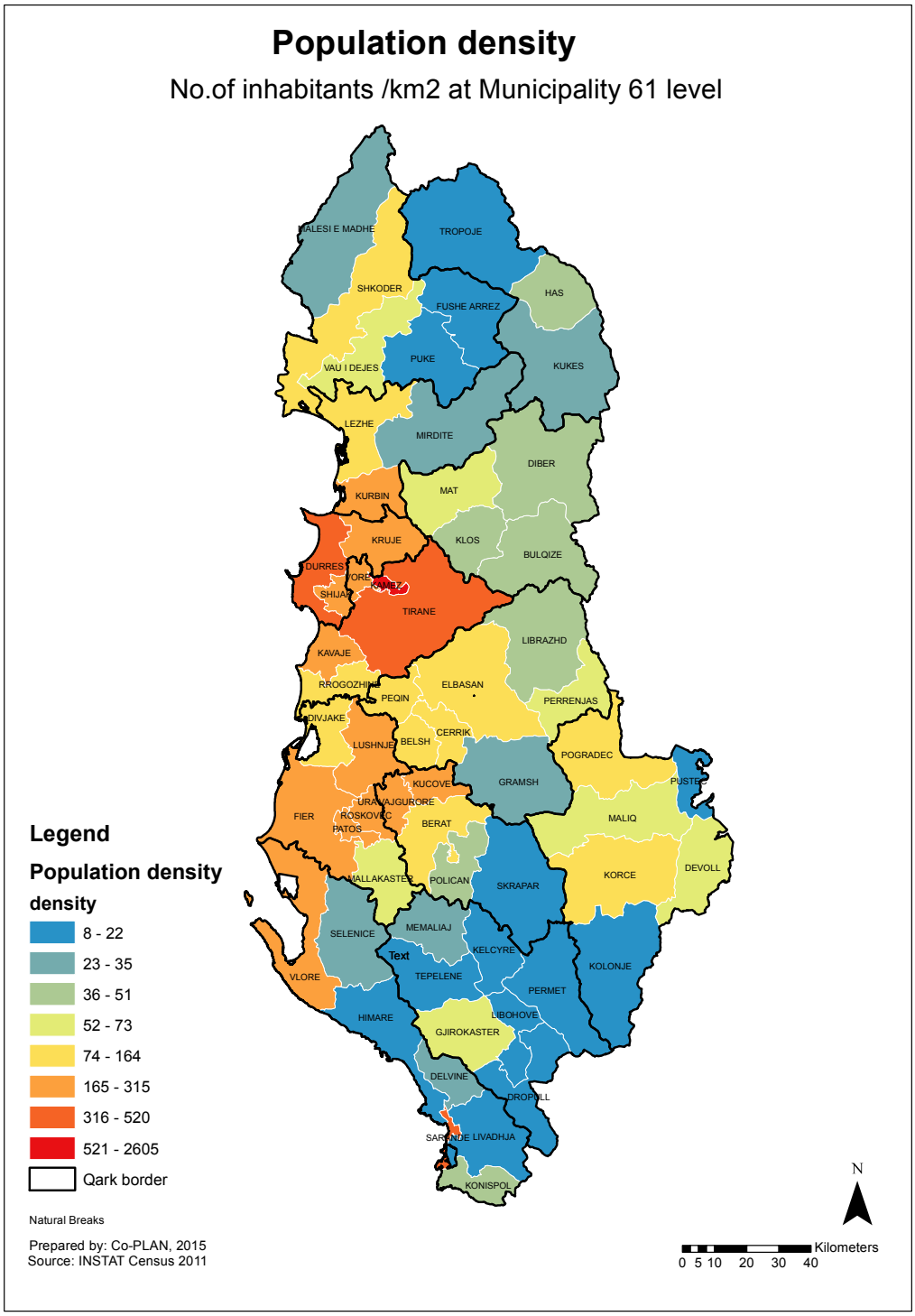
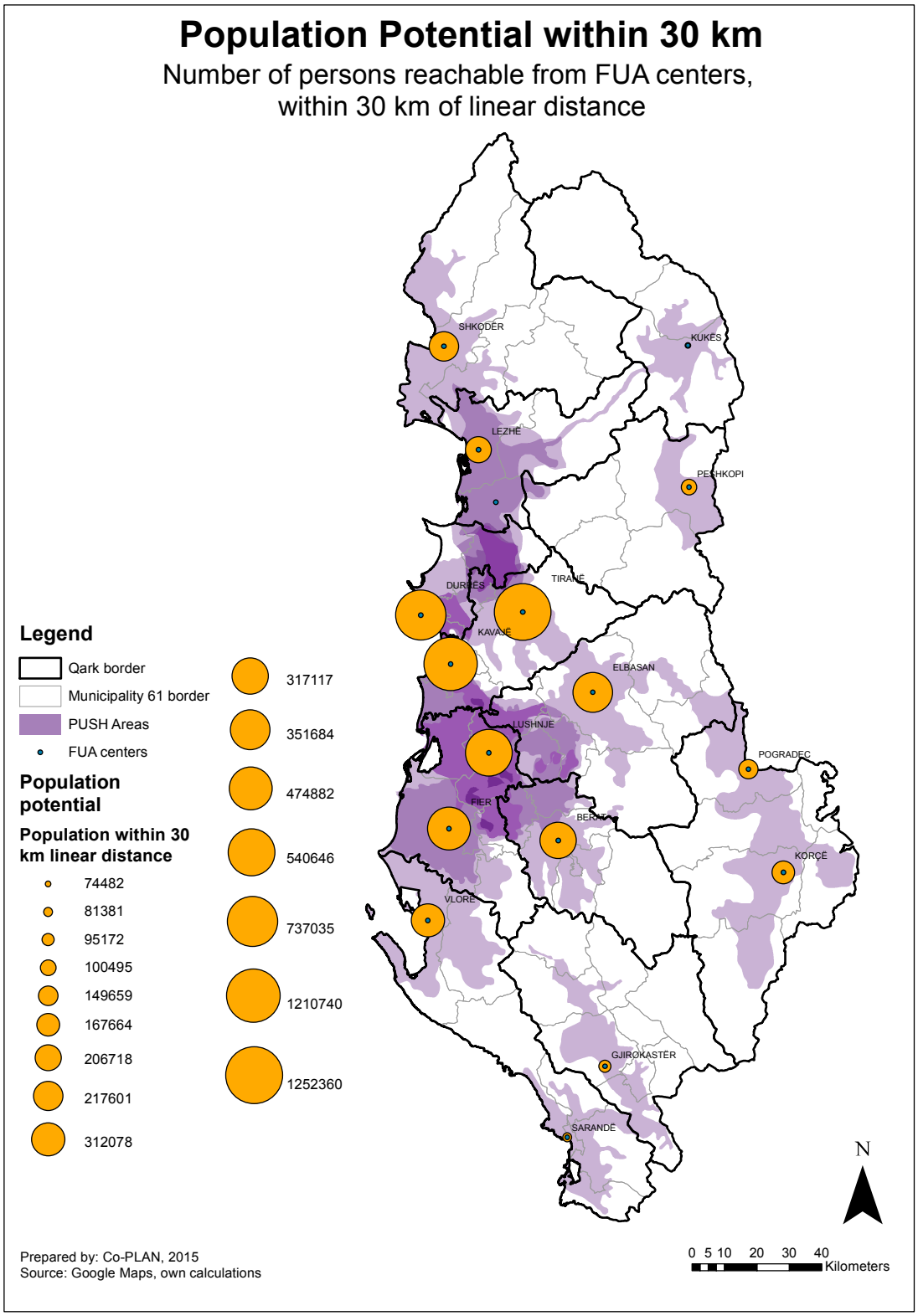
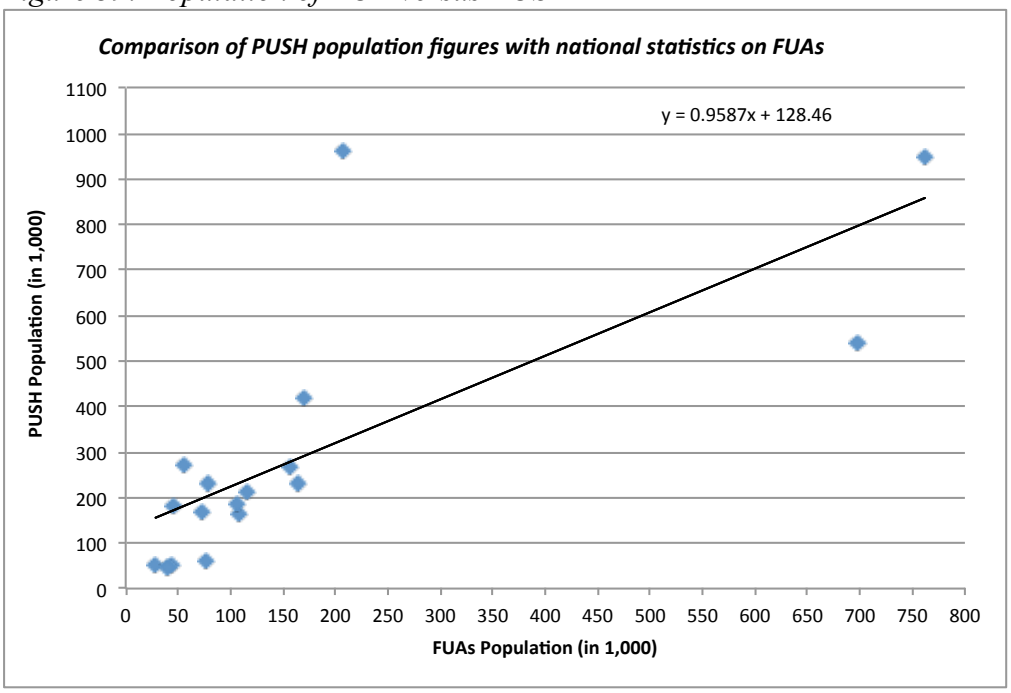


Figure 38: Population potential within 30 km radius



Source: Shutina, 2015

Figure 39: Population of FUA versus PUSH

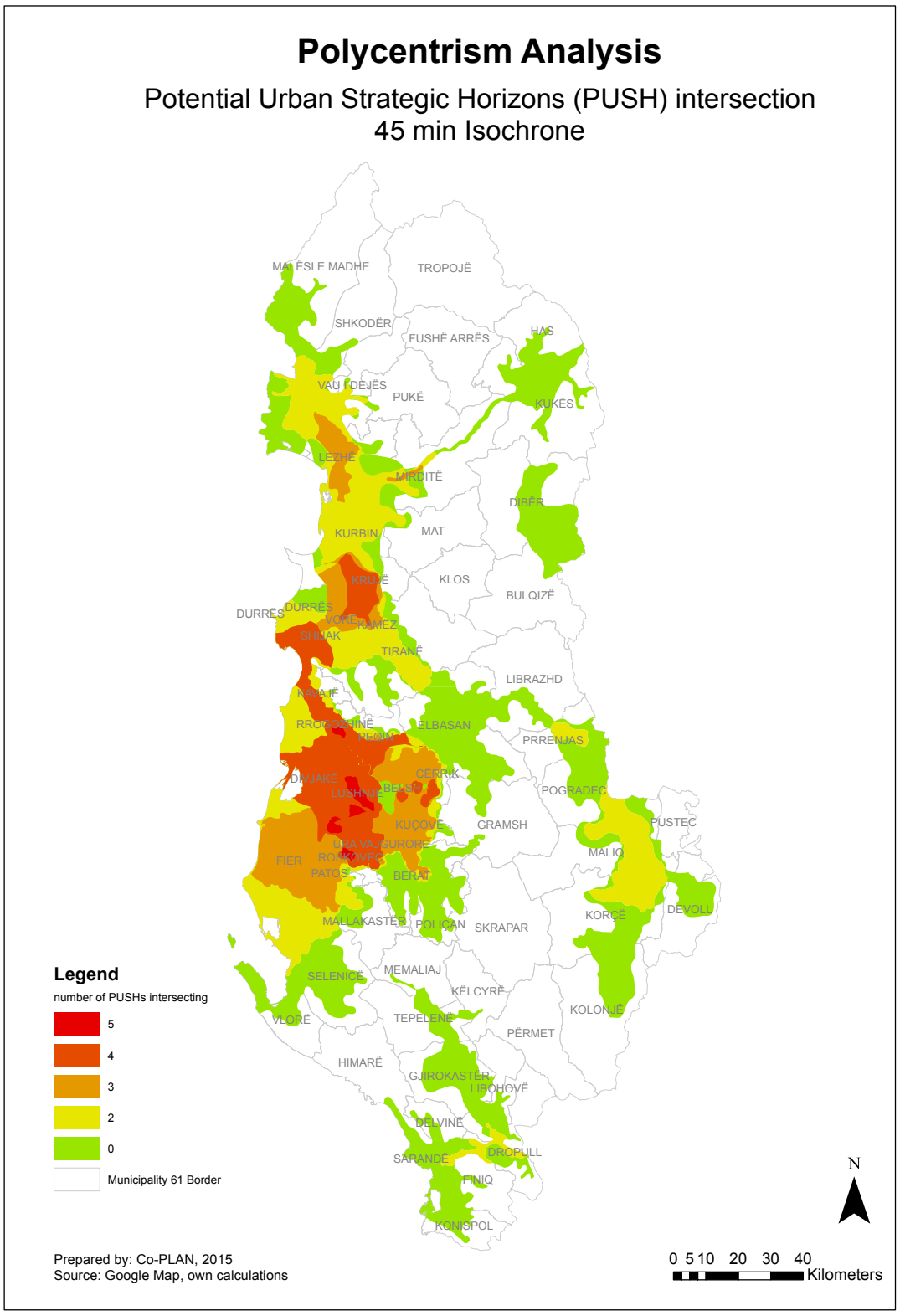


Source: INSTAT, Census 2011 and Raster cells, Own calculations

The morphological and functional analysis of polycentrism (conducted so far) is descriptive to the current situation, which we may want to keep alike or change in the future. The future changes would depend on several factors, but at least, we need to know where there could be more potential for development towards a more polycentric urban system. Thus, where can we identify potential for new functional entities and increased territorial cooperation, rather than in the current urban nodes/centers. The analyses conducted on this regard remains still morphological, and as such, the results do not guarantee that cooperation will happen right where the analysis identifies the potential. However, this could be an indication to planning (spatial, development and financial) policies and instruments. Thus the results are indicative and may be used as guide for further changing patterns of territorial cooperation and development.

Based on ESPON 1.1.1, this analysis designates for each FUA, areas that can be reached within 45 minutes by road travel (the 45 min isochrones). This time limit is widely recognized as the most appropriate for daily commuting (work catchment areas), and the areas included within the commuting radius provide cities with a better opportunity for functional integration. The hypothesis is that "cities with overlapping travel-to-work-areas have the best potential for developing synergies" (ESPON 1.1.1, 2005). These areas are then approximated to municipal boundaries, as municipalities are the potential building blocks in polycentric development strategies. The areas thus established are called Potential Urban Strategic Horizons (PUSH) and their further integration forms the so-called Potential Integration Areas (PIAs) (figures 40 and 41).

Figure 40: Push intersecting – the 45 minutes isochrones areas



Source: Shutina, 2015

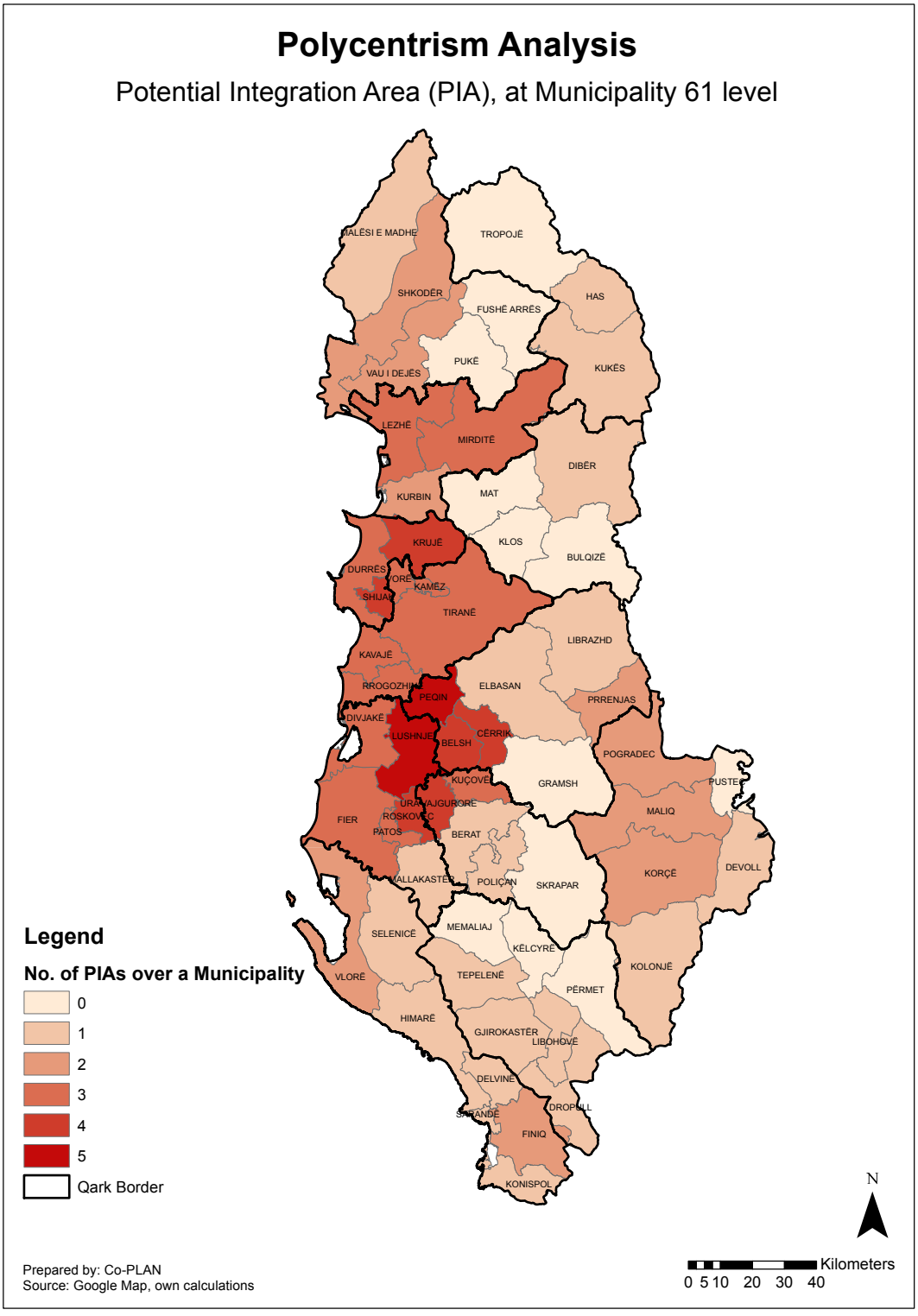
In Albania, 20% of the new municipalities or 23% of the territory are not covered by any

PUSH polygon at all. This is also the most mountainous area of the country. The municipalities in the middle of Albania (from Durrës and Tirana in the north to Fier and Lushnje in south) remain advantageous in overall (similarly to the FUAs situation). However, the most interesting finding is that the highest number of intersections is found for Krujë, Shijak, Peqin, Lushnje, Belsh, Cërrik, Roskovec and Ura Vajgurore. These are some of the smallest municipalities with 11% of the population of Albania and with the exception of Lushnje, are not urban cores to any agglomerate or FUA. However, their location is very strategic and they are in the commuting basins of at least 5 FUAs/Urban cores. This increases the opportunity for these municipalities to be integrated in a polycentric urban system, through serious investments in infrastructure and services.

If investment strategies would follow the logic of this analysis Tirana, Fier, Shkodra and Elbasan (some of the biggest FUAs and major urban cores currently) could in fact be just the corners of a future urban core for Albania. On the other hand, the above secondary or even tertiary cities do have a potential for hosting functional specialization that the current urban cores do not have, but do need to complement with their major functions and activities.

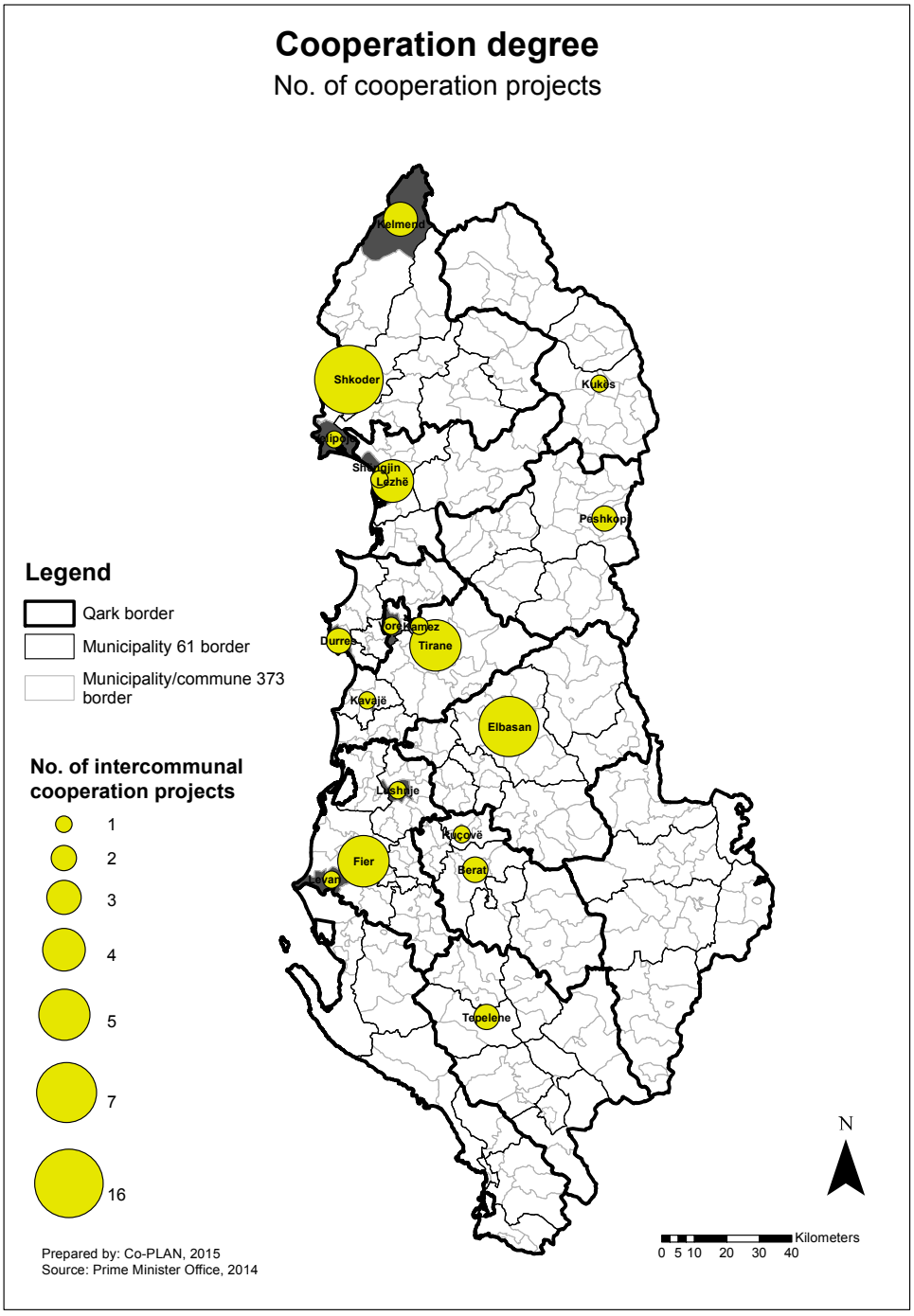
As a conclusion of the polycentrism analysis so far, we notice that Albania has a monocentric spatial structure. This is strongly supported by the figures on population and GDP. It also has a good potential for developing a polycentric urban system and spatial structure, supported by the uniform location of urban centers across the territory, the potential of the secondary and tertiary urban for more development due to their advantageous location between and close to the main centers, and the diverse distribute of the specialized functions. The latter represents both, an opportunity (not every function is concentrated in Tirana) and a risk (most of the functions are located along the coastal cities) due to accessibility and geographical patterns. Making use of the potential and avoiding risks (also the increase of disparities) requires for instruments to push further the development towards the inland and eastern/more mountainous urban centers. These should be policy, planning and financial instruments. The latter should be used based on programs that aim at enhancing the development potential of the development regions that this proposal will help designating. Last, but not least, the strengthening of the polycentric system (resulting on reduced disparities, strengthening of the economic development, competitiveness and cohesion) requires also for healthy flows of cooperation between urban centers, regardless of their level in the network of the urban nodes. The information on flows of cooperation is extremely limited, but as limited as it is, it shows (figure 42) that most of the interactions (often donor supported or promoted by) happen in the central part of Albania and Shkodër. Thus, while natural resources may be well located across Albania, capacities and cooperation flows (needed to make uniform use of resources) are concentrated in some major urban centers, leaving the 2nd and 3rd tier weak and un-stabilized in this regard.

Figure 41: PIA intersections



Source: Shutina, 2015

Figure 42: Cooperation degree


Cooperation degree
No. of cooperation projects
Kelmend
Shkoder
Kukes
Lezhë
Peshkop
Durres
Tirane
Kavajë
Elbasan
Fier
Berat
Tepelene
Legend
Qark border
Municipality 61 border
Municipality/commune 373 border
No. of intercommunal cooperation projects
1
2
3
4
5
7
16
N
Kilometers
0 5 10 20 30 40
Prepared by: Co-PLAN, 2015
Source: Prime Minister Office, 2014

3.3 Achieving Environmental Sustainability and Green Economy

3.3.1 The territorial potential for greener economy and sustainability enhanced and used in a sustainable way

The sustainable use of natural resources is key to the environmental resilience of the territories. Regions should not simply think in terms of economic development, but also of green economies as a policy oriented concept that leads to the operationalization of the sustainable development (refer GREECO, 2013). The measurement of the green economy in Albania is a rather limited task due to data availability (either in terms of indicators, or time series). For instance, it is impossible (currently) to describe and analyze in full the regions from a environmental quality of life point of view (i.e. environmentally induced health problems and related costs, exposure to industrial risks and related economic losses, etc.); or for economic opportunities and policy responses (environmentally related taxation, patents of importance to GGs, etc.).

In overall, it is known that Albania has a significant natural asset base, such as freshwater resources, forest resources, minerals, wildlife, etc. The water resources are organized in 6 official river basins flowing from the east to west (almost all parallel, due to the geographical shape and features of Albania), providing a good water base for all regions. Forest cover almost 2/3 of the country from north to south and east to west. Below, we have analyzed from a spatial perspective the energy potential of Albania (considering all of the renewable resources, not water) and we can realize that most of the potential is concentrated along the coast, with gradual decrease while advancing inland towards the east. Let's keep in mind that the coast is the most urbanized area of Albania and also where most of the economic activities (services, transportation, tourism, administration, etc.) are concentrated.

The analysis of the environmentally protected and Emerald Areas (figure 23), shows for a distribution of the biodiversity, which is rather different from the energy potential. Regions in the north-east and south-east have a stronger weight compared to the center and the coast.

While it is difficult to measure the performance of Albania in terms of green economy, we can simply show that there is great potential for embarking on economic development policies and solutions that are environmentally sound and do guarantee resilience. However, the analysis so far, shows as well that the pressure towards some of the key environmental resources and potentials is extremely high in Albania and regional development policies should be oriented towards programs and projects that not only mitigate the pressure, but also have green economy as a policy target.

Figure 43: Energy Potential in Albania (overlay of the highest values per each potential)

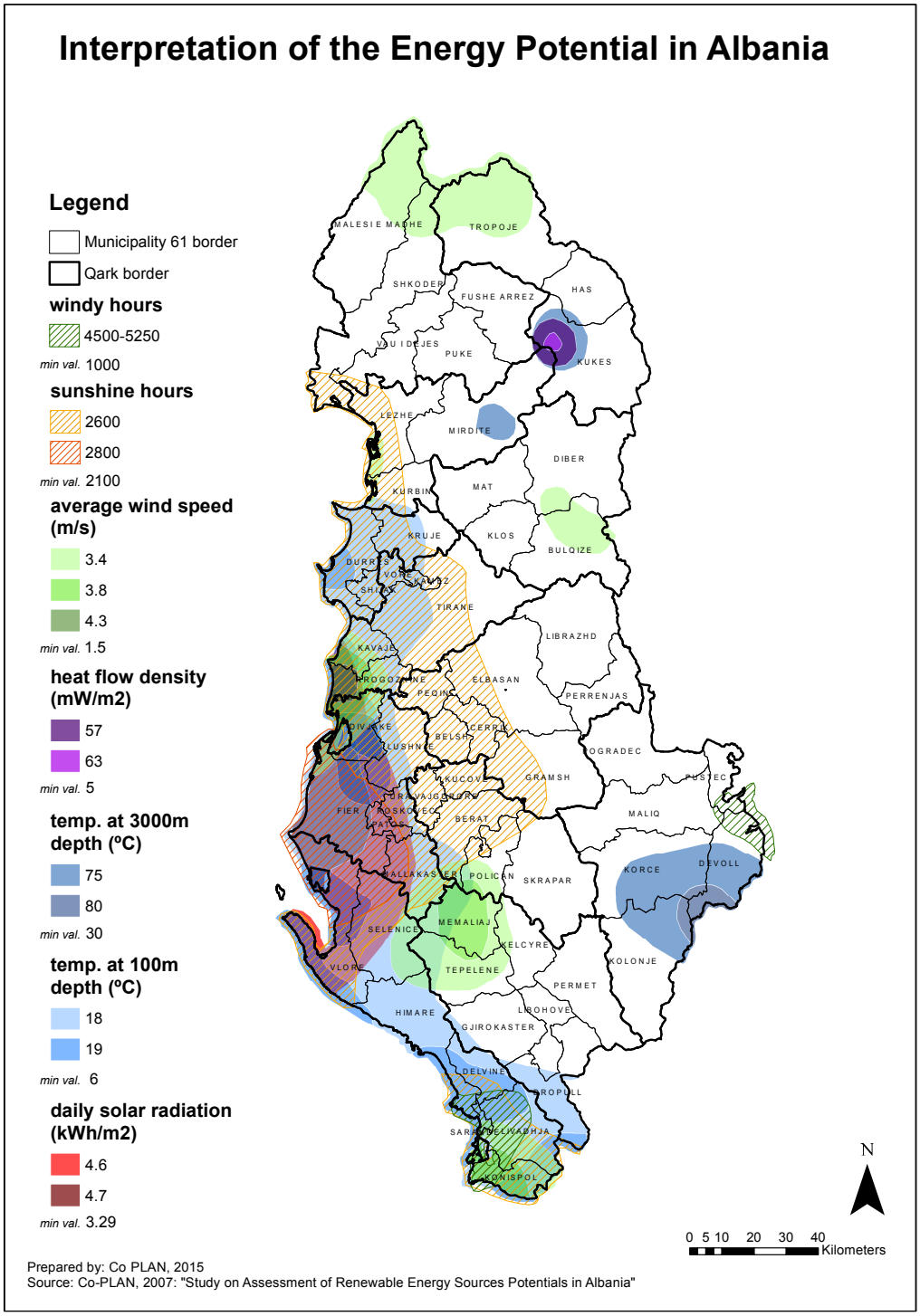
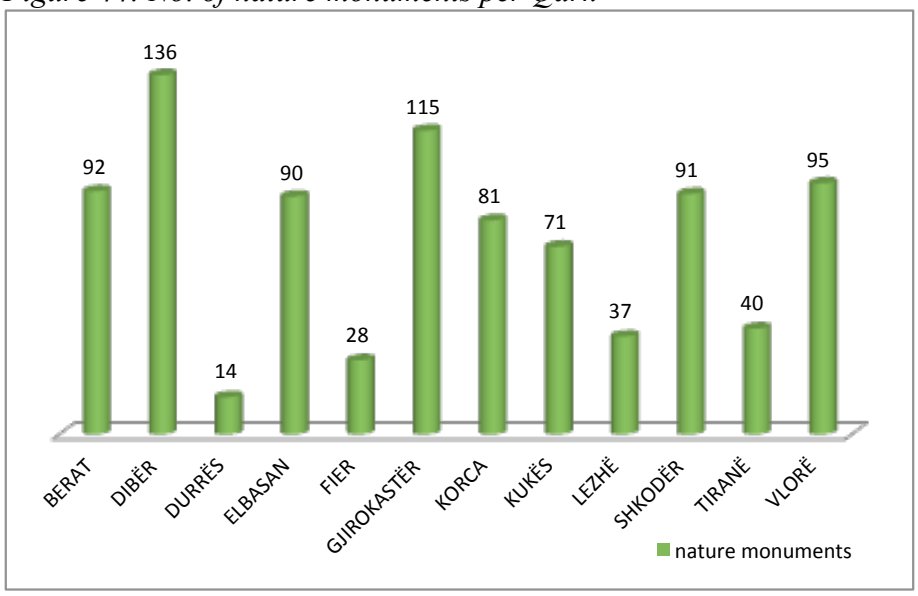
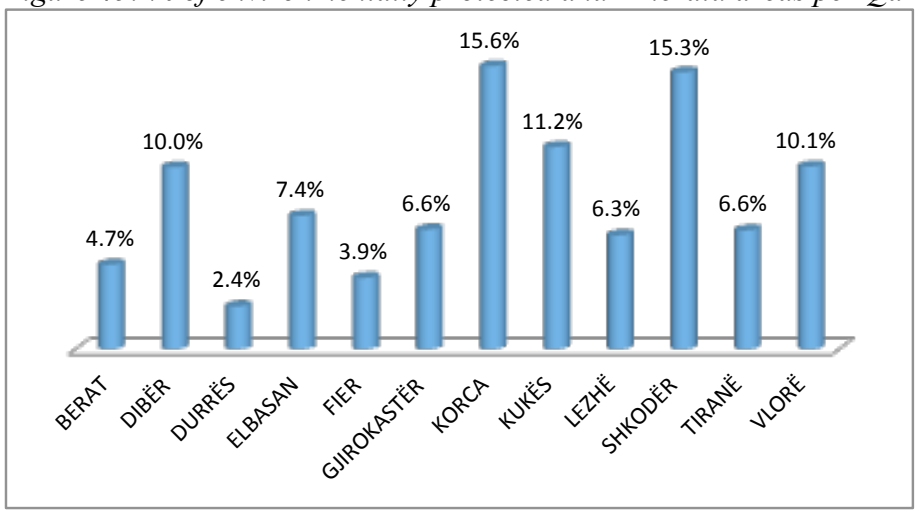


Figure 44: No. of nature monuments per Qark



Source: Ministry of Environment and ASIG, 2015

Figure 45: % of environmentally protected and Emerald areas per Qark



Source: Source: Ministry of Environment and ASIG, Own calculations, 2015

3.4 Improving the Accessibility of Regions[9]

The analysis of accessibility was partially considered in the polycentricity assessment in section 4.2.6. From that analysis, Albania resulted with a high connectivity index – i.e. low connectivity that is interpreted as a measure for polarization of the center and weak spatial polycentricity patterns. The following analysis, is aiming at providing few more information (due to data limitations we could not exploit all indicators listed by TRACC, 2015, which served as a reference) on accessibility, looking at three types of indicators: the travel costs, the cumulated opportunities and again potential accessibility. According to the reference study, "accessibility is the main product of a transport system and it determines the locational advantage of an areas relative to other areas" (TRACC, ESPON, 2015). Through looking at the indicators (below) we do not simply verify (to a certain extent) the locational advantage or disadvantage of the regions, but also draw a straightforward conclusion on the regions that the future transport policy should focus more and redirect most of the investments.

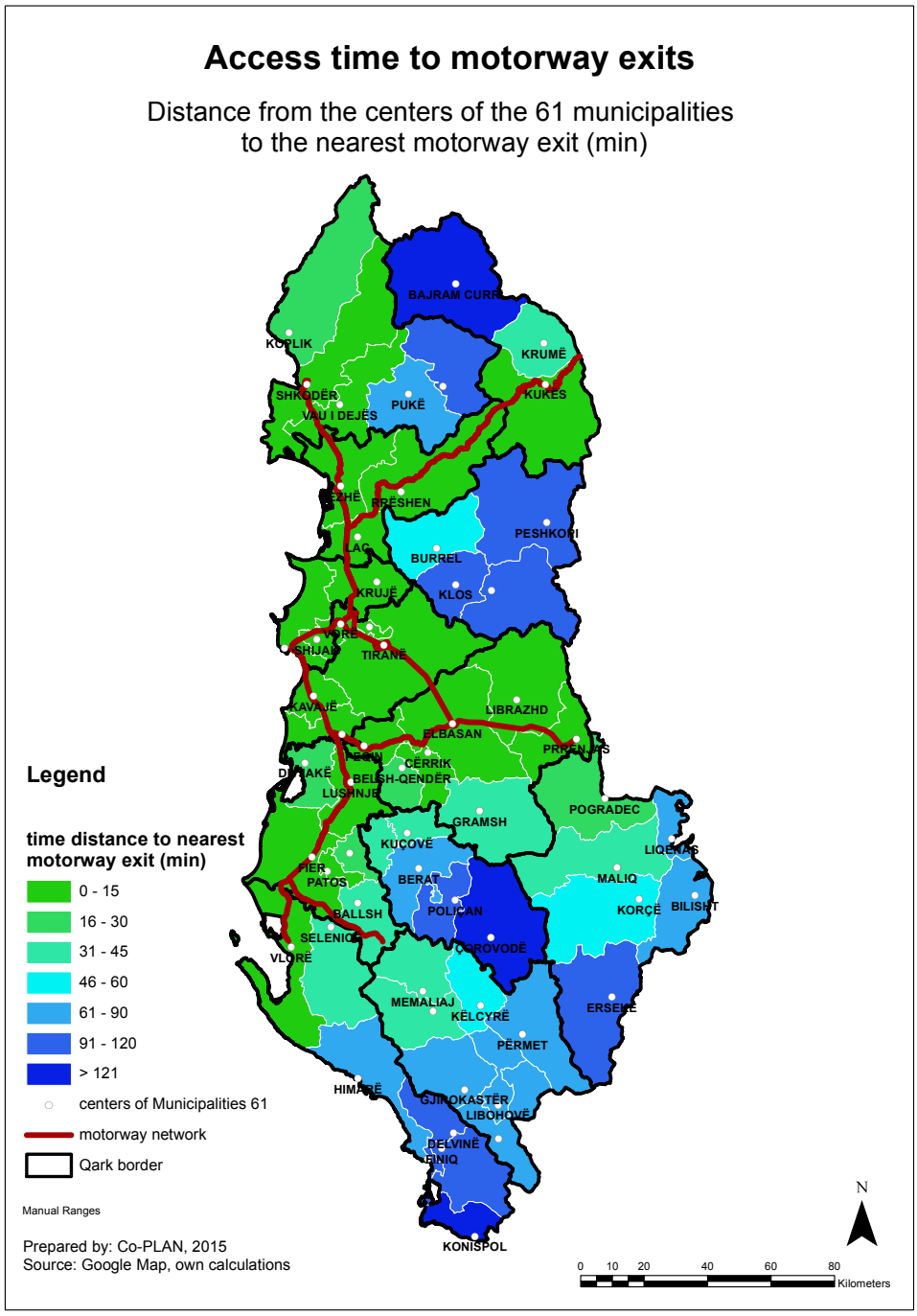
3.4.1 Travel costs decrease;

The travel cost indicator (in this case measured as time of people living in the 61 municipalities to motorway exits) assumes that not all possible destinations are relevant for the accessibility of an area, but only a specified set. The destinations in this case are the motorway exits, assuming that once people reach the exit to a high speed road, they either enter the commuting area of main urban centers, or are able to travel to their destinations and back within the day. For this map we considered only those axes where the travel speed can remain unchanged at values above 70km/hr for more the 50% of the trip.

The map of accessing motorways exits is helpful in identifying the regions that are not accessible and have low access. It also helps understanding that Albania needs a transport network investment strategy that will ensure the penetration of the motorway axes from west to east, meaning further integration into the Balkan area and better connections between the Western Europe and the eastern countries. The highway segment from Laç to Kukës and the one from Tirana to Elbasan, are clear evidence supporting the reinforcement of this conclusion.

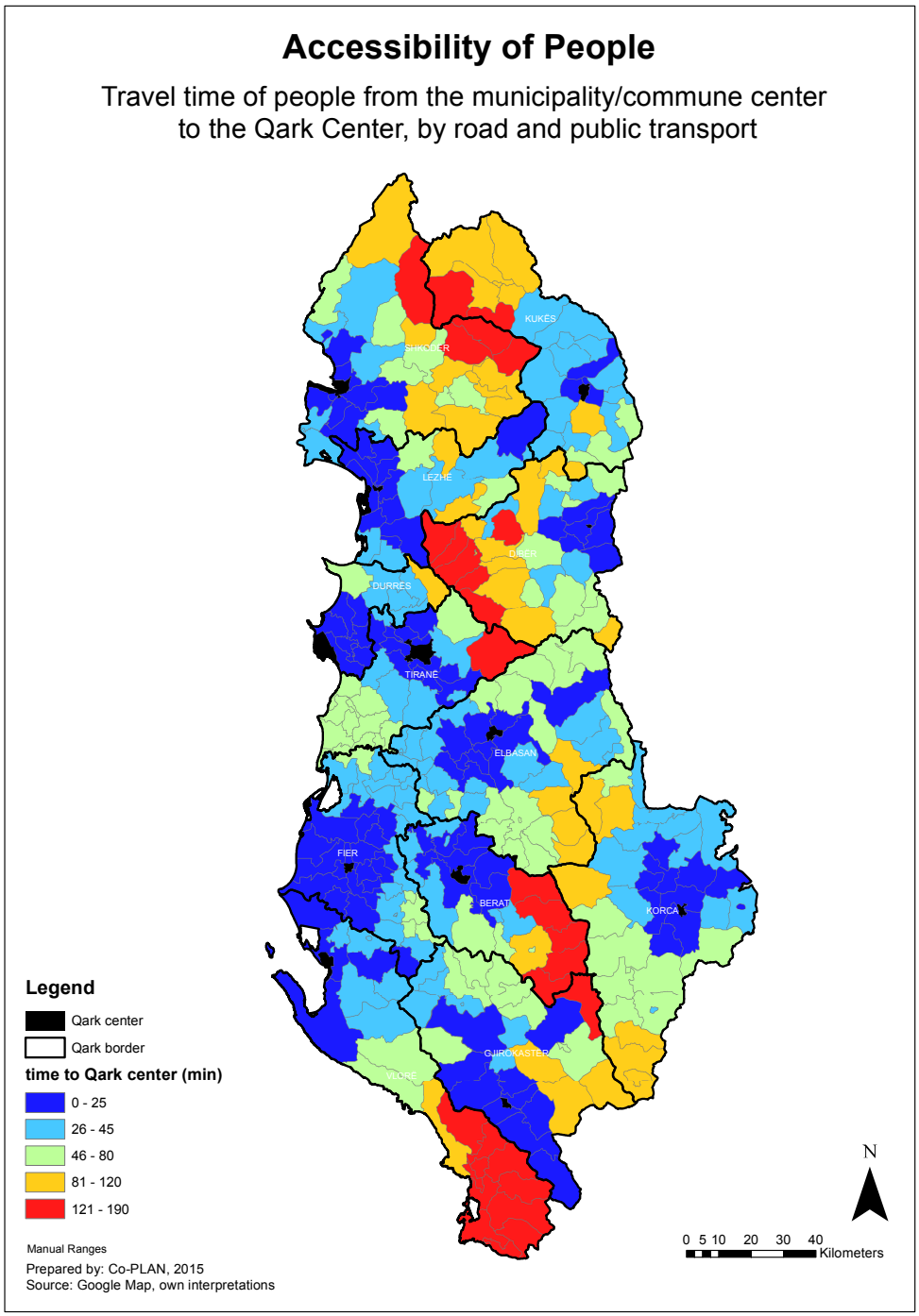
[9] This chapter is prepared by Dritan Shutina, as part of his empirical research for his PhD thesis on territorial typologies and polycentricity, carried out under the International Doctorate for Architecture and Urban Planning (IDAUP), a program of the University of Ferrara, Italy and POLIS University, Albania.

Figure 46: Access time of people to motorways exists



Source: Shutina, 2015

Figure 47: Travel time of people to regional centers by road and public transport



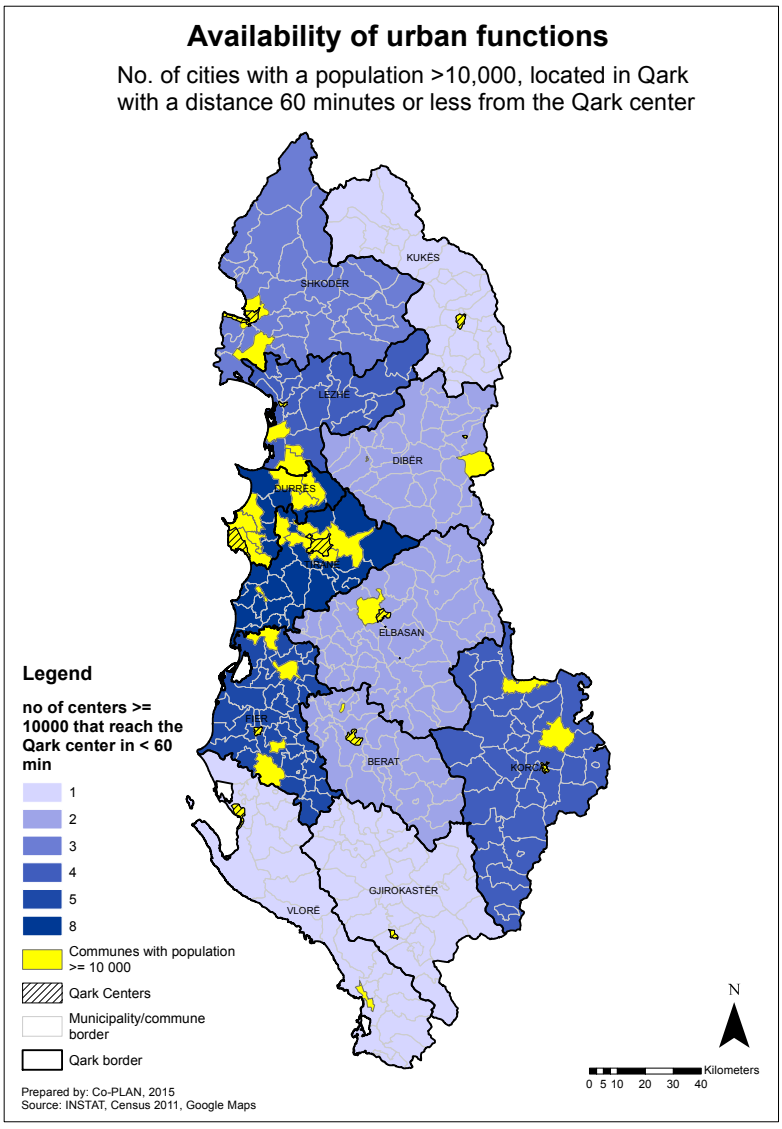
Source: Shutina, 2015

3.4.2 Cumulated opportunities increase

This indicator is based on the assumption that people are interested to go to destinations that they can reach with a fixed budget for travel (in this case expressed as the time limit

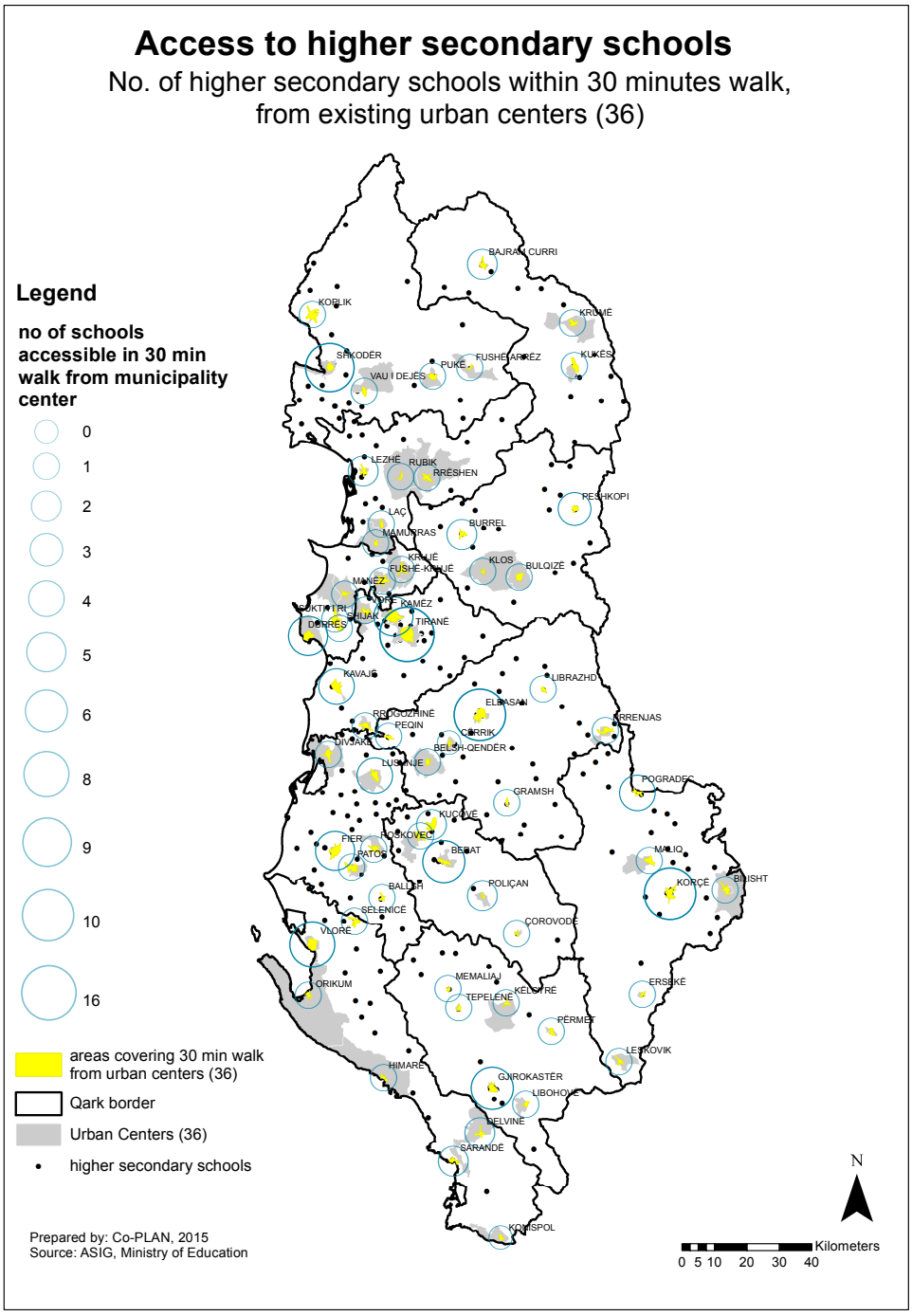
that one accepts to travel – 60 minutes). Thus people who commute or travel on daily/routine basis would prefer to travel not more than a given amount of time, and as a result go to those destinations / urban centers than can be reached within that time (conclude a business trip). In this analysis we have identified the urban centers equal to or with more than 10,000 residents that can be reached within 60 minutes by the Qark centers. The following figure x shows for a clear dominance of Tirana and Durrës, then a vertical division between west and east and coast and mountainous areas. Korca is the only one to make a difference in the picture, due to the fact that a good proportion of its territory is rather plain, though in high altitude above the sea levels.

Figure 48: Cities with at least 10,000 residents within 60 minutes by road



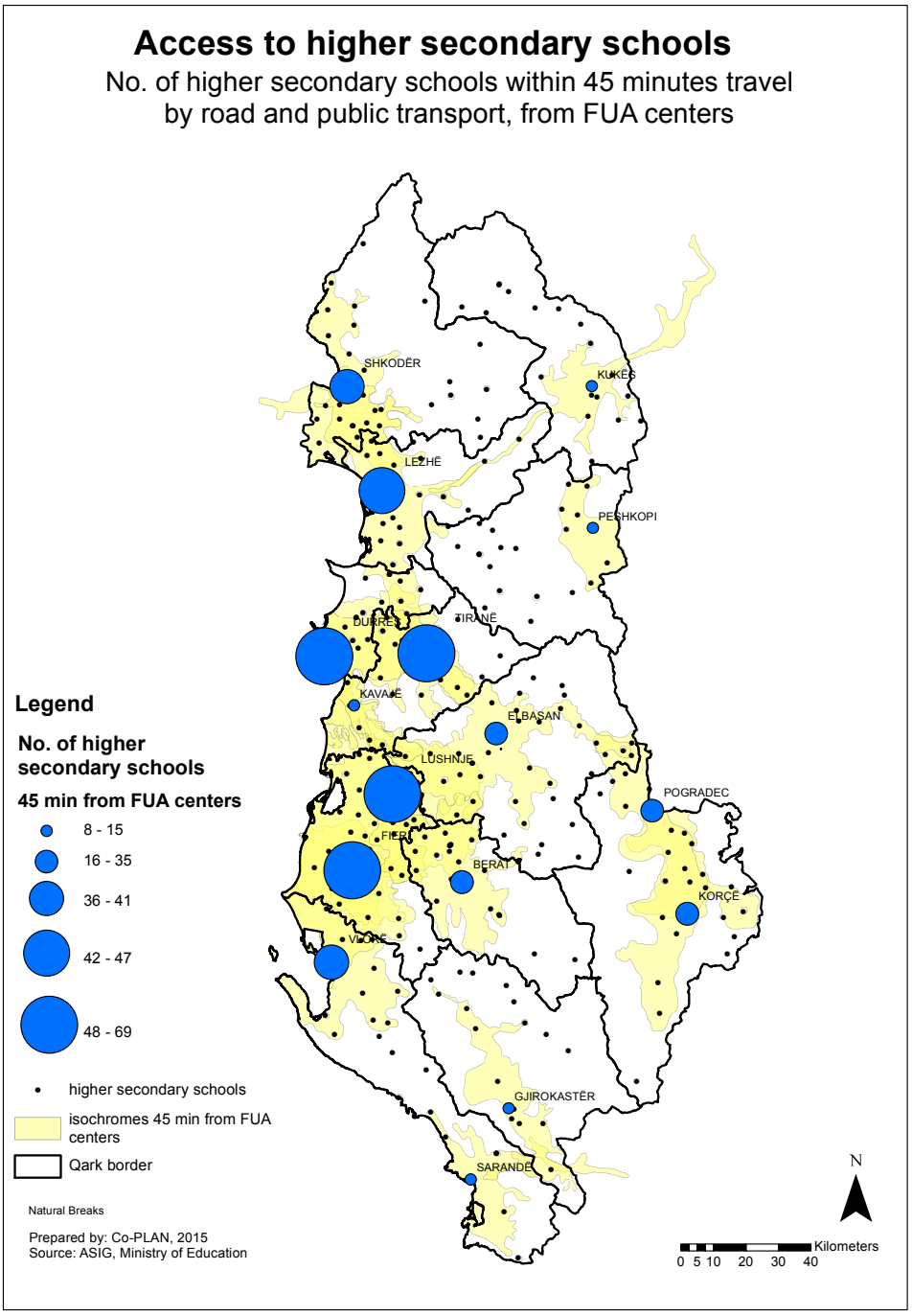
Source: Shutina, 2015

Figure 49: Number of higher secondary schools within 30 minutes walk travel time



Source: INSTAT and Shutina, 2015

Figure 50: Number of higher secondary schools within 45 minutes travel time by public transport



Source: INSTAT and Shutina, 2015

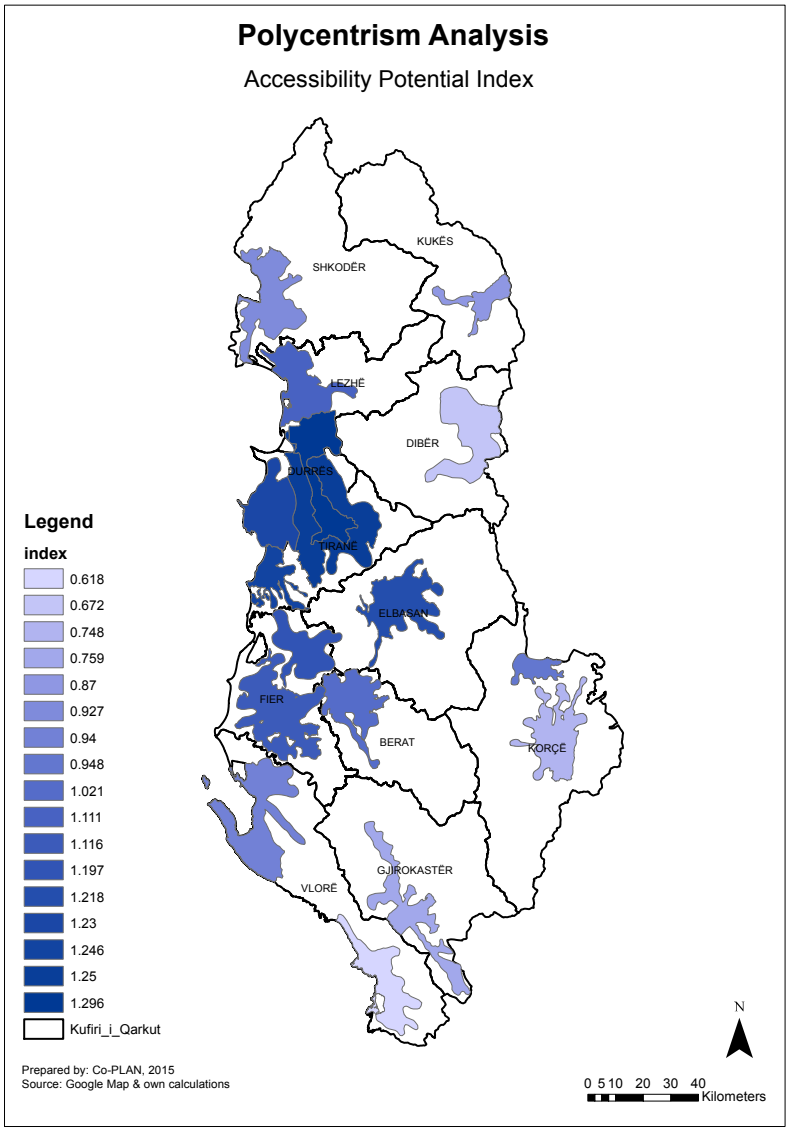
The cumulated opportunities are analyzed also for the number of higher secondary schools reached within 30 and 45 minutes of travel (walk and public transportation). In the second case we see that the opportunities are concentrated in the coast (Shkodra to

Vlora) and especially in Tirana. Appart from better accessibility of this areas, this may also be due to the fact that most of the high schools are located in these regions where the population density is the highest.

3.4.3 Potential Accessibility improves.

As it was presented in the polycentricity analysis, potential accessibility measures the accessibility of a region to the other/s based on the size (population or GDP) of the regions to be accessed and the travel time to go there. The analysis in the section 4.2.6 reveals that the triangle Lezhë – Elbasan – Fier has the highest accessibility.

Figure 51: Potential Accessibility of FUAs



Source: Shutina, 2015

3.5 Final Conclusions and the Designation of the Development Regions Boundaries

The above analysis provides conclusions for all 4 objectives as the following:

1. Economic competitiveness is more pronounced in the center Qarks and weaker in the more mountainous and rural areas. In terms also of polycentric development, the designation of the future development regions should be such as to include Qarks with different competitiveness factors within one region. This would help for better access to the EU funds, especially for the more disadvantageous regions.

2. Disparities remain high and have increased more. The northern Qarks are in a higher disadvantage in terms of employment rates, GVA per sector and poverty. However these qarks do still have the advantage of the young population that is though dependent on high unemployment figures for both males and females.

3. Access to services shows for high disparities among municipalities and communes (373), with the Qarks centers being in a clear advantage compared to the peripheral local governments.

4. Transport accessibility is depended on the following variables: the penetration of the high speed road network inland (from the western coast to the eastern centers), which seems to be as yet very low; the size (population and GDP) of the cities/urban cores, which is much bigger along the coast and especially in the Laç – Elbasan – Fier triangle; and on the distribution of (mainly administrative and education) functions (the diversity of the latter being more dominant in the Qark centers). Any future development region should consider an infrastructure investment strategy that will extend this network towards the north and south-east, by connecting fast not only the Ionian-Adriatic corridor with the eastern parallel corridor, but also Tirana, Shkodra, Durrës and Vlora with the rest Balkan cities in the east and south of Albania.

5. The coastal regions have a pronounced territorial capital (both environmental and urban), but are also the most disadvantageous in the terms of urban development pressures and climate change effects. Their resilience, especially the environmental one, is at extremely high risk. Any future development region should consider that each segment of this at-high-risk area is counterbalanced by safer regions located inland and towards the mountainous / rural areas of northeast and southeast.

6. The spatial polycentricity analysis shows that Albania is monocentric in overall, and highly polarized in terms of the concentration of the GDP and population in the Tirana-Durrës metropolitan area. This supports also the findings for relatively high disparities among local governments and among Qarks. However, Albania has a good potential for moving towards a more balanced spatial structure, because of the uniform distribution of the urban centers across the territory (due to historical reasons). The latter should be supported by: more investments in infrastructure, especially transport, so as to increase the accessibility of regions; and better planning for the areas that have a high potential for

urban integrations – those urban centers or local governments that are within 45 minutes of commuting travel time from at least 4 or more urban cores (FUAs centers).

Based on the above conclusions and on the assumption that the future development regions should not be sector but territory oriented, so as to ease the implementation and the success of regional development policies, the proposal of their designation is based on the following criteria:

1. Should not favor one sector to the others, on the contrary should be integrative and favoring polycentric territorial development. This criteria is really crucial as otherwise we would not be addressing regional development, but sectorial development;
2. Should be able to facilitate the achievement of all RD objectives: increase competitiveness; promote convergence, cohesion and resilience; make sustainable use of the natural resources; promote polycentric spatial development and increase the accessibility of regions;
3. Should (preferably) match with current Qark borders (because most of the RD data are generated at this level), or at least with the borders of the 61 municipalities. These criteria is rather optional, because the designation of the development regions, would be the appropriate moment to also take decisions on the generation of data at LAU and NUTS 3 levels, by also revising the NUTS 3 boundaries, if necessary for better regional development.
4. Should form development regions where there is a mixture of best and worst performers (in terms of social-economic indicators). The GDP per capita is often used as an indicator for allocating development funds and as such it can favor certain regions, while discriminating others, based on the fund allocation policy. Currently, Albania is at a development stage, where all regions need significant funds for development.
5. Should allow for cross-border regions. Thus, the final designation should be such that the future development projects for each region do relate to the cross-border development.

The conclusions and the criteria are summarized in the following map. This map shows the distribution of the key findings over the territory and how the development corridors could extend to connect places and lead towards regions.

The analysis finally leads to 3 options for designation of the borders of the development regions, for which there are statistics provided below. In all three options, two regions remain the same and the differences appear in the southern regions.

Figure 52: Findings and criteria conceptualized

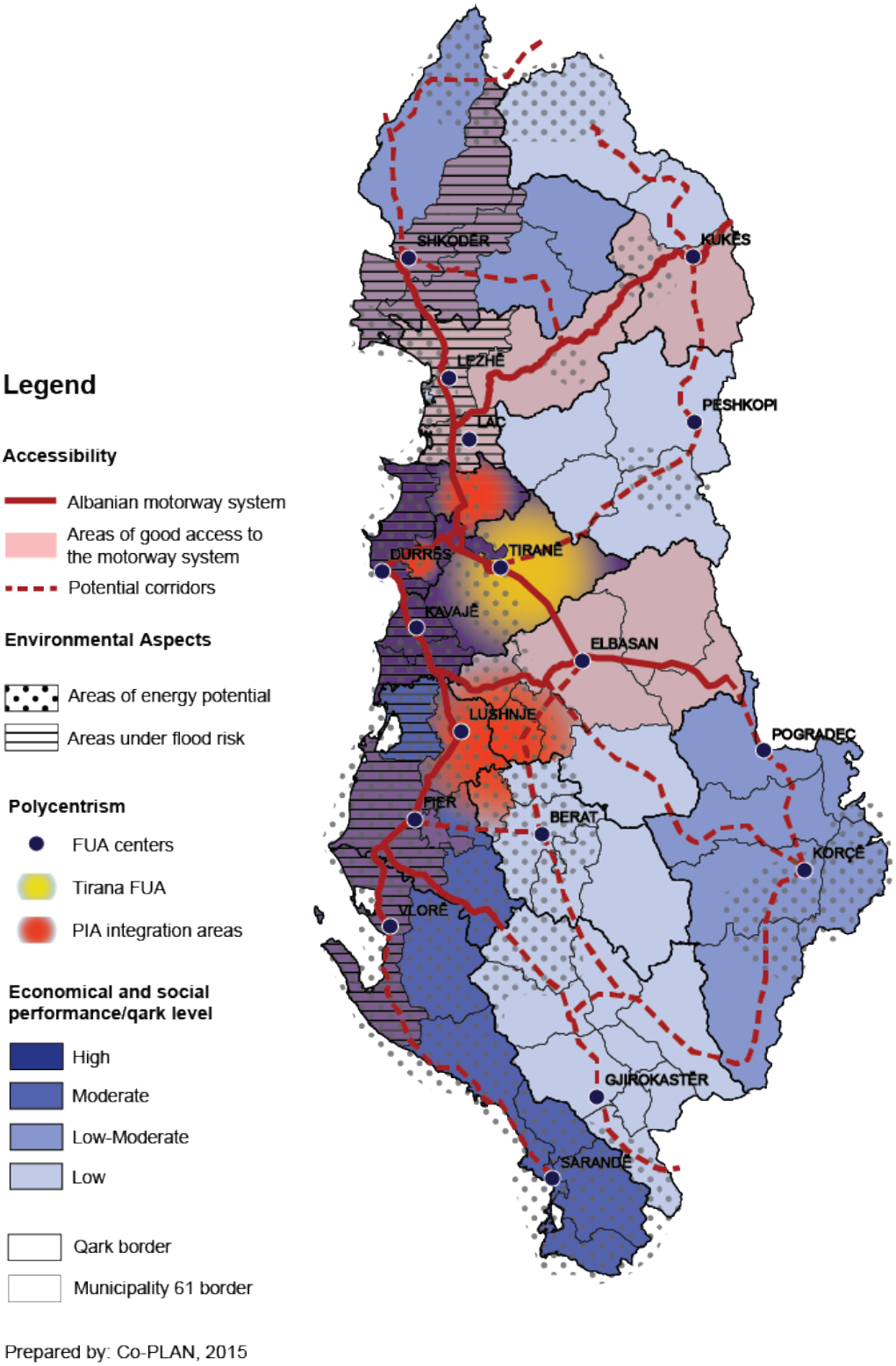

Legend
Accessibility
Albanian motorway system
Areas of good access to the motorway system
Potential corridors
Environmental Aspects
Areas of energy potential
Areas under flood risk
Polycentrism
FUA centers
Tirana FUA
PIA integration areas
Economical and social performance/qark level
High
Moderate
Low-Moderate
Low
Qark border
Municipality 61 border
Prepared by: Co-PLAN, 2015
SHKODER
KUKES
LEZHE
PESHKOPI
LAC
DURRES
TIRANE
KAVAJE
ELBASAN
LUSHNJE
POGRADEC
FIER
BERAT
KORCE
VLORE
GJIROKASTER
SARANDE

*Figure 53: **Proposal 1** for designation of the boundaries of development regions in Albania*

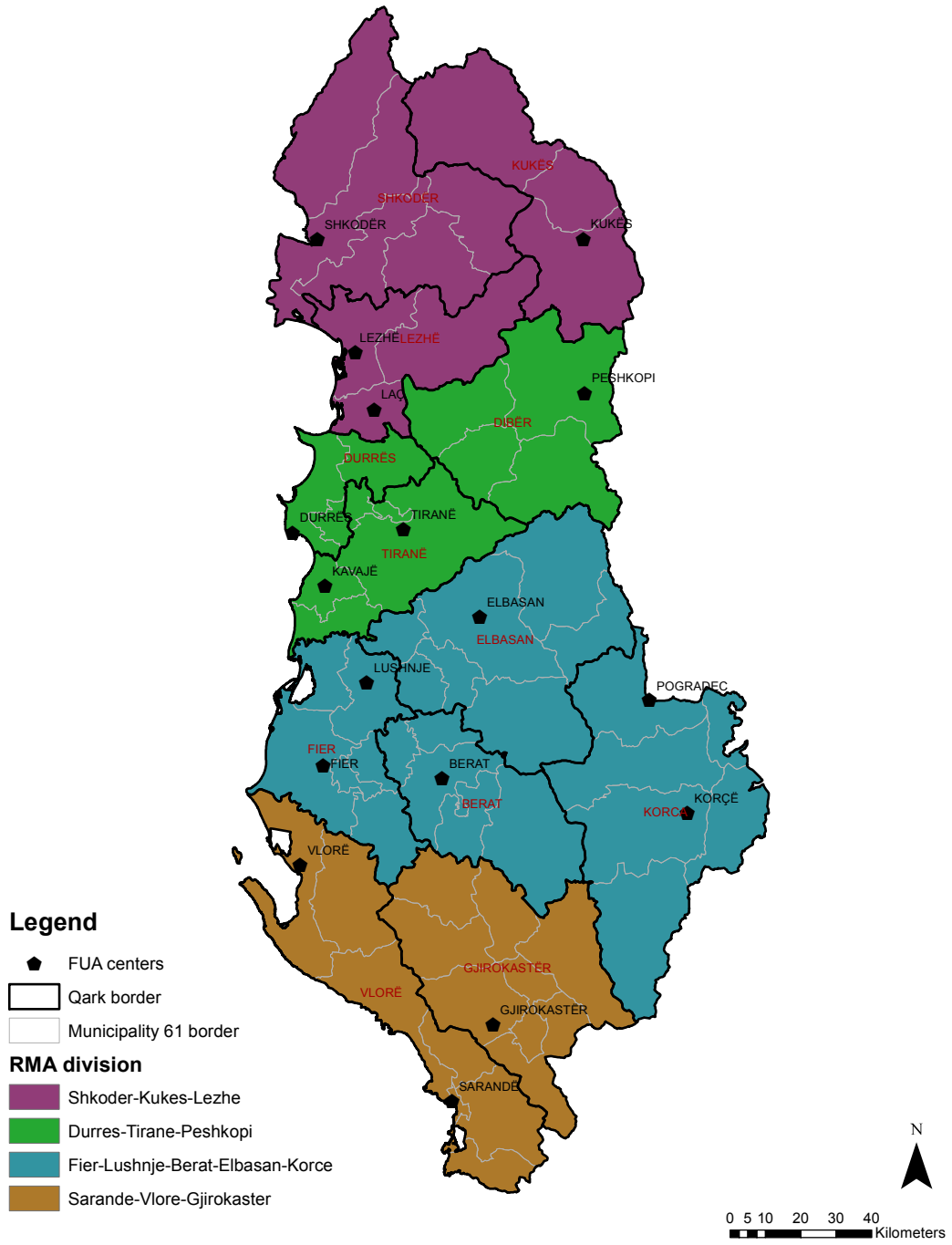


*Figure 54: **Proposal 2** for designation of the boundaries of development regions in Albania*

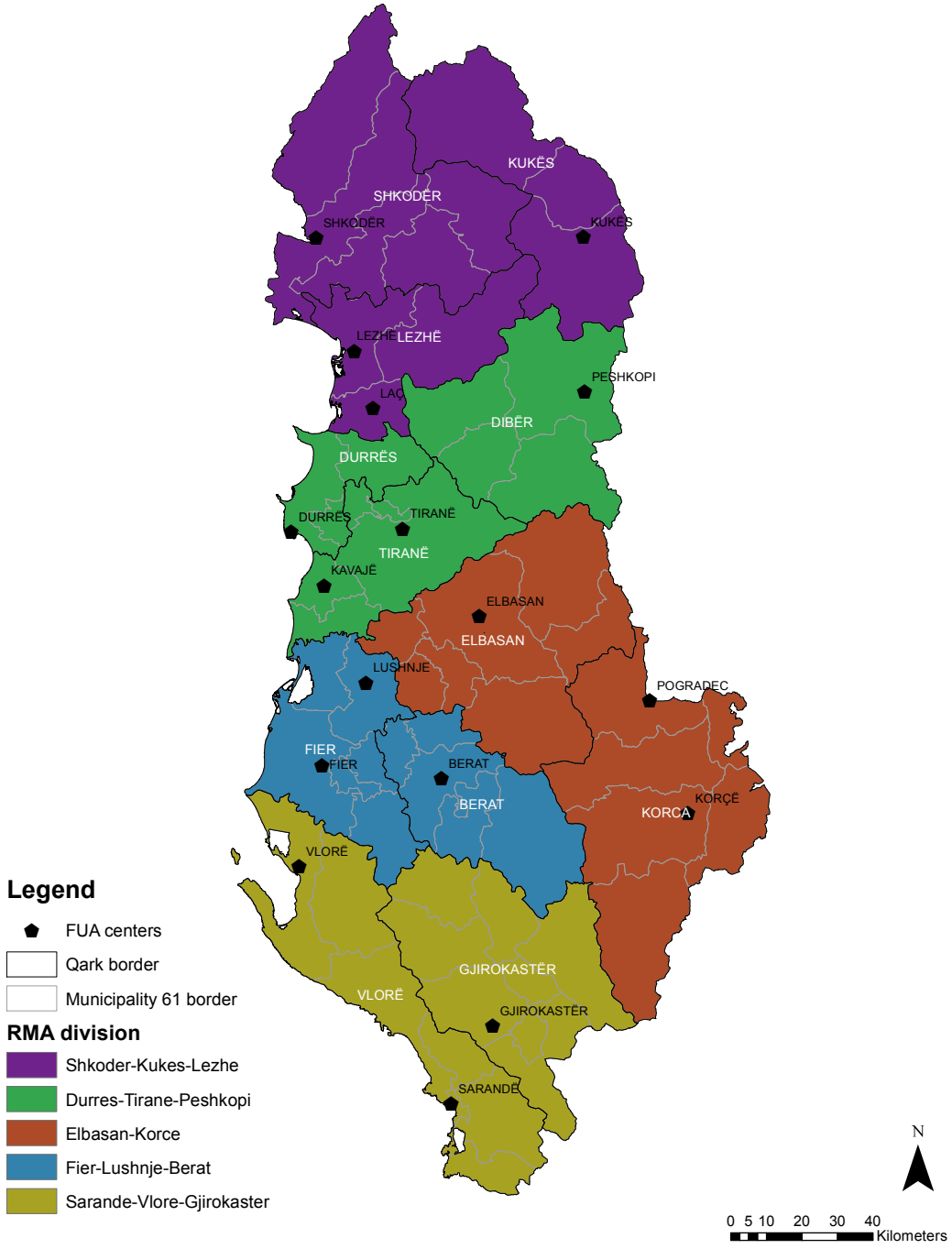
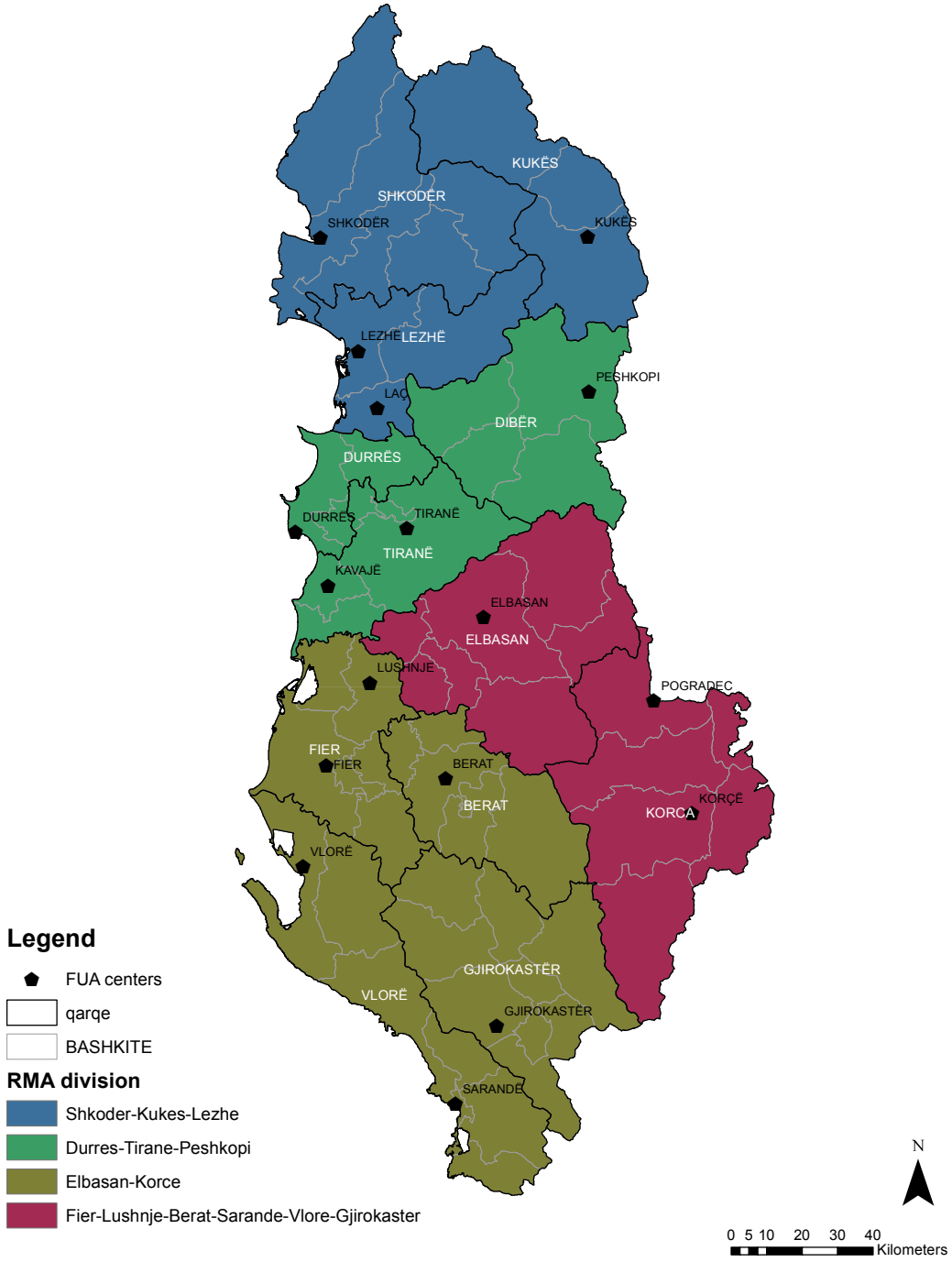


*Figure 55: **Proposal 3** for designation of the boundaries of development regions in Albania*



Statistics on each proposal:

Proposal 1	Proposal 2	Proposal 3
SH-KU-LE • 7,401 km^2 • 434,666 inh. DR-TR-PE • 4,869 km^2 • 1,149,197 inh. FR-LU-BR-EL-KO • 10,467 km^2 • 968,459 inh. SR-VL-GJ • 5,535 km^2 • 247,816 inh.	SH-KU-LE • 7,401 km^2 • 434,666 inh. DR-TR-PE • 4,869 km^2 • 1,149,197 inh. EL-KO • 6,814 km^2 • 516,184 inh. FR-LU-BR • 3,653 km^2 • 452,275 inh. SR-VL-GJ • 5,535 km^2 • 247,816 inh.	SH-KU-LE • 7,401 km^2 • 434,666 inh. DR-TR-PE • 4,869 km^2 • 1,149,197 inh. EL-KO • 6,814 km^2 • 516,184 inh. SR-VL-GJ-FR-LU-BR • 9,188 km^2 • 700,091 inh.