

## RESULTS FACTSHEET

### TRA10: ROAD NETWORK DENSITY

#### DEFINITION - OBJECTIVE

The indicator assesses the density of the complete road network, divided into categories in the zone determined by the Egnatia Motorway regions and its vertical axes. The objective of monitoring this indicator is to study the development of the road network and specifically the way that motorways contribute to it, check the road capacity and examine the effects of the road network on the environment.

#### RESULTS- ASSESSMENT

The basic road network categories examined are (a) motorways, (b) main national roads' network (primary and secondary) and (c) national network (primary, secondary, tertiary). The indicator is also calculated and monitored in relation to the development of the Egnatia Motorway project and vertical axes that fall under the responsibility of EGNATIA ODOS A.E.

As expected, the completion of the Egnatia Motorway and its vertical axes will considerably improve the motorways' density (by 252%) in the zone of the Regions involved. Due to the fact that PATHE axis (Patra- Athens- Thessaloniki- Evzoni) has been considered as an existing motorway prior to and after the completion of the Egnatia Motorway, the motorways' density has considerably increased in the Regions of East Macedonia & Thrace, West Macedonia and Epirus, the values of which originally and prior to the Egnatia Motorway construction had been insignificant. At a prefecture level, the highest increase values are anticipated in the Prefectures of Imathia (910%), Kavala (676%), Evros (410%), Thesprotia (391%) and Kastoria (361%).

Road Network Density (km/km <sup>2</sup> )																
NUTS	Region / Prefecture	BEFORE THE EGNATIA MOTORWAY			EGNATIA MOTORWAY STATUS (APRIL 2008)						WITH THE COMPLETION OF EGNATIA MOTORWAY					
		Motorway density	Main National Road Network Density (1st and 2nd national)	National Road Network Density	Motorway density	Change: before Egnatia - Apr. 2008	Main National Road Network Density (1st and 2nd national)	Change: before Egnatia - Apr. 2008	National Road Network Density	Change: before Egnatia - Apr. 2008	Motorway density	Change: Before Egnatia - with the completion of Egnatia	Main National Road Network Density (1st and 2nd national)	Change: before Egnatia - with the completion of Egnatia	National Road Network Density	Change: Before Egnatia - with the completion of Egnatia
gr11	East Macedonia and Thrace	0,001	0,048	0,111	0,014	1285,64%	0,061	28,31%	0,124	12,11%	0,018	1629%	0,066	37%	0,129	16%
gr111	Evros	0,003	0,068	0,099	0,017	410,37%	0,083	22,44%	0,114	15,04%	0,017	410%	0,086	26%	0,117	18%
gr112	Xanthi	0,000	0,038	0,135	0,011	197,45%	0,051	32,11%	0,148	9,08%	0,015	227%	0,054	42%	0,152	12%
gr113	Rodopi	0,000	0,027	0,106	0,021	377,70%	0,049	78,42%	0,127	20,19%	0,021	322%	0,049	78%	0,127	20%
gr114	Drama	0,000	0,036	0,073	0,000	0,00%	0,036	0,00%	0,073	0,00%	0,000	0,00%	0,036	0%	0,073	0%
gr115	Kavala	0,000	0,060	0,181	0,025	435,06%	0,084	39,74%	0,204	13,14%	0,045	676%	0,104	74%	0,225	25%
gr12	Central Macedonia	0,010	0,055	0,185	0,021	119,24%	0,061	12,47%	0,191	3,58%	0,027	175%	0,066	21%	0,196	6%
gr121	Imathia	0,004	0,071	0,160	0,038	919,43%	0,084	18,49%	0,173	8,22%	0,037	910%	0,084	18%	0,172	8%
gr122	Thessaloniki	0,021	0,084	0,274	0,052	149,53%	0,111	31,53%	0,301	9,71%	0,074	254%	0,135	59%	0,325	18%
gr123	Kilkis	0,013	0,046	0,174	0,015	13,40%	0,046	0,00%	0,174	0,00%	0,017	28%	0,046	0%	0,174	0%
gr124	Pella	0,000	0,033	0,093	0,000	0,00%	0,033	0,00%	0,093	0,00%	0,000	0,00%	0,033	0%	0,093	0%
gr125	Pieria	0,047	0,070	0,207	0,047	0,00%	0,070	0,00%	0,207	-0,06%	0,047	0%	0,070	0%	0,207	0%
gr126	Serres	0,000	0,045	0,157	0,007	127,69%	0,047	4,80%	0,159	1,36%	0,017	255%	0,048	8%	0,161	2%
gr127	Halkidiki	0,000	0,040	0,198	0,005	95,62%	0,040	1,12%	0,198	-0,28%	0,000	0,00%	0,040	1%	0,198	0%
gr13	West Macedonia	0,000	0,050	0,165	0,011	388,35%	0,063	25,18%	0,178	7,66%	0,018	609%	0,070	39%	0,185	12%
gr131	Grevena	0,000	0,027	0,206	0,011	197,96%	0,041	54,11%	0,220	6,98%	0,021	318%	0,051	91%	0,230	12%
gr132	Kastoria	0,000	0,029	0,184	0,011	201,26%	0,044	50,10%	0,198	7,97%	0,024	361%	0,058	100%	0,213	16%
gr133	Kozani	0,000	0,065	0,143	0,018	308,99%	0,083	26,83%	0,161	12,24%	0,022	334%	0,087	34%	0,165	15%
gr134	Florina	0,000	0,070	0,141	0,000	0,00%	0,070	0,00%	0,141	0,00%	0,000	0,00%	0,070	0%	0,141	0%
gr14	Thessalia	0,010	0,042	0,179	0,010	1,36%	0,042	0,30%	0,179	-0,03%	0,011	12%	0,043	3%	0,181	1%
gr141	Karditsa	0,000	0,020	0,176	0,000	0,00%	0,020	0,00%	0,176	0,00%	0,000	0,00%	0,020	0%	0,176	0%
gr142	Larissa	0,015	0,046	0,183	0,015	0,00%	0,046	0,00%	0,183	-0,05%	0,015	0%	0,046	0%	0,183	0%
gr143	Magnisia	0,023	0,038	0,204	0,023	0,00%	0,038	-0,17%	0,203	-0,39%	0,023	0%	0,038	0%	0,204	0%
gr144	Trikala	0,000	0,055	0,157	0,001	9,86%	0,056	1,02%	0,158	0,36%	0,005	71%	0,060	9%	0,162	3%
gr21	Epirus	0,000	0,060	0,244	0,008	283,92%	0,068	13,50%	0,252	3,33%	0,012	424%	0,073	21%	0,256	5%
gr211	Arta	0,000	0,015	0,246	0,000	0,00%	0,015	0,00%	0,246	0,00%	0,000	0,00%	0,015	0%	0,246	0%
gr212	Thesprotia	0,000	0,079	0,185	0,021	374,77%	0,100	25,28%	0,205	10,87%	0,026	391%	0,106	33%	0,211	14%
gr213	Ioannina	0,000	0,056	0,257	0,009	153,57%	0,065	15,60%	0,266	3,42%	0,015	222%	0,071	26%	0,272	6%
gr214	Preveza	0,000	0,121	0,262	0,000	0,00%	0,121	0,00%	0,262	0,01%	0,000	0,00%	0,121	0%	0,262	0%
znIV	Impact Zone IV	0,005	0,051	0,173	0,014	174,11%	0,058	15,54%	0,181	4,47%	0,018	252%	0,062	24%	0,185	7%

Road network density (km/1.000 hab.)																
NUTS	Region / Prefecture	BEFORE THE EGNATIA MOTORWAY			EGNATIA MOTORWAY STATUS APRIL 2008						WITH THE COMPLETION OF EGNATIA MOTORWAY					
		Motorway density	Main National Road Network Density (1st and 2nd national)	National Road Network Density	Motorway density	Change: before Egnatia - Apr. 2008	Main National Road Network Density (1st and 2nd national)	Change: before Egnatia - Apr. 2008	National Road Network Density	Change: before Egnatia - Apr. 2008	Motorway density	Change: Before Egnatia - with the completion of Egnatia	Main National Road Network Density (1st and 2nd national)	Change: before Egnatia - with the completion of Egnatia	National Road Network Density	Change: Before Egnatia - with the completion of Egnatia
gr11	East Macedonia and Thrace	0,024	1,110	2,570	0,329	1285,64%	1,425	28,31%	2,881	12,11%	0,411	1629%	1,526	37%	2,984	16%
gr111	Evros	0,097	1,934	2,811	0,496	410,37%	2,369	22,44%	3,234	15,04%	0,496	410%	2,446	26%	3,315	18%
gr112	Xanthi	0,000	0,675	2,387	0,197	240,65%	0,892	32,11%	2,604	9,08%	0,266	278%	0,961	42%	2,673	12%
gr113	Rodopi	0,000	0,628	2,440	0,493	600,83%	1,121	78,42%	2,933	20,19%	0,493	516%	1,121	78%	2,933	20%
gr114	Drama	0,000	1,192	2,439	0,000	0,00%	1,192	0,00%	2,439	0,00%	0,000	0,00%	1,192	0%	2,439	0%
gr115	Kavala	0,000	0,877	2,642	0,361	439,64%	1,226	39,74%	2,989	13,14%	0,656	687%	1,526	74%	3,290	25%
gr12	Central Macedonia	0,100	0,558	1,892	0,220	119,24%	0,628	12,47%	1,960	3,58%	0,276	175%	0,677	21%	2,011	6%
gr121	Imathia	0,044	0,842	1,894	0,446	919,43%	0,998	18,49%	2,050	8,22%	0,441	910%	0,994	18%	2,046	8%
gr122	Thessaloniki	0,073	0,294	0,955	0,182	149,53%	0,387	31,53%	1,047	9,71%	0,258	254%	0,469	59%	1,129	18%
gr123	Kilkis	0,368	1,315	4,946	0,418	13,40%	1,315	0,00%	4,946	0,00%	0,471	28%	1,315	0%	4,946	0%
gr124	Pella	0,000	0,560	1,604	0,000	0,00%	0,560	0,00%	1,604	0,00%	0,000	0,00%	0,560	0%	1,604	0%
gr125	Pieria	0,551	0,825	2,433	0,551	0,00%	0,825	0,00%	2,432	-0,06%	0,551	0%	0,825	0%	2,433	0%
gr126	Serres	0,000	0,881	3,110	0,143	174,50%	0,924	4,80%	3,152	1,36%	0,335	351%	0,956	8%	3,185	2%
gr127	Halkidiki	0,000	1,240	6,154	0,168	205,28%	1,254	1,12%	6,137	-0,28%	0,000	0,00%	1,254	1%	6,159	0%
gr13	West Macedonia	0,000	1,578	5,188	0,355	611,26%	1,975	25,18%	5,585	7,66%	0,557	958%	2,189	39%	5,799	12%
gr131	Grevena	0,000	1,604	12,440	0,679	828,17%	2,472	54,11%	13,308	6,98%	1,279	1338%	3,072	91%	13,908	12%
gr132	Kastoria	0,000	0,942	5,922	0,368	448,57%	1,414	50,10%	6,394	7,97%	0,773	809%	1,885	100%	6,865	16%
gr133	Kozani	0,000	1,479	3,242	0,397	483,67%	1,875	26,83%	3,639	12,24%	0,502	525%	1,981	34%	3,744	15%
gr134	Florina	0,000	2,463	4,965	0,000	0,00%	2,463	0,00%	4,965	0,00%	0,000	0,00%	2,463	0%	4,965	0%
gr14	Thessalia	0,185	0,775	3,344	0,188	1,36%	0,777	0,30%	3,343	-0,03%	0,206	12%	0,796	3%	3,365	1%
gr141	Karditsa	0,000	0,398	3,583	0,000	0,00%	0,398	0,00%	3,583	0,00%	0,000	0,00%	0,398	0%	3,583	0%
gr142	Larissa	0,281	0,880	3,534	0,281	0,00%	0,880	0,00%	3,532	-0,05%	0,281	0%	0,880	0%	3,534	0%
gr143	Magnisia	0,294	0,486	2,595	0,294	0,00%	0,486	-0,17%	2,585	-0,39%	0,294	0%	0,486	0%	2,595	0%
gr144	Trikala	0,000	1,349	3,858	0,014	16,73%	1,363	1,02%	3,871	0,36%	0,116	122%	1,466	9%	3,974	3%
gr21	Epirus	0,000	1,558	6,312	0,214	368,70%	1,769	13,50%	6,522	3,33%	0,320	550%	1,881	21%	6,635	5%
gr211	Arta	0,000	0,302	5,072	0,000	0,00%	0,302	0,00%	5,072	0,00%	0,000	0,00%	0,302	0%	5,072	0%
gr212	Thesprotia	0,000	2,616	6,083	0,700	853,22%	3,277	25,28%	6,745	10,87%	0,855	894%	3,486	33%	6,954	14%
gr213	Ioannina	0,000	1,655	7,548	0,256	311,75%	1,913	15,60%	7,807	3,42%	0,433	453%	2,090	26%	7,984	6%
gr214	Preveza	0,000	2,115	4,575	0,000	0,00%	2,115	0,00%	4,576	0,01%	0,000	0,00%	2,115	0%	4,575	0%
znIV	Impact Zone IV	0,088	2,080	2,937	0,241	174,11%	0,990	15,54%	3,068	4,47%	0,310	252%	1,060	24%	3,140	7%

The main road network consists of the primary and secondary road network and is examined as a particular category, because it essentially services major inter-regional and national connections. The Egnatia Motorway and its system of vertical axes are incorporated into this category, the complete functioning of which is anticipated to amend the indicator as follows: by 39% in West Macedonia Region, by 37% in East Macedonia & Thrace and by 21% in Central Macedonia and Epirus. The construction and functioning of vertical axis “Siatista- Ieropigi” benefit the Prefecture of Kastoria at most (100%). The Prefectures of Grevena, Rodopi and Kavala owe their considerable increase to the Egnatia Motorway, while the Prefecture of Thessaloniki benefits also from other axes such as the External Ring Road, the axis “Thessaloniki- Moudania” and other connections to the airport and port (6<sup>th</sup> pier).

A significant contribution of the Egnatia Motorway and its vertical axes to the total density increase of the national roads’ network is also anticipated. The highest increase is anticipated in East Macedonia & Thrace (16%). This is followed by West Macedonia Region with an increase percentage estimate by 12% and Central Macedonia and Epirus Regions (6% and 5% respectively). At a Prefecture level, the highest increase of density is anticipated at the Prefecture of Kavala (25%), followed by Rodopi (20%), Thessaloniki (18%) and Evros (18%).

The completion of the Egnatia Motorway project and Vertical Axes “Siatista- Ieropigi”, “Thessaloniki- Serres- Promahonas” Thessaloniki- Moudania” and “Ardanio- Ormenio” alter the classification map of Regions and Prefectures, as regards the density of road network, particularly in relation to the categories of motorways and road network. In the situation prior to the construction of the Egnatia Motorway , the Regions of Thessaly and Central Macedonia prevail and so do the respective Prefectures crossed by PATHE road axis (Magnissia, Larissa, Pieria, Thessaloniki), while after the construction of the Egnatia Motorway, the Regions of Epirus, West Macedonia and East Macedonia & Thrace prevail and so do the respective Prefectures crossed by the Egnatia Motorway and Vertical Axes (Thesprotia, Grevena, Kozani, Kastoria, Kavala, Evros).

Indicatively, the road network density indicator of Thesprotia Prefecture changes from 7,9 to 10,6 ( $km/1.000 km^2$ ) increased by 33,3%, while the indicator of Epirus Prefecture changes from 6 to 7,3 and the indicator of the whole Impact Zone changes from 5,1 to 6,2. It should however be noted that only the Prefecture of Thessaloniki presents a higher indicator value (13,5) than Thesprotia Municipality, followed closely at the third place by Kavala Prefecture 10,4) and the Prefectures of Kozani, Evros and Imathia (8,7 - 8,6 & 8,4 respectively). The estimated values of the aforementioned indicator are of particular importance, as they approach or / and exceed the average value of the country as a whole, which according to the national strategic reference framework 2007-2013 is 6 (MNEC 2006, page 146), while

according to Eurostat for the year 2003, the value of indicator at EE25 is 15,1 and the value at EE15 is 17,5 (ERF 2006, page 17)<sup>1</sup>.

Finally the indicator has been calculated in relation to the population of Regions and Prefectures (km/1.000 inhabitants). As a result, an important reduction of the motorways' and main national roads' network density is observed for the Regions of Epirus and West Macedonia, particularly in the Prefectures of Thesprotia, Grevena and Kastoria.

## METADATA

### Sources

Spatial database of the Observatory- EGNATIA ODOS A.E.

*Private Digital Processing (2007):*

- 1) Road Network: TERRA E.P.E. (2004), linear level at a scale of 1:5.000.
- 2) Primary and secondary road network, MEPPW (2004), linear level at a scale of 1:50.000.
- 3) Linear level of alignment and works' progress of the Egnatia Motorway and vertical axes, updated with the use of GPS counts and orthophoto maps GIS Unit, Planning, Project Finance and Project Control Division, EGNATIA ODOS A.E (2007).
- 4) HMGS maps at a scale of 1:50.000.
- 5) Updated ROAD maps, purchased in 2004, at a scale of 1:250.000.
- 6) Orthophoto maps of the Ministry of Agriculture 1996, at a scale of 1:5.000.
- 7) The categorization of road network has been based on the classification of National Roads carried out by MEPPW, with DMEO/ε/0/1308-15/12/1995 (GGDE, DMEO, Traffic Designs' Directorate) with the use of the criteria set out in PD 347/93 and 401/93.
- 8) Population data: census GSNSSG (2001), [www.statistics.gr](http://www.statistics.gr).
- 9) Administrative limits: MEPPW (2002), polygonal, at a scale of 1:50.000.

<sup>1</sup> In both texts, the indicator is mentioned as «highways' density». However in the case of Greece, the indicator it is obviously adjusted to the category "main roads network by the relevant services (GSBSSGM MEF, MEPPW etc). For example, if the definition of motorway was strictly applied in Greece, the indicator's value should reach 2,0 instead of 6,0.

### Bibliographic References:

MEPPW (1995): *National Road Classification for the Regions of Attiki, Sterea Ellada, Thessaly, Epirus, Macedonia and Thrace in main (Primary), Secondary and Tertiary National Network, General Secretariat of Public Works:: Highway Design Directorate (DMEO), Traffic Design Unit, [Decision DMEO/ε/0/1308-15/12/1995](#), Athens.*

MEF (2006): *National Strategic Reference Framework 2007-2013*, Ministry of Economy and Finance, General Secretariat of Investments and Development: Athens October 2006, Official Plan, 1/11/2006, available at [http://www.hellaskps.gr/programper4/files/NSRF\\_GR.pdf](http://www.hellaskps.gr/programper4/files/NSRF_GR.pdf), 13/04/2007.

ERF (2006): *European Road Statistics 2006*, European Union Road Federation; Brussels Programme Centre of the International Road Federation (IRF): Brussels. Accessed in, [http://www.erf.be/images/stat/ERF\\_stats2006.pdf](http://www.erf.be/images/stat/ERF_stats2006.pdf), 13/04/2007.

### *Methodology*

The elaboration of spatial data and basemaps concerned exclusively the area located within the limits of the Impact Zone of the five Regions (and respective Prefectures) crossed by the Egnatia Motorway: Epirus, West Macedonia, Central Macedonia, East Macedonia & Thrace and Thessaly.

The indicator's assessment relates to the area (km<sup>2</sup>) and population (1.000 inhabitants) of the Regions and Prefectures in the Egnatia Motorway Impact Zone. The basic road network categories examined are (a) motorways (β) main road network (primary and secondary) and (c) national network. The indicator is also calculated and monitored in relation to the development of the Egnatia Motorway project and its vertical axes that fall under the responsibility of EGNATIA ODOS AE.

The definition mentioned in the Road Traffic Code Drivers Code Law 2696/1999 no. 2 has been used for the classification of a road under the Motorways' category:

Motorway: A road especially designed and constructed to service vehicles and motorcycles, which does not service the adjacent properties and which: a) has separate carriageways for both traffic directions, with the exception of specific locations or for temporary use, separated by islands not to be used for traffic or exceptionally by other means, b) is not intersected with any other road, path, railway or tramway line and c) has been categorised with decision of the Minister of Environmental Physical Planning and Public Works, bearing specific traffic signs as a motorway.

PATHE axis (Patra- Athens- Thessaloniki- Evzoni) has been considered as an existing motorway prior to and after the completion of the Egnatia Motorway.

The new vertical axes Xanthi- Ehinós and Komotini- Nymfea have not been for the time being classified under any of the road network's categories.

- **Komotini - Nymfea Greek- Bulgarian borders**

This axis consists part of the Pan-European Corridor IX. Its total length is approximately 23 km. Until today, its south part of a length of 4km has been constructed, which will be upgraded within the framework of the new construction contract.

For the remaining section until the greek-bulgarian borders, of a length of approximately 20 km (new alignment), designs have been prepared by MEPPW, which have been transferred to EGNATIA ODOS A.E. for reviewing and completion.

The project's notice has been published by EOAE on 15/12/06 (bids' submission date set for 6/2/07) on a tender budget of 85 mill € (VAT included) and the construction contract was signed on 20/07/07. At the same time, its financing is promoted within the framework of BP (ΕΠ-ΟΑΛΛΑΑ) of the 3<sup>rd</sup> CSF.

- **Xanthi- Ehinós , Greek-Bulgarian borders**

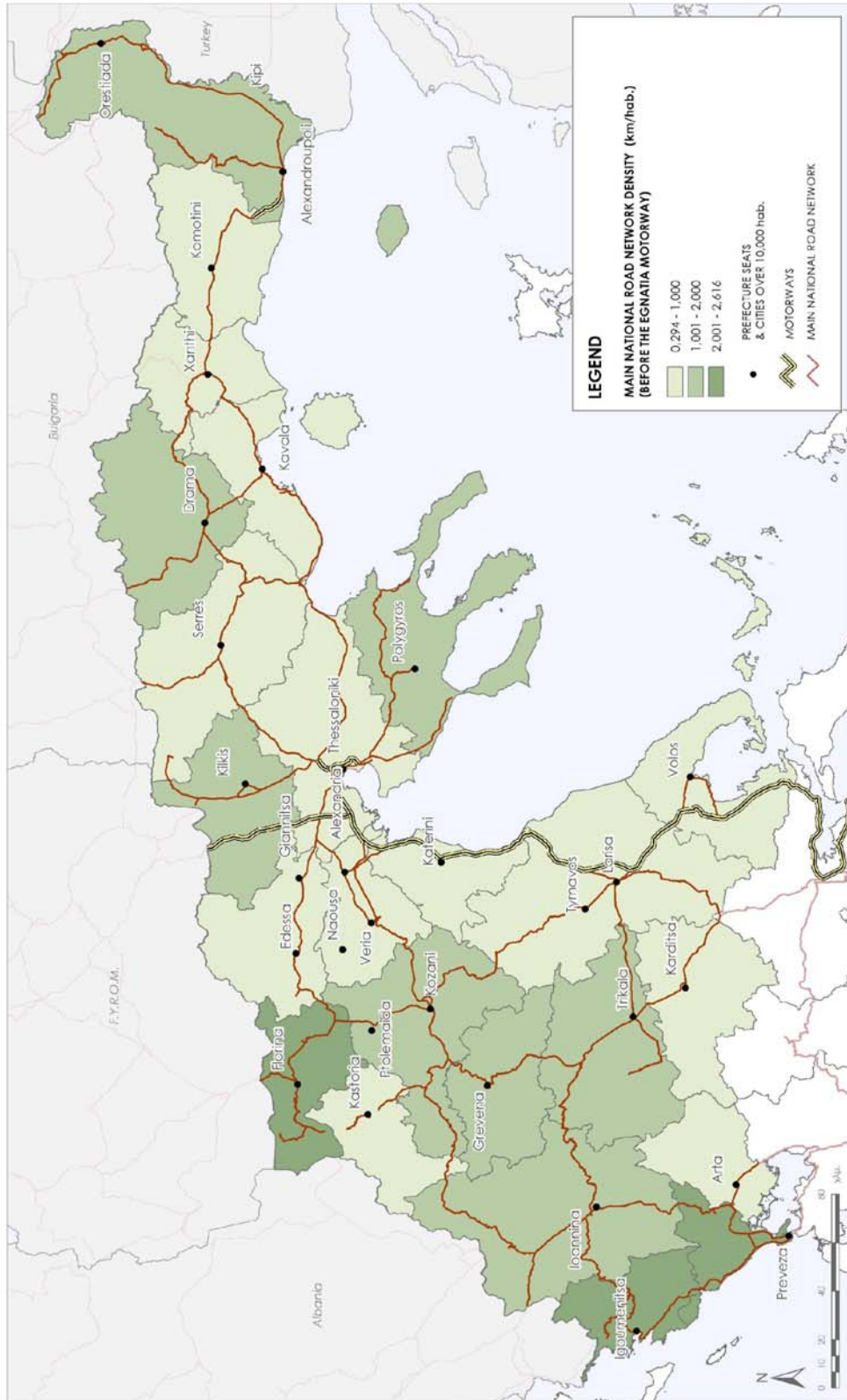
The length of this axis amounts to approximately 60km, including the by pass of Xanthi and connection of the axis with the motorway. EGNATIA ODOS AE has been assigned the preparation of designs and the project's incorporation into the 4<sup>th</sup> CSF is foreseen.

The construction of the aforementioned vertical axis is incorporated into the intergovernmental agreement for the development of road connections between Greece and Bulgaria. On the basis of this agreement, the geometry of the axis has been determined. It involves a two-lane cross section of a width of 7,5/10,5 m, with a design velocity of 80 km /h involving a possible reduction at sections of a small length, due to the geomorphology or environmental requirements.

*SOURCE: Presentations and Reports, Project Monitoring Directorate, Planning, Project Finance and Project Control Division, EGNATIA ODOS AE (2008).*

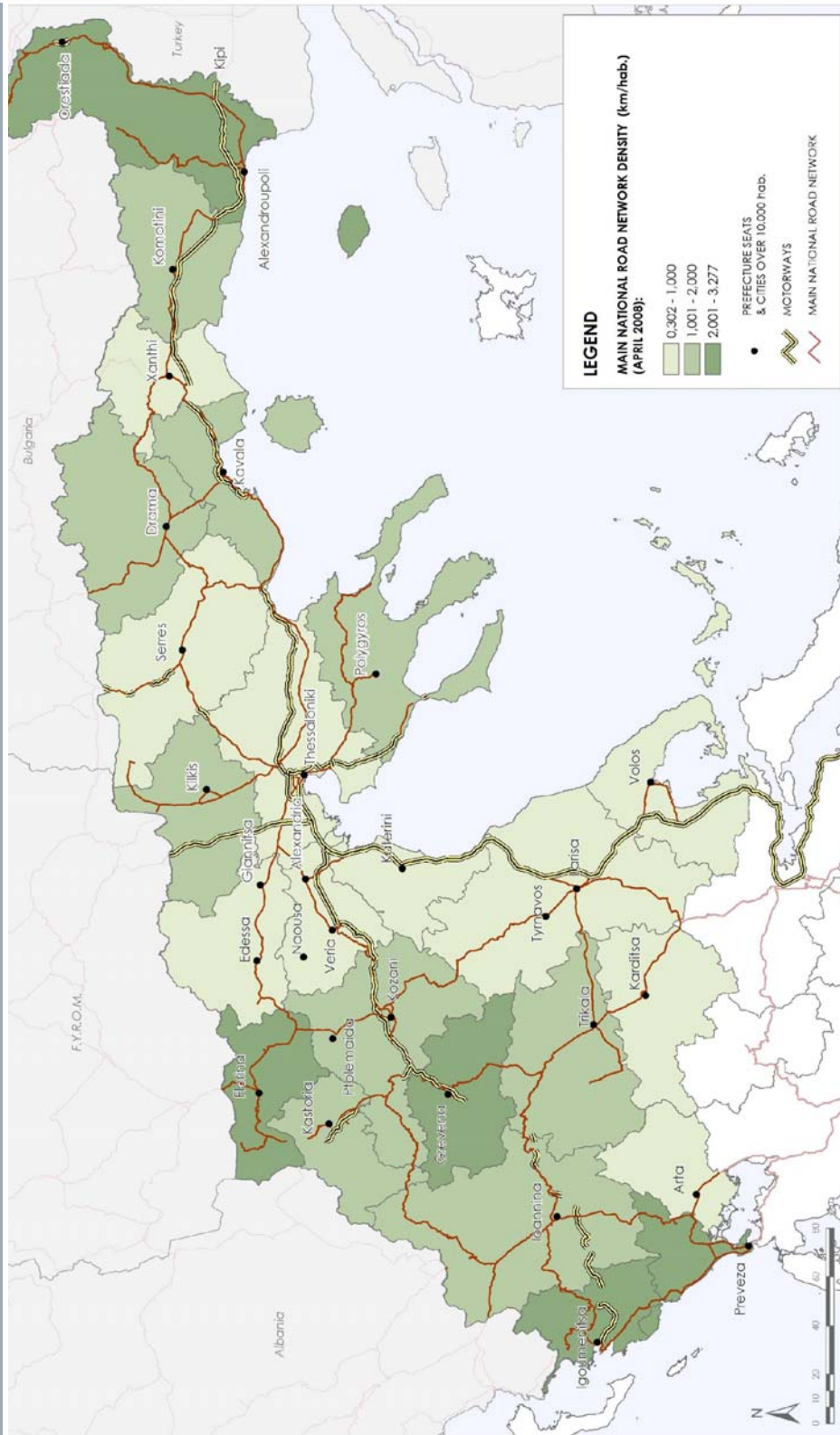


Map 1: Density (km/km<sup>2</sup>) of main road network before the Egnatia Motorway



Copyright: Επιχειρησιακό Δεδομένο: Ταοααπηρικό Ενιαίο Οδόο  
ΑΡΧΕΙΟ: M:\GIS\Indicators\TRA\10\2008\maps\mwd\1\_2\_density\_hab\pHab\_12\_PREF\_EN.mxd

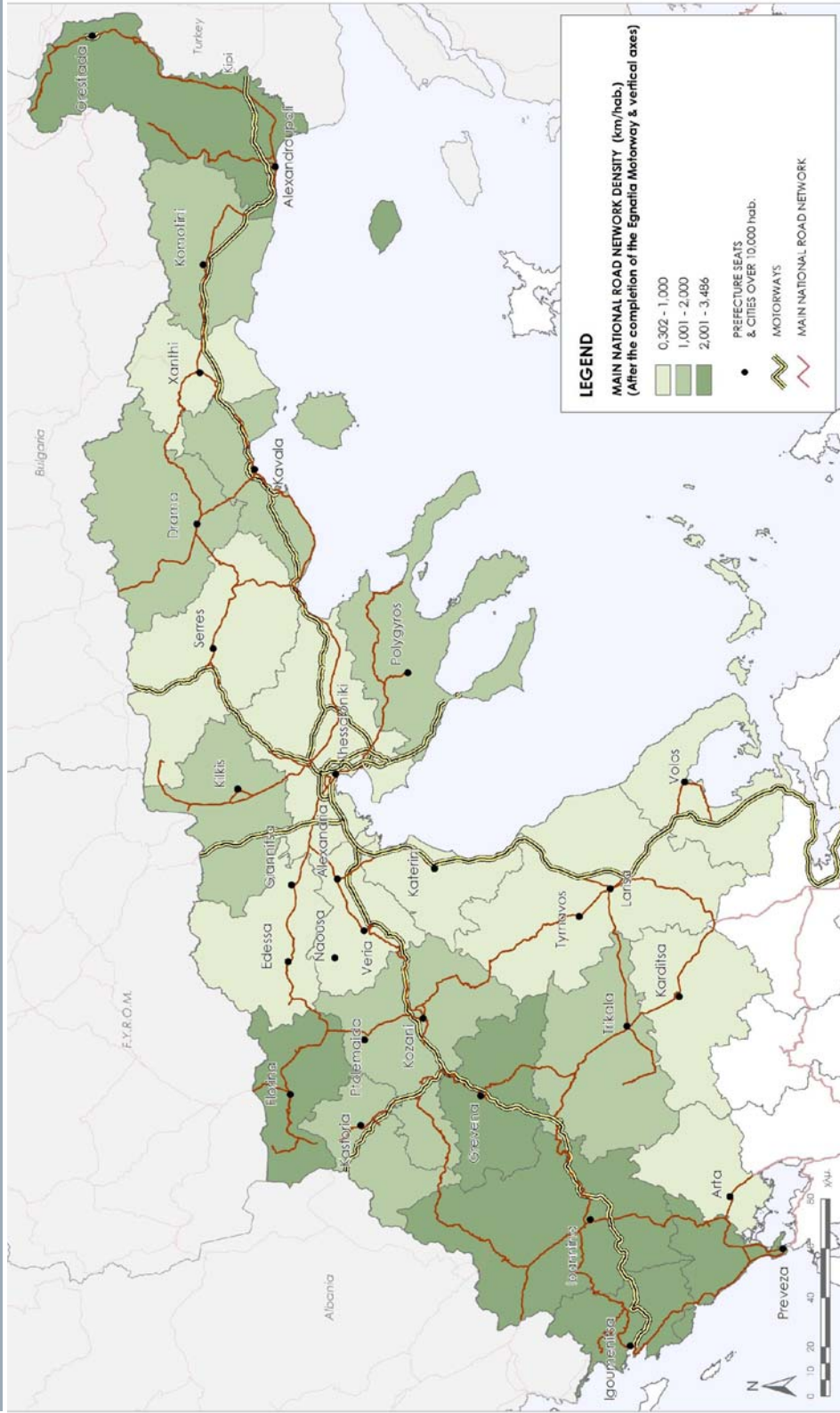
Map 2: Density (km/km<sup>2</sup>) of main road network, with Egnatia Motorway Status, Apr. 2008



Copyright Data Processing : Egnatia Odos Observatory  
FILE: M:\GIS\Indicator\TRA\TRA10\_2008\mapas\mapa\1\_2\_density\_hab\_cpt\map12\_PREF\_EGnuma

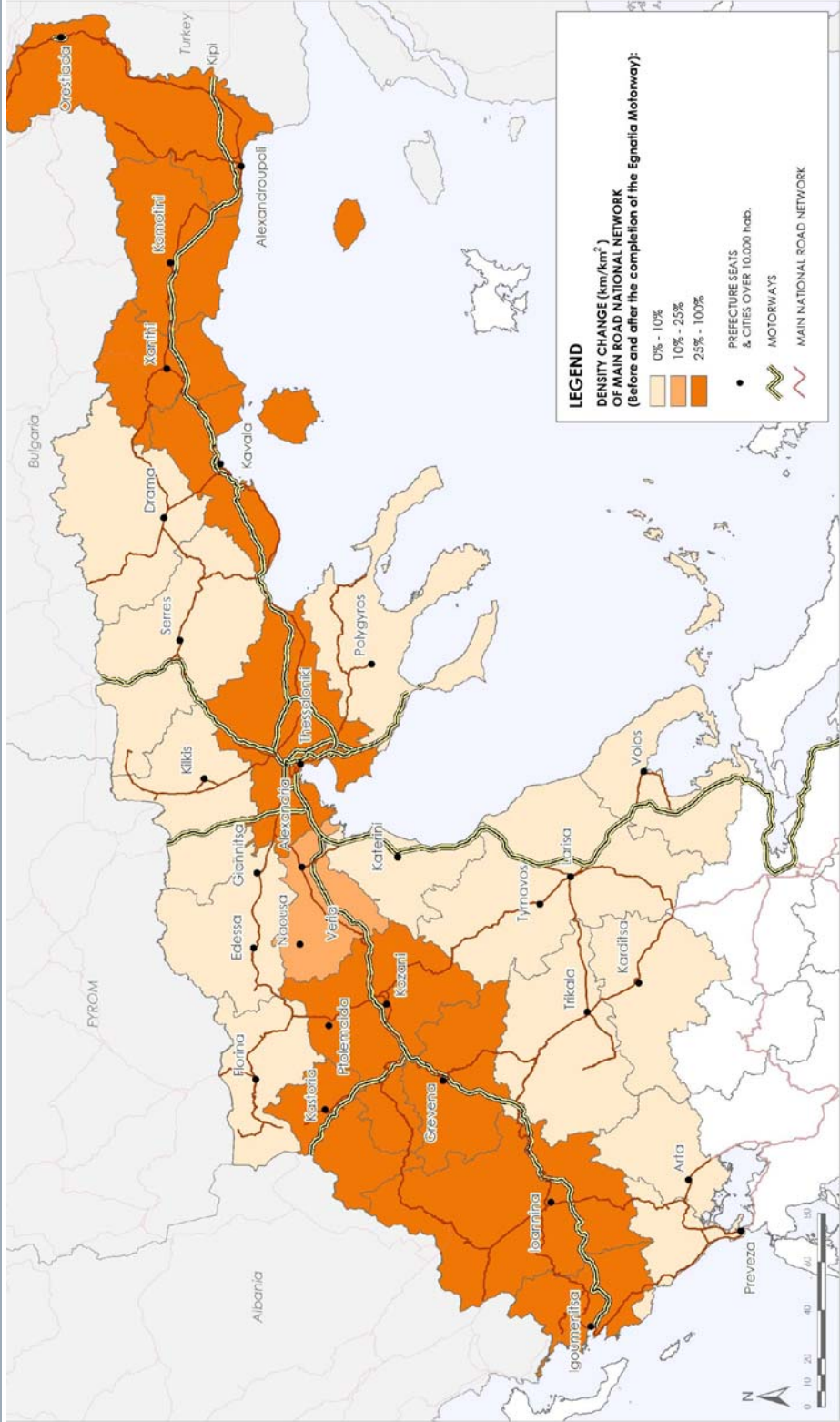


Map 3: Density (km/km<sup>2</sup>) of main road network upon the completion of the Egnatia Motorway



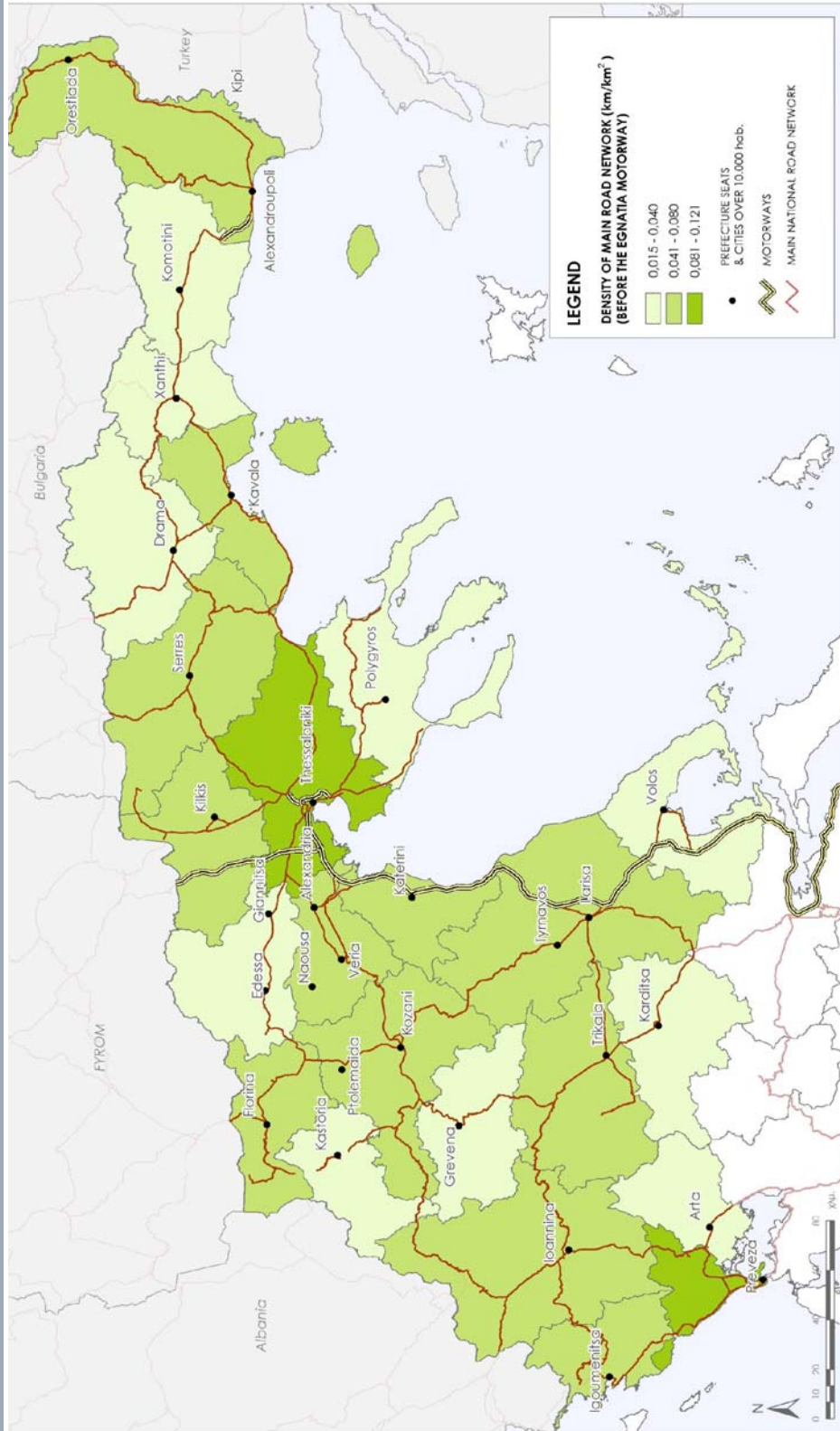
Copyright: ΕπΕΡΕΥΝΗΤΙΚΟ ΔΙΕΥΡΥΝΩΣΗ ΠΑΡΑΡΤΗΜΑΤΟΣ ΕΥΡΩΠΑΪΚΗΣ ΟΔΟΥ  
 ΑΡΧΕΙΟ: M:\GIS\indicat\TRA\10\_2008\mapa\mxd\1\_2\_cars\ly\_hab\ae-hab\_1\_2\_PREF\_BN.rwd

Map 4: Change of main road network density before and after the completion of the Egnatia Motorway



Copyright Data Processing: Egnatia Odos Observatory  
FILE: M:\GIS\Indicators\TRA\TRA10\2008\mapps\mxd\1\_2\_density\_fm\_dboe\_12\_PREF\_EN.mxd

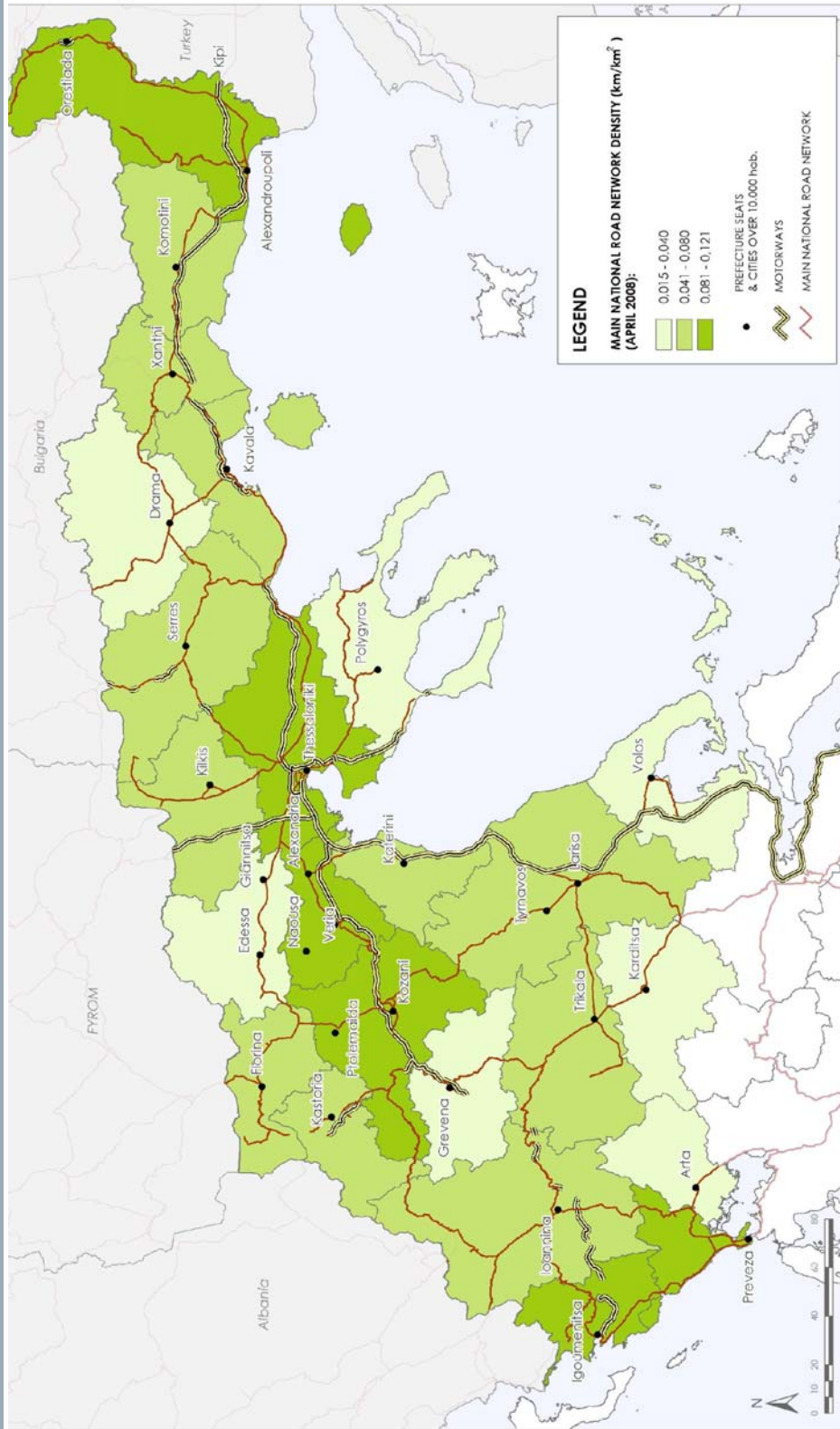
Map 5: Density (km/1.000 hab.) of main road network before the Egnatia Motorway



Copyright of Data Processing: Egnatia Odos Observatory  
FILE: M:\GIS\policrom\TRA\TRA10\2008\maps\mxd\1\_2\_density\_km\_p\_c\_12\_PREF\_EN.mxd

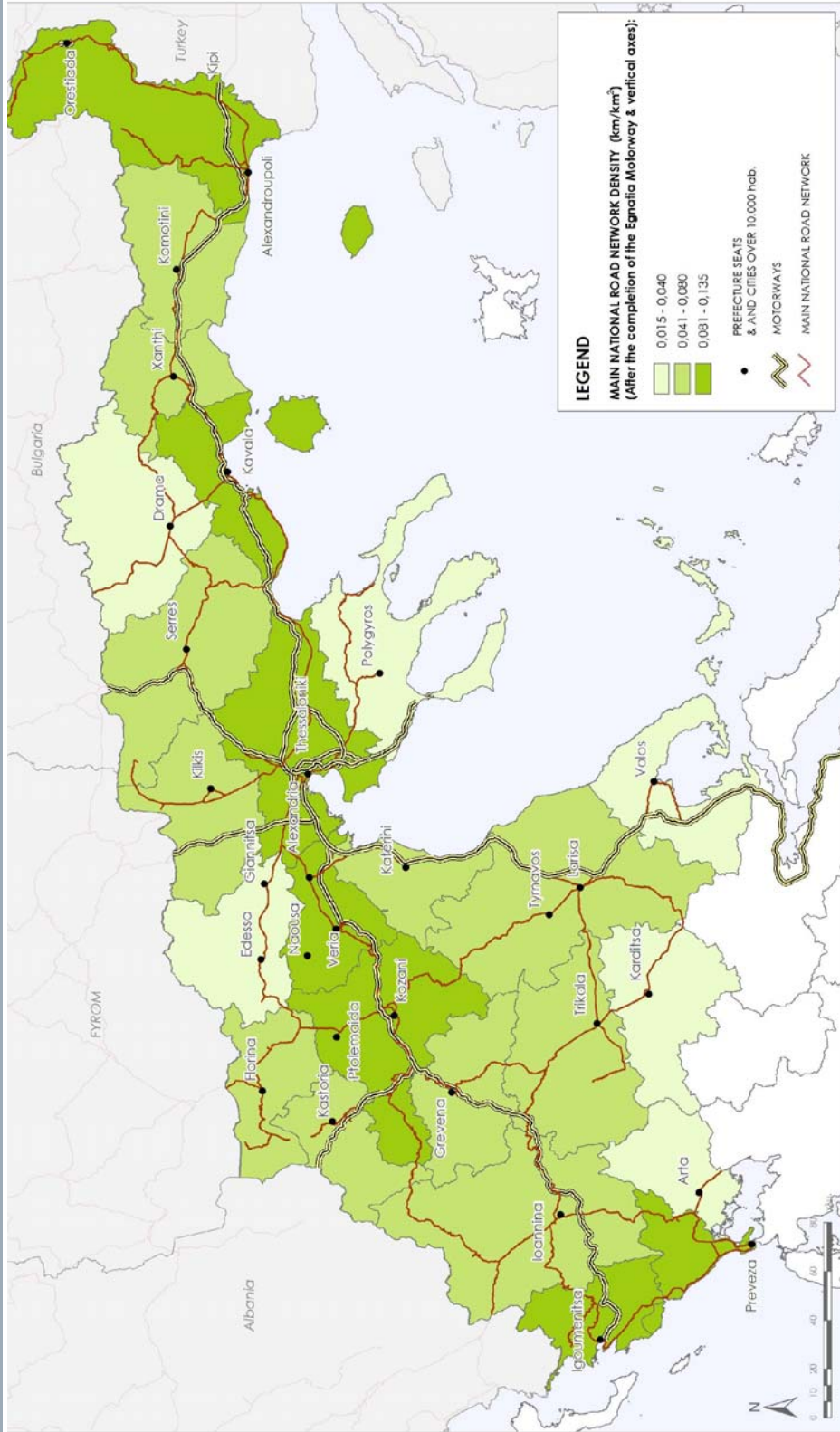


Map 6: Density (km/1.000 hab.) of main road network with Egnatia Motorway Status, Apr. 2008



Copyright of Data Processing: Egnatia Odos Observatory  
FILE: I:\GIS\Indicators\TRA\TRA10\_2008\maps\road\1\_2\_density\_2km\april08\_12\_PREF\_Ekumad

Map 7: Density (km/1.000 hab.) of main road network upon the completion of the Egnatia Motorway



**LEGEND**

**MAIN NATIONAL ROAD NETWORK DENSITY (km/km<sup>2</sup>)  
(After the completion of the Egnatia Motorway & vertical axes):**

- 0.015 - 0.040
- 0.041 - 0.080
- 0.081 - 0.135

• PREFECTURE SEATS & AND CITIES OVER 10,000 hab.

— MOTORWAYS

— MAIN NATIONAL ROAD NETWORK

Copyright Data Processing: Egnatia Odos Observatory  
FILE: I:\GIS\Indicators\TRA\TRA\_10\2008\mapa\map\_1\_2\_density\_km\ve\_12\_PREF\_EN.mxd